

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE
TRANSITION PERIOD FROM TO

Commission File Number 001-39493

SPIRE GLOBAL, INC.

(Exact name of Registrant as specified in its Charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

8000 Towers Crescent Drive

Suite 1100

Vienna, Virginia

(Address of principal executive offices)

85-1276957

(I.R.S. Employer
Identification No.)

22182

(Zip Code)

Registrant's telephone number, including area code: (202) 301-5127

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value of \$0.0001 per share	SPIR	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES NO

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES NO

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). YES NO

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input checked="" type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The aggregate market value of the common stock held by non-affiliates of the Registrant on June 30, 2023, the last business day of its most recently completed second fiscal quarter, was \$86,025,000 based on the closing price of the Registrant's Class A common stock as reported by the New York Stock Exchange on that date. Shares of common stock held by each executive officer and director and by each person who owns 10% or more of the outstanding common stock have been excluded from the foregoing calculation in that such persons may be deemed affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 23, 2024, the registrant had outstanding 22,131,445 shares of Class A common stock and 1,507,325 shares of Class B common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement relating to the 2024 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended December 31, 2023.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the federal securities laws, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “would,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential,” “seek” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our ability to meet our financial covenants in the future;
- the sufficiency of our working capital in the future;
- changes in our growth, strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, and plans;
- our ability to remedy identified material weaknesses;
- the implementation, market acceptance, and success of our business model;
- the ability to develop new offerings, services, solutions and features and bring them to market in a timely manner and make enhancements to our business;
- the quality and effectiveness of and advancements in our technology and our ability to accurately and effectively use data and engage in predictive analytics;
- overall level of customer demand for our products and offerings;
- expectations and timing related to product launches;
- expectations of achieving and maintaining profitability;
- projections of total addressable markets, market opportunity, and market share;
- our ability to acquire data sets, software, equipment, satellite components, and regulatory approvals from third parties;
- our expectations concerning relationships with third parties;
- our ability to acquire or develop products or technologies we believe could complement or expand our platform or to expand our products and offerings internationally;
- our ability to obtain and protect patents, trademarks, licenses and other intellectual property rights;
- our ability to utilize potential net operating loss carryforwards;
- developments and projections relating to our competitors and industries, such as the projected growth in demand for space-based data;
- our ability to acquire new customers and partners or obtain renewals, upgrades, or expansions from our existing customers;
- our ability to compete with existing and new competitors in existing and new markets and offerings;
- our ability to retain or recruit officers, key employees or directors;
- the conversion or planned repayment of our debt obligations;
- our future capital requirements and sources and uses of cash;
- our ability to obtain funding for our operations;
- our business, expansion plans, and opportunities;
- our expectations regarding regulatory approvals and authorizations;
- the expectations regarding the effects of existing and developing laws and regulations, including with respect to regulations around satellites, intellectual property law, and privacy and data protection;
- global and domestic economic conditions, including currency exchange rate fluctuations, inflation, rising interest rates and geopolitical uncertainty and instability, and their impact on demand and pricing for our offerings in affected markets; and
- the impact of global health crises on global capital and financial markets, general economic conditions in the United States, and our business and operations.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Annual Report on Form 10-K.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors, including those described in the section titled “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

Neither we nor any other person assumes responsibility for the accuracy and completeness of any of these forward-looking statements. Moreover, the forward-looking statements made in this Annual Report on Form 10-K relate only to expectations as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Annual Report on Form 10-K to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

RISK FACTORS SUMMARY

Our business, financial condition, and operating results may be affected by a number of factors, whether currently known or unknown. Any one or more of such factors could directly or indirectly cause our actual results of operations and financial condition to vary materially from past or anticipated future results of operations and financial condition. Any of these factors, in whole or in part, could materially and adversely affect our business, financial condition, results of operations, and stock price. We have provided a summary of some of these risks below, with a more detailed explanation of the risks applicable to us in Part I, Item 1A, “Risk Factors” and elsewhere in this report:

- Our revenue growth rate and financial performance in recent periods may not be indicative of future performance.
- We may fail to effectively manage our growth, which would adversely affect our business, financial condition, and results of operations.
- We have a history of net losses and may not be able to achieve or maintain profitability in the future.
- Our results of operations vary and are unpredictable from period to period, which could cause the market price of our common stock to decline.
- Uncertain macroeconomic and geopolitical factors, including as a result of inflationary pressures, currency exchange rate fluctuations, trade uncertainties, military conflicts, and rising interest rates, cause instability and volatility in the global financial markets and disruptions within our industries that have negatively impacted, and could continue to negatively impact our business, our financial results, and our stock price.
- Our business could be adversely affected by pandemics, natural disasters, political crises, or other unexpected events.
- Satellites use highly complex technology and operate in the harsh environment of space and therefore are subject to significant operational risks, including exposure to space debris and other spacecraft, while in orbit.
- We rely on a limited number of government customers to provide a substantial portion of our revenue.
- Our contracts with government entities are subject to a number of risks and uncertainties.
- Our satellites and platform could fail to perform or perform at reduced levels of service because of technological malfunctions, satellite failures or deficiencies, or other performance failures, which would seriously harm our reputation, business, financial condition, and results of operations.
- Satellites are subject to construction and launch delays, launch failures, and damage or destruction during launch, the occurrence of which can materially and adversely affect our operations.
- Technical malfunctions, performance failures, or other issues or difficulties with our ground stations could harm our business, financial condition, and results of operations.
- Our reputation and brand are important to our success, and we may not be able to maintain and enhance our reputation and brand, which would adversely affect our business, financial condition, and results of operations.
- Rapid and significant technological changes in the satellite industry or the introduction of a new service solution to the market that reduces or eliminates our service performance advantage may harm our business, financial condition, and results of operations.
- Our ability to increase sales depends, in part, on the quality of our customer support and the ease of our customer experience, and a failure to offer high quality customer support and customer experience would harm our reputation and adversely affect our business, financial condition, and results of operations.
- We may fail to cost-effectively acquire new customers or obtain renewals, upgrades, or expansions from our existing customers, which would adversely affect our business, financial condition, and results of operations.
- We rely on third parties for our supply of certain of our data, equipment, satellite components software, and operational services to manage and operate our business, and any failure or interruption with these third parties could adversely affect our business, financial condition, and results of operations.
- We manufacture our satellites in-house at a single manufacturing facility in the United Kingdom. Any impairment to our manufacturing facility could cause us to incur additional costs and delays in the production and launch of our satellites which would materially affect our business, financial condition, and results of operations.
- We are dependent on third parties to launch our satellites into space, and any launch delay, malfunction, or failure could have a material adverse impact to our business, financial condition, and results of operations.
- Our international operations and continued international expansion subject us to additional costs and risks, which could adversely affect our business, financial condition, and results of operations.
- Any failure to obtain, maintain, protect, or enforce our intellectual property and proprietary rights could harm our business, financial condition, and results of operations.
- Our services and technology contain third-party open source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to deliver our platform or subject us to litigation or other actions.

- We incorporate technology and terrestrial data sets from third parties into our platform, and our inability to maintain rights and access to such technology and data sets would harm our business and results of operations.
- Any actual or perceived security or privacy breach could interrupt our operations, harm our reputation and brand, result in financial exposure.
- We rely on AWS to deliver our platform to our customers, and any disruption of, or interference with, our use of AWS could adversely affect our business, financial condition, and results of operations.
- Our ability to obtain or maintain licensing authorization for our platform is subject to government rules and processes which can cause delays or failures in obtaining authorizations requested. Further, regulators may adopt new rules and regulations which could impose new requirements impacting our business, financial condition, and results of operations. If we do not maintain regulatory authorizations for our existing satellites, associated ground facilities and terminals, and services we provide, or obtain authorizations for our future satellites, associated ground facilities and terminals, and services we provide, we may not be able to operate our existing satellites or expand our operations.
- We are dependent on the availability and unimpaired use of allocated bands within the radio frequency spectrum and failure to secure spectrum use rights to support our operations and future technological development could impede our growth. Further, our platform may be subject to harmful interference from new or modified spectrum uses.
- We are subject to domestic and international governmental export and import controls that would impair our ability to compete in international markets or subject us to liability if we are not in compliance with applicable laws or if we do not secure or maintain the required export authorizations.
- We are subject to anti-corruption, anti-bribery, anti-money laundering, and similar laws, and non-compliance with such laws can subject us to criminal penalties or significant fines, harm our reputation, and adversely affect our business, financial condition, results of operations, and growth prospects.
- Domestic and international tax laws and regulations, and changes to such tax laws and regulations, could adversely affect our business, financial condition, and results of operations.
- Our ability to utilize our net operating loss carryforwards and certain other tax attributes to offset future taxable income may be limited.
- We face fluctuations in currency exchange rates, which could adversely affect our financial condition and results of operations.
- Material impairments in the carrying value of our goodwill would negatively affect our operating results.
- We have identified material weaknesses in our internal control over financial reporting. If we are unable to remediate these material weaknesses, or if we identify additional material weaknesses in the future or otherwise fail to maintain effective internal control over financial reporting or disclosure controls and procedures, it may result in material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations, which may adversely affect our business, financial condition, and results of operations.
- Our metrics and estimates, used to evaluate our performance and to make results of operations projections, rely in large part upon assumptions and analyses developed by us, and are subject to inherent challenges in measurement. Any real or perceived inaccuracies in those estimates may harm our reputation and negatively affect our business.
- We have substantial indebtedness under our credit facility and our obligations thereunder may limit our operational flexibility or otherwise adversely affect our financial condition.
- Restrictions imposed by our outstanding indebtedness and any future indebtedness may limit our ability to operate our business and to finance our future operations or capital needs or to engage in acquisitions or other business activities necessary to achieve growth.
- We may be unable to generate sufficient cash flow to satisfy our significant debt service obligations, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.
- The dual class structure of our common stock has the effect of concentrating voting power with the Legacy Spire Founders, which will limit an investor's ability to influence the outcome of important transactions, including a change in control. Additionally, two of the Legacy Spire Founders, Peter Platzer and Theresa Condor, are husband and wife, which may further concentrate the influence of the Legacy Spire Founders and further limit an investor's ability to influence the Company.
- If securities or industry analysts do not publish or cease publishing research or reports about us, our business, or our market, or if they change their recommendations regarding our securities adversely, the price and trading volume of our securities could decline.
- We are an "emerging growth company" and a "smaller reporting company" within the meaning of the Securities Act, and the reduced disclosure requirements applicable to emerging growth companies and smaller reporting companies could make our securities less attractive to investors and may make it more difficult to compare our performance with other public companies.

PART I

Item 1. Business

General

Spire Global, Inc. (“Spire” or the “Company”), founded in August 2012, is a global provider of space-based data and analytics that offers its customers unique datasets and insights about Earth from the ultimate vantage point. The Company collects this space-based data through its proprietary constellation of multi-purpose nanosatellites. By designing, manufacturing, integrating, and operating its own satellites and ground stations, the Company has unique end-to-end control and ownership over its entire system. The Company offers the following three data solutions to customers: Maritime, Aviation and Weather. As a fourth solution, the Company is providing “space-as-a-service” through its Space Services solution.

The Company is headquartered in Vienna, Virginia and has several wholly owned operating subsidiaries in the United States, United Kingdom, Luxembourg, Singapore, Australia, Germany, and Canada.

On August 16, 2021, Spire Global Subsidiary, Inc. (formerly known as Spire Global, Inc.) (“Legacy Spire”) closed its previously announced merger with NavSight Holdings, Inc. (“NavSight”), a special purpose acquisition company. As a result, Legacy Spire continued as the surviving corporation and a wholly owned subsidiary of NavSight (the “Merger,” and such consummation, the “Closing”). NavSight then changed its name to Spire Global, Inc. and Legacy Spire changed its name to Spire Global Subsidiary, Inc.

Our principal executive office is located at 8000 Towers Crescent Drive, Suite 1100, Vienna, Virginia 22182, and our telephone number is (202) 301-5127.

In this Annual Report on Form 10-K, Spire Global, Inc. (together with its subsidiaries) is referred to as “Spire,” the “Company,” “we,” “us,” or “our.”

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 Data Solution Offerings

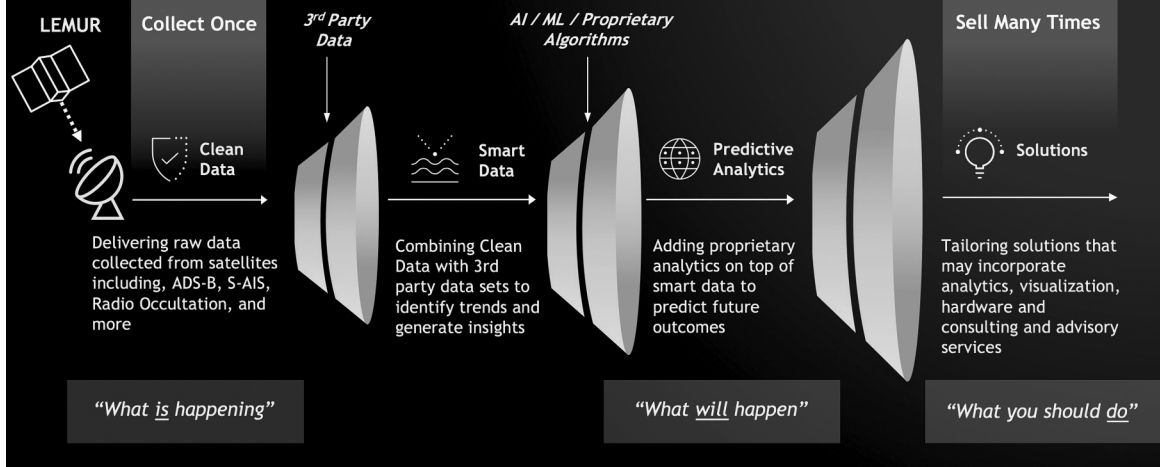
Our proprietary constellation of **Low Earth Multi-Use Receiver** (“LEMUR”) satellites collects and transmits data to our proprietary global ground station network. The data is then autonomously moved from ground stations to proprietary data warehouses for cleansing, standardization, fusion and analysis. Via the SpireSight API, our customers receive proprietary data, analysis, and predictive data and solutions delivered seamlessly in real and near real-time.

We collect data from space once and can sell it an unlimited number of times without added cost. The four forms of data we sell to customers are:

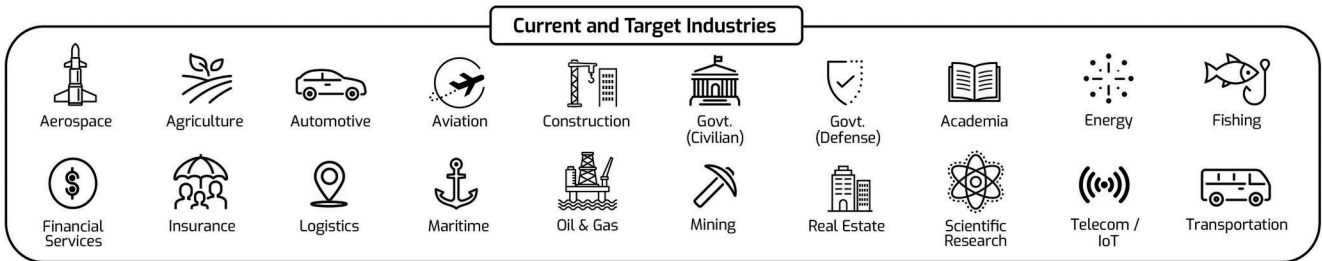
- **Clean data:** Clean and structured data directly from our proprietary satellites;
- **Smart data:** Clean data fused with third-party datasets and proprietary analysis to enhance value and provide insights;
- **Predictive data:** Big data, artificial intelligence (“AI”), and machine learning (“ML”) 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.

Spire's Four Levels of Service Capture the Full Value Chain

Always-on constellation and 'collect once - sell many times' model create exceptional operational leverage



We monetize our proprietary solutions across a broad and growing range of current and target industries including agriculture, logistics, financial services, insurance, aerospace, energy, fishing, academia and real estate, among others. The largest industries we currently serve include maritime, aviation and government (civil and defense).



Maritime

We provide current and historical data, insights and predictive analytics for highly accurate ship monitoring, real-time and near real-time vessel updates, port operations, ship safety and route optimization. We leverage the International Maritime Organization automatic identification system ("AIS") standard, which is an automatic tracking system that uses transceivers on ships to provide geographic location data through historical or live satellite AIS (S-AIS) data as observed by our satellites and terrestrial AIS (T-AIS) data. Dynamic AIS™ (D-AIS™) provides greater vessel tracking data in high traffic zones. Our AIS-based maritime solutions increase global maritime domain awareness, facilitate coastline policing, the protection of offshore assets, and provide greater ocean coverage. Key applications include:

- **Tracking vessels globally:** Precise vessel tracking using AIS data helps owners and operators know where vessels are located. Customers can run queries by Maritime Mobile Service Identity (MMSI), vessel name, call signs, AIS class type and more.
- **Supply chain and port operations:** Expected time of arrival and vessel tracking data enables shippers, third-party logistic companies and ports to optimize routes, minimize delays and time at port, plan berths and orchestrate last mile delivery.
- **Optimizing fuel efficiencies:** Smart route planning, identification of busy shipping lanes, weather forecasts and port selection enable customers to effectively manage fuel costs.
- **Monitoring illegal activities and compliances:** Real-time, position validation solutions help facilitate organizations to secure fishing territories, protect underwater infrastructure and analyze maritime incidents.
- **Analyzing commodity trading:** Fuel, grain, building materials and precious metals are all traded by sea. Our customers track the shipment of commodities by ship type and port calls to identify patterns and analyze global commodity flows.

Aviation

We provide global satellite-based aircraft tracking data to power applications, drive decision making and improve cost efficiencies. We utilize International Civil Aviation Organization-backed ADS-B aircraft tracking data to provide a near real-time precision and situational awareness. Using ADS-B, customers can track the overall operational status of aviation assets and relevant weather conditions along a given aircraft's flight

path or in particular areas of interest around the world. Our versatile datasets include historical and near real-time aircraft position and status, aircraft type and airline data, and flight and airport information, delivered via our near real-time and historical data APIs. Our satellites capture global aircraft movements from space using ADS-B signals, even when the aircraft is flying over oceans, deserts, mountains and regions without available ground-based tracking. Key applications include:

- **Flight tracking:** We generate near real-time information on the movements of all ADS-B equipped aircrafts across continents and oceans for a long suite of regulatory and operations applications.
- **Estimated time of arrival/on-time performance:** Our versatile, near real-time aviation ADS-B data streams provide insight into both historical on-time performance and real-time estimated time of arrivals, which can benefit airline and airport operations.
- **Air cargo and freight analytics:** Tracking all cargo aircraft in near real-time can be leveraged for analysis of supply of air cargo capacity which aids in optimizing pricing and distribution.
- **Analytics and market intelligence:** Companies integrate live and historical flight and weather data into innovative solutions for their customers and internal teams, driving more favorable outcomes through deeper insights.
- **Predictive maintenance and aircraft management:** By tracking aircraft usage and flight patterns, our data aids in the analysis allowing for less aircraft downtime and fewer schedule disruptions.

Weather

We provide space-based data, AI-powered insights and predictive weather analytics to empower the world to optimize costs, increase safety, boost decarbonization and make optimal business decisions. By utilizing radio occultation technology (“RO”), we are able to offer improved global weather and Earth observation capabilities, capturing detailed temperature, humidity, and pressure information across the entire planet. Our satellite constellation collects near real-time data from every layer of the atmosphere, even at traditionally difficult high altitudes, polar areas, and remote oceanic regions. This data is used to power Spire's Global Weather forecast system and enable enhanced forecast accuracy across the planet, especially improving the quality in areas that are traditionally under-observed. Through the use of Global Navigation Satellite System Reflectometry (“GNSS-R”), Spire captures information about precipitation, soil moisture and flooding, as well as ocean winds and wave roughness, and ice thickness, extent and age on the polar caps. We also offer weather solutions including Deep Navigation Analytics™, a weather intelligence platform for the maritime industry; DeepVision™, an advanced weather visualization dashboard for global supply chain management; and High Resolution Weather Forecast, a regional high-resolution weather forecasting service designed to meet the critical demands of the energy and commodity markets.

These tools provide immense value to governments, commercial companies, and individuals across the world, including the following sample of applications:

- **Weather forecasting:** Space-based RO data offers global measurements to greatly enhance the accuracy of weather forecasts, providing industries such as agriculture, energy and utilities, and supply chain with highly detailed forecasting across their operational regions.
- **Asset protection:** Our data can help facilitate the risk mitigation of physical assets like power lines from storm damage.
- **Crop yields:** Customers can use our solutions to help optimize crop yields with optimal farm operations.
- **Reducing losses and insurance:** Provision of data can decrease losses related to inclement weather and provide enhanced customer experiences in insurance.
- **Minimize supply chain disruptions:** Reduce risks to cargo, ship and crew safety, optimize fuel consumption and manage operational costs with highly accurate weather forecasts for maritime, aviation and ground operations.

Space Services

Built on 600+ years of space heritage, we offer Space as a Service solutions that empower our customers to leverage our established infrastructure to put their business in space. Our Space Services solutions are built upon our vertically integrated capabilities, global ground station network and cloud infrastructure to revolutionize how customers access space. Akin to cloud-based services like Amazon Web Services (“AWS”), Microsoft Azure, and Google Cloud Platform, we provide customers fast, scalable and reliable access to space data at a fraction of the cost and time it historically took by leveraging the same operational infrastructure we use for our own data and analytics solutions across maritime, aviation and weather. In doing so, customers are able to convert high capital expenditures typically recognized at the outset into affordable and recurring operating expenditures through a flexible subscription-based pricing model. Our launch schedule and end-to-end LEMUR design and manufacturing process allow customer sensors to go from design to launch in a matter of months, as opposed to three to five years—common under legacy satellite development. Our Space Services offering allows us to quickly and efficiently put a satellite into service for our customers while they focus on what they do best.

Our customers can deploy their own applications and sensors into space quickly and efficiently with our diverse offerings:

- **Software in Space:** Deploy customer software to existing satellites, using Software Defined Radios (SDR) in space without the need to launch a dedicated spacecraft.
- **Payload in Space:** Host customer payloads on trusted, fully integrated space, ground and web platform.
- **Solution in Space:** Customers partner with Spire to build a custom end-to-end solution from payload development to mission operations.
- **Operation in Space:** Customers can access Spire’s ground infrastructure and APIs to operate their existing or future satellites.

Our Technology Platform

Our Constellation

We operate a large constellation of LEMUR nanosatellites along with a global network of ground stations. By operating our own satellites and ground stations, we are able to quickly and efficiently collect large volumes of data and make them available to our customers.

Key elements of our constellation include:

- **Proprietary Satellite Space Platform:** We have developed a configurable nanosatellite platform called LEMUR, which is used to deploy data-generating sensors into space and provide all necessary resources for them to be operated efficiently, including power, pointing, data communications and onboard processing. As of December 31, 2023, the LEMUR platform has accumulated over 600 years of space flight heritage, with more than 170 satellites deployed. LEMUR is compatible with a significant number of available launch vehicles, having completed more than 35 launch campaigns on ten unique vehicles.
- **Software-defined radio frequency sensors:** We have developed a number of software-defined-radio based sensors, including AIS receivers, ADS-B receivers, and GNSS radio occultation (GNSS-RO) receivers. These sensors are used to produce the proprietary datasets used in our data and analytics solutions.
- **Ground station network:** We have deployed and operate a network of more than 30 ground stations distributed around the globe. These ground stations allow seamless communications between LEMUR nanosatellite platforms (and their hosted sensors) and our cloud-based operations and data processing system.
- **Automated operations system:** We have developed a cloud-based automated operations system, which allows us and users of our Space Services solution to operate sensors hosted on the LEMUR nanosatellite platform seamlessly through a web-based API. The operations system includes proprietary optimization algorithms which allow coordinated operations of multiple satellites, enabling us and our Space Services users to scale operations of constellations efficiently.

Industry Background

We believe technological advancements and the rapid pace of innovation continue to drive the commercialization of space-based data, analytics, and insights, making them more relevant to businesses, governments and to the public at large. Furthermore, we believe that the demand for data that can be collected from space is growing rapidly, while the cost of access to space is falling. Key trends in the new space economy include the growth in the number of constellations and the availability of space-based data, the shift in user demand from data toward analytics and insights, climate change adaptation, global security concerns, and advancements in on-board technologies.

Growth in the number of constellations and the availability of data

One of the biggest drivers of growth in our industry has been the growth in the number of satellites orbiting the Earth and the increasing amounts of data being made available by them. Satellites continue to evolve into smaller forms, as small as a breadbox with significant capabilities. These smaller satellites are less expensive to build and easier to launch than legacy satellites. These small satellite constellations are disrupting the space industry due to their rapid pace of innovation (aligned with a 10-fold improvement in capability per kilogram every five years), deployment cycles and lower cost to deploy in orbit.

Demand for data analytics

Users are increasingly demanding not only data, but also analytics and insights. Advancements in technologies such as big data and cloud-based processing allow for massive amounts of data to be not only stored, but also analyzed in real-time, providing users with faster, more meaningful data, analytics and insights. AI, ML and the application of specified algorithms continue to improve insights and predictive analytics.

Climate change response

The world is seeing a higher number of weather-related events that are causing significant damage and cost. The pace has only quickened in recent years. According to the National Oceanic and Atmospheric Administration, 2023 set the record for the largest number of weather/climate disaster events with losses each exceeding \$1 billion to affect the United States. The response to the world’s problem of global warming and climate change over the past several decades has been largely focused on efforts to reduce greenhouse gas emissions. More recently, there has been a growing realization that the world lacks sufficient tools to anticipate and respond effectively to extreme weather events and climate change, and that more of our efforts and investment should be focused on how we can best protect vulnerable populations, infrastructure, land and the impact to the global

economy. We believe that more accurate weather data, prediction technologies and analytics will play an increasingly important role in helping to devise strategies to maintain water quality and availability, modify land use, protect and preserve coastal land and development, manage stormwater logistics, mitigate the spread of wildfires, repair and retrofit vulnerable facilities and maximize the use of green infrastructure.

Global security response

Over the past two years, geopolitical conflicts have brought the importance of global security to the world's attention. In dynamic times, truth and transparency have never been more important. Spire has approximately 40 geolocation-capable satellites in-orbit that can detect jamming, spoofing, or the locations of objects such as sanctioned vessels or aircraft, through the use of radio frequency. Our satellites work day and night, in good weather or bad, and observe the entirety of the Earth's surface area, 200 times a day on average, providing valuable insights in a rapidly changing environment. Given the investments and technological advancements the private sector has made over the last several years, there is a growing recognition of the necessity of public/private partnerships to tackle complex, global challenges. Governmental agencies have noted that the relationship with the commercial satellite sector is vital. A diversified architecture encompassing both governmental and commercial satellites, in varying constellation sizes and orbits, provides resilience to the space-based ecosystem. Spire has a fully deployed constellation with over 170 satellites launched and is a meaningful member of that ecosystem.

Advancements in on-board technologies

Rapid innovation in space technology infrastructure, including communication devices and sensors, has improved data download times and spatial resolution and measurement accuracies, allowing for better space-based data, analytics and insights to be delivered faster.

Before space-based data, legacy solutions were often burdened with substantial shortcomings in terms of coverage and safety. For instance, before the advent of Automatic Dependent Surveillance-Broadcast ("ADS-B"), aviation stakeholders were blind to the vast majority of global aerospace activity, as terrestrial-based solutions were unable to track aircraft over oceans. This occasionally resulted in tragedies like that of Malaysia Airlines Flight 370, which disappeared in March 2014 while flying a routine route from Kuala Lumpur to Beijing. As of December 2023, our sensors covered the entirety of the globe over 200 times per day on average, including remote areas where terrestrial AIS, ADS-B and atmospheric weather information are out of reach.

Our constellation already has Radio Frequency links (RF links) in-orbit and we have successfully completed an in-orbit technology demonstration of **Optical Intersatellite Links** ("OISLs"). An effective rollout of this technology throughout our constellation will create a mesh network in a similar way to how personal computers were linked with one another through the internet. We believe OISLs will enable us to deliver more data faster and with higher resiliency to interference, higher security, and higher efficiency.

Lastly, the computing power on-board satellites in-orbit continues to improve. Spire launched its first supercomputer in-orbit with a teraflop of data processing capability in October 2020 and has iterated on the technology since to meet the needs of Space Services customers and enhance the data solutions delivered to customers.

Sales and Marketing

Sales

We operate primarily a direct sales organization dispersed geographically to align with our existing customers along with reaching potential new customers worldwide. Our sales professionals are responsible for acquiring new customers along with managing and expanding business with our existing customers. The efforts are focused on sourcing and developing new customer relationships, maintaining customer relationships, increasing solution penetration, driving sales of additional solutions and furthering contract renewals. Our customer success and sales engineer teams, along with our sales team, manage our relationships with our customers.

Once a solution sale is made, our sales team leverages our land-and-expand model to generate incremental revenue through increased levels of adoption of our data by our customers. To drive such expansion in our existing customers, our sales team works closely with our sales engineers and marketing teams to foster customer success. Often, we find that initial customer success with our data results in key internal decision-makers upgrading their subscription packages, adding additional data sets, increasing the data coverage, adding additional solutions, or expanding their implementation throughout their organization and to new use cases.

Marketing

Our marketing team focuses on attracting, acquiring and retaining customers through outbound demand campaigns, building our brand reputation, increasing the awareness of our space-based data, predictive analytics and Space Services and the showcasing of customer successes. Our outbound demand campaigns include paid search, email, web and in-person customer events. Some of these targeted marketing efforts are focused on driving potential customers in search of solutions to our website. Supporting our sales professionals, our marketing team also develops messaging, solution positioning, thought leadership and other tools to help communicate the business value of our solutions. Our team also collaborates with our industry peers, suppliers, partners and customers when appropriate to celebrate successes and promote advancements within the new space economy.

Research and Development

Our research and development team consists of spacecraft engineering, software engineering, data science, meteorology, manufacturing, product engineering, external experts and management and is responsible for the design, architecture, creation and quality of our space platform and data solutions. We invest substantial resources in research and development to enhance our product portfolio and services. We believe the enhancement of our solutions and the timely development of new services and features is essential to maintaining our competitive position, and we incorporate suggestions and feedback from our customers into our services. Our research and development teams work closely with operations to monitor and

maintain the high availability of all our services. Additionally, the research and development team works closely with our sales team to collect market and customer feedback to enhance our portfolio. Our research and development organization is distributed across the United States, Canada, Luxembourg, Germany, Scotland and Singapore, each of which we believe is a strategic advantage for us, allowing us to develop capabilities more efficiently.

Competition

The maritime, aviation and weather data industries are fragmented and highly competitive and characterized by rapid changes in technology, customer requirements and industry standards and frequent introductions of improvements to existing offerings. Our primary competitors in these industries include companies that specialize in one or more services similar to those offered by us on a local or regional basis. We also compete with global, national, regional and local firms and government entities specializing in our industries. Some of our primary competitors include, in our maritime data vertical, Orbcomm Inc., in our aviation data vertical, Aireon LLC, and in our weather data vertical, PlanetIQ with respect to our radio occultation data services. Some of our primary competitors also include analytics companies such as AccuWeather, Inc., Weathernews Inc., MeteoGroup (acquired by DTN, LLC), Tomorrow.ai, Climavision and The Weather Company with respect to predictive analytics. We compete with companies such as AAC Clyde Space, GomSpace A/S, NanoAvionics LLC, ISISSpace and Open Cosmos Ltd. in our Space Services channel.

The principal competitive factors for companies in our verticals are:

- **Data:** global coverage, temporal and spatial resolution, accuracy, uniqueness, relevance and latency of data and analytics;
- **Platform:** speed, scale, reliability and relevance of API/user interface, ease of deployment and use, ability to ingest and manage a broad variety and large volume of data, ongoing innovation of services and customer support;
- **Integration:** quality of training and consulting;
- **Cost:** flexible packaging and total cost of ownership; and
- **Business Strength:** long-term business viability, customer satisfaction, brand awareness and reputation.

We believe that we compare favorably with our competitors on the basis of the factors listed above. The industries in which we compete are dynamic and require constant change and innovation, and we plan to continue to evolve our technology to provide our customers with comprehensive data and analytics that protect our environment and our communities, transform global logistics and contribute to economic stability. Our innovation and focused execution have allowed us to quickly extend our network and our reach, and we plan to continue our efforts to expand within our existing industries and enter new industries and geographies in the future. However, we could face significant risks to our business, financial condition and results of operations as a result of competition. For additional information, see the section titled “*Risk Factors—Risks Related to Our Industry and Business—We face intense competition and could face pricing pressure from, and lose market share to, our competitors, which would adversely affect our business, financial condition, and results of operations.*”

In addition to the “listening” (radio frequency) satellite market, there is a “looking” (imagery) satellite market, and a “talking” (communications) satellite market shown below. We do not compete in the “looking” or “talking” satellite markets, nor do we see any significant competition across the “looking,” “talking,” or “listening” satellite markets.



Intellectual Property

Our success depends in part upon our ability to safeguard our core technology and other intellectual property protection for our technology, inventions, improvements, proprietary rights, and other assets. We seek to accomplish that objective by establishing intellectual property rights in and protecting those assets through a combination of patents, patent applications, registered and unregistered trademarks, copyrights, trade secrets, license agreements, confidentiality procedures, non-disclosure agreements with third parties, and other contractual measures. We also license data and software from third parties for integration into our business, including open-source software and other software available on commercially reasonable terms.

Additionally, we rely upon unpatented trade secrets and confidential know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, by entering into confidentiality agreements with our employees, consultants, vendors and customers, and generally limiting access to and distribution of our proprietary information. However, we cannot assure you that the steps taken by us will prevent misappropriation of our technology. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our offerings or obtain and use information that we regard as proprietary. Policing unauthorized use of our technology is difficult and time consuming. Third parties may independently develop the same or similar proprietary information or may otherwise gain access to our proprietary information. The laws, procedures and restrictions on which we rely may provide only limited protection, and any of our intellectual property rights may be challenged, invalidated, circumvented, infringed or misappropriated. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the United States, and many foreign countries do not enforce these laws as diligently as government agencies and private parties in the United States.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. From time to time, third parties may assert claims of infringement, misappropriation, and other violations of intellectual property against us or our customers, with whom our agreements may obligate us to indemnify against these claims.

Employees and Human Capital Resources

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and new employees. In addition to competitive base salaries and cash compensation, the principal purposes of our equity incentive plans are to attract, retain, and reward personnel through the granting of stock-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities, achieve our objectives and think like owners when making decisions.

As of December 31, 2023, we had 416 employees located in six countries, of which 407 were full-time employees. In addition, we engage contractors and third-party service providers in connection with certain projects. In certain countries in which we operate, we are subject to local labor law requirements which may automatically make employees subject to industry-wide collective bargaining agreements. None of our U.S. employees are represented by a labor union or covered by a collective bargaining agreement with respect to their employment with us. We have not experienced any work stoppages, and we consider our relations with our employees to be good.

Government Regulation and Compliance

Our business is subject to regulation by various federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing laws and regulations related to the deployment and operation of satellites, ground stations, privacy and data protection, intellectual property, investment screening, labor and employment, worker classification, product safety, economic sanctions, anti-trust laws, anti-money laundering laws, anti-bribery laws, import and export controls, federal securities laws and tax laws and regulations.

Our business requires licenses and permits from the Federal Communications Commission (“FCC”) and review by other agencies of the U.S. government. License approval can include an interagency review of safety, operational, radio frequency interference, national security, foreign policy and international obligations implications, as well as a review of foreign ownership. Our launch and operation of planned satellites may require regulatory authorizations from the FCC or a non-U.S. licensing jurisdiction. If we do not obtain required authorizations in the future, we will not be able to operate our planned satellites. If we obtain a required authorization but do not meet milestones regarding the construction, launch and operation of a satellite by deadlines that may be established in the authorization, we may lose our authorization to operate a satellite using certain frequencies in an orbital location.

We hold FCC and foreign governmental licensing authority licenses, permits and approvals for our satellite constellations and earth stations. As we build out our satellite constellation, we will require new licenses, permits and approvals from the FCC and/or foreign governmental licensing authorities or modifications to existing licenses, permits and approvals. Changes to our satellite constellation and earth stations may also require prior approval from the FCC or other governmental authorities, which can take time.

Our business is also dependent on the use of satellite signals and on terrestrial communication bands. International allocations of radio frequency are made by the International Telecommunication Union (“ITU”). Any ITU or local reallocation of radio frequency bands, including frequency band segmentation and sharing of spectrum, or other modifications of the permitted uses of relevant frequency bands, may materially and adversely affect the utility and reliability of our services and have significant negative impacts on our customers, both of which could reduce demand for our business.

In many cases, our data, services, and technology are or may in the future be subject to U.S. export control laws and regulations including the Export Administration Regulations (“EAR”) and International Traffic In Arms (“ITAR”), and subject to trade and economic sanctions maintained by the Office of Foreign Assets Control (“OFAC”). We are also subject to or may in the future be subject to export control and trade sanctions laws in other countries. As such, an export license may be required to export or re-export our data, services, and technology to certain countries or end-users, or for certain end-uses. Any failure to comply with export control laws could result in civil fines or suspension or loss of our export privileges, any of which could materially adversely affect our business, financial condition and results of operations.

The regulatory framework for privacy, data protection and data transfers worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. In some cases, data privacy laws and regulations, such as the European Union’s (“EU”) General Data Protection Regulation (“GDPR”), impose obligations on us and on many of our customers.

Our business is also subject to various laws and regulations relating to the protection of the environment and human health and safety, including those governing the management, storage and disposal of hazardous materials, such as fuels and batteries, which may contain hazardous materials. We could incur significant costs, including cleanup costs, fines, sanctions, and third-party claims, as a result of violations of or in connection with liabilities under environmental laws and regulations.

For additional information regarding the laws and regulations to which we are subject and the risks to our business associated with such laws and regulations, see Part I, Item 1A, Risk Factors of this Annual Report on Form 10-K.

Available Information

Our website is located at www.spire.com, and our investor relations website is located at www.ir.spire.com. Copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are available free of charge on our investor relations website as soon as reasonably practicable after we file such material electronically with or furnish it to the Securities and Exchange Commission (the "SEC"). The SEC also maintains a website that contains our SEC filings at www.sec.gov.

We announce material information to the public about us, our products and services and other matters through a variety of means, including filings with the SEC, press releases, public conference calls, webcasts, the investor relations section of our website at www.ir.spire.com and our Twitter account (@SpireGlobal) in order to achieve broad, non-exclusionary distribution of information to the public and for complying with our disclosure obligations under Regulation FD.

The information disclosed by the foregoing channels could be deemed to be material information. As such, we encourage investors, the media, and others to follow the channels listed above and to review the information disclosed through such channels.

Any updates to the list of disclosure channels through which we will announce information will be posted on the investor relations page on our website.

Information contained on our website or connected thereto does not constitute part of, and is not incorporated by reference into, this Annual Report on Form 10-K.

Item 1A. Risk Factors.

Investing in our Class A common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Annual Report on Form 10-K, including the sections titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes, before making a decision to invest in our Class A common stock. Our business, financial condition, results of operations, or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material. If any of the risks actually occur, our business, financial condition, results of operations, and prospects could be adversely affected. In that event, the market price of our Class A common stock could decline, and you could lose part or all of your investment.

Risks Related to Our Industry and Business

Our revenue growth and financial performance in recent periods may not be indicative of future performance.

We have grown revenue over recent periods, but our recent revenue growth and financial performance should not be considered indicative of our future performance. You should not rely on our revenue for any previous quarterly or annual period as any indication of our revenue or revenue growth in future periods. Our future revenue growth may decline compared to prior fiscal years due to a number of reasons, which may include more challenging comparisons to prior periods, slowing demand for our platform, increasing competition, a decrease in the growth of our overall market or market saturation, and our failure to capitalize on growth opportunities.

We may fail to effectively manage our growth, which would adversely affect our business, financial condition, and results of operations.

Our future growth depends, in part, on our ability to manage our growth successfully. To effectively manage our growth, we will need to continue to improve and expand our operating and administrative systems, financial infrastructure, financial controls, technological operations infrastructure, and our internal IT systems, which we may not be able to do efficiently in a timely manner, or at all. To do so, we may seek to deploy products and services from third-party providers, which may not be available on commercially reasonable terms, or at all, and may not perform to our expectations.

Our ability to manage our growth will also depend in large part upon a number of other factors, including our ability to rapidly attract and retain qualified technical personnel in order to continue to develop reliable and flexible solutions and services that respond to evolving customer needs and our ability to improve and expand our sales team to keep customers informed regarding the key selling points and features of our platform. We must also successfully implement our sales and marketing strategy and respond to competitive developments.

Any future growth would add complexity to our organization and require effective coordination across our organization. Because our operations are geographically diverse and increasingly complex, our personnel resources and infrastructure could become strained, and our reputation in the market and our ability to successfully manage and grow our business may be adversely affected. The complex nature of our Space Services business and the expansion of our platform, services, and customer base have placed increased demands on our management and operations, and further growth, if any, may place additional strains on our resources in the future. If we are unable to effectively manage our growth, our business, financial condition, and results of operations would be adversely affected.

We have a history of net losses and may not be able to achieve or maintain profitability in the future.

We have incurred net losses since our inception, and we expect to continue to incur net losses in the near future. We expect our operating expenses to increase over the next several years, as we continue to hire additional personnel, particularly in sales and marketing and research and development, expand our operations and infrastructure, both domestically and internationally, and continue to develop our platform’s features. These efforts may be more costly than we expect and may not result in increased revenue or growth in our business. Any failure to increase our revenue sufficiently to offset the increases in our operating expenses will limit our ability to achieve or maintain profitability in the future. Further, if we are unable to successfully address these risks and challenges as we encounter them, our business, financial condition, and results of operations could be adversely affected.

Our results of operations vary and are unpredictable from period to period, which could cause the market price of our Class A common stock to decline.

Our results of operations may fluctuate from period to period as a result of a number of factors, many of which are outside of our control and may be difficult to predict. Some of the factors that may cause our results of operations to fluctuate from period to period include:

- our ability to attract new customers, retain existing customers, and expand the adoption of our platform, particularly to our largest customers;
- market acceptance and the level of demand for our platform;
- the quality and level of the execution of our business strategy and operating plan;
- the effectiveness of our sales and marketing programs;
- the competitive conditions in the industry, including consolidation within the industry, strategic initiatives by us or by competitors, or introduction of new services by us or our competitors;
- the length of our sales cycle, including the timing of upgrades or renewals;

- the volume of sales generated by subscription sales as opposed to project-based services;
- our ability to successfully expand internationally and penetrate key markets;
- pricing pressure as a result of competition or otherwise;
- our ability to develop and respond to new technologies;
- the impact and costs, including those with respect to integration, related to the acquisition of businesses, talent, technologies, or intellectual property rights;
- increases in and the timing of operating expenses that we may incur to grow our operations and to remain competitive;
- the cost and availability of components, including any changes to our supply or manufacturing partners;
- limited availability of appropriate launch windows, satellite damage or destruction during launch, launch failures, incorrect orbital placement of satellites, or losses due to satellites otherwise deorbiting prior to the end of their useful life;
- service outages or security breaches or incidents and any related occurrences;
- trade protection measures, such as tariffs or duties;
- changes in the legislative or regulatory environment;
- adverse litigation judgments, settlements, or other litigation-related costs; and
- general economic conditions in either domestic or international markets, including currency exchange rate fluctuations, supply chain impacts, inflation and geopolitical uncertainty and instability, such as the conflicts in Ukraine and Gaza and their impacts on the regional and global economies.

Any one or more of the factors above may result in significant fluctuations in our results of operations. In addition, our results of operations may fluctuate from quarter to quarter depending on customer buying habits, and whether they are purchasing a subscription or a project-based data solution. The timing of customer acceptance on project-based deliverables may impact or delay our recognition of revenue from such projects. The variability of our results of operations or other operating estimates could result in our failure to meet our expectations or those of securities analysts or investors.

If we fail to meet or exceed such expectations for these or any other reasons, the market price of our Class A common stock could decline and we could face costly lawsuits, including securities class action suits.

Uncertain macroeconomic and geopolitical factors, including as a result of inflationary pressures, currency exchange rate fluctuations, trade uncertainties, military conflicts, and rising interest rates, cause instability and volatility in the global financial markets and disruptions within our industries that have negatively impacted, and could continue to negatively impact our business, our financial results, and our stock price.

Prolonged economic uncertainties or downturns have adversely affected, and could continue to adversely affect our business, financial condition, and results of operations. Negative conditions in the general economy in either the United States or abroad, including conditions resulting from financial and credit market fluctuations, increased inflation, changes in interest rates and economic policy, trade uncertainty, including changes in tariffs, sanctions, international treaties, and other trade restrictions, the occurrence of a natural disaster or global public health crisis, delays in the approval of US federal appropriations bills, or armed conflicts, could continue to cause a decrease in corporate spending on data offerings in general and negatively affect the growth of our business.

These conditions could make it extremely difficult for us and our customers to forecast and plan future business activities accurately and have caused, and could continue to cause, our customers to re-evaluate their decision to purchase our offerings, resulting in delay and lengthening of our sales cycles and/or contract cancellations. Further, during challenging economic times, our customers may face issues in gaining timely access to sufficient credit, which could result in an impairment of their ability to make timely payments to us, if at all. If that were to occur, we may be required to increase our allowance for doubtful accounts, which would adversely affect our results of operations.

A substantial downturn in any of the industries in which our customers operate may cause firms to react to worsening conditions by reducing their capital expenditures in general or by specifically reducing their spending on data offerings. Customers in these industries may delay or cancel projects or seek to lower their costs by renegotiating vendor contracts. To the extent purchases of our offerings are perceived by customers and potential customers to be discretionary, our revenue may be disproportionately affected by delays or reductions in general information technology spending.

In addition, changing interest rates have and could continue to negatively affect businesses across many industries, including by increasing our existing and prospective customers' costs and constraining their budgets. Increasing interest rates in 2023 resulted in higher interest expenses for us, as our credit facility is based on a floating interest rate.

Further, the Russian invasion of Ukraine and the continuing conflict led to additional global sanctions, which at times caused scheduling shifts or launch cancellations by third-party satellite launch providers, which delayed our revenue recognition of certain sales contracts. These sanctions and potential additional sanctions or related issues from global conflicts could further negatively impact our business and financial results.

Additionally, events involving limited liquidity, defaults, non-performance or other adverse developments that affect financial institutions or the financial services industry generally, or concerns or rumors about any events of these kinds or other similar risks, have in the past and may in the

future lead to market-wide liquidity problems. For example, on March 10, 2023, Silicon Valley Bank (“SVB”) was closed by the California Department of Financial Protection and Innovation, and we had to transfer approximately \$31.2 million of cash and cash equivalents that we had on deposit at SVB to other banks. Although our ongoing cash management strategy is to maintain deposit accounts at multiple financial institutions, there can be no assurance that this strategy will be successful. If other banks and financial institutions enter receivership or become insolvent in the future in response to financial conditions affecting the banking system and financial markets, our ability to access our cash and cash equivalents may be threatened and could have a material adverse effect on our business and financial condition.

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.

Our business could be adversely affected by pandemics, natural disasters, political crises, or other unexpected events.

We are vulnerable to natural disasters and significant disruptions including tsunamis, tornados, floods, hurricanes, other extreme or unusual weather conditions, earthquakes, fires, water shortages, epidemics or pandemics, acts of war or terrorism or disruptive political events where our facilities or the launch facilities of our transport partners are located, or where our third-party suppliers’ facilities are located, power shortages and blackouts, aging infrastructure and telecommunications failures. Further, climate change has increased, and may continue to increase, the rate, size, and scope of natural disasters. In the event of such a natural disaster or other disruption, we could experience disruptions to our operations or the operations of suppliers, subcontractors, distributors, or customers, which could affect our ability to maintain launch schedules or fulfill our customer contracts.

The availability of our services depends on the continuing operation of our satellite operations infrastructure, satellite manufacturing operations, information technology and communications systems. Any downtime, damage to or failure of our systems could result in interruptions in our service, which could reduce our revenue and profits. Our systems are vulnerable to damage or interruption from floods, fires, power loss, aging infrastructure, telecommunications failures, computer viruses, computer denial of service attacks, cyberattacks or other attempts to harm our systems. The conflict in Ukraine and associated activities in Ukraine and Russia have increased the risk of cyberattacks on various types of infrastructure and operations. We believe those risks may be particularly heightened for us and other providers of satellite infrastructure and space operations, and that we face heightened risks of cyberattacks on our infrastructure, systems, and operations in connection with the conflict in Ukraine and associated activities in Ukraine and Russia.

Satellites use highly complex technology and operate in the harsh environment of space and therefore are subject to significant operational risks, including exposure to space debris and other spacecraft, while in orbit.

Satellites utilize highly complex technology and operate in the harsh environment of space and, accordingly, are subject to significant operational risks while in orbit. These risks include malfunctions, or anomalies, that have occurred and may continue to occur in our satellites. Exposure of our satellites to an unanticipated catastrophic event, such as a meteor shower, coronal mass ejection or a collision with space debris, could reduce the performance of, or completely destroy, the affected satellite and/or constellation. In addition, satellites in low earth orbit have a limited life cycle and they could become compromised over their designated operational life span. We anticipate that our satellites will have an expected end-of-commercial-service life of three to four years. It is possible that the actual commercial service lives of our satellites will be shorter than anticipated.

Some of the principal satellite anomalies that may affect the actual commercial service lives of our satellites include:

- Mechanical and electrical failures due to manufacturing error or defect, including:
 - mechanical failures that degrade the functionality of a satellite, such as the failure of solar array panel drive mechanisms, rate gyros, or momentum wheels;
 - antenna failures and defects that degrade the communications capability of the satellite;
 - circuit failures that reduce the power output of the solar array panels on the satellites;
 - failure of the battery cells that power the payload and spacecraft operations during daily solar eclipse periods;
 - power system failures that result in a shutdown or loss of the satellite;
 - avionics system failures, including GPS, that degrade or cause loss of the satellite;
 - altitude control system failures that degrade or cause the inoperability of the satellite;
 - transmitter or receiver failures that degrade or cause the inability of the satellite to communicate with our ground stations;
 - communications system failures that affect overall system capacity;
 - satellite computer or processor re-boots or failures that impair or cause the inoperability of the satellites; and
 - radio frequency interference emitted internally or externally from the spacecraft affecting the communication links.
- Equipment degradation during the satellite’s lifetime, including:
 - degradation of the batteries’ ability to accept a full charge;
 - degradation of solar array panels due to radiation;

- general degradation resulting from operating in the harsh space environment, such as from solar flares;
- degradation or failure of reaction wheels;
- degradation of the thermal control surfaces;
- degradation and/or corruption of memory devices; and
- system failures that degrade the ability to reposition the satellite.
- Deficiencies of control or communications software, including:
 - failure of the charging algorithm that may damage the satellite’s batteries;
 - problems with the communications functions of the satellite;
 - limitations on the satellite’s digital signal processing capability that limit satellite communications capacity; and
 - problems with the fault control mechanisms embedded in the satellite.

We have experienced, and may in the future experience, anomalies in some of the categories described above. The effects of these anomalies include, but are not limited to, failure of the satellite, degraded communications performance, reduced power available to the satellite in sunlight and/or eclipse, battery overcharging or undercharging and limitations on satellite communications capacity. Some of these effects may be increased during periods of greater message traffic and could result in our system requiring more than one attempt to send messages before they get through to our satellites.

Although these multiple re-try effects do not result in lost messages, they could lead to increased messaging latencies for the end user and reduced throughput for our system. We consider a satellite “failed” only when it can no longer provide any data service, and we do not intend to undertake further efforts to return it to service. We cannot provide assurance that any efforts we make in this area will succeed or adequately address the effects of any anomalies in a timely manner or at all. Most, if not all, of the satellite anomalies or debris collision damage cannot be corrected once the satellites are placed in orbit. Any satellite anomalies in the future may result in monetary losses, delays, and impairment of services, all of which may adversely affect our business, financial condition, and results of operations.

We rely on a limited number of government customers to provide a substantial portion of our revenue.

We have historically derived a significant portion of our revenue from contracts with federal, state, local, and foreign governments, which accounted for approximately 42% of our revenues for the year ended December 31, 2023. We believe that the future success and growth of our business will depend in part on our ability to continue to maintain and expand government contracts. Within the government channel, approximately 63% of revenue for the year ended December 31, 2023, was generated by three government customers. Contracts with any government entity may be terminated or suspended by the government at any time, with or without cause. There can be no assurance that any contract with the government of any jurisdiction will not be terminated or suspended in the future. For example, the National Oceanic and Atmospheric Administration (“NOAA”) did not renew one of its sales orders with us for the time period from mid-July 2023 through mid-January 2024. We expected this sales order to provide approximately \$9.9 million of revenue over that time period, and while we were awarded a new order for \$9.4 million, commencing in January 2024 and running for eight months, there can be no assurance that renewals or new orders will be awarded in full, for the full period and on favorable terms, or at all, in the future.

Although we attempt to ensure that government contracts have standard provisions such as termination for convenience language which reimburses us for reasonable costs incurred, the payments are not assured and would likely not be sufficient to fully compensate us for any early termination of a contract. The loss of one or more of our government customers, any significant decrease in sales to these customers, a full or partial government shutdown, or delays in government appropriations could reduce our net sales and cash flows and adversely affect our business, financial condition, and results of operations.

Our contracts with government entities are subject to a number of risks and uncertainties.

Our services are incorporated into many different domestic and international government programs. Whether we contract directly with the U.S. government, a foreign government, or one of their respective agencies, or indirectly as a subcontractor or team member, our contracts and subcontracts with government entities are subject to special risks. For example:

- Changes in government administration and national and international priorities could have a significant impact on national or international government spending priorities and the efficient handling of routine contractual matters. These changes could have a negative impact on our business in the future.
- Because we contract to supply services to U.S. and foreign governments and their prime and subcontractors, we may compete for contracts in a competitive bidding process. We may compete directly with other suppliers or align with a prime or subcontractor competing for a contract. Further, foreign governments may favor their domestic providers when awarding contracts over us. We may not be awarded the contract if the pricing or solution offering is not competitive, either at our level or the prime or subcontractor level. In addition, in the event we are awarded a contract, we are subject to protests by losing bidders of contract awards that can result in the reopening of the bidding process and changes in governmental policies or regulations and other political factors. In addition, we may be subject to multiple rebid requirements over the life of a government program in order to continue to participate in such program, which

can result in the loss of the program or significantly reduce our revenue or margin from the program. Government program requirements for more frequent technology refreshes may lead to increased costs and lower long-term revenues.

Government contracts often contain provisions and are subject to laws and regulations that provide government customers with additional rights and remedies not typically found in commercial contracts. These rights and remedies allow government customers, among other things, to:

- Terminate existing contracts for convenience with short notice;
- Reduce orders under or otherwise modify contracts;
- Cancel multi-year contracts and related orders if funds for contract performance for any subsequent year become unavailable;
- Claim rights in solutions, systems, or technology produced by us, appropriate such work-product for their continued use without continuing to contract for our services, and disclose such work-product to third parties, including other government agencies and our competitors, which could harm our competitive position;
- Prohibit future procurement awards for particular future contracts due to a finding of organizational conflicts of interest based upon prior related work performed for the agency that would give a contractor an unfair advantage over competing contractors, or the existence of conflicting roles that might bias a contractor's judgment;
- Subject the award of contracts to protest by competitors, which may require the contracting federal agency or department to suspend our performance pending the outcome of the protest and may also result in a requirement to resubmit offers for the contract or in the termination, reduction, or modification of the awarded contract;
- Suspend or debar us from doing business with the applicable government;
- Demand a set-off of amounts due to us on other contracts to satisfy amounts due to a contract default termination on a specific contract; and
- Control or prohibit the export of our services.

If a customer were to unexpectedly terminate, cancel, or decline to exercise an option to renew with respect to one or more of our significant government contracts, or if a government were to suspend or debar us from doing business with such government, our business, financial condition, and results of operations would be materially harmed.

Additional risks and uncertainties related to our government contracts include, but are not limited to, the following:

- We are subject to the Federal Acquisition Regulation (the "FAR"), the Defense Federal Acquisition Regulation Supplement (the "DFARS"), and other federal cybersecurity requirements, in connection with our defense work for the U.S. government and prime contractors. Amendments to cybersecurity requirements such as through amendments to the FAR or the DFARS, may increase our costs or delay the award of contracts if we are unable to certify that we satisfy such cybersecurity requirements.
- The U.S. government or a prime contractor customer could require us to relinquish data rights to a product in connection with performing work on a government contract, which could lead to a loss of valuable technology and intellectual property in order to participate in a government program.
- We may need to invest additional capital to build out higher level security infrastructure at certain of our facilities to win contracts related to government programs with higher level security requirements. Failure to invest in such infrastructure may limit our ability to obtain new contracts with such government programs.
- We have certain contracts which were awarded to us as part of the U.S. federal government's small business program. As our revenue grows, we may be deemed to be "other than small," which could reduce our eligibility for proposal opportunities or reduce our ability to secure new contracts.

Our satellites and platform could fail to perform or perform at reduced levels of service because of technological malfunctions, satellite failures or deficiencies, or other performance failures, which would seriously harm our reputation, business, financial condition, and results of operations.

Our satellites and platform are exposed to the risks inherent in large-scale, complex satellite systems employing advanced technology. We rely on data collected from a number of sources including data obtained from our satellites and from third parties, and may become unable or limited in our ability to receive such data. For example, satellites can temporarily go out of service and be recovered, or cease to function for reasons beyond our control, including the quality of design and construction, the supply of the battery, the expected gradual environmental degradation of solar panels, the durability of various satellite components and the orbits and space environments in which the satellites are placed and operated. Electrostatic storms, collisions with other objects or actions by malicious actors, including cyber-related events, could also damage the satellites and subject us to liability for any damages caused to other spacecraft. Additionally, in certain instances, governments may discontinue for periods of time the access to or operation of a satellite for any particular area on the Earth and for various reasons may not permit transmission of certain data, whether from a satellite owned by the government or not.

Satellites can experience malfunctions, commonly referred to as anomalies, which have occurred and may occur in the future with respect to our satellites. Any single anomaly could materially and adversely affect our ability to utilize the satellite. Anomalies may also reduce the expected capacity, commercial operation and/or useful life of a satellite, thereby reducing the amount of space data collected, which, if material, could impact

revenue or create additional expenses due to the need to provide replacement or back-up satellites or satellite capacity earlier than planned and could have a material adverse effect on our business. In addition, if a satellite experiences a malfunction, our backup satellite capacity may be insufficient to meet all of our customers' needs or cause service interruptions, and we may need to potentially blackout or reduce service to certain customers, which would adversely affect our relationships with our customers and result in loss of revenues.

Satellites have certain redundant systems, which can fail partially or in their entirety, and accordingly satellites may operate for extended periods without all redundant systems in operation, but with single points of failure. The failure of satellite components could cause damage to or loss of the use of a satellite before the end of its expected useful life. Certain of our satellites are nearing the end of their expected useful lives. As they do so, the performance of each satellite could start to gradually decline. We can offer no assurance that satellites will maintain their prescribed orbits or remain operational, and we may not have replacement satellites that are immediately available. There can be no assurance as to the actual useful life of a satellite or that the useful life of individual components will be consistent with their design life. A number of factors will impact the useful lives of our satellites, including, among other things, the quality of their design and construction, the durability of their component parts and availability of any replacement components, and the occurrence of any anomaly or series of anomalies or other risks affecting the satellites during launch and in orbit.

In particular, the strength, timing and intensity of the solar cycle may impact the longevity and operations of our satellites. The solar cycle is the cycle that the Sun's magnetic field goes through approximately every 11 years. More intense solar activity results in increased air-drag and potentially an earlier deorbit schedule, rendering a satellite inoperative or resulting in a complete loss due to burn out during re-entry in lower atmosphere. Current projections are that the current solar cycle will be more intense than the prior one. 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.

In addition, any improvements in technology may make obsolete our existing satellites or any component of our satellites prior to the end of their lives. If our satellites and related equipment have shorter useful lives than we currently anticipate, this may lead to increased expenses from earlier than expected replacement satellites and/or declines in actual or planned revenues, which would have a material adverse effect on our business, financial condition, and results of operations.

Our satellites have in the past and may in the future contain defects, errors, or vulnerabilities, or may not perform as contemplated. These defects, errors, or vulnerabilities could result in exposure of data, data loss, data leakage, unanticipated downtime, or other events that would result in harm to our reputation, loss of customers or revenue, refunds, service terminations, or lack of market acceptance of our platform. Errors, viruses, or bugs may also be present in data, software, or hardware that we acquire or license from third parties and incorporate into our platform or in third-party software or hardware that our customers use in conjunction with our platform. Our customers' proprietary software and network firewall protections may corrupt data from our offerings and create difficulties in implementing our solutions.

We regularly develop and introduce new product enhancements, including changes to our satellite designs, upgrades to our operating systems and enhancements to our user interfaces. Failure to adequately de-risk these developments before they are deployed may adversely affect our ability to collect, process and deliver data. From time to time we may introduce a high concentration of changes at once, which could amplify these risks. Upgrades may be delayed, partially deployed or inadequately communicated to customers. Major sustained failures relating to these issues could result in increased costs and/or reduced or delayed revenue, which could harm our business, financial results and results of operations.

Any disruption to our satellites, platform, services, information systems, or infrastructure could result in the inability or reduced ability of our customers to receive our services for an indeterminate period of time. These customers include government agencies conducting mission-critical work throughout the world, as well as consumers and businesses located in remote areas of the world and operating under harsh environmental conditions. Any disruption to our services or extended periods of reduced levels of service could cause us to lose customers or revenue, result in delays or cancellations of future implementations of our services, result in failure to attract customers, or result in litigation, customer service, or repair work that would involve substantial costs and distract management from operating our business.

In addition, certain components of our platform are located in foreign countries, and as a result, are potentially subject to governmental, regulatory, or other actions in such countries which could force us to limit the operations of, or completely shut down, components of our system, including our ground stations or other portions of our infrastructure. The failure of any of the diverse and dispersed elements of the system, including satellites, network control center or backup control center, and ground stations, to function and coordinate as required could render the system unable to perform at the quality and capacity levels required for success. Any system failures, repeated solution failures, shortened satellite commercial service life, or extended reduced levels of service could reduce our sales, increase costs, or result in warranty or liability claims and seriously harm our business, financial results, and results of operations.

Satellites are subject to construction and launch delays, launch failures, and damage or destruction during launch, the occurrence of which can materially and adversely affect our operations.

Delays in the construction of future satellites and the procurement of requisite components and third-party launch vehicles, limited availability of appropriate launch windows, possible delays in obtaining regulatory approvals, satellite damage or destruction during launch or deployment, launch failures, or incorrect orbital placement could have a material adverse effect on our business, financial condition, and results of operations. The loss of, or damage to, a satellite due to a launch failure could result in significant increased expenses from earlier than expected replacement satellites and delays in anticipated revenue. Any significant delay in the commencement of service of a satellite could delay or potentially permanently reduce the revenue anticipated to be generated by that satellite. In addition, if the loss of satellites was material, we might not be able to accommodate customers with sufficient data to meet minimum service level agreements until replacement satellites are available, and we may not have on hand, or be able to obtain in a timely manner, the necessary funds to cover the cost of any necessary satellite replacement. In addition, appropriate launch windows for

satellites in our industry are limited and may become more so as additional satellite networks and other spacecraft are launched and/or as space debris becomes more common. Coordinating with partners and regulators to reserve launch windows and prepare for launches may as a result become more difficult over time. An extended launch delay, a launch failure, launch underperformance, or a perceived launch delay could have a material adverse effect on our business prospects, financial condition, and results of operations.

Technical malfunctions, performance failures, or other issues or difficulties with our ground stations could harm our business, financial condition, and results of operations.

The ongoing operations of our satellite constellation and data services rely on the functionality of our ground stations. We have in the past experienced and may in the future experience technical difficulties or mechanical issues with our ground stations, which may negatively impact service in the region covered by that ground station. Our ground stations are often located in remote regions of the world and not easily accessible. Any restrictions on travel may affect our ability to repair or service our ground stations which could have a material adverse effect on our business, financial condition, and results of operations.

We may experience a partial or total loss of one or more of our ground stations due to disasters such as tsunamis, tornados, floods, hurricanes, other extreme or unusual weather events, earthquakes, fires, acts of war or terrorism, or other catastrophic events. A failure at one or more of our ground stations could cause a delayed, partial, or complete loss of service for our customers. We may experience a failure in the necessary equipment at our ground stations, or in the communication links between our ground stations. Additionally, our ground stations are located on property that is not owned by us. A failure at any of our ground stations, facilities, or in the communications links between our facilities, or in our ability to maintain our ground station leases for any reason, could adversely affect our business, financial condition, and results of operations.

Further, we rely, at times, on third parties to perform maintenance on and repair our ground stations. If our relationship with these third parties deteriorates or the third parties become unable or unwilling to maintain the ground stations, or if there are changes in the applicable regulations that require us to give up any or all of our ownership interests in any of the ground stations, our control over our satellite data could be diminished and our business, financial condition, and results of operations could be harmed.

We face competition and could face pricing pressure from, and lose market share to, our competitors, which would adversely affect our business, financial condition, and results of operations.

The maritime, aviation, and weather data industries are fragmented and highly competitive and characterized by rapid changes in technology, customer requirements, and industry standards, and frequent introductions of improvements to existing offerings. Our primary competitors in these industries include companies that specialize in one or more services similar to those offered by us on a local or regional basis. We also compete with global, national, regional, and local firms and government entities specializing in these industries. Both commercial and government organizations have indicated that they might build and launch satellites capable of collecting earth observation information from space. The U.S. government and foreign governments have developed and may in the future develop their own data collection tools and data analytics solutions, which could reduce their reliance on us and other commercial suppliers. In addition, such governments could sell or provide free of charge similar data and analytics and thereby compete with our offerings.

Some of our primary competitors include, in our maritime data vertical, Orbcomm Inc., in our aviation data vertical, Aireon LLC, and in our weather data vertical, GeoOptics, Inc. with respect to our radio occultation data services. Some of our primary competitors also include analytics companies such as AccuWeather, Inc., Weathernews Inc., MeteoGroup (acquired by DTN, LLC), Tomorrow.ai, Climavision and The Weather Company with respect to predictive analytics. We compete with companies such as AAC Clyde Space, GomSpace A/S, NanoAvionics LLC, ISISSpace and Open Cosmos Ltd. in our Space Services channel.

Additionally, many governmental agencies, such as NOAA, provide weather data at little to no cost. We are constantly exposed to the risk that our competitors may utilize data they receive from us to develop and offer competing products and services to their customers, which may reduce the overall demand for our products and services. Our competitors may also implement disruptive technology, or new technology before we do, or may offer lower prices, additional offerings or other incentives that we cannot or will not offer. We can give no assurances that we will be able to compete successfully against existing or future competitors or increase our market share.

Our business model of delivering data and analytics gathered from a custom constellation of satellites in space is still relatively new and has only recently gained market traction. Moreover, many established businesses are aggressively competing against us and have offerings that have functionalities similar to those offered by us. We expect competition to increase as other established and emerging companies enter this market, as customer requirements evolve, and as new offerings and technologies are introduced. If we are unable to anticipate or effectively react to these competitive challenges, our competitive position would weaken, and our business, financial condition, and results of operations would be adversely affected.

Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages, such as:

- greater name recognition, longer operating histories, and larger customer bases;
- larger sales and marketing budgets and resources;
- broader distribution and established relationships with suppliers, manufacturers, and customers;
- greater customer support resources;
- greater resources to make acquisitions and enter into strategic partnerships;

- lower labor and research and development costs;
- larger and more mature intellectual property rights portfolios; and
- substantially greater financial, technical, and other resources.

Conditions in our markets could change rapidly and significantly as a result of technological advancements, the emergence of new entrants into the market, partnering or acquisitions by our competitors, or continuing market consolidation. New innovative start-up companies and competitors that are making significant investments in research and development may invent similar or superior offerings and technologies that compete with our offerings. In addition to satellite-based competitors, terrestrial data service providers could further expand into rural and remote areas and provide some of the same general types of offerings that we provide. Potential customers may also believe that substitute technologies that have similar functionality or features as our platform are sufficient for their needs, or they may believe that point solutions that address narrower industry segments overall are nonetheless adequate for their needs. Some of our current or potential competitors have made or could make acquisitions of businesses or establish cooperative relationships that may allow them to offer more directly competitive and comprehensive offerings than were previously offered and may adapt more quickly to new technologies and customer needs. As a result of such acquisitions, our current or potential competitors may be able to accelerate the adoption of new technologies that better address customer needs, devote greater resources to bring these products and services to market, initiate or withstand substantial price competition, or develop and expand their product and service offerings more quickly than us. These competitive pressures in our market or our failure to compete effectively may result in fewer orders, reduced revenue and margins, and loss of market share. In addition, it is possible that industry consolidation may impact customers' perceptions of the viability of smaller or even mid-size companies and consequently reduce customers' willingness to purchase from such firms.

Additionally, competition continues to increase in the markets in which we operate, and we expect competition to further increase in the future, including from new and emerging companies, which could lead to increased pricing pressures. Our competitors vary in size, and some may have substantially broader and more diverse offerings, which may allow them to leverage their relationships based on other offerings or incorporate functionality into existing offerings to gain business in a manner that discourages customers from purchasing access to our platform, including through selling at zero or negative margins, offering concessions, bundling offerings, or maintaining closed technology platforms. Any decrease in the subscription prices for our services, without a corresponding decrease in costs or increase in volume, would adversely impact our ability to achieve or maintain profitability. Our profitability would also be adversely affected by any shift towards lower-tiered subscription packages. If we are unable to maintain our pricing or market share due to competitive pressures or other factors, our business, financial condition, and results of operations would be adversely affected.

Our reputation and brand are important to our success, and we may not be able to maintain and enhance our reputation and brand, which would adversely affect our business, financial condition, and results of operations.

We believe that maintaining and enhancing our reputation as a leading global provider of space-based data and analytics is critical to our relationship with our existing customers and our ability to attract new customers. The successful promotion of our brand will depend on a number of factors, including our marketing efforts, our ability to continue to develop high-quality features for our platform, our ability to successfully differentiate our platform from those of our competitors, our ability to promote and maintain the reputation of our platform for data security, and our ability to obtain, maintain, protect, and enforce our intellectual property and proprietary rights. Our brand promotion activities may not be successful or yield increased revenue. In addition, independent industry analysts often provide reports of our platform, as well as the offerings of our competitors, and perception of our platform in the marketplace may be significantly influenced by these reports. If these reports are negative, or less positive as compared to those of our competitors, our reputation and brand may be adversely affected. Additionally, the performance of our channel partners may affect our reputation and brand if customers do not have a positive experience with our platform as implemented by our channel partners or with the implementation generally.

At times, competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. Additionally, our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented, or declared generic or determined to be infringing on other marks, or if we are otherwise unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. The promotion of our brand requires us to make substantial expenditures, and we anticipate that the expenditures will increase as our market becomes more competitive, as we expand into new geographies and markets, and if more sales are generated through our channel partners. We may not realize any increase in revenue from such brand promotion initiatives, or any increase in revenue may not offset the increased expenses we incur. If we do not successfully maintain and enhance our reputation and brand, our business, financial condition, and results of operations would be adversely affected.

Rapid and significant technological changes in the satellite industry or the introduction of a new service solution to the market that reduces or eliminates our service performance advantage may harm our business, financial condition, and results of operations.

The satellite communications industry is subject to rapid advances and innovations in technology. We may face competition from companies using new service solutions, innovative technologies, and equipment, including new low earth orbit constellations and expansion of existing geostationary satellite systems or new technology that could eliminate the need for a satellite system. New service solutions and technologies could render our offerings obsolete or less competitive by satisfying customer demand in more attractive ways or through the introduction of incompatible standards. For example, if new transmitters are deployed that emit in the same frequencies as automatic identification system ("AIS"), they might cause our AIS services to be severely compromised or disabled, or alternatively, if a material number of vessels were to turn off their AIS transmitting devices during their voyages, then this would reduce the utility of our AIS data services. Particular technological developments that could adversely affect us include the deployment by our competitors of new satellites with greater power, flexibility, efficiency, or capabilities, as well as continuing improvements in terrestrial technologies. In order for our business to keep pace with technological changes and remain competitive, we may need to

make significant capital expenditures, including capital to design and launch new platform features and services. New technologies may also be protected by patents or other intellectual property laws and therefore may not be available for us to use. Any failure to implement new technology within our platform may compromise our ability to compete.

There is a risk that a competitor in the future may conceive of and implement a different technology solution that would approach or exceed the performance capability of our solutions, which would adversely affect our revenues, margin and market share.

For certain of our offerings, we are dependent on the continued operation of and access to allocated bands in the radio frequency spectrum and various GNSS. Any curtailment of the operating capability of these systems or limitations on our access to, or use of the signals, or discontinuance of service could result in degradation of our services or performance and may have an adverse effect on our business.

In addition, as we introduce new services or enter into new markets, we may face new technological, operational, compliance, regulatory, and administrative risks and challenges, including risks and challenges unfamiliar to us. We may not be able to mitigate these risks and challenges to achieve our anticipated growth or successfully increase our market share, which could materially adversely affect our business, financial condition, and results of operations.

Changes to our business models and pricing strategies could adversely affect our ability to attract or retain customers.

We offer a multi-tiered subscription model for our platform, in addition to our project-based services. We are continuing to iterate and optimize our business models as we evaluate customer preferences, needs, and use of our platform and services, and expect that our business models will continue to evolve. Many factors could significantly affect our pricing strategies, including operating costs, our competitors' pricing and marketing strategies, customer use patterns, and general economic conditions. We may face downward pressure from our customers regarding our pricing, and competitors with different pricing models may attract customers that prefer the competitors' pricing models over our multi-tiered subscription model, which would cause us to lose business or modify our subscription model, both of which could adversely affect our business, financial condition, and results of operations. Changes to our subscription model and model for our project-based services may also affect our revenue recognition and other accounting policies, which may adversely affect our results of operations in any given fiscal period.

Certain of our competitors or potential competitors offer, or may in the future offer, lower-priced solutions, a broader range of services and features, or greater flexibility and customization in their offerings. Similarly, certain competitors may use marketing strategies that enable them to attract or retain new customers at a lower cost. Moreover, our customers may demand substantial price discounts as part of the negotiation of contracts. There can be no assurance that we will not be forced to reduce the pricing for our services, to change our business models, or to increase our sales and marketing and other expenses to attract and retain customers in response to competitive pressures. We have launched, and may in the future launch, new pricing strategies and initiatives, or modify existing business models, any of which may not ultimately be successful in attracting and retaining customers. Any such changes to our subscription model or the model for our project-based services or our ability to efficiently price our services could adversely affect our business, financial condition, and results of operations.

Our sales cycle can be long and unpredictable for certain channels and services, and our sales efforts require considerable time and expense.

Our quarterly results of operations fluctuate, in part, because of the resource-intensive nature of our sales efforts and the length and variability of our sales cycle for certain of our offerings, such as our project-based services, and for certain of our customers, such as government departments and agencies. The length of our sales cycle, from initial contact with our sales team to a contractual commitment from a customer, can also vary substantially from customer to customer based on customer size, industry, maturity, profitability, whether we are launching a new solution, and deal complexity and customization. Our sales cycle can vary considerably and is made more uncertain by regional or global events, inflation, rising interest rates and other global economic and political uncertainties. Such events have resulted in and may continue to cause a general reduction in spending on data by our customers, which will further affect our ability to estimate not only the length of the sales cycle, but also the anticipated size of potential subscriptions. Further, our sales cycle may lengthen as we continue to focus our sales efforts on large enterprises and on our Space Services. For example, large organizations often undertake a significant evaluation process that results in a lengthy sales cycle and product purchases by large organizations are frequently subject to budget constraints, multiple approvals and administrative, processing and other delays.

In addition, our results of operations depend, in part, on subscription renewals from customers and increasing sales and upgrades to our existing customers, which may also be reduced or delayed as a result of regional or global events. If a customer does not renew on time or as expected, it can negatively affect our revenue for a given period. It is difficult to predict whether or exactly when we will make a sale to a potential customer or if we can renew or increase sales to our existing customers. As a result, initial sales or renewals have, in some cases, occurred in quarters subsequent to what we anticipated, or have not occurred at all. We may in the future make changes to our subscription model, which may affect the length of our sales cycle and our ability to predict the length of our sales cycle or the anticipated size of potential subscriptions. The loss or delay of one or more transactions in a quarter could impact our results of operations for that quarter and any future quarters for which revenue from that transaction is delayed.

We depend on our sales force, and we may fail to attract, retain, motivate, or adequately train our sales force, which could adversely affect our business, financial condition, and results of operations.

Our ability to increase our customer base, achieve broader market acceptance of our platform, grow our revenue, and achieve and sustain profitability depends, to a significant extent, on the effectiveness of our sales and marketing operations and activities, particularly our direct sales efforts. We depend on our sales force to obtain new customers and to drive additional sales to existing customers by selling them new subscriptions and expanding the value of their existing subscriptions. We believe that there is significant competition for sales personnel, including sales representatives, sales managers, and sales engineers, with the skills and technical knowledge that we require. Our ability to grow revenue depends, in

part, on our ability to recruit, train, and retain sufficient numbers of sales personnel to support our growth. New hires require significant training and may take significant time before they achieve full productivity, and our remote and online onboarding and training processes may be less effective and take longer than in-person processes. Further, hiring sales personnel in new countries requires additional set up and upfront costs that we may not recover if the sales personnel fail to achieve full productivity. If we are unable to attract, retain, motivate and adequately train sufficient numbers of effective sales personnel, if our sales personnel do not reach significant levels of productivity in a timely manner, or if our sales personnel are not successful in converting potential customers into new customers or increasing sales to our existing customer base, our business, financial condition, and results of operations would be adversely affected.

In addition, we spend significant amounts on advertising and other marketing campaigns to acquire new customers. While we seek to deploy our marketing strategies in a manner most likely to encourage efficient customer acquisition, we may fail to identify marketing opportunities that satisfy our anticipated return on marketing spend as we scale our investments in marketing, and may fail to accurately predict customer acquisition and behavior. If any of our advertising and other marketing campaigns prove less successful than anticipated in attracting new customers, our business, financial condition and results of operations could be adversely affected. There can be no assurance that our marketing efforts will result in increased sales.

Our ability to increase sales depends, in part, on the quality of our customer support and the ease of our customer experience, and a failure to offer high quality customer support and customer experience would harm our reputation and adversely affect our business, financial condition, and results of operations.

Our customers may depend on our technical support services to resolve issues relating to our platform. If we do not succeed in helping our customers quickly resolve issues or provide effective ongoing education related to our platform, our reputation could be harmed, and our existing customers may not renew or upgrade their subscriptions or may cancel their contracts. To the extent that we are unsuccessful in hiring, training, and retaining adequate customer support resources, our ability to provide adequate and timely support to our customers, and our customers' satisfaction with our platform, will be adversely affected. Our failure to provide and maintain high quality customer support would harm our reputation and brand and adversely affect our business, financial condition, and results of operations.

We provide minimum service level commitments to certain of our customers, and our failure to meet these commitments could cause us to issue credits or pay penalties, which could harm our results of operations.

Certain of our customer agreements currently, and new customer agreements may in the future, provide minimum service level commitments, such as specifications regarding the availability, functionality, and performance of our platform. The loss of one or more of our satellites or problems with our ground stations could cause our service to fall below minimum service level commitments. Any failure of or disruption to our infrastructure could impact the performance of our platform and the availability of our services to customers. If we are unable to meet our stated service level commitments or if we suffer extended periods of poor performance or unavailability of our platform, we may be contractually obligated to provide affected customers with service credits or services at no or reduced cost, and, in certain cases, face contract termination with refunds of prepaid amounts related to unused subscriptions. If we suffer performance issues or downtime that fall below the service level commitments under our contracts with our customers, our business, financial condition, and results of operations would be adversely affected.

Further, in the normal course of business, we have entered and may in the future enter into agreements that provide for indemnification and guarantees to counterparties in transactions involving debt financing, sales of services, purchases and development of assets and operating leases. The nature of almost all of these indemnifications may prevent us from making a reasonable estimate of the maximum potential amount that we could be required to pay counterparties. If these payments were to become significant, future liquidity, capital resources, and our credit risk profile may be adversely affected.

We may fail to cost-effectively acquire new customers or obtain renewals, upgrades, or expansions from our existing customers, which would adversely affect our business, financial condition, and results of operations.

Our continued growth depends, in part, on our ability to cost-effectively acquire new customers. Numerous factors, however, may impede our ability to add new customers, including our failure to attract, effectively train, retain, and motivate sales and marketing personnel, our failure to develop or expand relationships with third parties, our inability to convert initial usage into ongoing utilization of our solutions, and our failure to successfully deliver our services and provide quality customer support once delivered.

Our success also depends, in part, on our customers renewing their subscriptions when existing contract terms expire, and our ability to expand our relationships with our existing customers. Our customers have no obligation to renew or upgrade their subscriptions, and in the normal course of business, some customers have elected not to renew. In addition, our customers may decide not to renew their subscriptions with a similar contract period or at the same prices or terms or may decide to downgrade their subscriptions. Uncertain macroeconomic and geopolitical factors, including as a result of inflationary pressures, currency exchange rate fluctuations, the Russian invasion of Ukraine, Israel's war with Hamas, and rising interest rates may result in longer and unpredictable sales cycles, could result in potential customers deciding not to contract with us or current customers deciding not to renew, could cause delays in renewal, upgrade, or expansion decisions for some of our existing customers, may reduce the effectiveness of our sales and marketing efforts, and could reduce the duration of subscriptions. In addition, these situations could result in increased customer churn, a lengthening of our sales cycle with some of our potential customers, or reduced contract value with prospective or existing customers. Our customer retention or our customers' use of our platform may decline or fluctuate as a result of a number of factors, including our customers' satisfaction with our platform and our customer support, our subscription model, our project-based services model, the prices, features, or perceived value of competing offerings, changes to our offerings, or general economic conditions. We will need to maintain or improve our ARR Net Retention Rate to support our growth, and our ability to expand our relationships with customers may require more sophisticated and costly sales

efforts. If our customers' renewals or expansions fall below expectations, and as a result our ARR Net Retention Rate decreases, our business, financial condition, and results of operations would be adversely affected.

In addition, our ability to expand our relationship with our customers depends in large part on our ability to enhance and improve our platform, introduce compelling new features, and address additional use cases. The success of any new or enhanced features depends on several factors, including market demand for the enhanced features, timely completion and delivery, adequate quality testing, and competitive pricing. If we are unable to successfully develop new features, enhance our existing features to meet customer requirements, or otherwise gain broader market acceptance, our business, financial condition, and results of operations would be adversely affected. If our customers do not renew, upgrade, or expand their subscriptions, defer their subscriptions to a later date, renew their subscriptions on less favorable terms, or fail to increase adoption of our platform, including tiered and premium features or project-based services, our business, financial condition, and results of operations would be adversely affected.

The markets for our offerings are evolving, and our future success depends on the growth of these markets and our ability to adapt, keep pace, and respond effectively to evolving markets.

The markets for our offerings are in a relatively early stage of development within the industries in which we operate, and demand for our offerings may not grow, or may even contract, either generally or in particular industries and markets, for particular types of services or during particular time periods. As such, any predictions or forecasts about our future growth, revenue, and expenses may not be as accurate as they would be if we had a longer operating history or operated in more predictable markets. Any expansion in our markets depends on a number of factors, including the cost, performance, and perceived value associated with our offerings and the offerings of our competitors. A lack of demand could impair our ability to sell access to our platform, develop and successfully market new services, and could exert downward pressure on prices.

The markets for our offerings are also characterized by rapid technological changes and evolving industry standards and changing regulatory requirements. This constant evolution may reduce the effectiveness of or demand for our services or render them noncompetitive or obsolete. Our continued success and growth depend upon our ability to anticipate these challenges and to innovate by enhancing our existing services and developing and successfully implementing new services to keep pace with the ever-changing and increasingly sophisticated needs of our customers. We have in the past experienced delays in improving our offerings due to budgetary constraints and evolving customer demands, which could continue in the future.

New service introductions that are responsive to new technologies and changing industry and regulatory standards can be complex and expensive as they require significant planning, design, development, and testing. We may find it difficult or costly to update our services and to develop new services quickly enough to work effectively with new or changed technologies, to keep pace with evolving industry standards or to meet our customers' needs. In addition, our industries may be slow to accept new technologies that we develop because of, among other things, existing regulations or standards written specifically for older technologies and a general unfamiliarity with new technologies. As a result, any new services that we may develop may not be successful for a period of time, if at all. If we are unable to successfully enhance or update existing services or develop, identify, and market new services to meet these challenges, our business, financial condition, and results of operations may be adversely affected.

We rely on third parties for our supply of certain of our data, equipment, satellite components, software, and operational services to manage and operate our business, and any failure or interruption with these third parties could adversely affect our business, financial condition, and results of operations.

We purchase equipment and satellite components from third-party suppliers, and we depend on those suppliers to deliver and support our operations at the contracted specifications in order for us to continue to meet our service and contractual commitments to our customers. We may experience difficulty if these suppliers, particularly our top suppliers, do not meet their obligations to deliver and support the equipment and satellite components. We may also have trouble or failure when implementing, operating and maintaining this equipment and satellite components, or when providing services using this equipment. This difficulty or failure may lead to service interruptions or degradations in the services offered to our customers, which could cause our revenues to decline materially and could adversely affect our ability to market our services and generate future revenues and profit.

Further, our suppliers may become capacity-constrained or could face financial difficulties as a result of a surge in demand, a natural disaster, or other event, including the impacts of inflationary pressures, currency exchange rate fluctuations, the Russian invasion of Ukraine, and rising interest rates. As a result, we may experience operational delays and may have to evaluate replacement suppliers for our satellite components, equipment, and operational services. If we fail to effectively address these issues, we could suffer delays, which could reduce our ability to launch new satellites and manage and operate our business, which could harm our reputation, business, financial condition, and results of operations.

We also rely on a number of third-party data, software, and services to manage and operate our business. The data, software, and services provided by these third parties are critical to our ability to increase our sales to customers, operate and maintain our platform, and accurately maintain books and records. Any disruption in these services could reduce the quality or volume of data we are able to provide to our customers, impair our ability to execute on our operating plan, and disrupt our business. Further, if these services cease to be available to us on commercially reasonable terms, or at all, we may be required to use additional or alternative services, or to develop additional capabilities within our business, any of which may not be available or could require significant resources and adversely affect our business, financial condition, and results of operations.

We also rely on third-party cloud service providers to process the data we provide to service our customers. These third-party services are critical to our ability to provide reliable service to our customers. Any disruption in these services would negatively impact our data service uptime and our ability to service customers reliably and consistently, which could reduce sales and adversely affect our business, financial condition and results of operations.

Our business may be adversely affected if any of our direct or indirect relationships with our third-party suppliers of data, equipment, satellite components, or operational services are terminated or modified. If our arrangements with our third parties are terminated, our search for additional or alternate third-party suppliers could result in significant launch delays, added expense, reduced quality of our data, and an inability to maintain or expand our customer base. Any of these events could require us to take unforeseen actions or devote additional resources to provide our services and could adversely affect our business, financial condition, and results of operations.

We manufacture our satellites in-house at a single manufacturing facility in the United Kingdom. Any impairment to our manufacturing facility could cause us to incur additional costs and delays in the production and launch of our satellites, which would materially affect our business, financial condition, and results of operations.

We currently manufacture our satellites in-house at a single manufacturing facility in the United Kingdom. The availability of our services depends on the continuing operation of our satellite manufacturing infrastructure and operations. Any impairment such as downtime, damage to, or failure of our manufacturing facility could result in interruptions in our production of satellites, which could materially affect our business. Our manufacturing facility may become capacity-constrained or could face financial difficulties as a result of a surge in demand for additional satellites, a natural disaster, or other event, including the impacts of a pandemic. Our manufacturing site is vulnerable to damage or interruption from floods, fires, power loss, or aging infrastructure. An infrastructure failure could result in the destruction of satellites under construction or inventory, manufacturing delays, or additional costs incurred, and we do not maintain back-up manufacturing facilities or operations. We may not be able to replace or supplement the satellite manufacturing process with third-party manufacturers, and even if we are able to do so, there could be a substantial period of time in which new satellites would not be manufactured. Further, any new relationship may involve higher costs and delays in development and delivery. We may also encounter technical challenges in successfully replicating the manufacturing processes in another facility or with a third party. The occurrence of any of the foregoing could result in lengthy interruptions in our production and launch of our satellites, which could materially affect our business, financial condition, and results of operations.

We are dependent on third parties to launch our satellites into space, and any launch delay, malfunction, or failure could have a material adverse impact to our business, financial condition, and results of operations.

We are dependent on third-party launch service providers. Currently, the number of companies who offer launch services is limited, and if this sector fails to grow or experiences consolidation among current providers, we may not be able to secure space on a launch vehicle or may incur higher prices for such space. This could cause delays in our ability to meet our customers' needs or an increase in the price for our offerings, adversely affecting our business, financial condition, and results of operations. The technology related to launch capabilities is evolving rapidly as existing launch providers iterate on their existing capabilities and new providers enter the market. Our launch partners may encounter launch, deployment, or in-orbit delays or failures, leading to the damage or complete loss of our satellites, including customer assets. In the event that a launch is delayed, our timing for the recognition of revenue tied to customer acceptance of project-based deliverables may similarly be delayed. During the fiscal year ended December 31, 2023, one of our launch partners experienced a launch failure, but we did not have any satellites on the failed launch. The launch partner then delayed future launches until it completed its investigations and obtained the necessary approvals to resume launches. As a result, the launch of one of our missions by this launch partner that was anticipated to occur in the fourth quarter of 2023 was delayed to January 2024, thereby delaying the timing of the recognition of revenue related to such launch. Launch delays are common in our industry, and they could negatively impact our financial statements or earnings for a given time period.

Our international operations and continued international expansion subject us to additional costs and risks, which could adversely affect our business, financial condition, and results of operations.

Our business and our business objectives are inherently worldwide. As such, our growth strategy depends, in part, on our continued international expansion. We are continuing to adapt to and develop strategies to address international markets, but there is no guarantee that such efforts will be successful. In addition, efforts to expand our platform in certain foreign countries may be complicated, constrained, or even prohibited due to legal requirements we must comply with in the United States or other jurisdictions that may conflict with legal requirements in the new country's markets to which we seek access.

Our international sales and operations are subject to a number of risks, including the following:

- greater difficulty in enforcing contracts and managing collections in countries where our recourse may be more limited, as well as longer collection periods;
- higher costs of doing business internationally, including costs incurred in establishing and maintaining office space and equipment for our international operations;
- differing labor regulations, especially in the EU, where labor laws are often more favorable to employees;
- greater risks of unexpected changes in regulatory practices, tariffs, trade disputes, and tax laws and treaties, particularly due to the United Kingdom's exit from the EU;

- challenges inherent to efficiently recruiting and retaining talented and capable employees in foreign countries and maintaining our company culture and employee programs across all of our offices;
- fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business;
- management communication and integration problems resulting from language and cultural differences and geographic dispersion;
- difficulties in penetrating new markets due to established and entrenched competitors;
- difficulties in developing services that are tailored to the needs of local customers;
- lack of local acceptance, recognition, or knowledge of our brand and services;
- unavailability of or difficulties in establishing relationships with local customers;
- significant investments, including the development, deployment, and maintenance of dedicated facilities in certain countries with laws that require such facilities to be installed and operated within their jurisdiction to connect the traffic coming to and from their territory;
- difficulties in obtaining required regulatory or other governmental approvals;
- costs associated with language localization of our platform;
- risks associated with trade restrictions and foreign legal requirements, including any importation, certification, and localization of our platform that may be required in foreign countries;
- greater risk of unexpected changes in regulatory requirements, tariffs and tax laws, trade laws, export quotas, customs duties, treaties, and other trade restrictions;
- costs of compliance with foreign laws and regulations and the risks and costs of non-compliance with such laws and regulations, including, but not limited to data privacy, data protection, and data security laws and regulations;
- compliance with anti-bribery laws, including, without limitation, the U.S. Foreign Corrupt Practices Act of 1977, as amended (the “FCPA”), the U.S. Travel Act, and the UK Bribery Act 2010 (the “UK Bribery Act”), violations of which could lead to significant fines, penalties, and collateral consequences for us;
- risks relating to the implementation of exchange controls, including restrictions promulgated by the Office of Foreign Assets Control (“OFAC”), and other similar trade protection regulations and measures;
- heightened risk of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements that may impact our results of operations and result in restatements of, or irregularities in, financial statements;
- the uncertainty of protection for intellectual property rights in some countries;
- exposure to regional or global public health issues, such as the outbreak of a pandemic, and to travel restrictions and other measures undertaken by governments in response to such issues;
- general economic and political conditions in these foreign markets, including political and economic instability in some countries and its impacts on the region and the regional and global economies;
- foreign exchange controls or tax regulations that might prevent us from repatriating cash earned outside the United States;
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the United States or the foreign jurisdictions in which we operate; and
- provisions in government contracts prohibiting foreign nationals from working on certain programs.

These and other factors could harm our ability to generate revenue outside of the United States and/or could result in increased expenses and liabilities, and consequently, adversely affect our business, financial condition, and results of operations.

In the future, we may pursue acquisitions or strategic transactions, and if we fail to successfully integrate acquired companies into our business or if such acquisitions fail to deliver the expected return on investment, our business, financial condition, and results of operations could be adversely affected.

We have in the past acquired, and may in the future acquire or invest in, businesses, offerings, technologies, or talent that we believe could complement or expand our platform, enhance our technical capabilities, or otherwise offer growth opportunities. We may not be able to fully realize the anticipated benefits of such acquisitions or investments. The pursuit of potential acquisitions may divert the attention of management and cause us to incur significant expenses related to identifying, investigating, and pursuing suitable acquisitions, whether or not they are consummated.

There are inherent risks in integrating and managing acquisitions. If we acquire additional businesses, we may not be able to assimilate or integrate the acquired personnel, operations, solutions, and technologies successfully, or effectively manage the combined business following the acquisition. We also may not achieve the anticipated benefits or synergies from the acquired business, offerings and technologies due to a number of factors, including, without limitation:

- unanticipated costs or liabilities associated with the acquisition, including claims related to the acquired company, its offerings, or technology;

- incurrence of acquisition-related expenses, which would be recognized as a current period expense;
- inability to generate sufficient revenue to offset acquisition or investment costs;
- inability to maintain relationships with customers and partners of the acquired business;
- challenges with incorporating acquired technology and rights into our platform and maintaining quality and security standards consistent with our brand;
- inability to identify security vulnerabilities in acquired technology prior to integration with our technology and platform;
- inability to achieve anticipated synergies or unanticipated difficulty with integration into our corporate culture;
- delays in customer purchases due to uncertainty related to any acquisition;
- the need to integrate or implement additional controls, procedures, and policies;
- challenges caused by distance, language, and cultural differences;
- harm to our existing business relationships with business partners and customers as a result of the acquisition;
- potential loss of key employees;
- use of resources that are needed in other parts of our business and diversion of management and employee resources;
- inability to recognize acquired contract liabilities in accordance with our revenue recognition policies; and
- use of substantial portions of our available cash or the incurrence of debt to consummate the acquisition.

Acquisitions also increase the risk of unforeseen legal liability, including for potential violations of applicable law or industry rules and regulations, arising from prior or ongoing acts or omissions by the acquired businesses that are not discovered by due diligence during the acquisition process. We may have to pay cash, incur debt, or issue equity or equity-linked securities to pay for any future acquisitions, each of which could adversely affect our financial condition or the market price of our Class A common stock. The sale of equity or issuance of equity-linked debt to finance any future acquisitions could result in dilution to our stockholders. The incurrence of indebtedness would result in increased fixed obligations and could also include covenants or other restrictions that would impede our ability to manage our operations. Any of the foregoing could adversely affect our business, financial condition, and results of operations.

Risks Related to Intellectual Property, Privacy, Cybersecurity, and Technical Infrastructure

Any failure to obtain, maintain, protect, or enforce our intellectual property and proprietary rights could harm our business, financial condition, and results of operations.

Our success depends, in part, upon our ability to obtain, maintain, protect, and enforce our intellectual property rights, including our proprietary technology, know-how, and our brand. We rely on a combination of patents, copyrights, trademarks, service marks, trade secret laws, and contractual provisions in an effort to establish and protect our proprietary rights. However, the steps we take to obtain, maintain, protect, and enforce our intellectual property rights may be inadequate, and if we fail to protect or enforce our intellectual property rights or trade secrets adequately, our competitors might gain access to our proprietary technology and develop and commercialize similar services or technologies, and our business, financial condition, results of operations, or prospects could be adversely affected. Although we have been issued patents in the United States and Canada and have additional patent applications pending, there can be no assurance that our patent applications will result in issued patents. Even if we continue to seek patent protection in the future, we may be unable to obtain or maintain patent protection for our technology. In addition, any patents issued from pending or future patent applications or that are licensed to us in the future may not provide us with competitive advantages or may be successfully challenged by third parties. Any of our patents, trademarks, or other intellectual property rights may be challenged or circumvented by others or invalidated or held unenforceable through administrative process or litigation in the United States, Canada, or in other foreign jurisdictions. There can be no guarantee that others will not infringe on our trademarks or patents, independently develop offerings that are similar to our intellectual property or trade secrets, duplicate any of our offerings, or design around our patents or other intellectual property rights. Further, legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights may be uncertain. Moreover, policing unauthorized use of our technologies, trade secrets, and intellectual property may be difficult, expensive, and time-consuming, particularly in foreign countries where the laws may not be as protective of intellectual property rights as those in the United States and where mechanisms for enforcement of intellectual property rights may be weak. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon, misappropriating, or otherwise violating our intellectual property rights.

We rely, in part, on trade secrets, proprietary know-how, and other confidential information to maintain our competitive position. While we generally enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with third parties, including the parties with whom we have strategic relationships and business alliances, these agreements may not be effective in controlling access to, distribution, use, misuse, misappropriation, reverse engineering, or disclosure of our proprietary information, know-how, and trade secrets. Further, these agreements do not prevent our competitors or partners from independently developing offerings that are substantially equivalent or superior to our offerings. These agreements may be breached, and we may not have adequate remedies for any such breach. Enforcing a claim that a party violated confidentiality obligations or illegally disclosed or misappropriated a trade secret or know-how is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets and know-how.

We may be required to spend significant resources in order to monitor and protect our intellectual property rights and trade secrets, and some violations may be difficult or impossible to detect. Litigation may be necessary in the future to enforce our intellectual property rights, and such litigation could be costly, time-consuming, and distracting to management, and could result in the impairment or loss of portions of our intellectual property. Our efforts to enforce our intellectual property rights may be met with defenses, counterclaims, and countersuits attacking the validity and enforceability of our intellectual property rights, and if such defenses, counterclaims, and countersuits are successful, we could lose valuable intellectual property rights. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could impair the functionality of our services and technology, delay introductions of enhancements to our services and technology, result in us substituting inferior or more costly technologies into our service offerings, or harm our reputation and brand. In addition, we may be required to license additional technology from third parties to develop and market new features, which may not be on commercially reasonable terms, or at all, and could adversely affect our ability to compete.

Claims by others that we infringed their proprietary technology or other intellectual property rights would harm our business.

Our success depends, in part, on our ability to develop and commercialize our services without infringing, misappropriating, or otherwise violating the intellectual property rights of third parties. However, we may not be aware if our services are infringing, misappropriating, or otherwise violating third-party intellectual property rights, and such third parties may bring claims alleging such infringement, misappropriation, or violation. Companies in technology industries, including some of our current and potential competitors, are subject to litigation based on allegations of infringement or other violations of intellectual property rights. In addition, certain companies and rights holders seek to enforce and monetize patents or other intellectual property rights they own, have purchased, or otherwise obtained. Many potential litigants, including some of our potential competitors and patent-holding companies, have the ability to dedicate substantial resources to assert their intellectual property rights and to defend claims that may be brought against them.

Any claim of infringement by a third party, even those without merit, against us or for which we are required to provide indemnification could cause us to incur substantial costs defending against the claim, could distract our management from our business, and could require us to cease or modify our use of such intellectual property. Further, because of the substantial amount of discovery required in connection with intellectual property litigation, we risk compromising our confidential information during this type of litigation. We may be required to make substantial payments for legal fees, settlement fees, damages, royalties, or other fees in connection with a claimant securing a judgment against it, we may be subject to an injunction or other restrictions that cause us to cease commercializing certain aspects of our business and technology, we may be required to redesign any allegedly infringing portion of our services and technology, or we may agree to a settlement that prevents us from commercializing certain aspects of our services or technology, any of which could adversely affect our business, financial condition, and results of operations. Moreover, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it would have a substantial adverse effect on our business, results of operations, or the market price of our Class A common stock.

With respect to any intellectual property rights claim, we may have to seek out a license to continue operations found to be in violation of such rights, which may not be available on favorable or commercially reasonable terms and may significantly increase our operating expenses. Some such licenses may be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. If a third-party does not offer us a license to our intellectual property on commercially reasonable terms, or at all, we may be required to develop alternative, non-infringing technology, which could require significant time (during which we would be unable to continue to offer our affected features), effort, and expense, and may ultimately not be successful. Any of these events would adversely affect our business, financial condition, and results of operations.

When engaging in preliminary commercial discussions, we enter into non-disclosure agreements with potential partners. These agreements permit the parties to exchange confidential information conditioned on compliance with the terms contained therein. Any claim that we have not adhered to the terms of a non-disclosure agreement, even claims without merit, could cause us to incur substantial costs defending against the claim, could distract our management from our business, and could require us to cease or modify our services, in addition to potentially paying substantial payments for legal fees, settlement fees, damages, royalties, or other fees.

Our services and technology contain third-party open source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to deliver our platform or subject us to litigation or other actions.

Our technology includes software modules licensed to us by third-party authors under open source licenses, and we expect to continue to incorporate such open source software in our platform in the future. We also contribute to the open source developer community. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide support, warranties, indemnification, or other contractual protections regarding infringement claims or the quality of the code. We include open source software in some of our technology to improve functionality and reduce engineering time and cost and make the source code of some of our proprietary platform features available as open source to facilitate collaboration, but this may also enable others to compete more effectively. In addition, the public availability of such open source software may make it easier for others to compromise our services and technology.

Some open source licenses contain requirements that could require us to make available source code for modifications or derivative works we create pursuant to the terms of such open source licenses. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar offerings with lower development effort and time and ultimately could result in a loss of our competitive advantages. Alternatively, to avoid the public release of the affected portions of our source code, we could be required to expend substantial time and resources to re-engineer some or all our software. Certain of our technology incorporates software that is licensed under an open source license, which would require release of proprietary code if such technology was released or distributed to third parties. Additionally, some open source projects have known

vulnerabilities and architectural instabilities and are provided on an “as-is” basis, which, if not properly addressed, could negatively affect the performance of our technology.

The terms of many open source licenses have not been interpreted by U.S. or foreign courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to provide or distribute our platform. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate open source software into their platform, and the licensors of such open source software provide no warranties or indemnities with respect to such claims. As a result, we and our customers could be subject to lawsuits by parties claiming ownership of what we believe to be open source software. Moreover, we cannot assure that our processes for controlling our use of open source software in our platform will be effective. If we are held to have breached or failed to fully comply with all the terms and conditions of an open source software license, or if an author or other third-party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations, could be subject to significant direct or indirect damages, enjoined from the sale of subscriptions to our platform or other liability, or be required to seek costly licenses from third parties to continue providing our platform on terms that are not economically feasible, to re-engineer our platform, to discontinue or delay the provision of our platform if re-engineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which would adversely affect our business, financial condition, and results of operations.

We incorporate technology and terrestrial data sets from third parties into our platform, and our inability to maintain rights and access to such technology and data sets would harm our business and results of operations.

We rely on technology and data from a number of different sources, including terrestrial data sets from third parties that we integrate with our platform or incorporate into our solutions and services. We cannot be certain that our licensors are not infringing the intellectual property rights of third parties or that these third parties have sufficient rights to the licensed intellectual property in all jurisdictions in which we may sell our subscription services and project-based services. In addition, many technology licenses are non-exclusive, and therefore our competitors may have access to the same technology licensed to us. Some of our agreements with these third parties may be terminated for convenience by them, or otherwise provide for a limited term. If we are unable to continue to license any of this technology for any reason, our ability to develop and sell access to our platform containing such technology could be harmed. Similarly, if we are unable to license necessary technology from third parties now, or in the future, on commercially reasonable terms or at all, we may be forced to attempt to develop alternative technology ourselves, which we may be unable to do in a commercially feasible manner, or at all, and we may be required to use alternative technology of lower quality or performance standards, which would adversely affect our business, financial condition, and results of operations.

In addition, we incorporate terrestrial data sets from third parties into our solutions and subscription services. We rely on such third parties to provide accurate supplementary data sets that we can utilize to deliver comprehensive data and analytics to our customers. If we are unable to obtain the necessary data sets from third parties on commercially reasonable terms or at all, or if we experience errors or delays in receiving these data sets, our customers may have a negative experience with our platform, our brand and reputation may be adversely affected and our customers may be less inclined to continue utilizing our platform or to recommend it to other potential customers. Similarly, if we are unable to purchase terrestrial data sets from third parties now, or in the future, on commercially reasonable terms or at all, we may be forced to attempt to produce terrestrial data sets ourselves, which we may be unable to do in a commercially feasible manner, or at all, which would adversely affect our business, financial condition, and results of operations.

Any actual or perceived security or privacy breach or incident could interrupt our operations, harm our reputation and brand, result in financial exposure, and lead to loss of user confidence in us or decreased use of our platform, any of which could adversely affect our business, financial condition, and results of operations.

The use of our platform involves the collection, storage, processing, and transmission of customers’ data. In addition, we collect, process, store, and transmit our own data as part of our business operations. Our data or our customers’ data may include personal data or confidential or proprietary information. Increasingly, threats from computer malware, ransomware, viruses, social engineering (including phishing attacks), denial of service or other attacks, employee theft or misuse, and general hacking have become more prevalent. Any security breaches or other incidents owing to these or other causes could result in loss of or unauthorized access to, damage to, disablement or encryption of, use or misuse of, disclosure of, modification of, or destruction or other unauthorized processing of, our data or our customers’ data, or disrupt our ability to operate our platform for a lengthy period of time. Any actual or perceived security breach or incident could interrupt our operations, harm our reputation and brand, result in remediation and cybersecurity protection costs, result in lost revenue, lead to litigation and legal risks, increase our insurance premiums, result in other financial exposure, lead to loss of user confidence in us or decreased use of our platform, and otherwise damage our competitiveness, business, financial condition, and results of operations. The conflict in Ukraine and associated activities in Ukraine and Russia have increased the risk of cyberattacks on various types of infrastructure and operations. We believe those risks may be particularly heightened for us and other providers of satellite infrastructure and space operations, and that we face heightened risks of cyberattacks and other attacks on our infrastructure, systems, and operations in connection with the conflict in Ukraine and associated activities in Ukraine and Russia.

Our security measures or those of our third-party service providers could be insufficient or breached or otherwise fail as a result of third-party action, employee errors, technological limitations, defects, vulnerabilities in our offerings or those of our third-party service providers, malfeasance, or otherwise. Additionally, with a hybrid workforce we may be exposed to increased risks of security breaches or other incidents and have seen an increase in phishing attempts and spam emails. We may need to attempt to enhance the security of our platform, our systems, our data, and the other data we maintain or that we or our third-party service providers maintain or otherwise process, and our internal IT infrastructure, which may require additional resources and may not be successful. Furthermore, because we do not control our third-party service providers and our ability to monitor their data security is limited, we cannot ensure the security measures they take will be sufficient to protect our platform or IT infrastructure or our and

our customers' data. There can be no assurance that any security measures that we or our third-party service providers have implemented will be effective against current or future security threats. Our security measures or those of our third-party service providers could fail and result in loss of or unauthorized access to, damage to, disablement or encryption of, use or misuse of, disclosure of, modification of, or destruction of, or otherwise unauthorized processing of, such data. Further, because there are many different security breach and other cyberattack techniques and such techniques continue to become more sophisticated, frequent and adaptive and are generally not detected until after an incident has occurred, we may be unable to implement adequate preventative measures, anticipate attempted security breaches or other incidents, or react in a timely manner.

Any security breach or other incident that we or our third-party service providers experience, or the perception that one has occurred, could result in a loss of customer confidence in the security of our platform, harm our reputation and brand, reduce the demand for our platform, disrupt normal business operations, require us to spend material resources to investigate or correct the breach or incident and to prevent future security breaches and incidents, expose us to legal liabilities, including litigation, regulatory enforcement actions, proceedings, and orders, disputes, investigations, indemnity obligations, damages for contract breach, penalties for violation of applicable laws or regulations, other claims and liabilities, and significant costs for remediation of and otherwise responding to such breaches or other incidents, any of which could adversely affect our results of operations. In addition, our remediation efforts may not be successful. We also may face difficulty or delay in identifying, remediating, and otherwise responding to security breaches and incidents. We cannot ensure that any limitation of liability provisions in our customer and user agreements, contracts with third-party vendors and service providers, and other contracts for a security lapse or breach or other security incident would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim. These risks may increase as we continue to grow and collect, process, store, and transmit increasingly large amounts of data.

Many governments have enacted laws requiring companies to notify individuals of data security incidents or unauthorized transfers involving certain types of personal data. Accordingly, security incidents experienced by our competitors, by our customers or by us may lead to negative publicity. Further, if a security breach or incident occurs with respect to another service provider, our customers and potential customers may lose trust in the security of software delivered through the cloud generally, which could adversely impact our ability to retain existing customers or attract new ones, which could adversely affect our business, financial condition, and results of operations.

Moreover, our insurance coverage may not be adequate for liabilities incurred or cover any indemnification claims against us relating to any security incident or breach or an insurer may deny coverage of claims. In the future, we may not be able to secure insurance for such matters on commercially reasonable terms, or at all. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could adversely affect our business, financial condition, and results of operations.

The rapidly evolving framework of privacy, data protection, data transfers, or other laws or regulations worldwide may increase our costs of compliance, subject us to claims and penalties, and limit the use and adoption of our services, any of which could adversely affect our business.

We are subject to a variety of federal, state, local, and international laws, directives, and regulations, as well as contractual obligations, relating to the collection, use, retention, security, disclosure, transfer, and other processing of personal information and other data. The regulatory framework for privacy, data protection, and data transfers worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future.

These laws could increase the cost and complexity of delivering our platform and other aspects of our operations. Complying with these laws, regulations, amendments to or re-interpretations of laws and regulations, and contractual or other actual or alleged obligations relating to privacy, data protection, data transfers, data localization, or information security may require us to make changes to our services to enable us, our data suppliers or our customers to meet new legal requirements, incur substantial operational costs, modify our data practices and policies, engage in additional contractual negotiations, and restrict our business operations.

The interpretation and enforcement of the laws and regulations described above are uncertain and subject to change, and may require substantial costs to monitor and implement compliance with current or additional requirements. Any actual or perceived failure by us to comply with these laws, regulations, or other obligations may lead to significant fines, penalties, regulatory investigations and enforcement actions, lawsuits, significant costs for remediation, damage to our reputation, or other liabilities.

In addition to government activity, privacy advocates and other industry groups have established or may establish self-regulatory standards that may place additional burdens on our ability to provide our services globally, and which we may comply with or face asserted or actual obligations to comply with. Our customers also may require or expect us to meet certain voluntary certification and other standards established by third parties. If we are unable to maintain these certifications or meet these standards, it could adversely affect our ability to provide our services to certain customers and could harm our business. Furthermore, the uncertain and shifting regulatory environment may cause concerns regarding data privacy and may cause our customers or our customers' customers to resist providing the data necessary to allow our customers to use our services effectively. Even the perception that the privacy of personal information is not satisfactorily protected or that our maintenance or processing of such information does not meet regulatory requirements could inhibit sales of our services and limit adoption of our platform.

Additionally, some statutory requirements, both in the United States and abroad, include obligations for companies to notify individuals of security breaches and incidents involving particular personal information, which could result from breaches or incidents experienced by us or our service providers. Any actual or perceived security breach or incident that we or our service providers suffer could harm our reputation and brand, expose us to potential claims, liability, and proceedings, or require us to expend significant resources on data security and in responding to any such actual or perceived breach or incident.

These laws, regulations, standards, or other obligations relating to privacy, data protection, data transfers, data localization, or information security could require us to take on more onerous obligations in our contracts, restrict our ability to store, transfer, and process data or, in some cases, impact our ability to offer our services in certain locations, to deploy our solutions, to reach current and prospective customers, or to derive insights from data globally. If we are obligated to fundamentally change our business activities and practices or modify our platform, we may be unable to make such changes and modifications in a commercially reasonable manner, or at all, and our ability to develop new platform features could be limited. The costs of compliance with, and other burdens imposed by, these laws, regulations, standards, and obligations, or any inability to adequately address privacy, data protection, or information security-related concerns, even if unfounded, may limit the use and adoption of our services, reduce overall demand for our services, make it more difficult to meet expectations from or commitments to customers, impact our reputation, or slow the pace at which we close sales transactions, any of which could harm our business, financial condition, and results of operations.

We rely on AWS to deliver our platform to our customers, and any disruption of, or interference with, our use of AWS could adversely affect our business, financial condition, and results of operations.

AWS is a third-party provider of cloud infrastructure services. We outsource substantially all of the infrastructure relating to our platform to AWS. Our customers need to be able to access our platform at any time, without interruption or degradation of performance. Our platform depends, in significant part, on the virtual cloud infrastructure hosted in AWS. Any incident affecting AWS infrastructure that may be caused by tsunamis, tornados, floods, hurricanes, other extreme or unusual weather events, earthquakes, fires, acts of war or terrorism, or other catastrophic events, power loss, telecommunications failures, cyberattacks, and other similar events beyond our control, could adversely affect our cloud-native platform. Additionally, AWS may experience threats or attacks from computer malware, ransomware, viruses, social engineering (including phishing attacks), denial of service or other attacks. Any of these security incidents could result in unauthorized access to, damage to, disablement or encryption of, use or misuse of, disclosure of, modification of, destruction of, or loss of our data or our customers' data or disrupt our ability to provide our platform or service. A prolonged AWS service disruption affecting our platform would adversely impact our ability to serve our customers and could damage our reputation with current and potential customers, expose us to liability, result in substantial costs for remediation, cause us to lose customers, or otherwise harm our business, financial condition, or results of operations. We may also incur significant costs for using alternative hosting sources or taking other actions in preparation for, or in reaction to, events that damage the AWS services we use.

Our end-user license agreement with AWS may be terminated by AWS or us with or without cause subject to at least 30 days' advance notice. Termination upon a material breach is subject to providing the breaching party prior notice and a 30-day cure period. AWS may terminate the agreement immediately upon notice if (i) our subscription has been suspended, (ii) AWS can no longer provide the services due to changes in software or other technology, or (iii) required by law or other government entities. In the event that our AWS service agreement is terminated, there is elimination of AWS services or features that we utilize, or there is damage to such facilities, we would experience interruptions in access to our platform as well as significant delays and additional expense in arranging for or creating new facilities or re-architecting our platform for deployment on a different cloud infrastructure service provider, which would adversely affect our business, financial condition, and results of operations.

Risks Related to Legal and Regulatory Matters

We have been involved, and may in the future become involved, in claims, lawsuits, government investigations, and other proceedings that could adversely affect our business, financial condition, and results of operations.

From time to time, we have been involved, and may in the future become involved, in various legal proceedings relating to matters incidental to the ordinary course of our business, including intellectual property, commercial, employment, class action, whistleblower, and other litigation and claims, and governmental and other regulatory investigations and proceedings. Any claims against us, whether meritorious or not, could be time-consuming, result in costly litigation, be harmful to our reputation, require significant management attention, and divert significant resources. In addition, the expense of litigation and the timing of this expense from period to period are difficult to estimate and subject to change. The risk of litigation may be heightened among public companies, like us, that have previously undergone a merger with a special purpose acquisition company, as well as for companies, like us, that have restated their financial statements.

Determining reserves for our pending litigation is a complex and fact-intensive process that requires significant subjective judgment and speculation. It is possible that a resolution of one or more such proceedings could result in substantial damages, settlement costs, fines, and penalties that could adversely affect our business, financial condition, and results of operations. These proceedings could also result in harm to our reputation and brand, sanctions, consent decrees, injunctions, or other orders requiring a change in our business practices. Because of the potential risks, expenses, and uncertainties of litigation, we may, from time to time, settle disputes, even where we have meritorious claims or defenses, by agreeing to settlement agreements. Any of these consequences could adversely affect our business, financial condition, and results of operations.

Our business is subject to a wide range of laws and regulations, many of which are evolving, and failure to comply with such laws and regulations could harm our business, financial condition, and results of operations.

Our business is subject to regulation by various federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing laws and regulations related to the deployment and operation of satellites, ground stations, privacy and data protection, intellectual property, investment screening, labor and employment, worker classification, product safety, anti-bribery laws, import and export controls, controlled goods laws, federal securities laws, and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than in the United States. These laws and regulations impose added costs on our business. We monitor these developments and devote a significant amount of management's time and external resources towards compliance with these laws, regulations, and guidelines, and such compliance places a significant burden on management's time and other resources, and may limit our ability to expand into certain jurisdictions.

Moreover, changes in law, the imposition of new or additional regulations, or the enactment of any new or more stringent legislation that impacts our business could require us to change the way we operate. In addition, changes in laws and regulations applicable to us, our third-party partners or our suppliers, or changes in their enforcement or regulatory interpretation could result in changes in the legal requirements affecting us (including with retroactive effect) or our partners and suppliers. Any changes in the laws and regulations to which we or our partners and suppliers are subject could adversely affect our business, financial condition and results of operations. It is impossible to predict whether there will be any future changes in the regulatory regimes to which we will be subject or the effect of any such change.

Failure to comply with these laws or regulations or failure to satisfy any criteria or other requirements under such laws or regulations, such as with respect to obtaining and maintaining licenses, certificates, authorizations, and permits critical for the operation of our business, may result in civil penalties or private lawsuits, or result in a delay or the denial, suspension, or revocation of licenses, certificates, authorizations, or permits, which would prevent us from operating our business. For example, our business requires licenses and permits from the FCC, and review by other agencies of the U.S. government. In addition, we are required to maintain similar licenses and permits in Luxembourg, Singapore and Canada, which impose regulatory and operational requirements. License approval can include an interagency review of safety, operational, radio frequency interference, national security, and foreign policy, and international obligations implications, as well as a review of foreign ownership. Further, because regulations in each country differ, we may not be aware if some of our partners or persons with whom we or our partners do business do not hold the requisite licenses and approvals.

We must also comply with laws and regulations relating to the formation, administration, and performance of contracts with the public sector, including U.S. federal governmental organizations, which affects how we do business with governmental agencies. Selling our services to the U.S. government also subjects us to certain regulatory and contractual requirements. Failure to comply with these requirements could subject us to investigations, fines, and other penalties, which would have an adverse effect on our business, financial condition, and results of operations.

The rules and regulations of U.S. and foreign authorities, and their interpretation and application, may change, and such authorities may adopt regulations that limit or restrict our operations as presently conducted or currently contemplated. Such authorities may also make changes in the licenses of our competitors that affect our spectrum. These changes in rules or regulatory policy may significantly affect our business. Application of these laws to our business may negatively impact our performance in various ways, limiting the collaborations we may pursue, further regulating the export and re-export of our services and technology from the United States and abroad, and increasing our costs and the time necessary to obtain required authorization. The adoption of a multi-layered regulatory approach to any one of the laws or regulations to which we are or may become subject, particularly where the layers are in conflict, could require alteration of our manufacturing processes or operational parameters which may adversely impact our business.

Our failure to provide services in accordance with the terms of our licenses or our failure to operate our satellites or ground stations as required by our licenses and applicable laws and government regulations could result in the imposition of government sanctions on us, including the suspension or cancellation of our licenses. Our failure or delay in obtaining the approvals required to operate in other countries would limit or delay our ability to expand our operations into those countries. Our failure to obtain industry-standard or government-required certifications for our services could compromise our ability to generate revenue and conduct our business in other countries. Any imposition of sanctions, loss of license, or failure to obtain the authorizations necessary to use our assigned radio frequency spectrum and to distribute our services in the United States or foreign jurisdictions could cause us to lose sales, hurt our reputation and impair our ability to pursue our business plan.

Noncompliance with applicable regulations or requirements could subject us to:

- investigations, enforcement actions, orders, and sanctions;
- mandatory changes to our global satellite system;
- disgorgement of profits, fines, and damages;
- civil and criminal penalties or injunctions;
- claims for damages by our customers;
- termination of contracts;
- loss of intellectual property rights; and
- temporary or permanent debarment from sales to government organizations.

The results of any such claims, lawsuits, arbitration proceedings, government investigations, or other legal or regulatory proceedings cannot be predicted with any degree of certainty. Any claims against us, whether meritorious or not, could be time-consuming, result in costly litigation, be harmful to our reputation, require significant management attention, and divert significant resources. Determining reserves for claims against us is a complex and fact-intensive process that requires significant subjective judgment and speculation, and significant adjustments to reserves may have to be made in subsequent periods. It is possible that a resolution of one or more such proceedings could result in substantial damages, settlement costs, fines, and penalties that could adversely affect our business, financial condition, and results of operations. These proceedings could also result in harm to our reputation and brand, sanctions, consent decrees, injunctions, or other orders requiring a change in our business practices. Any of these consequences could adversely affect our business, financial condition, and results of operations. Further, under certain circumstances, we have contractual and other legal obligations to indemnify and to incur legal expenses on behalf of our business and commercial partners and current and former directors and officers.

Further, a temporary or permanent debarment by the U.S. federal government could have a negative impact on our ability to obtain contracts with agencies of U.S. states and localities as well as with non-U.S. public sector customers, some of which are required to report any suspension or debarment when submitting a proposal.

Our ability to obtain or maintain licensing authorization for our platform is subject to government rules and processes which can cause delays or failures in obtaining authorizations requested. Further, regulators may adopt new rules and regulations which could impose new requirements impacting our business, financial condition, and results of operations. If we do not maintain regulatory authorizations for our existing satellites, associated ground facilities and terminals, and services we provide, or obtain authorizations for our future satellites, associated ground facilities and terminals, and services we provide, we may not be able to operate our existing satellites or expand our operations.

If we fail to obtain or maintain particular authorizations for any of the required licenses for our ground stations, satellite launches, satellite constellations, or for our ability to uplink or downlink satellite data on acceptable terms, such failure could delay or prevent us from offering some or all of our services, including subscription services and project-based services, which could adversely affect our business, financial condition, and results of operations.

We may not be able to obtain all of the required regulatory authorizations for the construction, launch, and operation of any of our future satellites or export or import of data. Even if we can obtain the necessary authorizations and licenses, they may impose significant operational restrictions, or not protect us from interference that could affect the use of our satellites. Our ability to secure all requisite governmental approvals is not assured, and the process of obtaining governmental authorizations and licenses can be time consuming, time sensitive, and require compliance with a wide array of administrative and procedural rules. Any failure to obtain required approvals could compromise our ability to generate revenue or conduct our business in one or more countries.

We hold FCC and foreign governmental licensing authority licenses, permits, and approvals for our satellite constellations and earth stations. As we build out our satellite constellation, we will require new licenses, permits, or approvals from the FCC and/or foreign governmental licensing authorities or modifications to existing licenses, permits, or approvals. Changes to our satellite constellation and earth stations may also require prior approval from the FCC or other governmental authorities. These modifications or changes may take time; for example, the FCC typically processes satellite applications for new orbital locations or frequencies on a first come, first served basis. From time to time, we may have pending applications for permanent or temporary changes in frequencies and technical design, and we have filed or will need to file applications to replace or add satellites to our satellite constellation. These licenses, permits, and approvals are also subject to modification by the FCC and foreign government licensing authorities. In addition, our licenses, permits, and approvals require coordination with various entities, including other federal government agencies. There can be no assurance that the FCC or foreign governmental licensing authorities will renew the licenses we hold, modify the licenses we currently hold, or grant new licenses, or that coordination conditions can continue to be met. If the FCC or a foreign governmental licensing authority revokes, modifies or fails to renew the licenses we hold, or fails to grant a new license or modification, or if we fail to satisfy any of the conditions of our licenses, we may not be able to continue to provide our services.

In some cases, we rely upon partners or persons with whom we do business to obtain and maintain required non-U.S. regulatory approvals. However, if we or our partners do not maintain the authorizations necessary to operate our platform, we will not be able to operate the satellites covered by those authorizations, unless we obtain authorization from another licensing jurisdiction. In addition, some of our authorizations provide waivers of regulations. If we do not maintain these waivers, we will be subject to operational restrictions or interference that will affect our use of existing satellites. Loss of a satellite authorization could cause us to lose the revenue from services provided by that satellite at a particular orbital location or using a particular frequency band, to the extent these services cannot be provided by satellites at other orbital locations or with a different frequency band.

Our launches and operation of our platform may require additional regulatory authorizations from the FCC or a non-U.S. licensing jurisdiction. Obtaining launch windows for planned satellites and ground stations, preparing for launch, and working with the requisite equipment in foreign jurisdictions may require coordination with U.S. and foreign regulators. If any of our current operations are deemed not to be in compliance with applicable regulatory requirements, we may be subject to various sanctions, including fines, loss of authorizations, or denial of applications for new authorizations or renewal of existing authorizations. It is not uncommon for licenses for new satellites or additional operational parameters to be granted just prior to launch, which may result in unanticipated expenses or delays. If we do not obtain required authorizations in the future, we will not be able to operate our planned satellites. If we obtain a required authorization but we do not receive customer acceptance of project-based deliverables regarding the construction, launch, and operation of a satellite by deadlines that may be established in the authorization, we may lose our authorization to operate a satellite using certain frequencies in an orbital location. Any authorizations we may obtain may also impose operational restrictions or permit interference that could affect our use of planned satellites.

Countries or their regulatory authorities, or the International Telecommunication Union ("ITU"), a specialized technical agency of the United Nations, may adopt new laws, policies, or regulations, or change their interpretation of existing laws, policies, or regulations, that could cause our existing authorizations and the frequency allocations that we rely on for use of our satellites to be changed or cancelled, require us to incur additional costs, impose or change existing price ceilings, or otherwise adversely affect our operations or revenues. As a result, any currently held regulatory authorizations and licenses are subject to rescission and renewal and may not remain sufficient or additional authorizations may be necessary that we may not be able to obtain on a timely basis or on terms that are not unduly burdensome. There is no guarantee that such licenses will be renewed.

Further, because the regulatory schemes vary by country, we may be subject to regulations in foreign countries of which we are not presently aware that we are not in compliance with, and as a result could be subject to sanctions by a foreign government.

We are dependent on the availability and unimpaired use of allocated bands within the radio frequency spectrum and failure to secure spectrum use rights to support our operations and future technological development could impede our growth. Further, our platform may be subject to harmful interference from new or modified spectrum uses.

Our platform is dependent on the use of satellite signals and on terrestrial communication bands. International allocations of radio frequency are made by the ITU. These allocations are further governed by radio regulations that have treaty status and which may be subject to modification every three to four years by the World Radiocommunication Conference. Each country also has regulatory authority over how each band is used in the country. In the United States, the FCC and the National Telecommunications and Information Administration share responsibility for radio frequency allocations and spectrum usage regulations.

Any ITU or local reallocation of radio frequency bands, including frequency band segmentation and sharing of spectrum, or other modifications of the permitted uses of relevant frequency bands, may materially and adversely affect the utility and reliability of our platform and have significant negative impacts on our customers, both of which could reduce demand for our platform. We are licensed to uplink and downlink our data over certain bands. Other countries have considered proposals for use of frequencies used by our platform as well as adjacent bands that could cause harmful interference to our platform.

Our platform also uses other radio frequency bands, such as the GPS and Galileo frequencies, together with the GNSS signal, to provide enhanced GNSS capabilities, such as near real-time kinematics precision. The continuing availability of these non-GNSS radio frequencies is essential to provide enhanced GNSS products to our commercial and government markets. In addition, transmissions and emissions from other services and equipment operating in adjacent frequency bands or in-band may impair the utility and reliability of our platform. Any regulatory changes in spectrum allocation or in allowable operating conditions could have a material adverse effect on our business, financial condition, and results of operations.

We are subject to domestic and international governmental export and import controls that would impair our ability to compete in international markets or subject us to liability if we are not in compliance with applicable laws or if we do not secure or maintain the required export authorizations.

In many cases, our services are or may in the future be subject to U.S. export control laws and regulations including the EAR and ITAR, and subject to trade and economic sanctions maintained by OFAC. We are also subject to export control and trade sanctions laws and regulations in other jurisdictions in which we operate. As such, an export license may be required to export or re-export our technology and services to certain countries or end-users, or for certain end-uses. If we were to fail to comply with such U.S. export controls laws and regulations, U.S. economic sanctions, or other similar laws or regulations in other jurisdictions, we could be subject to both civil and criminal penalties, including substantial fines, possible incarceration for employees and managers for willful violations, and the possible loss of our export or import privileges. Compliance with the EAR, ITAR, and other applicable regulatory requirements regarding the export of our services, including new releases and/or the performance of services, may create delays in the introduction of our services in non-U.S. markets, prevent our customers with non-U.S. operations from deploying these services throughout their global systems or, in some cases, prevent the export of the services to some countries altogether.

Obtaining the necessary export license for a particular sale or offering may not be possible, may be time-consuming, and may result in the delay or loss of sales opportunities. We have failed, and could in the future fail, to secure or maintain at all times all required export authorizations, which could have negative consequences on our business, including reputational harm, government investigations and civil and criminal penalties. Additionally, monitoring and ensuring compliance with these complex export control laws, regulations and sanctions is particularly challenging because our offerings are widely distributed throughout the world. A failure by us or our partners to comply with all relevant export laws and regulations could have negative consequences for us, including reputational harm, government investigations and penalties.

Changes in domestic or international export or import laws or regulations, economic sanctions, or related legislation, shifts in the enforcement or scope of existing export, import, or sanctions laws or regulations, or changes in the countries, governments, persons, or technologies targeted by such export, import, or sanctions laws or regulations, could result in decreased use of our platform by, or in our decreased ability to export or sell access to our platform to, existing or potential end-customers with international operations. A decreased use of our platform or limitation on our ability to export to or sell access to our platform in international markets could adversely affect our business, financial condition, and results of operations.

We are subject to anti-corruption, anti-bribery, anti-money laundering, and similar laws, and non-compliance with such laws can subject us to criminal penalties or significant fines, harm our reputation, and adversely affect our business, financial condition, results of operations, and growth prospects.

We are subject to the FCPA, the UK Bribery Act, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, and other anti-corruption, anti-bribery, and anti-money laundering laws and regulations in the jurisdictions in which we have offices or do business, both domestic and abroad. These laws and regulations generally prohibit companies and their employees, business partners, third-party intermediaries, representatives, and agents from authorizing, offering, or providing, directly or indirectly, improper payments to government officials, political candidates, political parties, or commercial partners for the purpose of obtaining or retaining business or securing an improper business advantage.

We have interactions with foreign officials, including in furtherance of sales to governmental entities in the United States and in non-U.S. countries. We sometimes leverage third parties to conduct our business abroad, and our third-party business partners, representatives, and agents may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We may be held liable for the corrupt or other illegal activities of our employees or these third parties, even if we do not explicitly authorize such activities. The FCPA and other applicable laws and regulations also require that we keep accurate books and records and maintain internal controls and compliance procedures designed to prevent any such actions. We cannot assure you that all of our employees, business partners, third-party intermediaries, representatives,

and agents will not take actions in violation of our policies and applicable law, for which we may be ultimately held responsible. Our exposure for violating these laws increases as our international presence expands and as we increase sales and operations in foreign jurisdictions.

A violation of the FCPA, the UK Bribery Act or other applicable anti-bribery, anti-corruption laws, and anti-money laundering laws could result in whistleblower complaints, adverse media coverage, investigations, loss of export privileges, severe criminal or civil sanctions, settlements, prosecution, enforcement actions, fines, damages, or suspension or debarment from government contracts, any of which could adversely affect our reputation, business, stock price, financial condition, results of operations, and growth prospects. In addition, responding to an investigation or action will likely result in a significant diversion of management's attention and resources and significant defense costs and other professional fees.

Domestic and international tax laws and regulations, and changes to such tax laws and regulations, could adversely affect our business, financial condition, and results of operations.

Regulatory or legislative developments may arise that could change U.S. federal, state or foreign tax laws, which, if adopted, could result in increased taxation of our business operations. There is uncertainty regarding what changes, if any, will be enacted and the effect on our business and financial results.

As we expand the scale of our international business activities, U.S. or foreign taxation of such activities may increase our worldwide effective tax rate and harm our business, financial condition, and results of operations.

Our international operations subject us to potentially adverse tax consequences. We generally conduct our international operations through subsidiaries and report our taxable income in various jurisdictions worldwide based upon our business operations in those jurisdictions. Our intercompany relationships are subject to complex transfer pricing regulations administered by taxing authorities in various jurisdictions. The relevant taxing authorities may disagree with our determinations as to the value of assets sold or acquired or income and expenses attributable to specific jurisdictions. If such a disagreement were to occur, and our position was not sustained, we could be required to pay additional taxes, interest, and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows, and lower overall profitability of our operations.

There is also a high level of uncertainty in today's tax environment stemming from both global initiatives put forth by the Organization for Economic Co-operation and Development, and unilateral measures being implemented by various countries due to a lack of consensus on these global initiatives. Unilateral measures such as digital services taxes and corresponding tariffs in response to such measures are creating additional uncertainty. If these proposals are passed, it is likely that we will have to pay higher income taxes in countries where such rules are applicable.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes to offset future taxable income may be limited.

As of December 31, 2023, we had \$248.7 million of federal and \$81.7 million of state net operating loss carryforwards ("Net Operating Losses"), available to reduce future taxable income. Of the approximately \$248.7 million in U.S. federal Net Operating Losses, approximately \$166.2 million will be carried forward indefinitely for U.S. federal tax purposes and approximately \$82.5 million will begin to expire in 2032. Our \$81.7 million of state Net Operating Losses will expire in various tax years beginning in 2027. It is possible that we will not generate taxable income in time to use Net Operating Losses before their expiration, or at all.

In addition, our federal and state Net Operating Losses and certain tax attributes may be subject to significant limitations under Section 382 and Section 383, respectively, of the Internal Revenue Code of 1986, as amended (the "Code"), and similar provisions under state law. In general, under those sections of the Code, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, including research and development tax credits and interest expense limitation carryforwards, to offset its post-change income or tax liability may be limited. In general, an "ownership change" will occur if there is a cumulative change in our ownership by "5-percent stockholders" that exceeds 50 percentage points over a rolling three-year period. Future changes in our stock ownership, which may be outside of our control, may trigger an ownership change. Similar provisions of state tax law may also apply to limit our use of our accumulated state tax attributes. As a result, even if we earn net taxable income in the future, our ability to use our or Legacy Spire's Net Operating Losses and other tax attributes to offset such taxable income or tax liability may be subject to limitations, which could potentially adversely affect our cash flows and result in increased future income tax liability.

The Tax Act, as amended by the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), among other things, includes changes to U.S. federal tax rates and the rules governing Net Operating Losses. For Net Operating Losses arising in tax years beginning after December 31, 2017, the Tax Act, limits a taxpayer's ability to utilize Net Operating Losses to 80% of taxable income (as calculated before taking the Net Operating Losses, and certain other tax attributes, into account). Net Operating Losses arising in tax years beginning after December 31, 2017 can be carried forward indefinitely. Net Operating Losses generated in tax years beginning before January 1, 2018 will not be subject to the taxable income limitation and will continue to have a two-year carryback and twenty-year carryforward period.

There is also a risk that due to federal or state regulatory changes, such as suspensions on the use of Net Operating Losses, tax credits or other tax attributes, possibly with retroactive effect, or other unforeseen reasons, our existing Net Operating Losses, tax credits or other tax attributes could expire or otherwise be unavailable to offset future income tax liabilities.

Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, value added, or similar taxes, and any such assessments could adversely affect our business, financial condition, and results of operations.

We do not collect sales and use, value added, and similar taxes in all jurisdictions in which we have sales, based on our belief that such taxes are not applicable. Sales and use, value added, and similar tax laws and rates vary greatly by jurisdiction. Certain jurisdictions in which we do not collect such taxes may assert that such taxes are applicable, which could result in tax assessments, penalties, and interest, and we may be required to collect such taxes in the future. Such tax assessments, penalties, interest, or future requirements could adversely affect our financial condition and results of operations.

Risks Relating to Financial and Accounting Matters

Our current insurance does not protect us against all satellite-related losses that we may experience.

Our business is subject to a number of risks and hazards, including adverse conditions. Such occurrences could result in damage to equipment, personal injury or death, monetary losses, and possible legal liability. In addition, changes in the regulatory environment could impose additional insurance requirements on satellite operators. Despite any insurance coverage which we currently have or may secure in the future, the nature of these risks is such that liabilities might exceed policy limits, the liabilities and hazards might not be insurable, or we may elect not to insure against such liabilities due to high premium costs or other reasons, in which event we could incur significant costs that could have a material adverse effect on our financial position.

Our current insurance does not protect us against all satellite-related losses that we may experience. Our insurance does not protect us against business interruption, loss of revenues, or delay of revenues. In addition, we only carry third-party liability insurance outside of the United States. Our existing third-party liability, launch, and in-orbit insurance policies may include, and any future policies that we may obtain may include, specified exclusions, deductibles and material change limitations. Typically, these insurance policies exclude coverage for damage or losses arising from acts of war, anti-satellite devices, electromagnetic or radio frequency interference, and other similar potential risks for which exclusions are customary in the industry at the time the policy is written. In addition, they typically exclude coverage for satellite health-related problems affecting our satellites that are known at the time the policy is written or renewed. Any claims under existing policies are subject to settlement with the insurers.

The price, terms, and availability of satellite insurance has increased significantly in recent years. Launch and in-orbit policies on satellites may not continue to be available on commercially reasonable terms or at all, or we may determine that it is not in our interest to purchase insurance in certain circumstances. To the extent we experience a launch or in-orbit failure that is not fully insured or not insured at all, such failure could harm our financial position. In addition, higher premiums on insurance policies increase costs, thereby reducing our available cash. In addition to higher premiums, insurance policies may provide for higher deductibles, shorter coverage periods, higher loss percentages required for constructive total loss claims and additional satellite health-related policy exclusions. If we experience significant uninsured losses, such events could have a material adverse impact on our business, financial condition, and results of operations.

We face fluctuations in currency exchange rates, which could adversely affect our financial condition and results of operations.

We are subject to fluctuations in currency exchange rates, and as we continue to expand internationally, we will become more exposed to such fluctuations. A portion of our operating expenses are incurred outside of the United States and denominated in foreign currencies. The fluctuations in currency exchange rates could increase the cost of expenses such as payroll, utilities, tax, and marketing expenses, as well as overseas capital expenditures. As we continue our international expansion, increased international sales may result in foreign currency denominated sales, increasing our foreign currency risk. Moreover, this continued expansion will increase operating expenses incurred outside the United States and denominated in foreign currencies. To date, we have not entered into any hedging transactions in an effort to reduce our exposure to foreign currency exchange risk. While we may decide to enter into hedging transactions in the future, the availability and effectiveness of these hedging transactions may be limited, and we may not be able to successfully hedge our exposure, which would adversely affect our business, financial condition, and results of operations.

Material impairments in the carrying value of our goodwill would negatively affect our operating results.

Goodwill represents a significant portion of our assets. As of December 31, 2023, we had \$51.2 million in goodwill, which resulted from our acquisition activity and represents the excess of the consideration transferred over the fair value of the net assets acquired. We assess at least annually whether events or changes in circumstances indicate that the carrying value of our goodwill assets may not be recoverable. If our market capitalization continues to decline, and if macroeconomic conditions worsen, our reporting unit may be at risk for future goodwill impairments. Any write-off of a material portion of our goodwill would negatively affect our results of operations.

Our results of operations may be adversely affected by changes in accounting principles applicable to us.

GAAP is subject to interpretation by the Financial Accounting Standards Board, the SEC, and other various bodies formed to promulgate and interpret appropriate accounting principles. Changes in accounting principles applicable to us, or varying interpretations of current accounting principles, in particular, with respect to revenue recognition of our solutions, could have a significant effect on our reported results of operations. Further, any difficulties in the implementation of changes in accounting principles, including the ability to modify our accounting systems, could cause us to fail to meet our financial reporting obligations and/or lead to a determination of ineffective controls, which could result in regulatory discipline and harm investors' confidence in us.

Our estimates and judgments relating to our critical accounting policies may be based on assumptions that change or prove to be incorrect, which could cause our results of operations to fall below expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as described in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations," but the estimates and assumptions involve significant subjectivity and judgment. Our estimates and judgments relating to our critical accounting policies may be based on assumptions that change or prove to be incorrect, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

Our failure to maintain an effective system of disclosure controls and internal control over financial reporting could impair our ability to produce timely and accurate financial statements or comply with applicable regulations.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), and the listing standards of the New York Stock Exchange ("NYSE"). Section 404(a) of the Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are required to provide an annual management report on the effectiveness of our internal controls over financial reporting. The standards required for a public company under Section 404(a) are significantly more stringent than those that were required of us as a privately-held company. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we will file with the SEC is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. We are also continuing to improve our internal control over financial reporting. We have expended and anticipate that we will continue to expend resources in order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting.

Our current controls and any new controls that we develop may become inadequate because of changes in the conditions in our business, including increased complexity resulting from any international expansion. Further, weaknesses in our disclosure controls and our internal control over financial reporting have been identified, and others may be discovered in the future. Our management may not be able to effectively and timely implement controls and procedures that adequately respond to the increased regulatory compliance and reporting requirements. Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our results of operations or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods, such as the restatements of our financial statements for the periods ended September 30, 2021, December 31, 2021, March 31, 2022 and June 30, 2022. Any failure to implement and maintain effective internal control over financial reporting in a timely manner or with adequate compliance could also adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we will eventually be required to include in our periodic reports that will be filed with the SEC. Ineffective disclosure controls and procedures and internal control over financial reporting could also have a material adverse effect on our business and cause investors to lose confidence in our reported financial and other information, which would likely adversely affect the market price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the NYSE.

We have identified material weaknesses in our internal control over financial reporting. If we are unable to remediate these material weaknesses, or if we identify additional material weaknesses in the future or otherwise fail to maintain effective internal control over financial reporting or disclosure controls and procedures, it may result in material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations, which may adversely affect our business, financial condition, and results of operations.

We have identified material weaknesses in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. These material weaknesses are as follows:

We did not design and maintain an effective control environment commensurate with the financial reporting requirements of a public company. Specifically, we lacked a sufficient number of professionals with an appropriate level of internal controls and accounting knowledge, training, and experience to appropriately analyze, record and disclose accounting matters timely and accurately. Additionally, the lack of a sufficient number of professionals resulted in an inability to consistently establish appropriate authorities and responsibilities in pursuit of our financial reporting objectives, as demonstrated by, amongst other things, insufficient segregation of duties in our finance and accounting functions. This material weakness contributed to the following additional material weaknesses:

- i. We did not design and maintain an effective risk assessment process at a precise enough level to identify new and evolving risks of material misstatement in our financial statements. Specifically, changes to existing controls or the implementation of new controls have not been sufficient to respond to changes to the risks of material misstatement in the financial statements;
- ii. We did not design and maintain effective controls over the segregation of duties related to journal entries and account reconciliations. Specifically, certain personnel have the ability to both (a) create and post journal entries within our general ledger system, and (b) prepare and review account reconciliations;

The material weaknesses above resulted in certain immaterial audit adjustments, which were recorded prior to the issuance of the consolidated financial statements as of and for the year ended December 31, 2020. Additionally, these material weaknesses could result in a misstatement of substantially all of our accounts or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

- iii. We did not design and maintain effective controls related to the identification of and accounting for certain non-routine, unusual or complex transactions, including the proper application of GAAP to such transactions. Specifically, we did not design and maintain:
 - a. controls to timely identify and account for warrant instruments, which resulted in the restatement of the previously issued financial statements of NavSight related to adjustments to warrant liabilities and equity;
 - b. controls to account for business combinations, including the associated valuation estimates and the completeness and accuracy of the opening balance sheet, which did not result in a misstatement to our consolidated financial statements;
 - c. controls to timely identify and account for the fair value of the contingent earnout liability, which resulted in an error in the fair value of the contingent earnout liability in, and the restatement of, our previously issued unaudited condensed consolidated financial statements as of and for each of the interim periods ended September 30, 2021, March 31, 2022 and June 30, 2022 and our consolidated financial statements as of and for the year ended December 31, 2021.

Additionally, these material weaknesses could result in a misstatement of substantially all of our accounts or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

- iv. We did not design and maintain effective controls over certain information technology general controls for information systems that are relevant to the preparation of our financial statements. Specifically, we did not design and maintain:
 - a. user access controls to ensure appropriate segregation of duties and that adequately restrict user and privileged access to financial applications, programs, and data to appropriate company personnel;
 - b. program change management controls for our financial systems to ensure that IT program and data changes affecting financial IT applications and underlying accounting records are identified, tested, authorized, and implemented appropriately; and
 - c. testing and approval controls for program development to ensure that new software development is aligned with business and IT requirements.

These IT deficiencies did not result in a misstatement to the financial statements; however, the deficiencies, when aggregated, could impact our ability to maintain effective segregation of duties, as well as the effectiveness of IT-dependent controls (such as automated controls that address the risk of material misstatement to one or more assertions, along with the IT controls and underlying data that support the effectiveness of system-generated data and reports) that could result in misstatements potentially impacting all financial statement accounts and disclosures that would result in a material misstatement to the annual or interim financial statements that would not be prevented or detected. Accordingly, management has determined these deficiencies in the aggregate constitute a material weakness.

We are taking certain measures to remediate these material weaknesses described above as described in Part II, Item 9A of this Annual Report on Form 10-K, however such material weaknesses had not been remediated as of December 31, 2023.

While these actions and planned actions are subject to ongoing management evaluation and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period, we are committed to continuous improvement and will continue to diligently review our internal control over financial reporting. The material weaknesses will not be considered remediated until management completes the design and implementation of the measures described above and the controls operate for a sufficient period of time and management has concluded, through testing, that these controls are effective. In addition, due to the material weaknesses in internal control over financial reporting, we have also determined that our disclosure controls and procedures were ineffective as of December 31, 2023.

We are working to remediate the material weaknesses as efficiently and effectively as possible, but there can be no assurance as to when the material weaknesses will be remediated. At this time, we cannot provide an estimate of costs expected to be incurred in connection with implementing this remediation plan; however, these remediation measures will be time consuming, will result in us incurring significant costs, and will place significant demands on our financial and operational resources.

We cannot assure that the measures we have taken to date and may take in the future, will be sufficient to remediate the control deficiencies that led to our material weaknesses in internal control over financial reporting or that they will prevent or avoid potential future material weaknesses to be identified in the future. The effectiveness of our internal control over financial reporting is subject to various inherent limitations, including cost limitations, judgments used in decision making, assumptions about the likelihood of future events, the possibility of human error and the risk of fraud. Any failure to design, implement and maintain effective internal control over financial reporting and effective disclosure controls and procedures, or any difficulties encountered in their implementation or improvement, may result in additional material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations, which may adversely affect our business, financial condition and results of operations.

Our metrics and estimates, used to evaluate our performance and to make results of operations projections, rely in large part upon assumptions and analyses developed by us, and are subject to inherent challenges in measurement. Any real or perceived inaccuracies in those estimates may harm our reputation and negatively affect our business.

We regularly review and may adjust our processes for calculating our metrics and estimates used to make projections about our results of operations, evaluate our growth, measure our performance, and make strategic decisions. Our analysis is based on data such as: renewal and upsell rates, number of new customers, average selling prices, sales pipeline analysis, sales quota targets and expected achievement, bookings, billings, number of satellites to be built and launched, number of ground stations to be built and put into service, headcount that is required to support the business, and non-headcount spending that is required to support the business. These metrics are calculated using internal company data and have not been evaluated by a third party, and our estimates are inherently subject to assumptions and forward-looking projections. Our metrics and estimates may differ from estimates published by third parties or from similarly titled metrics of our competitors due to differences in methodology or the assumptions on which we rely. While we believe our assumptions and the data underlying our metrics and estimates are reasonable, these metrics and estimates may not be accurate and the conditions supporting our metrics and estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors. For example, our metrics and estimates of the total addressable market, as well as the expected growth rate for the total addressable market, may prove to be inaccurate. Even if the markets in which we compete achieve the size estimates and growth we have forecasted, our business could fail to grow at similar rates, if at all. If securities analysts or investors do not consider our metrics or estimates to be accurate representations of our business, or if we discover material inaccuracies in our metrics or estimates, then the market price of our Class A common stock could decline, our reputation and brand could be harmed, our actual results might diverge from our results of operations projections, and our business, financial condition, and results of operations could be adversely affected.

We have substantial indebtedness under our credit facility and our obligations thereunder may limit our operational flexibility or otherwise adversely affect our financial condition.

As of December 31, 2023, we had \$115.5 million outstanding under our financing agreement (the "Blue Torch Financing Agreement") that we entered into with Blue Torch Finance LLC in June 2022, which matures on June 13, 2026. There can be no assurance that we will be able to repay this indebtedness when due, or that we will be able to refinance this indebtedness on acceptable terms or at all.

Our indebtedness could adversely impact our business. For example, these obligations could, among other things:

- make it difficult for us to pay other obligations;
- increase our cost of borrowing from other sources;
- make it difficult to obtain favorable terms for any necessary future financing for working capital, capital expenditures, investments, acquisitions, debt service requirements, or other purposes;
- restrict us from making acquisitions or cause us to make divestitures or similar transactions;
- adversely affect our liquidity and result in a material adverse effect on our financial condition upon repayment of the indebtedness;
- require us to dedicate a substantial portion of our cash flow from operations to service and repayment of the indebtedness, reducing the amount of cash flow available for other purposes;
- limit our ability to hire or properly support our infrastructure which could have an adverse impact on revenue, margins and overall financial performance;
- increase our vulnerability to adverse economic conditions, including increased interest rates;
- place us at a competitive disadvantage compared to our less leveraged competitors; and
- limit our flexibility in planning for and reacting to changes in our business.

Restrictions imposed by our outstanding indebtedness and any future indebtedness may limit our ability to operate our business and to finance our future operations or capital needs or to engage in acquisitions or other business activities necessary to achieve growth.

The terms of the Blue Torch Financing Agreement restrict us from engaging in specified types of transactions. These covenants restrict our ability to, among other things:

- incur additional indebtedness;
- create or incur liens;
- engage in consolidations, amalgamations, mergers, liquidations, dissolutions or dispositions;
- sell, transfer or otherwise dispose of assets;
- pay dividends and distributions on, or purchase, redeem, defease, or otherwise acquire or retire for value, our capital stock;
- make acquisitions, investments, loans (including guarantees), advances, or capital contributions; and
- engage in certain intercompany transactions and other transactions with affiliates.

In addition, the Blue Torch Financing Agreement requires that we comply with certain financial covenants. We cannot guarantee that we will be able to maintain compliance with these various covenants or, if we fail to do so, that we will be able to obtain waivers from the lenders and/or amend the covenants. Even if we comply with all of the applicable covenants, the restrictions on the conduct of our business could adversely affect our business by, among other things, limiting our ability to take advantage of financing opportunities, mergers, acquisitions, investments, and other corporate opportunities that may be beneficial to our business.

A change in control or a breach of any of the covenants in the Blue Torch Financing Agreement could result in an event of default, which, if not cured or waived, could trigger acceleration of our indebtedness and an increase in the interest rates applicable to such indebtedness. This may result in the acceleration of, or default under, any other debt we may incur in the future to which a cross-acceleration or cross-default provision applies. The acceleration of the indebtedness under our credit agreements or under any other indebtedness could have a material adverse effect on our business, results of operations, and financial condition. In the event of any default under our existing or future credit facilities, the applicable lenders could elect to terminate borrowing commitments and declare all borrowings and loans outstanding, together with accrued and unpaid interest and any fees and other obligations, to be due and payable. In addition, our obligations under the Blue Torch Financing Agreement are secured by a security interest in substantially all of our assets. During the existence of an event of default under the Blue Torch Financing Agreement, the lenders could exercise their rights and remedies thereunder, including by way of initiating foreclosure proceedings against any assets constituting collateral for our obligations under such credit facility.

We may be unable to generate sufficient cash flow to satisfy our significant debt service obligations, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our ability to make scheduled payments on or to refinance our debt obligations depends on our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory, and other factors beyond our control. We may not be able to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and/or interest on our indebtedness. If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay investments, acquisitions, capital expenditures, and payments on account of other obligations, seek additional capital, restructure or refinance our indebtedness, or sell assets. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations. Our ability to restructure or refinance our debt will depend on the condition of the capital markets and our financial condition at such time. Any refinancing of our debt could be at higher interest rates and could require us to comply with more onerous covenants, which could further restrict our business operations. In addition, we cannot assure you that we will be able to refinance any of our indebtedness on commercially reasonable terms, or at all.

If we are at any point unable to repay or otherwise refinance our indebtedness when due, or if any other event of default (including as a result of our failure to comply with any of our affirmative or negative covenants) is not cured or waived, the applicable lenders could accelerate our outstanding obligations or proceed against the collateral granted to them to secure that indebtedness, which could force us into bankruptcy or liquidation. In the event the applicable lenders accelerate the repayment of our borrowings, we and our subsidiaries may not have sufficient assets to repay that indebtedness. Any acceleration of amounts due under the agreements governing our credit facility or the exercise by the applicable lenders of their rights under the security documents would likely have a material adverse effect on our business.

Risks Related to Our Common Stock

Delaware law and our certificate of incorporation and bylaws contain certain provisions, including anti-takeover provisions, that limit the ability of stockholders to take certain actions and could delay or discourage takeover attempts that stockholders may consider favorable.

Our certificate of incorporation and bylaws contain provisions that could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors and therefore depress the trading price of our Class A common stock. These provisions could also make it difficult for stockholders to take certain actions, including electing directors who are not nominated by the current members of our board of directors or taking other corporate actions, including effecting changes in our management. Among other things, our certificate of incorporation and bylaws include provisions regarding:

- a dual-class common stock structure, which provides our founders, Peter Platzer, Theresa Condor, Joel Spark and Jeroen Cappaert ("Legacy Spire Founders"), with the ability to determine or significantly influence the outcome of matters requiring stockholder approval, even if they own significantly less than a majority of the shares of outstanding common stock;
- our board of directors is classified into three classes of directors with staggered three-year terms and directors are only able to be removed from office for cause;
- authorizing "blank check" preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend, and other rights superior to our common stock;
- limiting the liability of, and providing indemnification to, our directors and officers;
- prohibiting cumulative voting in the election of directors;
- providing that vacancies on our board of directors may only be filled by a majority of directors then in office, even though less than a quorum;
- prohibiting the ability of our stockholders to call special meetings;

- establishing an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors; and
- specifying that special meetings of our stockholders can be called only by a majority of our board of directors, the chairperson of our board of directors, or our president.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (the “DGCL”), which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder.

Our bylaws provide, subject to limited exceptions, that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders’ ability to obtain a chosen judicial forum for disputes with us or our directors, officers, employees, or stockholders.

Our bylaws require, to the fullest extent permitted by law, that the sole and exclusive forum for any derivative actions brought in our name, actions against directors, officers, and employees for breach of fiduciary duty, actions arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws, and actions asserting a claim governed by the internal affairs doctrine is the Court of Chancery in the State of Delaware or, if that court does not have jurisdiction, the federal district court for the District of Delaware. In addition, our bylaws provide that the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act of 1933, as amended (the “Securities Act”) in connection with any offering of our securities. Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to the forum provisions in our bylaws.

These choice of forum provisions may limit a stockholder’s ability to bring a claim in a judicial forum of its choosing for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provisions contained in our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, financial condition, and results of operations.

The dual class structure of our common stock has the effect of concentrating voting power with the Legacy Spire Founders, which will limit an investor’s ability to influence the outcome of important transactions, including a change in control. Additionally, two of the Legacy Spire Founders, Peter Platzer and Theresa Condor, are husband and wife, which may further concentrate the influence of the Legacy Spire Founders and further limit an investor’s ability to influence the Company.

The dual class structure of our common stock has the effect of concentrating voting power with the Legacy Spire Founders, which will limit your ability to influence the outcome of matters submitted to our stockholders for approval, including the election of our board of directors, the adoption of amendments to our certificate of incorporation and bylaws, and the approval of any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction. Our Class A common stock has one vote per share and our Class B common stock that is held only by our Legacy Spire Founders has nine votes per share. Accordingly, the Class B common stock held by the Legacy Spire Founders represents approximately 39.1% of the voting power of our outstanding capital stock in the aggregate as of December 31, 2023. Additionally, the Class A common stock and Class B common stock held by two of the Legacy Spire Founders, Peter Platzer and Theresa Condor, who are husband and wife, represents approximately 30.4% of the voting power of our outstanding capital stock in the aggregate as of December 31, 2023. As a result, Peter Platzer and Theresa Condor and the other Legacy Spire Founders will be able to determine or significantly influence any action requiring the approval of our stockholders, including the election of our board of directors, the adoption of amendments to our certificate of incorporation and bylaws, and the approval of any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction. The Legacy Spire Founders may have interests that differ from yours and may vote in a way with which you disagree, and which may be adverse to your interests. This concentrated control may have the effect of delaying, preventing, or deterring a change in control, could deprive our stockholders of an opportunity to receive a premium for their capital stock as part of a sale of the Company, and might ultimately affect the market price of our Class A common stock. Further, the separation between voting power and economic interests could cause conflicts of interest between the Legacy Spire Founders and our other stockholders, which may result in the Legacy Spire Founders undertaking, or causing us to undertake, actions that would be desirable for themselves but would not be desirable for our other stockholders. The numbers of shares and percentage interests set forth above assume that there are no future exercises of the warrants.

Future transfers by the holders of our Class B common stock will generally result in those shares automatically transferring to us for no consideration, subject to limited exceptions, such as certain transfers effected for estate planning or other transfers among the Legacy Spire Founders and their family members.

In addition, each share of our Class B common stock will automatically be transferred to us for no consideration upon the following events: (i) on the affirmative written election of such holder to transfer such share of our Class B common stock to us, or if later, at the time or the happening of a future event specified in such written election (which election may be revoked by such holder prior to the date on which the automatic transfer to us would otherwise occur unless otherwise specified by such holder); (ii) the date fixed by our board of directors that is no less than 61 days and no more than 180 days following the first time after 11:59 p.m. Eastern Time on the Closing Date that both (a) such Legacy Spire Founder is no longer providing services to us as an officer, employee, or consultant and (b) such Legacy Spire Founder is no longer a director of the Company; (iii) the date fixed by our board of directors that is no less than 61 days and no more than 180 days following the date that such Legacy Spire Founder’s employment with us is terminated for cause (as defined in our certificate of incorporation); and (iv) upon the death or disability (as defined in our certificate of incorporation) of such Legacy Spire Founder.

The trading price of our securities may be volatile, and you could lose all or part of your investment.

The trading price of our securities could be volatile and subject to wide fluctuations in response to various factors, some of which are beyond our control. Any of the factors listed below could have a material adverse effect on your investment in our securities and our securities may trade at prices significantly below the price you paid for them. In such circumstances, the trading price of our securities may not recover and may experience a further decline.

Factors affecting the trading price of our securities may include:

- actual or anticipated fluctuations in our quarterly financial results or the annual financial results of companies perceived to be similar to us;
- changes in the market's expectations about our results of operations;
- success of competitors;
- our results of operations failing to meet the expectation of securities analysts or investors in a particular period;
- changes in financial estimates and recommendations by securities analysts concerning us or the satellite data and analytics industry in general;
- operating and share price performance of other companies that investors deem comparable to us;
- our ability to bring our services and technologies to market on a timely basis, or at all;
- changes in laws and regulations affecting our business;
- our ability to meet compliance requirements;
- material weaknesses, ineffective internal control over financial reporting, ineffective disclosure controls, and restatements of our financial statements;
- commencement of, or involvement in, litigation involving us;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of shares of our Class A common stock available for public sale;
- any major change in our board of directors or management;
- sales of substantial amounts of shares of our Class A common stock by our directors, executive officers, or significant stockholders or the perception that such sales could occur; and
- general economic and political conditions such as recessions, inflation, geopolitical instability, acts of war or terrorism, and fluctuations in interest rates, fuel prices and international currency.

Broad market and industry factors may materially harm the market price of our securities irrespective of our operating performance. The stock market in general, and the securities of technology companies in particular, have experienced price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of these stocks, and of our securities, may not be predictable. A loss of investor confidence in the market for retail stocks or the stocks of other companies which investors perceive to be similar to us could depress our share price regardless of our business, financial conditions, or results of operations. A decline in the market price of our securities also could adversely affect our ability to issue additional securities and our ability to obtain additional financing in the future.

General Risk Factors

We depend on our management team and other highly skilled personnel, and we may fail to attract, retain, motivate, or integrate highly skilled personnel, which could adversely affect our business, financial condition, and results of operations.

We depend on the continued contributions of our management team, key employees, and other highly skilled personnel. All of our U.S.-based employees work for us on an at will basis, and there is no assurance that any such employee will remain with us. Our competitors may be successful in recruiting and hiring members of our management team or other key employees, and it may be difficult for us to find suitable replacements on a timely basis, on competitive terms, or at all. If we are unable to attract and retain the necessary employees, particularly in critical areas of our business, we may not achieve our strategic goals. In addition, from time to time, there may be changes in our senior management team that may be disruptive to our business. If our senior management team fails to work together effectively and to execute our plans and strategies, our business, financial condition, and results of operations could be adversely affected.

Our future success also depends, in part, on our ability to continue to attract and retain highly skilled personnel. Competition for this personnel is intense, and the industry in which we operate is generally characterized by significant competition for skilled personnel as well as high employee attrition. We may not be successful in attracting, retaining, training, or motivating qualified personnel to fulfill our current or future needs. Additionally, the former employers of our new employees may attempt to assert that our new employees or we have breached their legal obligations, which may be time-consuming, distracting to management, and may divert our resources.

Current and potential personnel also often consider the value of equity awards they receive in connection with their employment, and to the extent the perceived value of our equity awards declines relative to our competitors, our ability to attract and retain highly skilled personnel may be harmed. Our Class A common stock is currently trading at a price below the exercise price of many of our outstanding options. As a result, these "underwater" options are less useful as a motivation and retention tool for our existing employees. We may need to invest significant amounts of cash and equity to attract and retain new employees. Furthermore, we may expend significant time and resources to identify, recruit, train, and integrate such employees, and we may never realize returns on these investments. If we are unable to effectively manage our hiring needs or successfully integrate new hires, our efficiency, ability to meet forecasts, and employee morale, productivity, and engagement could suffer, which could adversely affect our business, financial condition, and results of operations.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business, or our market, or if they change their recommendations regarding our securities adversely, the price and trading volume of our securities could decline.

The trading market for our securities may be influenced by the research and reports that industry or securities analysts may publish about us, our business, market, or competitors. The analysts' estimates are based upon their own opinions and are often different from our estimates or expectations. If few securities or industry analysts cover us, or if one or more of these analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our share price or trading volume to decline. If any of the analysts who cover us adversely changes its recommendation regarding our Class A common stock or provides more favorable relative recommendations about our competitors or publishes inaccurate or unfavorable research about our business, the price of our Class A common stock would likely decline.

We are an "emerging growth company" and a "smaller reporting company" within the meaning of the Securities Act, and the reduced disclosure requirements applicable to emerging growth companies and smaller reporting companies could make our securities less attractive to investors and may make it more difficult to compare our performance with other public companies.

We are an "emerging growth company" as defined in the JOBS Act. As such, we are eligible for and intend to continue to take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies for as long as we continue to be an emerging growth company, including (i) the exemption from the auditor attestation requirements with respect to internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act, (ii) the exemptions from say-on-pay, say-on-frequency and say-on-golden parachute voting requirements, and (iii) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. As a result, the stockholders may not have access to certain information they may deem important. In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the exemption from complying with new or revised accounting standards provided in Section 7(a)(2)(B) of the Securities Act as long as we are an emerging growth company. An emerging growth company can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected not to opt out of such extended transition period and, therefore, we may not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. Investors may find our Class A common stock less attractive because we rely on these exemptions, which may result in a less active trading market for our Class A common stock and the trading price may be more volatile.

Additionally, we are a "smaller reporting company" as defined in Item 10(f)(1) of the Securities Act. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. Taking advantage of such reduced disclosure obligations may also make comparison of our financial statements with other public companies difficult or impossible.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 1C. Cybersecurity

Cybersecurity Risk Management and Strategy

We recognize the need to continually monitor and assess material risks associated with cybersecurity threats as such term is defined in Item 106(a) of Regulation S-K. Additionally, we maintain a comprehensive risk management framework designed to respond quickly to perceived threats and mitigate the impact of a cybersecurity incident. Some of the cybersecurity risks we face include - but are not limited to - unauthorized access of sensitive information, breach of critical systems resulting in loss of constellation control, and denial of service of critical systems.

Cybersecurity risk management forms part of our overall risk management framework, which is regularly reviewed by our Chief Technology Officer ("CTO"), our senior management team and our Board of Directors. We retain an ISO 27001:2013 certification related to our information security management system ("ISMS") that supports the assets, technologies, personnel, and processes used by our corporate IT environment, as well as the satellite command and control, data uplink and downlink pipelines, and ground stations utilized by our radio frequency collection and data products. Cybersecurity incident response procedures are enumerated in internal policies and procedures with remediation plans reflective of the scope and severity of the incident. This remediation typically involves incident analysis, incident isolation and eradication, and post-incident response. In the event a cybersecurity incident is detected, the IT Security Team reports the event to our legal and compliance teams. These Legal and Compliance professionals then advise on any additional notification or reporting requirements.

We regularly assess risks related to regulatory compliance, technical operations, business operations, and product and contract deliverables. Risks are managed, documented, and tracked as part of operating the ISMS and other processes. Risks are internally assessed and categorized based on perceived likelihood and impact to system confidentiality, integrity, and availability as described by the ISO 27005 Information Security Risk Management international standard. We also engage third party penetration testers, assessors, vendors, and auditors to assist with external network vulnerability scanning, penetration testing, internal audits, external audits, threat intelligence, and employee training activities. Additionally, we utilize a variety of self-hosted and SaaS tools to assist with vulnerability identification, mitigation, and remediation.

Identified risks and vulnerabilities are ranked and prioritized for mitigation based upon the aforementioned factors. Some risk mitigation and minimization activities include: regular software patches and updates; permitting only required connections to sensitive and critical systems; reactive response to newly identified and discovered exploitable vulnerabilities; implementation of additional auditing and monitoring controls; and cadence-driven system security assessments for critical systems.

We assess the cybersecurity posture of third-party service providers, vendors and suppliers at least annually and whenever the vendor implements significant product or operational changes. We maintain consistent communications via email, chat services, ticketing systems, and regular meetings with these partners to promptly address and remediate any perceived vulnerabilities.

Additionally, we also provide mandatory training to our employees to help identify, avoid and mitigate cybersecurity threats. These trainings cover a wide range of cybersecurity topics such as insider threats, phishing, spoofing, and the like.

As of the date of this Annual Report on Form 10-K, we have not experienced a cybersecurity threat or incident that materially affected or is reasonably likely to materially affect our business or operations, but there can be no guarantee that we will not experience such an incident in the future. We aim to incorporate industry best practices throughout our cybersecurity program and continue to invest in additional controls designed to ensure the resiliency of our networks and prevention of cybersecurity incidents. We describe how cybersecurity threats are likely to materially affect us, including our business strategy, results of operations, and financial condition, in the section titled “Risk Factors” in this Annual Report on Form 10-K.

Cybersecurity Governance

Our cybersecurity program is overseen by the Company’s CTO in close collaboration with the CEO/Chairman of the Board of Directors and our legal and compliance teams. Both our CEO and our CTO have technical backgrounds and are well informed about cybersecurity risk management best practices, as well as our Company’s risk management framework. Our legal and compliance teams supporting the Company’s cybersecurity efforts bring a wealth of experience from prior positions, as well as participation in ongoing training sessions and industry events.

Our CTO regularly briefs the full Board of Directors on our cybersecurity and information security posture and the Board of Directors is apprised of all material cybersecurity incidents and the results of any third-party assessments. Additionally, our Board has designated a single Board member, who has experience in assessing and managing cybersecurity risk, to lead the Board-level oversight of cybersecurity risk matters, including staying abreast of cybersecurity best practices and briefing the full Board when significant industry developments occur.

Daily risk management and oversight of the Company’s cybersecurity posture is the responsibility of the Director of IT and Security, who directly reports to the CTO, and the cybersecurity professionals on his team. All of these team members have extensive experience in networking, cloud and on-premise infrastructure, software development, corporate IT, intelligence, Linux system administration, and data center operations. These individuals are responsible for approving and implementing security operations, security program development, and governance, risk and compliance related to cyber matters.

Item 2. Properties

Our corporate headquarters is located in Vienna, Virginia, where we currently lease approximately 8,319 square feet under a lease agreement that expires in June 2029. We also lease and license facilities in San Francisco, California; Boulder, Colorado; Luxembourg, Luxembourg; Glasgow, Scotland; Cambridge, Ontario; Singapore, Singapore and Munich, Germany. Additionally, we operate over 33 ground stations to transmit our satellite data across the globe.

As the business grows and we add employees, we will evaluate our need to expand our facilities or add new facilities in different geographic locations. We believe that suitable additional or alternative space will be available as needed to accommodate any such growth. We expect to incur additional expenses in connection with such new or expanded facilities.

Item 3. Legal Proceedings

From time to time, we are involved in various legal proceedings arising from the normal course of business activities.

Spire is not currently a party to any legal proceedings that, if determined adversely to us, would, in our opinion, have a material adverse effect on our business, results of operations, financial condition, or cash flows. Future litigation may be necessary to defend ourselves, our partners, and our customers by determining the scope, enforceability, and validity of third-party proprietary rights, or to establish our proprietary rights. The results of any current or future litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Item 4. Mine Safety Disclosures

Not applicable.

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.

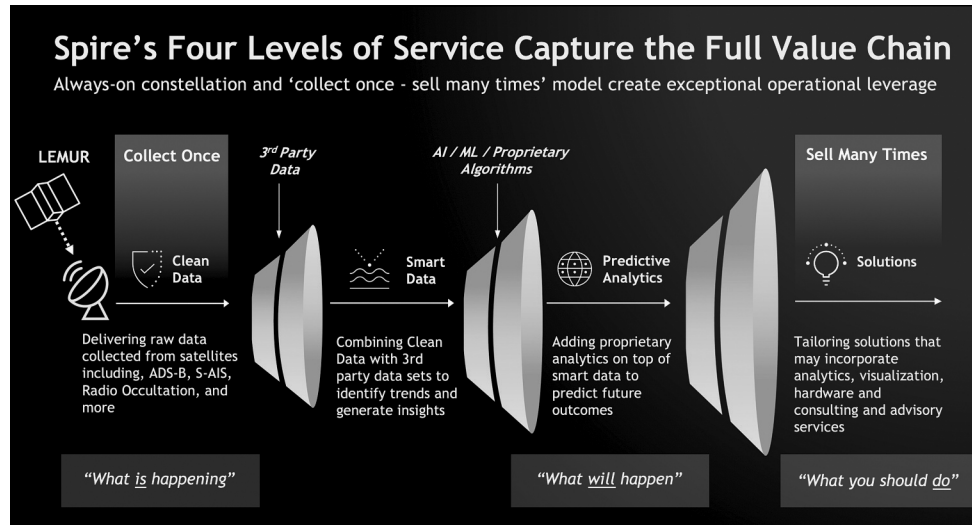
The data acquired by our multipurpose satellites provide global weather intelligence, ship and plane movements, and spoofing and jamming detection to better predict how their patterns impact economies, global security, business operations and the environment. We also offer Space as a Service solutions 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.

<i>(dollars in thousands)</i>	As of December 31,		% Change
	2023	2022	
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,		% Change
	2023	2022	
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		% Change
	2023	2022	
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:

<i>(in thousands)</i>	Years Ended December 31,	
	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:

<i>(in thousands)</i>	Years Ended December 31,	
	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

<i>(dollars in thousands)</i>	Years Ended December 31,		% Change
	2023	2022	
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

	Years Ended December 31,		% Change
	2023	2022	
<i>(dollars in thousands)</i>			
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

	Years Ended December 31,		% Change
	2023	2022	
<i>(dollars in thousands)</i>			
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

	Years Ended December 31,		% Change
	2023	2022	
<i>(dollars in thousands)</i>			
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,		% Change
	2023	2022	
<i>(dollars in thousands)</i>			
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,		% Change
	2023	2022	
<i>(dollars in thousands)</i>			
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,		% Change
	2023	2022	
<i>(dollars in thousands)</i>			
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

(dollars in thousands)	Years Ended December 31,		% Change
	2023	2022	
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:

<i>(in thousands)</i>	Years Ended December 31,	
	2023	2022
Net loss	\$ (63,956)	\$ (89,411)
Depreciation & amortization	18,228	18,341
Interest, net	16,704	13,007
Taxes	72	322
EBITDA	<u>(28,952)</u>	<u>(57,741)</u>
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	<u>\$ (11,002)</u>	<u>\$ (32,643)</u>

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:

<i>(in thousands)</i>	Years Ended December 31,	
	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:

<i>(in thousands)</i>	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%

<i>(in thousands)</i>	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

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Spire Global, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Spire Global, Inc. and its subsidiaries (the “Company”) as of December 31, 2023 and 2022, and the related consolidated statements of operations, of comprehensive loss, of changes in stockholders' equity and of cash flows for the years then ended, including the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
San Francisco, California
March 6, 2024

We have served as the Company’s auditor since 2019.

Spire Global, Inc.
Consolidated Balance Sheets
(In thousands, except share and per share amounts)

	December 31,	
	2023	2022
Assets		
Current assets		
Cash and cash equivalents	\$ 29,144	\$ 47,196
Marketable securities	11,726	23,084
Accounts receivable, net (including allowance of \$586 and \$395 as of December 31, 2023 and 2022, respectively)	9,911	13,864
Contract assets	6,215	3,353
Other current assets	12,340	9,279
Total current assets	69,336	96,776
Property and equipment, net	71,209	53,752
Operating lease right-of-use assets	14,921	11,687
Goodwill	51,155	49,954
Customer relationships	19,363	20,814
Other intangible assets	12,660	13,967
Other long-term assets, including restricted cash	8,181	9,562
Total assets	<u>\$ 246,825</u>	<u>\$ 256,512</u>
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 8,012	\$ 4,800
Accrued wages and benefits	1,829	4,502
Contract liabilities, current portion	23,165	15,856
Other accrued expenses	8,540	8,210
Total current liabilities	41,546	33,368
Long-term debt	114,113	98,475
Contingent earnout liability	220	349
Deferred income tax liabilities	1,069	771
Warrant liability	5,988	1,831
Operating lease liabilities, net of current portion	13,079	10,815
Other long-term liabilities	272	780
Total liabilities	176,287	146,389
Commitments and contingencies (Note 9)		
Stockholders' equity		
Common stock, \$0.0001 par value, 1,000,000,000 Class A and 15,000,000 Class B shares authorized, 21,097,351 Class A and 1,507,325 Class B shares issued and outstanding at December 31, 2023; 17,959,923 Class A and 1,507,325 Class B shares issued and outstanding at December 31, 2022 ⁽¹⁾	2	2
Additional paid-in capital	477,624	455,765
Accumulated other comprehensive loss	(4,485)	(6,997)
Accumulated deficit	(402,603)	(338,647)
Total stockholders' equity	70,538	110,123
Total liabilities and stockholders' equity	<u>\$ 246,825</u>	<u>\$ 256,512</u>

(1) The issued and outstanding shares of the Company's common stock have been retroactively adjusted to reflect the 1-for-8 reverse stock split (Note 1).

The accompanying notes are an integral part of these consolidated financial statements.

Spire Global, Inc.
Consolidated Statements of Operations
(In thousands, except share and per share amounts)

	Years Ended December 31,	
	2023	2022
Revenue	\$ 105,703	\$ 80,268
Cost of revenue	42,434	40,327
Gross profit	<u>63,269</u>	<u>39,941</u>
Operating expenses:		
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	<u>107,918</u>	<u>109,035</u>
Loss from operations	<u>(44,649)</u>	<u>(69,094)</u>
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	<u>(19,235)</u>	<u>(19,995)</u>
Loss before income taxes	<u>(63,884)</u>	<u>(89,089)</u>
Income tax provision	72	322
Net loss	<u>\$ (63,956)</u>	<u>\$ (89,411)</u>
Basic and diluted net loss per share ⁽¹⁾	<u>\$ (3.27)</u>	<u>\$ (5.11)</u>
Weighted-average shares used in computing basic and diluted net loss per share ⁽¹⁾	<u>19,580,006</u>	<u>17,484,927</u>

(1) The shares of the Company's common stock and the per share amounts have been retroactively adjusted to reflect the 1-for-8 reverse stock split (Note 1).

The accompanying notes are an integral part of these consolidated financial statements.

Spire Global, Inc.
Consolidated Statements of Comprehensive Loss
(In thousands)

	Years Ended December 31,	
	2023	2022
Net loss	\$ (63,956)	\$ (89,411)
Other comprehensive gain (loss):		
Foreign currency translation adjustments	2,478	(7,696)
Net unrealized gain (loss) on investments (net of tax)	34	(33)
Comprehensive loss	<u>\$ (61,444)</u>	<u>\$ (97,140)</u>

The accompanying notes are an integral part of these consolidated financial statements.

Spire Global, Inc.
Consolidated Statements of Changes in Stockholders' Equity
(In thousands, except share amounts)

	Common Stock		Additional Paid in Capital ⁽¹⁾	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares ⁽¹⁾	Amount ⁽¹⁾				
Balance, December 31, 2021	18,894,262	—	438,709	732	(249,236)	\$ 190,207
Exercise of stock options	62,975	—	806	—	—	806
Release of Restricted Stock Units	30,310	—	(70)	—	—	(70)
Issuance of common stock under Employee Stock Purchase Plan	65,726	—	623	—	—	623
Stock compensation expense	—	—	11,491	—	—	11,491
Conversion of warrants to common stock	413,910	—	4,206	—	—	4,206
Net loss	—	—	—	—	(89,411)	(89,411)
Foreign currency translation adjustments	—	—	—	(7,696)	—	(7,696)
Net unrealized loss on investments (net of tax)	—	—	—	(33)	—	(33)
Balance, December 31, 2022	19,467,183	—	455,765	(6,997)	(338,647)	\$ 110,123
Exercise of stock options	500	—	3	—	—	3
Release of Restricted Stock Units and Performance Stock Units	781,557	—	—	—	—	—
Issuance of common stock under Employee Stock Purchase Plan	154,371	—	727	—	—	727
Stock compensation expense	—	—	12,978	—	—	12,978
Issuance of common stock under the Equity Distribution Agreement, net	2,166,384	—	7,866	—	—	7,866
Conversion of warrants to common stock	34,728	—	286	—	—	286
Redemption of fractional shares due to reverse stock split	(47)	—	(1)	—	—	(1)
Net loss	—	—	—	—	(63,956)	(63,956)
Foreign currency translation adjustments	—	—	—	2,478	—	2,478
Net unrealized gain on investments (net of tax)	—	—	—	34	—	34
Balance, December 31, 2023	22,604,676	\$ —	\$ 477,624	\$ (4,485)	\$ (402,603)	\$ 70,538

(1) The shares of the Company's common stock have been retroactively adjusted to reflect the 1-for-8 reverse stock split (Note 1).

The accompanying notes are an integral part of these consolidated financial statements.

Spire Global, Inc.
Consolidated Statements of Cash Flows
(In thousands)

	Years Ended December 31,	
	2023	2022
Cash flows from operating activities		
Net loss	\$ (63,956)	\$ (89,411)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	18,228	18,341
Stock-based compensation	12,978	11,491
Amortization of operating lease right-of-use assets	2,928	2,344
Amortization of debt issuance costs	2,337	3,781
Change in fair value of warrant liabilities	1,597	(8,757)
Change in fair value of contingent earnout liability	(129)	(9,677)
Loss on decommissioned satellites and impairment of assets	1,024	784
Loss on extinguishment of debt	—	22,271
Other, net	(290)	1
Changes in operating assets and liabilities:		
Accounts receivable, net	4,144	(4,180)
Contract assets	(2,463)	(1,364)
Other current assets	(3,246)	324
Other long-term assets	1,680	1,852
Accounts payable	1,371	(1,808)
Accrued wages and benefits	(2,747)	(923)
Contract liabilities	6,352	7,776
Other accrued expenses	(648)	1,012
Operating lease liabilities	(2,782)	(1,632)
Other long-term liabilities	—	(45)
Net cash used in operating activities	(23,622)	(47,820)
Cash flows from investing activities		
Purchases of short-term investments	(40,116)	(40,213)
Maturities of short-term investments	52,500	17,300
Purchase of property and equipment	(30,037)	(18,915)
Net cash used in investing activities	(17,653)	(41,828)
Cash flows from financing activities		
Proceeds from long-term debt	19,886	100,973
Proceeds from issuance of common stock under the Equity Distribution Agreement, net	7,866	—
Payments on long-term debt	(4,500)	(71,512)
Payments of debt issuance costs	(75)	(4,516)
Proceeds from exercise of stock options	3	806
Proceeds from employee stock purchase plan	727	622
Net cash provided by financing activities	23,907	26,373
Effect of foreign currency translation on cash, cash equivalents and restricted cash	(560)	1,199
Net decrease in cash, cash equivalents and restricted cash	(17,928)	(62,076)
Cash, cash equivalents and restricted cash		
Beginning balance	47,569	109,645
Ending balance	\$ 29,641	\$ 47,569
Supplemental disclosure of cash flow information		
Cash paid for interest	\$ 16,157	\$ 9,438
Income taxes paid	\$ 47	\$ 210
Noncash operating, investing and financing activities		
Property and equipment purchased but not yet paid	\$ 2,745	\$ 957
Right-of-use assets obtained in exchange for lease liabilities	\$ 5,868	\$ —
Accrued long-term debt issuance costs	\$ 1,800	\$ —
Conversion of warrants to Class A common stock	\$ 286	\$ 4,205
Issuance of stock warrants with long-term debt (Note 8)	\$ 2,579	\$ 3,579

The accompanying notes are an integral part of these consolidated financial statements.

Spire Global, Inc.
Notes to Consolidated Financial Statements
December 31, 2023 and 2022

(In thousands, except shares and per share data, unless otherwise noted)

1. Nature of Business

Spire Global, Inc. (“Spire” or the “Company”), founded in August 2012, is a global provider of space-based data and analytics that offers its customers unique datasets and insights about earth from the ultimate vantage point. The Company collects this space-based data through its proprietary constellation of multi-purpose nanosatellites. By designing, manufacturing, integrating, and operating its own satellites and ground stations, the Company has unique end-to-end control and ownership over its entire system. The Company offers the following three data solutions to customers: Maritime, Aviation and Weather. As a fourth solution, the Company is providing “space-as-a-service” through its Space Services solution.

The Company is headquartered in Vienna, Virginia and has several wholly owned operating subsidiaries in the United States, United Kingdom, Luxembourg, Singapore, Australia, Germany, and Canada.

On August 16, 2021, Spire Global Subsidiary, Inc. (formerly known as Spire Global, Inc.) (“Legacy Spire”) closed its previously announced merger with NavSight Holdings, Inc. (“NavSight”), a special purpose acquisition company. As a result, Legacy Spire continued as the surviving corporation and a wholly owned subsidiary of NavSight (the “Merger,” and such consummation, the “Closing”). NavSight then changed its name to Spire Global, Inc. and Legacy Spire changed its name to Spire Global Subsidiary, Inc.

On September 14, 2022, the Company entered into an Equity Distribution Agreement (the “Equity Distribution Agreement”) with Canaccord Genuity LLC, as sales agent (the “Agent”). In accordance with the terms of the Equity Distribution Agreement, the Company may offer and sell its Class A common stock, having an aggregate offering price of up to \$85,000 from time to time through the Agent pursuant to a registration statement on Form S-3, which became effective on September 26, 2022. Under the Equity Distribution Agreement, the Company sold 2,166,389 shares of its Class A common stock during the year ended December 31, 2023 for gross proceeds of \$8,235.

On March 24, 2023, the Company, was notified by the New York Stock Exchange (“NYSE”) that the Company was not in compliance with Rule 802.01C of the NYSE’s Listed Company Manual (“Rule 802.01C”) relating to the minimum average closing price of the Company’s Class A common stock, par value of \$0.0001 per share, required over a consecutive 30 trading-day period. On August 31, 2023, the Company effected a reverse stock split at a ratio of 1-for-8 (the “Reverse Stock Split”) of its common stock. In connection with the Reverse Stock Split, every eight shares of the Company’s Class A and Class B common stock issued and outstanding as of the effective date were automatically combined into one share of Class A or Class B common stock, as applicable. On September 25, 2023, the Company received formal notice from the NYSE that the Company had regained compliance with Rule 802.01C.

The par value of the common stock remains \$0.001 per share after the Reverse Stock Split. All share and per share information has been retroactively adjusted to reflect the impact of the Reverse Stock Split for all periods presented.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements and accompanying notes have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and regulations of the U.S. Securities and Exchange Commission (the “SEC”). The Company’s consolidated financial statements include the accounts of Spire Global, Inc. and its wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Reverse Stock Split

Reported share amounts, including issued and outstanding shares, per share amounts, and reported issued and outstanding warrants and other securities convertible into common stock in these consolidated financial statements and accompanying notes have been retroactively adjusted for the Reverse Stock Split by applying the Reverse Stock Split ratio. The number of authorized shares of common stock was not impacted by the Reverse Stock Split, and therefore has not been retroactively adjusted.

Liquidity Risks and Uncertainties

Since inception, the Company has been engaged in developing its product offerings, raising capital, and recruiting personnel. The Company’s operating plan may change as a result of many factors currently unknown and there can be no assurance that the current operating plan will be achieved in the time frame anticipated by the Company, and it may need to seek additional funds sooner than planned. If adequate funds are not available to the Company on a timely basis, it may be required to delay, limit, reduce, or terminate certain commercial efforts, or pursue merger or acquisition strategies, all of which could adversely affect the holdings or the rights of the Company’s stockholders.

Spire Global, Inc.
Notes to Consolidated Financial Statements
December 31, 2023 and 2022

(In thousands, except shares and per share data, unless otherwise noted)

The Company has a history of operating losses and negative cash flows from operations since inception. During the year ended December 31, 2023, net loss was \$63,956, cash used in operations was \$23,622 and the Company received net proceeds of \$7,866 from sales of shares of its Class A common stock under the Equity Distribution Agreement. The Company held cash and cash equivalents of \$29,144, excluding restricted cash of \$497, and investment in marketable securities of \$11,726 as of December 31, 2023. The Company currently believes that it will meet its minimum liquidity covenant, as well as all other financial covenants under the Blue Torch Financing Agreement (as amended, and as defined below in Note 6), 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 it 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 the Company's current cash and cash equivalents balance and expected future financial results.

The Company's assessment of the period of time through which its financial resources will be adequate to support its operations and meet its financial covenants is a forward-looking statement and involves risks and uncertainties. The Company's actual results could vary as a result of many factors, including its growth rate, subscription renewal activity, the timing and extent of spending to support its infrastructure and research and development efforts and the expansion of sales and marketing activities. The Company may in the future enter into arrangements to acquire or invest in complementary businesses, services, and technologies, including intellectual property rights. The Company has based its estimates on assumptions that may prove to be wrong, and it could use its available capital resources sooner than it currently expects. The Company may be required to seek additional equity or debt financing or seek waivers of or amendments to contractual obligations. Future liquidity and cash requirements will depend on numerous factors, including market penetration, the introduction of new products, and potential acquisitions of related businesses or technology. In the event that additional financing is required from outside sources, the Company may not be able to raise it on acceptable terms or at all. If the Company is unable to raise additional capital when desired, unable to meet the minimum liquidity covenant or other financial covenants under the Blue Torch Financing Agreement or if it cannot expand its operations or otherwise capitalize on its business opportunities because it lacks sufficient capital, its business, results of operations, and financial condition would be adversely affected.

Macroeconomic and Geopolitical

Over the past two years, the Company has been impacted by the macroeconomic environment, such as fluctuations in foreign currencies, increasing interest rates and the Russian invasion of Ukraine.

A stronger U.S. dollar relative to the Company's foreign subsidiaries' local functional currencies for the year ended December 31, 2023 as compared to the year ended December 31, 2022 negatively impacted the Company's revenue, since approximately one-third of the Company's sales are transacted in foreign currencies, though it positively impacted the Company's expenses, since a majority of the Company's employees reside in countries outside of the United States.

The macroeconomic environment has caused existing or potential customers to re-evaluate their decision to purchase the Company's offerings, at times resulting in additional customer discounts, extended payment terms, longer sales cycles, and a few contract cancellations.

Increasing interest rates in 2023 as compared to 2022 resulted in higher interest expenses, as the Company's 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 has delayed revenue recognition of certain sales contracts.

If any of these factors continue or worsen, and/or if new macroeconomic or geopolitical issues arise, the Company's results and financial condition could be further negatively impacted. The Company 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 the Company operates would adversely affect its business, financial condition, and results of operations.

Segment Information

The Company operates as one reportable and operating segment, which relates to the sale of subscription-based data, insights, predictive analytics and related project-based services to global customers across a range of industries. The Company's chief operating decision maker is its chief executive officer, who reviews financial information presented on a consolidated basis for purposes of making operating decisions, assessing financial performance and allocating resources.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosures of contingent assets and liabilities at the dates of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Management's significant estimates include assumptions in revenue recognition, allowance for credit losses, valuation of certain assets and liabilities acquired from the acquisition of exactEarth in November 2021 (the "Acquisition"), realizability of deferred income tax assets, and fair value of equity awards, contingent earnout liabilities and warrant liabilities. Actual results could differ from those estimates.

Based on an evaluation of the lifespans of its in-service satellites and on current capabilities to extend the useful life of in-service satellites via software updates, the Company changed the estimated useful life of its capitalized satellites and related launch costs from three to four years

Spire Global, Inc.
Notes to Consolidated Financial Statements
December 31, 2023 and 2022

(In thousands, except shares and per share data, unless otherwise noted)

for depreciation purposes. The Company determined it was appropriate to make this change prospectively beginning June 2023. The change in estimated useful life did not have a material impact for the year ended December 31, 2023.

In November 2023, the Company updated the estimated useful lives for 43 capitalized satellites and related launch costs based on updated de-orbit dates. This change represents a change in accounting estimate and the impact of the change was an increase in loss from continuing operations before income taxes of approximately \$2,467, or \$0.13 per basic and diluted share for the months of November and December 2023.

Foreign Currency Translation

The Company's foreign subsidiaries, which have defined their functional currency as their local currency, translate their assets and liabilities into U.S. Dollars at the exchange rate existing at the balance sheet date, and translate their results from operations at the average exchange rate for each period. The resulting translation adjustments are included as a component of accumulated other comprehensive loss on the consolidated balance sheets, accumulated other comprehensive loss in the consolidated statements of changes in stockholders' equity and as other comprehensive gain (loss) in the consolidated statements of comprehensive loss. Gains and losses from foreign currency transactions are included in other expense, net in the consolidated statements of operations.

Fair Value Measurements

To account for fair value measurements and disclosures, a fair value hierarchy was established that prioritizes the inputs to valuation techniques used to measure fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). The level of an asset or liability within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The Company uses the following valuation techniques to measure fair value for its assets and liabilities:

Level 1 Quoted prices in active markets for identical assets or liabilities.

Level 2 Significant other observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3 Unobservable inputs reflecting management's assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

Cash, Cash Equivalents, Marketable Securities and Restricted Cash

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. Restricted cash included in Other long-term assets, including restricted cash on the consolidated balance sheets, represents amounts pledged as guarantees or collateral for financing arrangements and lease agreements, as contractually required.

The Company invests in highly rated securities, with the primary objective of minimizing the potential risk of principal loss. The Company's investment policy generally requires securities to be investment grade and limits the amount of credit exposure to any one issuer. The Company's investments in marketable debt securities have been classified and accounted for as available-for-sale. The Company classifies its marketable debt securities as either short-term or long-term based on each instrument's underlying contractual maturity date. Unrealized gains and losses on marketable debt securities classified as available-for-sale are recognized in accumulated other comprehensive loss. Interest on securities classified as available-for-sale is included in interest income on the consolidated statements of operations.

The following table shows components of cash, cash equivalents, and restricted cash reported on the consolidated balance sheets and in the consolidated statements of cash flows as of and for the years then ended:

	December 31,	
	2023	2022
Cash and cash equivalents	\$ 29,144	\$ 47,196
Restricted cash included in Other long-term assets	497	373
	<u>\$ 29,641</u>	<u>\$ 47,569</u>

Accounts Receivable

Accounts receivable are stated at the amounts management expects to collect from outstanding balances. An allowance for credit losses is recorded based on historical loss experience, consideration of current and future economic conditions, and evaluation of a customer's current and future financial condition. Increases and decreases in the allowance for credit losses are included as a component of general and administrative expense in the consolidated statements of operations. Recoveries of accounts receivable for which an allowance exists, or those that were previously written off, are recorded when received. The Company recorded an expense for credit losses of \$640 and \$139 for the years ended December 31, 2023 and 2022, respectively.

The Company generally grants credit to its customers on an unsecured basis. The Company does not have any off-balance sheet credit exposure related to its customers.

Spire Global, Inc.
Notes to Consolidated Financial Statements
December 31, 2023 and 2022

(In thousands, except shares and per share data, unless otherwise noted)

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash, cash equivalents and restricted cash, marketable securities, and accounts receivable. The Company typically has cash accounts in excess of Federal Deposit Insurance Corporation insurance coverage limits. The Company has not experienced any losses on such accounts, and management believes that the Company's risk of loss is remote.

The Company has a concentration of contractual revenue arrangements with various government agencies. Entities under common control are reported as a single customer. As of December 31, 2023, the Company did not have any customers that accounted for more than 10% of the Company's total accounts receivable. As of December 31, 2022, the Company had one customer (Customer A noted below) that accounted for 16% of the Company's total accounts receivable.

The following customers represented 10% or more of the Company's total revenue:

	Years Ended December 31,	
	2023	2022
Customer A	*	11%
Customer B ⁽¹⁾	26%	19%

* Revenue from this customer was less than 10% of total revenue during the year.

⁽¹⁾ Consists of multiple U.S. government agencies, of which only one government agency represented greater than 10% of total revenue for the years ended December 31, 2023 and 2022.

The Company has a concentration in vendor purchases. The Company believes its reliance on its vendors could be shifted over a period of time to alternative vendors should such a change be necessary. If the Company were to be unable to obtain alternative vendors due to factors beyond its control, operations would be disrupted until alternative vendors were secured. The Company had one vendor for the year ended December 31, 2023, and did not have any vendors for the year ended December 31, 2022, from which purchases of equipment, components and services individually represented 10% or more of the Company's total purchases.

The Company is dependent on third parties to launch its satellites into space, and any launch delay, malfunction, or failure could have a negative impact on revenue and might cause the Company not to be able to accommodate customers with sufficient data to meet minimum service level agreements until replacement satellites are available. The Company also incorporates technology and terrestrial data sets from third parties into its platform and its inability to maintain rights and access to such technology and data sets would harm its business and results of operations.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation and amortization. In-service satellites and related launch costs are capitalized based on the commission date of the underlying asset. Capitalized launch costs for each satellite are allocated based on the total cost of the launch divided by the number of satellites included on that launch. In-service ground stations and related costs are capitalized once signals are transmitted with in-service satellites. In the event of a failed launch or deployment of satellites, the related equipment impairment and launch costs are expensed and recorded in the consolidated statements of operations.

The Company also capitalizes certain software costs incurred in connection with developing internal-use software during the project development stage so long as management with the relevant authority authorizes the project, it is probable the project will be completed, and the software will be used to perform the function intended. Costs incurred for enhancements that are expected to result in additional significant functionality are capitalized and amortized over the estimated useful life of the enhancement. Costs related to preliminary project activities and post-implementation operational activities are expensed as incurred. Internal-use software, which consists primarily of the Company's enterprise software used to build and operate the Company's satellites, is stated at cost less accumulated amortization.

General maintenance and repairs are charged to expense as incurred. Significant refurbishments, renewals and betterments are capitalized. When assets are retired or disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is reflected as other expense, net in the Company's consolidated statements of operations.

Depreciation and amortization are computed utilizing the straight-line method over the estimated useful lives of depreciable assets in the table below. Leasehold improvements are amortized using the straight-line method over the lesser of the life of the asset or the remaining life of the lease.

	Years
Furniture and fixtures	7
Machinery and equipment	5
In-service ground stations	3-10
Computer software and website development	3
Computer equipment	3
Capitalized satellite launch costs and in-service satellites	3-4

Spire Global, Inc.
Notes to Consolidated Financial Statements
December 31, 2023 and 2022

(In thousands, except shares and per share data, unless otherwise noted)

The following table summarizes the Company's long-lived assets by geography:

	December 31,	
	2023	2022
EMEA ⁽¹⁾	57%	39%
Americas ⁽²⁾	43%	61%
Total	<u>100%</u>	<u>100%</u>

(1) *United Kingdom represented 28%, Germany represented 19% and Luxemburg represented 10% for the year ended December 31, 2023 and United Kingdom represented 30% for the year ended December 31, 2022.*

(2) *U.S. represented 25% and 34% and Canada represented 18% and 27% for the years ended December 31, 2023 and 2022, respectively.*

Equity Method Investments

The Company accounts for equity investments in which it has significant influence, but not a controlling financial interest, using the equity method of accounting. Under the equity method of accounting, investments are initially recorded at cost, less impairment, and subsequently adjusted to recognize the Company's share of earnings or losses as a component of other expense, net in the consolidated statements of operations. The Company's equity method investments are required to be reviewed for impairment when it is determined there may be an other-than-temporary loss in value. The Company did not record any impairment losses related to our equity method investments during the years ended December 31, 2023 and 2022.

Business Combinations

The Company recognizes identifiable assets acquired and liabilities assumed at their acquisition date fair values. Such valuations require us to make significant estimates and assumptions, especially at the acquisition date with respect to intangible assets. While the Company uses its best estimates and assumptions as part of the purchase price allocation process to accurately value assets acquired and liabilities assumed, these estimates which 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, are inherently uncertain and subject to refinement.

Goodwill is measured as the excess of the consideration transferred over the fair value of assets acquired and liabilities assumed on the acquisition date. Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred and included in the general and administrative expenses line item in the consolidated statements of operations. The authoritative guidance allows a measurement period of up to one year from the date of acquisition to make adjustments to the preliminary allocation of the purchase price. As a result, during the measurement period the Company may record adjustments to the fair values of assets acquired and liabilities assumed, with the corresponding offset to goodwill to the extent that it identifies adjustments to the preliminary purchase price allocation.

Goodwill and Intangible Assets

Goodwill represents the excess of the purchase price over the estimated fair value of net tangible and identifiable intangible assets acquired in business acquisitions. The Company first performs a qualitative assessment of goodwill annually in the fourth quarter, and more frequently if events or changes in circumstances indicate that the carrying value of goodwill may not be recoverable. If it is determined in the qualitative assessment that the fair value of the Company's single reporting unit is more likely than not below its carrying amount, then the Company will perform a quantitative impairment test. The quantitative goodwill impairment test is performed by comparing the fair value of the reporting unit with its carrying amount. Any excess in the carrying value of the goodwill over its fair value is recognized as an impairment loss. For purposes of goodwill impairment testing, the Company has one reporting unit. The annual goodwill impairment assessment performed in the fourth quarter of 2023 indicated that the fair value significantly exceeded the carrying value of goodwill.

Intangible assets consist of acquired intangible assets which include customer relationships, developed technology and trade names and the costs to obtain patents and perpetual nonexclusive license rights for the use of intellectual property. Acquired intangible assets, other than goodwill, are amortized over their estimated useful lives, ranging from 1 to 12 years, based upon the estimated economic value derived from the related intangible asset. Significant judgment is used in determining fair values of acquired intangible assets and their estimated useful lives. Fair value and useful life determinations may be based on, among other factors, estimates of future expected cash flows, royalty cost savings and appropriate discount rates used in calculating present values.

Intangible assets are tested for impairment whenever there are indicators of impairment. The Company did not recognize any impairment charges for intangible assets for the year ended December 31, 2023, but recorded an impairment charge relating to patents of \$72 for the year ended December 31, 2022.

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Impairment of Long-Lived Assets

The Company assesses potential impairments to long-lived assets whenever events or changes in circumstances indicate that the carrying amount may not be fully recoverable. An impairment is considered to exist if the total estimated future cash flows on an undiscounted basis are less than the carrying amount of the assets or asset groups. If impairment exists, the impairment loss is measured and recorded based on undiscounted estimated future cash flows. In estimating future cash flows, assets are grouped at the lowest levels for which there are identifiable cash flows that are largely independent of cash flows from other asset groups. The Company recognized impairment charges of \$747 on decommissioned satellites and \$277 on other long-lived assets for the year ended December 31, 2023, and \$549 on decommissioned satellites and \$143 on other long-lived assets for the year ended December 31, 2022.

Deferred Offering Costs

The Company capitalizes within other current assets on the consolidated balance sheets certain legal, accounting and other third-party fees that are directly related to the Company's in-process equity financing until such financings are consummated. After consummation of the equity financing, these costs are recorded as a reduction of the proceeds received from the offering. Should a planned equity financing be abandoned, terminated or significantly delayed, the deferred offering costs are written off to operating expenses. There were no deferred offering costs capitalized as of December 31, 2023 and 2022.

Debt Issuance Costs

For long-term debt, the Company presents debt issuance costs on the consolidated balance sheets as a direct deduction from the carrying amount of the related debt facility. Debt issuance costs and the fair value assigned to stock warrants issued related to term loans are amortized over the respective term of the debt facility using the effective interest method.

Warrants

The Company generally classifies warrants for the purchase of shares of its common stock as liabilities on its 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 the Company 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 the Company's consolidated balance sheets until the warrants are exercised or expire.

On June 13, 2022, in connection with the Blue Torch Financing Agreement, the Company issued warrants to Blue Torch, which were exercisable for an aggregate of 437,024 shares of the Company's Class A common stock with a per share exercise price of \$16.08 (the "2022 Blue Torch Warrants"). Additionally, in connection with the closing of the financing, the Company issued a warrant to Urgent Capital LLC for introducing the Company to the Lenders, which is exercisable for an aggregate of 24,834 shares of the Company's Class A common stock with a per share exercise price of \$16.08 (the "Urgent Warrants"). On September 27, 2023, the Company issued new warrants to certain Blue Torch 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" and together with the 2022 Blue Torch Warrants and the Urgent Warrants, the "Credit Agreement Warrants").

The Company assumed 1,437,499 publicly-traded warrants ("Public Warrants") and 825,000 private placement warrants issued by NavSight ("Private Warrants" and, together with the Public Warrants, the "Common Stock Warrants") upon the Merger, all of which were issued in connection with NavSight's initial public offering and entitled holders to purchase one share of the Company's Class A common stock at an exercise price of \$92.00 per share.

The Company evaluated the Credit Agreement Warrants and the Common Stock Warrants and concluded that they do not meet the criteria to be classified within stockholders' equity. The agreement governing the Credit Agreement Warrants and the Common Stock Warrants includes a provision that could result in a different settlement value for the Common Stock Warrants depending on their holder. Because the holder of an instrument is not an input into the pricing of a fixed-for-fixed option on the Company's Class A common stock, the Common Stock Warrants are not considered to be indexed to the Company's own stock. As the Common Stock Warrants meet the definition of a derivative, the Company recorded these warrants as liabilities on the consolidated balance sheets at fair value based on the Black Scholes model. Subsequent changes in their respective fair values are recognized in the consolidated statements of operations at each reporting date. 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.

Contingent Earnout Liability

In connection with the Merger, eligible Spire equity holders are entitled to receive additional shares of the Company's Class A common stock upon the Company achieving certain earnout triggering events. In accordance with Accounting Standards Codification ("ASC") 815-40, the earnout shares are not indexed to the Company's Class A common stock and therefore were 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 (Note 8) 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.

Revenue Recognition

The Company generates revenue from four main solutions: Maritime, Aviation, Weather and Space Services. The Company offers the following three data solutions to customers:

- **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.

As a fourth solution, the Company is also pioneering an innovative "space-as-a-service" business model through its Space Services solution. The Company leverages its fully deployed infrastructure and large-scale operations to enable customers to obtain customized data through its application programming interface ("API") infrastructure.

Revenue recognition involves the identification of the contract, identification of performance obligations in the contract, determination of the transaction price, allocation of the transaction price to the previously identified performance obligations and recognition of revenue as the performance obligations are satisfied.

The Company recognizes revenue for each separately identifiable performance obligation in a data solutions contract representing a promise to transfer data or a distinct service to a customer. In most cases, data provided under the Company's data solutions contracts are accounted for as a single performance obligation due to the integrated nature of the Company's precise space-based data. In some data access contracts, the Company provides multiple project-based services to a customer, most commonly when a contract covers multiple phases of the Space Services solution (e.g., development, manufacturing, launch and satellite operations). In those cases, the Company accounts for each distinct project-based deliverable as a separate performance obligation and allocates the transaction price to each performance obligation based on its relative standalone selling price, which is generally estimated using cost plus a reasonable margin based on value added to the customer.

The Company recognizes revenue when (or as) the performance obligation is satisfied, either over time or at a point in time. The Company has determined that each data access subscription provides a series of distinct services in which the customer simultaneously receives and consumes data. Therefore, for subscription-based data services, the Company recognizes revenue ratably over the subscription period. Revenue is recognized upon delivery for data products such as archive data and custom reports, which are performance obligations satisfied at a point in time upon transfer of control. For Space Services, control of the data typically is transferred at the time the customer gains access to the benefit of the service. If customer acceptance is required, revenue is recognized upon receipt of notice of customer acceptance, which is generally a short period of time after delivery. For certain project-based performance obligations (e.g., manufacturing and launch phases), revenue is recognized 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.

Contract Assets and Liabilities

For each of the Company's contracts, the timing of revenue recognition, customer billings, and cash collections determines the recorded accounts receivable, contract assets, and contract liabilities on the Company's consolidated balance sheets. Payment terms and conditions generally include a requirement to pay within 30 days. When revenue is recognized in advance of customer invoicing, a contract asset is recorded for the unbilled receivable. Conversely, contract liabilities are recorded when the Company has an unconditional right to consideration before it has satisfied a performance obligation. Contract liabilities consist of funds received in advance of revenue recognition from subscription services or project-based services that are subsequently recognized when the revenue recognition criteria are met. The non-current portion of contract liabilities consists of funds received in advance of revenue recognition from subscription services or other project-based services that have remaining contractual obligations greater than one year from the balance sheet date.

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Deferred Contract Costs

Sales commissions earned by the Company's employees are considered incremental costs of obtaining a contract. An asset is recognized for sales commissions if the Company expects the period of benefit from these costs to be more than one year. The Company amortizes the deferred contract costs on a straight-line basis over the period of expected benefit, which is primarily 12 months, consistent with the pattern of revenue recognition of the related performance obligation. The amortized costs are recorded in sales and marketing expense in the Company's consolidated statements of operations. The Company expenses sales commissions as incurred when the period of benefit is less than one year.

Deferred contract costs are included in other current assets, for the current portion, and other long-term assets, for the non-current portion, on the Company's consolidated balance sheets. Deferred contract costs at December 31, 2023 and 2022 were \$926 and \$890, respectively, of which \$487 and \$439, respectively, were classified as current. During the years ended December 31, 2023 and 2022, the Company recognized \$490 and \$809, respectively, as amortization of deferred contract costs in sales and marketing expense.

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 data and services to customers, allocated overhead costs and amortization of purchased intangibles customer relationships and developed technology associated with the Acquisition. Overhead costs primarily include allocable amounts of utilities, rent, depreciation expense on assets used directly in revenue producing activities, indirect materials, production and test administration expenses, and repairs and maintenance.

Research and Development Costs

Research and development expenses consist primarily of employee-related expenses, third-party consulting fees, and computing costs which are expensed as incurred.

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.

The Company expenses advertising costs as incurred. Advertising expense for the years ended December 31, 2023 and 2022 was \$1,103 and \$933, respectively, and is included in sales and marketing expenses in the consolidated statements of operations.

General and Administrative Costs

General and administrative expenses consist of employee-related expenses for personnel in the Company's executive, finance and accounting, facilities, legal, human resources, 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, fees related to accounting, tax and audit costs, office facilities costs, software subscription costs, and other corporate costs.

Employee Benefit Plan

The Company has a qualified retirement plan which covers all employees who meet certain eligibility requirements. Plan matching contributions, discretionary profit-sharing contributions, and qualified nonelective contributions may be made to the 401(k) salary deferral plan at the discretion of the Company's Board of Directors. The Company did not make any matching contributions, discretionary profit-sharing contributions and/or qualified nonelective contributions during the years ended December 31, 2023 and 2022.

The Company has defined contribution pension plans at its foreign subsidiaries which cover all employees who meet certain eligibility requirements. The contributions made by the Company under these plans during the years ended December 31, 2023 and 2022 were \$1,838 and \$737, respectively.

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Stock-Based Compensation

The Company has an equity incentive plan under which the Company grants stock-based awards to employees and non-employees. The Company accounts for stock-based awards in accordance with ASC 718, *Stock-Based Compensation*, 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, the fair value is calculated using the Black-Scholes option pricing model. The Black-Scholes option pricing model requires the input of assumptions, including the fair value of the underlying Class A common stock, the expected term of the option, the expected volatility of the price of the Company's Class A common stock, risk-free interest rates, and the expected dividend yield of the Company's Class A common stock. 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. Stock-based compensation expense is recognized on a straight-line basis over the requisite service period and forfeitures are accounted for as they occur.

Key assumptions used in the determination of fair value for stock options are as follows:

Expected term. Because of the lack of sufficient historical data, the Company uses 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. The Company determines the expected stock price volatility based on the historical volatility of the Company's Class A common stock and the historical volatilities of an industry peer group.

Expected dividend yield. The Company does not use a dividend rate due to the fact that the Company has never declared or paid cash dividends on its Class A common stock and does not anticipate doing so in the foreseeable future.

Risk-free interest rate. The Company bases its interest rate on a treasury instrument for which the term is consistent with the expected life of the stock options.

Income Taxes

The Company was incorporated in the state of Delaware as a C corporation. Deferred income taxes of the Company are provided on the liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax basis. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. All deferred tax assets and liabilities within each particular tax jurisdiction are offset and presented as a noncurrent deferred tax asset or liability. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The factors used to assess the likelihood of realization include the history of taxable income or loss, forecasts of future taxable income and available tax planning strategies that could be implemented to realize net deferred tax assets.

The Company accounts for uncertainty in income taxes in accordance with ASC 740-10, *Income Taxes*, which addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return, should be recorded in the consolidated financial statements. Under this guidance, the Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The Company recognizes interest accrued related to unrecognized tax benefits in interest expense and penalties, if any, as a component of income tax expense on the consolidated statements of operations.

Beginning in 2022, the Tax Cuts and Jobs Act (the "Tax Act") requires taxpayers to capitalize research and development expenses with amortization periods over five years for U.S. and fifteen years for foreign, which reduced the Company's taxable loss, and created a new deferred tax asset for capitalized research and development costs, and corresponding adjustments to tax on foreign source income through global intangible low-taxed income ("GILTI"), all of which have been accounted for in determining the Company's tax provision or benefit.

The Company reports income taxes in accordance with Financial Accounting Standards Board ("FASB") ASC 740, *Income Taxes*, which requires an asset and liability approach in accounting for income taxes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as net operating loss and tax credit carryforwards. Deferred tax amounts are determined by using the enacted tax rates expected to be in effect when the temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance reduces the deferred tax assets to the amount that is more likely than not to be realized.

Related Parties

In conjunction with the Company's acquisition of exactEarth in November 2021, Myriota Pty Ltd ("Myriota"), an existing Spire customer, became a related party as a result of exactEarth's approximately 13% ownership of Myriota. As of December 31, 2023, the Company's investment in Myriota, in the amount of \$2,216, was included in other long-term assets on the consolidated balance sheets. The Company accounts for this investment using the equity method of accounting. The Company's share of earnings or losses on the investment is recorded based on a one-month lag, due to the timing of receipt of financial statements from Myriota, as a component of other (expense) income, net in the consolidated statements of operations. The Company generated \$678 and \$2,278 in revenue from Myriota during the years ended December

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31, 2023 and 2022, respectively, and had no accounts receivable as of December 31, 2023 and \$170 of accounts receivable as of December 31, 2022, from Myriota.

Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive loss consisting of foreign currency translation adjustments and net unrealized gain and loss on investments.

Net Loss Per Share

The Company follows the two-class method when computing net income (loss) per share as the Company has issued shares that meet the definition of participating securities. The Company has two types of common stock, Class A and Class B. Class B common stock has no economic rights, and therefore has been excluded from the computation of basic and diluted net loss per share. The two-class method determines net income (loss) per share for each class of common and participating securities according to dividends declared, if any, and participating rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed.

Basic net income (loss) per share is computed by dividing the net income (loss) by the weighted-average number of common shares outstanding during the period. Diluted net income (loss) is computed by adjusting net income (loss) to reallocate undistributed earnings based on the potential impact of dilutive securities. Diluted net income (loss) per share is computed by dividing the diluted net income (loss) by the weighted-average number of common shares outstanding during the period, including potential dilutive common shares assuming the dilutive effect of common stock equivalents.

JOBS Act Accounting Election

The Company is provided the option to adopt new or revised accounting guidance under the requirements provided to an “emerging growth company” under the JOBS Act either (1) within the same periods as those otherwise applicable to public business entities, or (2) within the same time periods as non-public business entities, including early adoption when permissible. With the exception of certain accounting standards where the Company elected to early adopt when permissible, the Company has elected to adopt new or revised accounting guidance within the same time period as non-public business entities, as indicated below.

Accounting Pronouncements Recently Adopted

In October 2021, the FASB issued Accounting Standards Update (“ASU”) 2021-08, *Business Combinations* (Topic 805), Accounting for Contract Assets and Contract Liabilities from Contracts with Customers, to improve the accounting for acquired revenue contracts with customers in a business combination by addressing diversity in practice and inconsistency related to recognition of an acquired contract liability and payment terms and their effect on subsequent revenue recognized by the acquirer. The guidance is effective for annual reporting periods beginning after December 15, 2022, including interim periods within that reporting period, and should be applied prospectively to business combinations occurring on or after the effective date of the amendments. The adoption of ASU 2021-08 as of January 1, 2023 did not impact the Company’s consolidated financial statements.

In September 2022, the FASB issued ASU 2022-04, *Liabilities – Supplier Finance Programs* (Subtopic 405-50), guidance on modifying the disclosure requirements to enhance the transparency of supplier finance programs including disclosure of the key terms of the program, the amount outstanding that remains unpaid by the buyer as of the end of the annual period, a description of where those obligations are presented in the balance sheets, and a roll forward of those obligations during the annual period. The amendments in this update are effective for financial statements issued for annual periods beginning after December 15, 2022. The adoption of ASU 2022-04 as of January 1, 2023 did not impact the Company’s consolidated financial statements.

Accounting Pronouncements Not Yet Adopted

In March 2023, the FASB issued ASU 2023-01, *Leases – Common Control Arrangements* (Topic 842), to improve the accounting for amortizing leasehold improvements associated with arrangements between entities under common control. The amendment requires that leasehold improvements be amortized by the lessee over the useful life of the leasehold improvements to the common control group (regardless of the lease term) as long as the lessee controls the use of the underlying asset through a lease. Additionally, leasehold improvements should be accounted for as a transfer between entities under common control through an adjustment to equity when the lessee no longer controls the use of the underlying asset. The amendments in this update are effective for financial statements issued for annual periods beginning after December 15, 2023, with early adoption permitted. The Company does not expect this ASU to have a material impact on its consolidated financial statements.

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In August 2023, the FASB issued ASU 2023-05, *Business Combinations – Joint Venture Formations* (Subtopic 805-60): Recognition and Initial Measurement. The amendments in this ASU are intended to facilitate consistency in the application of accounting guidance upon the formation of entities qualifying as joint ventures ("JVs"). This ASU generally requires the use of business combinations accounting at the JV formation date, which would result in the contributed assets/liabilities being revalued to fair value and potentially result in the recognition of goodwill and other intangibles on the JV's financial statements. However, this ASU does not alter the ongoing accounting for the JV's operations. This guidance is effective for JVs with formation dates on or after January 1, 2025. The Company does not expect the standard to have a material impact on the Company's consolidated financial statements.

In November 2023, the FASB issued ASU 2023-7, *Segment Reporting* (Topic 280): Improvements to Reportable Segment Disclosures, which is intended to improve reportable segment disclosure requirements, primarily through enhanced disclosures about significant expenses. The amendments will require public entities to disclose significant segment expenses that are regularly provided to the chief operating decision maker and included within segment profit and loss. The guidance is effective for annual reporting periods beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted, and will be applied retrospectively to all prior periods presented in the financial statements. The Company is currently evaluating the ASU to determine its impact on the Company's disclosures.

In December 2023, the FASB issued ASU 2023-9, *Income Taxes* (Topic 740): Improvements to Income Tax Disclosures, which includes amendments that further enhance income tax disclosures, primarily through standardization and disaggregation of rate reconciliation categories and income taxes paid by jurisdiction. The guidance is effective for annual reporting periods beginning after December 15, 2024, with early adoption permitted, and should be applied prospectively or retrospectively. The Company is currently evaluating the ASU to determine its impact on the Company's disclosures.

3. Revenue, Contract Assets, Contract Liabilities and Remaining Performance Obligations

Disaggregation of Revenue

Revenue from subscription-based contracts was \$67,175, representing 64% of total revenue for the year ended December 31, 2023. Revenue from subscription-based contracts was \$57,082, representing 71% of total revenue for the year ended December 31, 2022. Revenue from non-subscription-based contracts was \$38,528, representing 36% of total revenue for the year ended December 31, 2023. Revenue from non-subscription-based contracts was \$23,186, representing 29% of total revenue for the year ended December 31, 2022.

The following revenue disaggregated by geography was recognized:

	Year Ended December 31, 2023		Year Ended December 31, 2022	
Americas ⁽¹⁾	\$ 58,976	56%	\$ 36,734	46%
EMEA ⁽²⁾	36,926	35%	31,962	40%
Asia Pacific	9,801	9%	11,572	14%
Total	<u>\$ 105,703</u>	<u>100%</u>	<u>\$ 80,268</u>	<u>100%</u>

(1) U.S. represented 47% and 35% for the years ended December 31, 2023 and 2022, respectively, and Canada represented 10% for the year ended December 31, 2022.

(2) United Kingdom represented 13% for the year ended December 31, 2023.

Contract Assets

At December 31, 2023 and 2022, contract assets were \$6,215 and \$3,353, respectively, on the consolidated balance sheets. The increase in contract assets was primarily due to the increase in revenue.

Changes in contract assets were as follows:

	2023		2022	
Balance as of December 31	\$	3,353	\$	2,084
Contract assets recorded during the year		6,180		3,353
Reclassified to accounts receivable		(3,353)		(1,694)
Other		35		(390)
Balance as of December 31	<u>\$</u>	<u>6,215</u>	<u>\$</u>	<u>3,353</u>

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Contract Liabilities

At December 31, 2023, contract liabilities were \$23,428, of which \$23,165 was reported in contract liabilities, current portion, and \$263 was reported in other long-term liabilities on the Company's consolidated balance sheets. At December 31, 2022, contract liabilities were \$16,628 of which \$15,856 was reported in contract liabilities, current portion, and \$772 was reported in other long-term liabilities on the Company's consolidated balance sheets. The increase in contract liabilities was primarily due to the increase in subscription-based contracts.

Changes in contract liabilities were as follows:

	2023	2022
Balance as of December 31	\$ 16,628	\$ 9,255
Contract liabilities recorded during the year	21,489	15,963
Revenue recognized during the period	(14,973)	(8,230)
Other	284	(360)
Balance as of December 31	<u>\$ 23,428</u>	<u>\$ 16,628</u>

Remaining Performance Obligations

The Company has performance obligations associated with commitments in customer contracts for future services that have not yet been recognized as revenue. These commitments for future services exclude (i) contracts with an original term of one year or less, and (ii) cancellable contracts. As of December 31, 2023, the amount not yet recognized as revenue from these commitments was \$198,056. The Company expects to recognize as revenue 40% of these future commitments over the next 12 months, 20% over the next 13 to 24 months, 18% over the next 25 to 36 months, and the remaining 22% thereafter as the performance obligations are met.

4. Other Balance Sheet Components

Other current assets consisted of the following:

	December 31,	
	2023	2022
Technology and other prepaid contracts	\$ 4,149	\$ 4,695
Notes receivable	4,500	—
Prepaid insurance	1,476	2,594
Deferred contract costs	487	439
Other receivables	1,237	1,123
Other	491	428
Other current assets	<u>\$ 12,340</u>	<u>\$ 9,279</u>

Property and equipment, net consisted of the following:

	December 31,	
	2023	2022
Satellites in-service	\$ 59,751	\$ 49,889
Internally developed software	2,138	2,119
Ground stations in-service	4,444	3,369
Leasehold improvements	5,800	4,175
Machinery and equipment	4,787	3,585
Computer equipment	1,908	1,985
Computer software and website development	99	99
Furniture and fixtures	1,336	1,156
	<u>80,263</u>	<u>66,377</u>
Less: Accumulated depreciation and amortization	(36,326)	(32,974)
	<u>43,937</u>	<u>33,403</u>
Satellite, launch and ground station work in progress	22,208	15,364
Finished satellites not yet placed in-service	5,064	4,985
Property and equipment, net	<u>\$ 71,209</u>	<u>\$ 53,752</u>

Depreciation and amortization expense related to property and equipment for the years ended December 31, 2023 and 2022 was \$14,711 and \$11,771, respectively. For the years ended December 31, 2023 and 2022 there was a loss from decommissioned satellites \$747 and \$549, respectively.

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Other accrued expenses consisted of the following:

	December 31,	
	2023	2022
Operating lease liabilities, current	\$ 3,506	\$ 2,333
Professional services	913	1,198
Third-party operating costs	1,088	1,541
Corporate and sales tax	245	542
Accrued interest	853	765
Software	754	580
Other	1,181	1,251
Other accrued expenses	<u>\$ 8,540</u>	<u>\$ 8,210</u>

5. Goodwill and Intangible Assets

The following table summarizes changes in goodwill balance:

Balance at December 31, 2022	\$ 49,954
Impact of foreign currency translation	1,201
Balance at December 31, 2023	<u>\$ 51,155</u>

Intangible assets consisted of the following:

	December 31, 2023	
	Gross Carrying Amount	Accumulated Amortization
Customer relationships	\$ 23,427	\$ (4,064)
Developed technology	13,313	(2,312)
Trade names	2,257	(940)
Backlog	3,117	(3,117)
Patents	419	(308)
FCC licenses	480	(249)
	<u>\$ 43,013</u>	<u>\$ (10,990)</u>

	December 31, 2022	
	Gross Carrying Amount	Accumulated Amortization
Customer relationships	\$ 22,877	\$ (2,062)
Developed technology	13,001	(1,174)
Trade names	2,204	(478)
Backlog	3,043	(3,036)
Patents	419	(276)
FCC licenses	480	(217)
	<u>\$ 42,024</u>	<u>\$ (7,243)</u>

As of December 31, 2023, the weighted-average amortization period for customer relationships and developed technology was 9.9 years, trade names was 2.9 years, and patents and FCC licenses was 6.4 years. Amortization expense related to intangible assets for the years ended December 31, 2023 and 2022 was \$3,518 and \$6,570, respectively.

During the year ended December 31, 2023 the Company did not recognize any impairment charges and during the year ended December 31, 2022, the Company recognized impairment charges of \$72 for intangible assets relating to patent costs which are included in other expense, net in the consolidated statements of operations. The patents asset balance as of each of December 31, 2023 and 2022 included \$57 of capitalized patent costs that will begin amortization upon the issuance of an official patent right to the Company.

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As of December 31, 2023, the expected future amortization expense of intangible assets is as follows:

Years ending December 31,	
2024	\$ 3,572
2025	3,563
2026	3,517
2027	3,095
2028	3,094
Thereafter	15,125
	<u>31,966</u>
Capitalized patent costs, unissued	57
	<u>\$ 32,023</u>

6. Long-Term Debt

Long-term debt consisted of the following:

	December 31,	
	2023	2022
Blue Torch term loan	\$ 117,996	\$ 100,511
Other	5,128	4,857
Total long-term debt	<u>123,124</u>	<u>105,368</u>
Less: Debt issuance costs	(9,011)	(6,893)
Non-current portion of long-term debt	<u>\$ 114,113</u>	<u>\$ 98,475</u>

The Company recorded \$19,032 and \$13,955 of interest expense, which included amortization of deferred issuance costs of \$2,337 and \$3,781 from long-term debt for the years ended December 31, 2023 and 2022, respectively.

As of December 31, 2023, the scheduled principal payments of long-term debt was as follows:

Years ending December 31,	
2024	\$ —
2025	—
2026	118,281
2027	342
2028	342
Thereafter	4,159
Total debt payments	<u>123,124</u>

Blue Torch Credit Agreement

On June 13, 2022, the Company, as borrower, and Spire Global Subsidiary, Inc. and Austin Satellite Design, LLC, 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 \$120,000 (the “Blue Torch Credit Facility”). A portion of the proceeds of the term loan was used to repay the Company’s then-existing \$70,000 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. Subject to certain exceptions, prepayments of principal under the Blue Torch Credit Facility will be subject to early termination fees in the amount of 3.0%, 2.0% and 1.0% of the principal prepaid if prepayment occurs within the first, second and third years following the closing date, respectively, 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 \$120,000 term loan was available and drawn at closing, of which \$19,735 was placed in an escrow account by Blue Torch with such amount to be released upon the Company achieving certain metrics related to annualized recurring revenue and a total annualized recurring revenue leverage ratio. These metrics were achieved and the \$19,735 was released from the escrow account and delivered to the Company in February 2023. The term loan accrues interest at a floating rate, to be based, at the Company's election, on either a reference rate or a 3-month Term Secured Overnight Financing Rate ("SOFR") (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%. The Company 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. The Company is 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 \$2,400 on the closing date, a \$250 annual agency fee and an exit

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fee of \$1,800 upon termination of the Blue Torch Financing Agreement.

The Blue Torch Financing Agreement contains customary affirmative covenants and customary negative covenants limiting the Company's ability and the ability of its 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. The Company 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.

On September 27, 2023, the Company 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 \$1,800 (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 by the Company 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 \$2,500 of the outstanding principal balance of the term loans and a prepayment premium of \$50, which were paid on October 2, 2023. The Waiver and Amendment also requires additional reporting if the Company's liquidity level is less than \$35,000 at any time during a month and revises the minimum liquidity covenant to require liquidity of at least \$30,000 at all times, commencing on September 30, 2023, which in both cases represent a \$5,000 incremental change from the original requirements. The Company was in compliance with all applicable financial covenants as of December 31, 2023.

On June 13, 2022, in connection with the Blue Torch Financing Agreement, the Company issued warrants to Blue Torch, which were exercisable for an aggregate of 437,024 shares of the Company's Class A common stock with a per share exercise price of \$16.08 (the "2022 Blue Torch Warrants"). In addition, in connection with the closing of the financing, the Company paid Urgent Capital LLC, a Delaware limited liability company, a fee for introducing the Company to the Lenders, for the purpose of loan financing, in the amount equal to \$600 in cash and a warrant to purchase 24,834 fully paid and non-assessable shares of the Company's Class A common stock with a per share exercise price of \$16.88 (the "Urgent Warrants").

On September 27, 2023, in connection with the Waiver and Amendment, the Company 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. The Company also concurrently issued new warrants to certain Blue Torch 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" and together with the 2022 Blue Torch Warrants and the Urgent Warrants, the "Credit Agreement Warrants").

The Company evaluated the Credit Agreement Warrants and concluded that they do not meet the criteria to be classified within stockholders' equity. The agreements governing the Credit Agreement Warrants include a provision that could result in a different settlement value for the Credit Agreement Warrants depending on their holder. Because the holder of an instrument is not an input into the pricing of a fixed-for-fixed option on the Company's Class A common stock, the Credit Agreement Warrants are not considered to be indexed to the Company's Class A common stock.

As the Credit Agreement Warrants meet the definition of a derivative, the Company recorded these warrants as liabilities on the consolidated balance sheets at fair value (Note 8) based on the Black-Scholes model as of June 13, 2022 and September 27, 2023 with inputs that include the Company's Class A common stock price in an actively traded market, making this fair value classified as a Level 2 financial instrument. The other significant assumptions used in the model are the exercise price, expected term, volatility, interest rate, and dividend yield. Subsequent changes in their respective fair values are recognized in the consolidated statements of operations at each reporting date. 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.

The Company incurred \$4,591 of debt issuance costs, inclusive of fees paid to the Lenders, and issued Credit Agreement Warrants with an estimated fair value of \$6,157 at the date of issuance, the total of which has been presented as a deduction from the carrying amounts of the Blue Torch Credit Facility on the consolidated balance sheets and is being amortized to interest expense over the term of the Blue Torch Credit Facility.

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 the Company's 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.

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Government Loan

In November 2021, the Company completed the Acquisition and assumed an interest free loan agreement with the Strategic Innovation Fund ("SIF") which was recorded at an amount equal to the proceeds received. Under this agreement and subsequent amendment, the Company was eligible to receive funding for certain expenditures incurred from February 13, 2018 to May 12, 2023, up to a maximum of \$5,701. As of December 31, 2023 and 2022, \$5,128 and \$4,857, respectively, was included in long-term debt, non-current on the consolidated balance sheets related to the SIF loan agreement. Any amount outstanding under this loan is repayable in 15 annual payments beginning February 28, 2026 and has a stated interest rate of zero.

7. Leases

Lease expenses for the years ended December 31, 2023 and 2022 were \$4,172 and \$3,409, respectively. Aggregate variable lease expenses and short-term lease expenses were \$613 and \$548, for the years ended December 31, 2023 and 2022, respectively.

The following table provides the required information regarding the Company's leases for which the Company is the lessee:

	December 31,	
	2023	2022
Assets		
ROU assets	\$ 14,921	\$ 11,687
Total ROU assets	\$ 14,921	\$ 11,687
Liabilities		
Current	\$ 3,506	\$ 2,333
Non-current	13,079	10,815
Total lease liabilities	\$ 16,585	\$ 13,148
Weighted-average remaining lease term (years)	5.4	5.7
Weighted-average discount rate	8%	9%

Approximately 80% of the Company's right-of-use ("ROU") assets and lease liabilities relate to office facilities leases, with the remaining amounts representing primarily ground station leases.

As of December 31, 2023, the maturity of operating leases are as follows:

Years ending December 31,	
2024	\$ 4,745
2025	4,058
2026	3,639
2027	2,774
2028	1,868
Thereafter	3,586
Total lease payments	20,670
Less: Interest on lease payments	(4,085)
Present value of lease liabilities	\$ 16,585

Operating cash flows paid included in the measurement of operating lease liabilities for the years ended December 31, 2023 and 2022 were \$2,782 and \$1,632, respectively, and were included in net cash used in operating activities in the consolidated statements of cash flows. Amortization of ROU assets was \$2,928 and \$2,344 for the years ended December 31, 2023 and 2022, respectively.

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8. Fair Value Measurement

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following tables present the Company's fair value hierarchy for its financial instruments that are measured at fair value on a recurring basis:

	December 31, 2023			Total
	Level 1	Level 2	Level 3	
Assets:				
Cash and cash equivalents:				
Money market funds	\$ 10,114	\$ —	\$ —	\$ 10,114
	<u>\$ 10,114</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 10,114</u>
Marketable securities:				
U.S. treasury bills and bonds	\$ 8,840	\$ —	\$ —	\$ 8,840
Commercial paper	—	1,395	—	1,395
U.S. government and agency securities	—	1,491	—	1,491
	<u>\$ 8,840</u>	<u>\$ 2,886</u>	<u>\$ —</u>	<u>\$ 11,726</u>
Long-term liabilities:				
Credit Agreement Warrants	\$ —	\$ 5,988	\$ —	\$ 5,988
Contingent earnout liability	—	—	220	220
	<u>\$ —</u>	<u>\$ 5,988</u>	<u>\$ 220</u>	<u>\$ 6,208</u>
	December 31, 2022			Total
	Level 1	Level 2	Level 3	
Assets:				
Cash and cash equivalents:				
Money market funds	\$ 5,180	\$ —	\$ —	\$ 5,180
Commercial paper	—	2,097	—	2,097
	<u>\$ 5,180</u>	<u>\$ 2,097</u>	<u>\$ —</u>	<u>\$ 7,277</u>
Marketable securities:				
U.S. treasury bills and bonds	\$ 1,494	\$ —	\$ —	\$ 1,494
Corporate securities	—	7,745	—	7,745
Commercial paper	—	2,576	—	2,576
U.S. government and agency securities	—	11,269	—	11,269
	<u>\$ 1,494</u>	<u>\$ 21,590</u>	<u>\$ —</u>	<u>\$ 23,084</u>
Liabilities:				
Current liabilities:				
Public Warrants	\$ 267	\$ —	\$ —	\$ 267
Long-term liabilities:				
Credit Agreement Warrants	\$ —	\$ 1,831	\$ —	\$ 1,831
Contingent earnout liability	—	—	349	349
	<u>\$ —</u>	<u>\$ 1,831</u>	<u>\$ 349</u>	<u>\$ 2,180</u>

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Financial Assets

The Company values its Level 1 assets, consisting of money market funds and U.S. treasury bills and bonds, using quoted prices in active markets for identical instruments.

Financial assets whose fair values that are measured on a recurring basis using Level 2 inputs consist of commercial paper, corporate securities, and U.S. government and agency securities. The Company measures the fair values of these assets with the help of a pricing service that either provides quoted market prices in active markets for identical or similar securities or uses observable inputs for their pricing without applying significant adjustments.

Public and Private Placement Warrants

The Company assumed 1,437,499 publicly-traded warrants (“Public Warrants”) and 825,000 private placement warrants issued by NavSight (“Private Warrants”) and, together with the Public Warrants, the “Warrants”) upon the Merger, all of which were issued in connection with NavSight’s initial public offering and entitled the holder to purchase one share of the Company’s Class A common stock at an exercise price of \$92.00 per share. The fair value of the Public Warrants was based on the quoted market price and was classified as a Level 1 financial instrument.

In November 2022, the Company announced the commencement of an exchange offer (the “Offer”) and consent solicitation relating to all holders of the Warrants to receive 0.2 shares of Class A common stock in exchange for each outstanding Warrant tendered by the holder. On December 19, 2022, a total of 2,069,561 Warrants were tendered and exchanged for 413,910 shares of Class A common stock.

Concurrently with the Offer, the Company also solicited consents from holders of the Public Warrants to amend the Warrant Agreement to permit the Company to require that each Warrant that was outstanding upon the closing of the Offer be exchanged for 0.18 shares of Class A common stock, which is a ratio 10% less than the exchange ratio applicable to the Offer (such amendment, the “Warrant Amendment”). Because consents were received from holders of more than 65% of the Company’s outstanding Public Warrants, the Warrant Amendment was approved. On December 19, 2022, the Company exercised its right to acquire and retire all remaining outstanding Public Warrants in exchange for shares of Class A common stock in accordance with the terms of the Warrant Amendment. The remaining 192,936 Public Warrants were exchanged on January 4, 2023 for 34,728 shares of the Company's Class A common stock. Following the exchange, none of the Warrants remain outstanding.

Credit Agreement Warrants

On June 13, 2022, in connection with the Blue Torch Financing Agreement, the Company issued warrants to Blue Torch, which were exercisable for an aggregate of 437,024 shares of the Company’s Class A common stock with a per share exercise price of \$16.08 (the “2022 Blue Torch Warrants”). Additionally, in connection with the closing of the financing, the Company issued a warrant to Urgent Capital LLC for introducing the Company to the Lenders, which is exercisable for an aggregate of 24,834 shares of the Company's Class A common stock with a per share exercise price of \$16.08 (together with the 2022 Blue Torch Warrants and the 2023 Blue Torch Warrants (as defined below), the “Credit Agreement Warrants”).

On September 27, 2023, in connection with the Waiver and Amendment, the Company 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. The Company 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 fair value of the Credit Agreement Warrants is estimated using the Black-Scholes model with inputs that include the Company’s Class A common stock price in an actively traded market, making this fair value classified as a Level 2 financial instrument. The other significant assumptions used in the model are the exercise price, expected term, volatility, interest rate, and expected dividend yield.

The table below quantifies the significant inputs used for the Credit Agreement Warrants:

	December 31,	
	2023	2022
Fair value of the Company’s Class A common stock	\$ 7.82	\$ 7.68
Exercise price	\$ 5.44 - 16.08	\$ 16.08
Risk-free interest rate	3.88%	3.88%
Expected volatility factor	55.0%	55.0%
Expected dividend yield	—%	—%
Remaining contractual term (in years)	8.5 - 9.7	9.1

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Contingent Earnout Liability

In connection with the Merger, eligible Spire equity holders are entitled to receive additional shares of the Company's Class A common stock upon the achievement of certain earnout triggering events. The estimated fair value of the contingent earnout liability is determined using a Monte Carlo simulation using a distribution of potential outcomes on a monthly basis over the earnout period, which is a period up to five years post-closing of the Merger, prioritizing the most reliable information available, making this fair value classified as a Level 3 liability. The assumptions utilized in the calculation are based on the achievement of certain stock price milestones, including the current price of the Company's Class A common stock, expected volatility, risk-free interest rate, expected term and expected dividend yield.

The table below quantifies the significant inputs used for the contingent earnout liability:

	December 31,	
	2023	2022
Fair value of the Company's Class A common stock	\$ 7.82	\$ 7.68
Risk-free interest rate	4.09%	4.16%
Expected volatility factor	55.0%	55.0%
Earnout expiration date	August 16, 2026	August 16, 2026

The following table presents a summary of the changes in the fair value of the Company's Level 3 financial instruments that are measured at fair value on a recurring basis:

	Contingent Earnout Liability
Fair value as of December 31, 2022	349
Change in fair value of contingent earnout liability	(129)
Fair value as of December 31, 2023	<u>\$ 220</u>

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Cash and Cash Equivalents and Marketable Securities

The following table summarizes the Company's cash, cash equivalents and available-for-sale securities by significant marketable securities category:

	December 31, 2023			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents:				
Cash	\$ 19,030	\$ —	\$ —	\$ 19,030
Cash equivalents:				
Money market funds	10,114	—	—	10,114
	<u>\$ 29,144</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 29,144</u>
Marketable Securities:				
U.S. treasury bills and bonds	\$ 8,838	\$ 2	\$ —	\$ 8,840
Commercial paper	1,395	—	—	1,395
U.S. government and agency securities	1,492	—	(1)	1,491
	<u>\$ 11,725</u>	<u>\$ 2</u>	<u>\$ (1)</u>	<u>\$ 11,726</u>
	December 31, 2022			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents:				
Cash	\$ 39,919	\$ —	\$ —	\$ 39,919
Cash equivalents:				
Money market funds	5,180	—	—	5,180
Commercial paper	2,098	—	(1)	2,097
	<u>\$ 47,197</u>	<u>\$ —</u>	<u>\$ (1)</u>	<u>\$ 47,196</u>
Marketable Securities:				
U.S. treasury bills and bonds	\$ 1,495	\$ —	\$ (1)	\$ 1,494
Corporate securities	7,771	—	(26)	7,745
Commercial paper	2,578	—	(2)	2,576
U.S. government and agency securities	11,272	—	(3)	11,269
	<u>\$ 23,116</u>	<u>\$ —</u>	<u>\$ (32)</u>	<u>\$ 23,084</u>

The following table represents amortized cost and estimated fair value of marketable securities, by contractual maturity:

	December 31, 2023	
	Amortized Cost	Fair Value
Due in one year or less	\$ 11,725	\$ 11,726

In accordance with the Company's investment policy, investments are placed in investment grade securities with high credit quality issuers, and generally limit the amount of credit exposure to any one issuer. The Company evaluates securities for impairment at the end of each reporting period. The Company did not record any impairment charges related to its available-for-sale securities during the years ended December 31, 2023 and 2022.

9. Commitments and Contingencies

L3Harris Commitment

In conjunction with the Acquisition, the Company acquired the agreement (the "L3Harris Agreement") with L3Harris Technologies, Inc. ("L3Harris") to receive satellite automatic identification system ("S-AIS") data from the L3Harris AppStar payloads on-board Iridium NEXT Constellation, Iridium's Real-Time Second-Generation satellite constellation with 58 AppStar payloads. Under the Amended and Restated

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L3Harris Agreement dated January 21, 2020 (the "A&R L3Harris Agreement"), the Company incurs a fixed fee of \$358 per month. The A&R L3Harris Agreement expires on August 7, 2031.

Under the A&R L3Harris Agreement, the Company will pay a 30% share of S-AIS data revenues for the portion of exactEarth annual S-AIS data revenue which is in excess of \$16,000. No revenue share was owed to L3Harris under the A&R L3Harris Agreement, with respect to AIS Analytics sales, during the years ended December 31, 2023 and 2022. For the years ended December 31, 2023 and 2022, \$5,059 and \$5,045 was recognized in cost of revenue in the consolidated statements of operations for the exclusive access rights to data generated from satellites.

The following table summarizes the operational fees commitment under the A&R L3Harris Agreement, which includes the fixed payments to L3Harris:

Years ending December 31,	
2024	\$ 4,300
2025	4,300
2026	4,300
2027	4,300
2028	4,300
Thereafter	11,189
	<u>\$ 32,689</u>

Litigation

At times, the Company is party to various claims and legal actions arising in the normal course of business. Although the ultimate outcome of these matters is not presently determinable, management believes that the resolution of all such pending matters, based on an assessment of the current facts and circumstances, will not have a material adverse effect on the Company's business, results of operations, financial condition or cash flows; however, there can be no assurance that the ultimate resolution of these matters will not have a material impact on the Company's consolidated financial statements in any period.

10. Stock-Based Compensation

In connection with the Closing, the Company adopted the 2021 Equity Incentive Plan (the "2021 Plan") and the 2021 Employee Stock Purchase Plan ("2021 ESPP"). The number of shares available for issuance under the 2021 Plan is increased on the first day of each fiscal year, beginning on January 1, 2022, in an amount equal to the lesser of (i) 2,994,000 shares of Class A common stock, (ii) a number of shares of Class A common stock equal to 5% of the total number of shares of all of Class A common stock outstanding as of the last day of the immediately preceding fiscal year, or (iii) such number of shares of Class A common stock as the Company's board of directors or its designated committee may determine no later than the last day of the immediately preceding fiscal year.

The 2021 Plan permits the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, and performance awards to employees, directors, or consultants under the 2021 Plan. Under the 2021 ESPP, the Company can grant stock options to employees to purchase shares of Class A common stock at a purchase price which equals 85% of the lower of (i) the fair market value of Class A common stock on the first trading day of the offering period or (ii) the fair market value of Class A common stock on the exercise date. As of December 31, 2023, 717,543 and 532,686 shares were available for grant under the 2021 Plan and 2021 ESPP, respectively.

The following table summarizes stock option activity under the Company's equity compensation plans:

	Number of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (in years)
Options outstanding as of December 31, 2022	2,389,622	\$ 18.52	6.1
Granted	61,446	\$ 5.37	
Exercised	(500)	\$ 7.04	
Forfeited, canceled, or expired	(252,016)	\$ 27.62	
Options outstanding as of December 31, 2023	<u>2,198,552</u>	\$ 17.11	5.0
Vested and expected to vest at December 31, 2023	2,198,552	\$ 17.11	5.0
Exercisable at December 31, 2023	1,901,002	\$ 16.91	4.6

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The aggregate intrinsic value of options exercised during 2023 and 2022, was \$1 and \$483, respectively. The aggregate fair value of options vested during 2023 and 2022 was \$3,729 and \$6,072, respectively. The Company received \$3 and \$806 in cash proceeds from options exercised during the years ended December 31, 2023 and 2022, respectively. The weighted-average grant date fair value of options granted for the years ending December 31, 2023 and 2022 was \$2.77 and \$0.95, respectively. The aggregate intrinsic value of options outstanding as of December 31, 2023 and 2022 was \$387 and \$200, respectively. The aggregate intrinsic value of options exercisable as of December 31, 2023 and 2022 was \$236 and \$200, respectively.

The following table summarizes stock RSU activity under the 2021 Plan:

	Number of RSUs	Weighted Average Grant Date Fair Value per Share
Outstanding as of December 31, 2022	1,547,256	\$ 19.60
RSUs granted	1,447,101	\$ 5.60
RSUs vested	(781,557)	\$ 17.97
RSUs forfeited	(365,217)	\$ 15.70
Outstanding as of December 31, 2023	<u>1,847,583</u>	<u>\$ 10.17</u>

For RSUs with service-based vesting conditions, the fair value is calculated based upon the Company's closing stock price on the date of grant, and the stock-based compensation expense is recognized over the four-year vesting period.

As of December 31, 2023, there was \$19,407 of total unrecognized compensation expense related to options and RSUs expected to be recognized over a weighted average-period of 2.17 years.

The following table summarizes the components of total stock-based compensation expense based on roles and responsibilities of the employees within the consolidated statements of operations:

	Years Ended December 31,	
	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
	<u>\$ 12,978</u>	<u>\$ 11,491</u>

The fair value of stock-based compensation for stock options was estimated using the Black-Scholes option-pricing model requiring the use of subjective valuation assumptions and inputs, including the expected stock price volatility. The Company's options have characteristics significantly different from those of traded options, and changes in input assumptions can materially affect the fair value estimates. Stock-based compensation expense for options is recognized over their respective vesting period, which ranges from one to four years.

The fair value of stock options was estimated using the following assumptions at the date of the grant:

	Year Ended December 31,	
	2023	2022
Risk-free interest rate	4.1%	2.9%
Expected volatility factor	51.8%	58.3%
Expected option life	5.5 years	5.5 years
Expected dividend yield	—	—

Spire Global, Inc.
Notes to Consolidated Financial Statements
December 31, 2023 and 2022

(In thousands, except shares and per share data, unless otherwise noted)

11. Stockholders' Equity

In August 2021, the Company's Board of Directors approved the amended and restated certificate of incorporation which states the Company's authority to issue 1,000,000,000 shares of Class A and 15,000,000 shares of Class B common stock with a par value of \$0.0001 per share. The total number of shares of preferred stock authorized to be issued is 100,000,000 shares, par value \$0.0001 per share, and none was outstanding as of December 31, 2023 and 2022.

Common Stock

Shares of Class A common stock have both economic and voting rights. Shares of Class B common stock have no economic rights, but do have voting rights. Each holder of shares of Class A common stock will be entitled to one vote for each share of common stock held at all meetings of shareholders and each holder of shares of Class B common stock will be entitled to nine votes for each share of common stock held at all meetings of shareholders.

Prior to the Closing of the Merger, voting, dividend and liquidation rights of the holders of the common stock were subject to and qualified by the rights, powers, and preferences of the holders of the preferred stock. The holders of the common stock were entitled to one vote for each share of common stock held at all meetings of shareholders. Dividends were issued to common stockholders only after holders of the preferred stock received funds legally available in the amount equal to 8% of the original issuance price per annum on each outstanding share of preferred stock. In the event of liquidation, dissolution, distribution of assets or winding-up of the Company, the holders of common stock would receive payment on a pro rata basis on the number of shares held by each such holder, after the rights of the holders of the preferred stock have been satisfied.

12. Income Taxes

Loss before income taxes consisted of the following:

	Year Ended December 31,	
	2023	2022
Domestic loss	\$ (53,898)	\$ (69,072)
Foreign loss	(9,986)	(20,017)
Loss before income taxes	<u>\$ (63,884)</u>	<u>\$ (89,089)</u>

The income tax provision consists of the following:

	Year Ended December 31,	
	2023	2022
Current income tax provisions:		
Federal	\$ —	\$ —
State	—	—
Foreign	(176)	386
Current income tax provision	<u>(176)</u>	<u>386</u>
Deferred income tax expense:		
Federal	—	—
State	—	—
Foreign	248	(64)
Deferred income tax expense	<u>248</u>	<u>(64)</u>
Total income tax provision	<u>\$ 72</u>	<u>\$ 322</u>

Spire Global, Inc.
Notes to Consolidated Financial Statements
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(In thousands, except shares and per share data, unless otherwise noted)

The following table presents a reconciliation of the federal statutory rate of 21% to effective tax rate:

	Year Ended December 31,	
	2023	2022
U.S. federal tax benefit at statutory rate	21.0%	21.0%
State income taxes, net of federal benefit	2.5%	4.2%
Foreign rate differential	0.7%	1.3%
Contingent earnout	—	2.3%
Stock-based compensation	(1.6)%	(0.8)%
UK R&D expenditure	1.2%	—
GILTI inclusion	(2.6)%	—
Deferred tax adjustments	(5.7)%	—
Non-deductible expenses and other	(0.6)%	3.0%
Change in valuation allowance, net	(15.0)%	(31.3)%
Effective tax rate	<u>(0.1)%</u>	<u>(0.3)%</u>

For 2023 and 2022, our effective tax rate differs from the amount computed by applying the statutory federal and state income tax rates to net loss before income tax, primarily as the result of state income taxes, R&D credits, foreign income taxes and changes in our valuation allowance.

The significant components of deferred tax assets (liabilities) are as follows:

	Year Ended December 31,	
	2023	2022
Deferred tax assets		
Net operating loss carryforward	\$ 98,300	\$ 97,737
Research and development credit carryforward	4,560	6,402
Interest expense limitation carryforward	5,141	—
Stock-based compensation	1,709	1,836
Property and equipment	6,030	3,533
Operating lease liabilities	1,891	1,965
Sec 174 Capitalized R&D	8,416	3,424
Intangibles	233	56
Other accruals	4,848	3,422
Gross deferred tax assets	<u>131,128</u>	<u>118,375</u>
Less: Valuation allowance	(113,503)	(102,480)
Net deferred tax assets	<u>17,625</u>	<u>15,895</u>
Deferred tax liabilities		
Intangibles	(13,165)	(13,945)
Operating lease right-of-use assets	(1,785)	(1,950)
Foreign property and equipment and intangibles	(708)	(771)
Other accruals	(3,036)	—
Gross deferred tax liabilities	<u>(18,694)</u>	<u>(16,666)</u>
Net deferred tax liabilities	<u>\$ (1,069)</u>	<u>\$ (771)</u>

As of December 31, 2023, the Company had accumulated undistributed earnings generated by its foreign subsidiaries of \$17,627. The Company continues to assert that all its foreign earnings are to be permanent income reinvested and expects future U.S. cash generation to be sufficient to meet future U.S. cash needs. As such, the Company has not recognized a deferred tax liability related to unremitted foreign earnings.

Realization of the deferred tax assets is dependent upon the generation of future taxable income, if any, the amount and timing of which is uncertain. The Company could not conclude that it was more likely than not that tax benefits from operating losses would be realized and, accordingly, has provided a full valuation allowance against its Spire Global United States, Australia, Germany, Singapore, Luxembourg, exactEarth Canada and UK deferred tax assets. There is no valuation allowance on Spire Global UK. The valuation allowance as of December 31, 2022 was \$102,480, which increased to \$113,503 as of December 31, 2023. The increase in the valuation allowance of \$11,023 is mostly related to current year losses.

Spire Global, Inc.
Notes to Consolidated Financial Statements
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(In thousands, except shares and per share data, unless otherwise noted)

At December 31, 2023, the Company had \$248,665 of federal net operating losses available to reduce future taxable income, which will begin to expire in 2032. Approximately \$166,140 of federal net operating loss included above can be carried forward indefinitely. The Company also had federal research and development tax credit carryforwards of \$3,922, which will begin to expire in 2032, and federal interest limitation carryforwards of \$20,486 which can be carried forward indefinitely.

At December 31, 2023, the Company had \$81,656 of post-apportioned state net operating losses, which can be carried forward for periods that vary from five years to indefinitely. The Company also had state interest limitation carryforwards of \$10,337, which can be carried forward indefinitely.

The federal and state net operating loss carryforwards and certain tax credits may be subject to significant limitations under Section 382 and Section 383, respectively, of the Internal Revenue Code of 1986, as amended, and similar provisions under state law. Under those sections of the Internal Revenue Code, if a corporation undergoes an “ownership change,” the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research and development tax credits, to offset its post-change income or tax liability may be limited. In general, an “ownership change” will occur if there is a cumulative change in ownership by “5-percent shareholders” that exceeds 50 percentage points over a rolling three-year period. The Company has not yet undertaken an analysis of whether the Merger constitutes an “ownership change” for purposes of Internal Revenue Code Section 382 and Section 383. The Company may experience ownership changes in the future as a result of subsequent shifts in its stock ownership.

As of December 31, 2023, the Company had \$160,689 of foreign net operating losses available to reduce future taxable income, which will begin to expire in 2030 and can vary from seven years to indefinitely based on each applicable foreign jurisdiction. The Company also had research and development tax credit carryforwards in Canada of \$639, which will begin to expire in 2029.

Unrecognized Tax Benefits

The Company does not have any significant uncertain tax positions.

The Company recognizes interest accrued related to unrecognized tax benefits in interest expense and penalties, if any, as a component of income tax expense on the consolidated statements of operations.

The Company is subject to taxation in the United States, Canada, Germany, Luxembourg, Singapore and the United Kingdom. The Company has not been audited by the Internal Revenue Service or any state or foreign tax authority. The Company is subject to audit by the Internal Revenue Service for income tax returns filed since inception due to net operating loss carryforwards. The Company is subject to audit in Singapore and the United Kingdom from tax years 2018 and 2019, respectively, and in Luxembourg from tax year 2020 and in Australia from tax year 2018.

13. Net Loss per Share

The following table sets forth the computation of basic and diluted net loss per share attributable to common stockholders:

	Years Ended December 31,	
	2023	2022
Numerator:		
Net loss	\$ (63,956)	\$ (89,411)
Denominator:		
Weighted-average shares used in computing basic and diluted net loss per share	19,580,006	17,484,927
Basic and diluted net loss per share	\$ (3.27)	\$ (5.11)

The Company has two types of common stock, Class A and Class B. Class B common stock has no economic rights, therefore has been excluded from the computation of basic and diluted net loss per share. The Company’s potential dilutive securities have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted-average number of common shares outstanding used to calculate both basic and diluted net loss per share is the same.

The Company excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per share for the years ended December 31, 2023 and 2022 because including them would have had an anti-dilutive effect:

	Fiscal Year Ended December 31,	
	2023	2022
Stock options and 2021 ESPP to purchase Class A common stock	2,212,165	2,408,998
Public and Private Warrants	—	192,936
RSUs	1,847,583	1,547,530
Credit Agreement Warrants	1,058,940	461,858
	<u>5,118,688</u>	<u>4,611,322</u>

14. Subsequent Events

On February 4, 2024, the Company and Signal Ocean Ltd (“Signal Ocean”) entered into a securities purchase agreement for the issuance and sale of 833,333 shares of the Company’s Class A common stock to Signal Ocean at a price of \$12.00 per share (the “Private Placement”). The Private Placement closed on February 8, 2024, resulting in gross proceeds to the Company of \$10,000.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934, as amended ("Exchange Act"), is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in company reports filed or submitted under the Exchange Act is accumulated and communicated to management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

We performed an evaluation under the supervision and with the participation of management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rule(s) 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2023. Based upon that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were not effective as of December 31, 2023 because of the material weaknesses in internal control over financial reporting described below.

Notwithstanding the material weaknesses described in Management's Report on Internal Control over Financial Reporting, our management has concluded that our consolidated financial statements for the periods covered by and included in this Annual Report are prepared in accordance with accounting principles generally accepted in the United States ("GAAP") and fairly present, in all material respects, our financial position, results of operations and cash flows for each of the periods presented herein.

Material Weaknesses in Internal Control over Financial Reporting

We have identified material weaknesses in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses were identified:

We did not design and maintain an effective control environment commensurate with the financial reporting requirements of a public company. Specifically, we lacked a sufficient number of professionals with an appropriate level of internal controls and accounting knowledge, training, and experience to appropriately analyze, record and disclose accounting matters timely and accurately. Additionally, the lack of a sufficient number of professionals resulted in an inability to consistently establish appropriate authorities and responsibilities in pursuit of our financial reporting objectives, as demonstrated by, among other things, insufficient segregation of duties in our finance and accounting functions. This material weakness contributed to the following additional material weaknesses:

- i. We did not design and maintain an effective risk assessment process at a precise enough level to identify new and evolving risks of material misstatement in our financial statements. Specifically, changes to existing controls or the implementation of new controls have not been sufficient to respond to changes to the risks of material misstatement in the financial statements.
- ii. We did not design and maintain effective controls over the segregation of duties related to journal entries and account reconciliations. Specifically, certain personnel have the ability to both (a) create and post journal entries within our general ledger system, and (b) prepare and review account reconciliations.

The material weaknesses above resulted in certain immaterial audit adjustments, which were recorded prior to the issuance of the consolidated financial statements as of and for the year ended December 31, 2020. Additionally, these material weaknesses could result in a misstatement of substantially all of our accounts or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

- iii. We did not design and maintain effective controls related to the identification of and accounting for certain non-routine, unusual or complex transactions, including the proper application of GAAP to such transactions. Specifically, we did not design and maintain:

- a. controls to timely identify and account for warrant instruments, which resulted in the restatement of the previously issued financial statements of NavSight related to adjustments to warrant liabilities and equity;
- b. controls to account for business combinations, including the associated valuation estimates and the completeness and accuracy of the opening balance sheet, which did not result in a misstatement to our consolidated financial statements; and
- c. controls to timely identify and account for the fair value of the contingent earnout liability, which resulted in an error in the fair value of the contingent earnout liability in, and the restatement of, our previously issued unaudited condensed consolidated financial statements as of and for each of the interim periods ended September 30, 2021, March 31, 2022 and June 30, 2022 and our consolidated financial statements as of and for the year ended December 31, 2021.

Additionally, these material weaknesses could result in a misstatement of substantially all of our accounts or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

- iv. We did not design and maintain effective controls over certain information technology (“IT”) general controls for information systems that are relevant to the preparation of our financial statements. Specifically, we did not design and maintain:
 - a. user access controls to ensure appropriate segregation of duties and that adequately restrict user and privileged access to financial applications, programs, and data to appropriate company personnel;
 - b. program change management controls for our financial systems to ensure that IT program and data changes affecting financial IT applications and underlying accounting records are identified, tested, authorized, and implemented appropriately; and
 - c. testing and approval controls for program development to ensure that new software development is aligned with business and IT requirements.

These IT deficiencies did not result in a misstatement to the financial statements, however, the deficiencies, when aggregated, could impact our ability to maintain effective segregation of duties, as well as the effectiveness of IT-dependent controls (such as automated controls that address the risk of material misstatement to one or more assertions, along with the IT controls and underlying data that support the effectiveness of system-generated data and reports) that could result in misstatements potentially impacting all financial statement accounts and disclosures that would result in a material misstatement to the annual or interim financial statements that would not be prevented or detected. Accordingly, management has determined these deficiencies in the aggregate constitute a material weakness.

Remediation Efforts on Material Weaknesses in Internal Control over Financial Reporting

In response to the material weaknesses identified, we have implemented several changes to our internal control over financial reporting and will continue performing remedial actions in 2024, as described below.

The remediation and ultimate resolution of each of the material weaknesses will be reviewed with the Audit Committee of the Company’s Board of Directors.

We have made progress to address the material weaknesses related to the control environment, as described below:

Key Professionals

In fiscal 2022 and 2023 and continuing to date, we identified and hired a number of professionals with appropriate levels of internal controls and accounting knowledge to improve the overall domestic and international financial accounting and reporting departments. The positions hired include chief accounting officer, director of accounting and Americas controller, director of technical accounting, accounting manager, senior and staff accountants, senior financial systems manager, and system administrator. In addition, we engaged with external consultants and experts to provide technical accounting and financial systems services. The Company continues to monitor personnel requirements and expertise needed to have an effective control environment, including providing necessary ongoing training to its finance and accounting personnel.

Risk Assessment

We engaged a third-party consulting firm to assist in designing and implementing a risk assessment process to identify and evaluate changes in the Company’s business and the impact on its internal controls. During fiscal 2023, we conducted a financial risk assessment to identify key business processes and establish internal materiality thresholds. We performed walkthroughs of all key processes, identified key controls, and developed narratives describing risk points, processes, and corresponding controls. A Risk and Control Matrix (RCM) was created to serve as the basis for a testing program in progress.

We engaged a third-party consulting firm to complete an initial Enterprise Risk Assessment. With the assistance of the consulting firm, we identified key risks for technology-based organizations and interviewed management team members and the Chair of the Audit Committee to discuss key risk areas. We reviewed responses received, compiled a list of identified risks, and developed heat maps to depict the likelihood, impact, and preparedness of the Company to respond to the identified risks. Action and testing plans are being developed to address the risks and testing is in process, after which results will be monitored and reviewed with management.

Segregation of Duties

During fiscal year 2022, we completed our initial assessment on segregation of duties with assistance from a third-party consulting firm and began our analysis across all processes and locations, including establishing appropriate authorities and responsibilities. During 2022, we designed and implemented controls over the segregation of duties related to journal entries and account reconciliations, including the implementation of automated

controls, which replaced previously manual detective controls, designed to prevent the ability for the same person to create and post journal entries in our general ledger system. With the hiring of additional personnel including a senior financial system manager in late 2022, and an accounts receivable specialist and a senior accountant in 2023, we were able to implement additional automated controls and to further segregate the preparation and review of account reconciliations during fiscal year 2023. We are in the process of testing the controls designed over segregation of duties.

Non-routine, Unusual or Complex Transactions

Over the course of 2022, we hired key accounting personnel and engaged with third-party technical accounting experts to improve our controls related to the identification of and proper application of GAAP accounting for non-routine, unusual, or complex transactions. Since the Merger that occurred in August 2021, warrant instruments have been accounted for in accordance with the Company's accounting policies based on GAAP. During the fourth quarter of 2022, Management trained the accounting team and designed new controls to timely identify and account for the fair value of the contingent earnout liability, and hired a third-party technical accounting firm to assist with the proper application of GAAP for non-routine, unusual, or complex transactions, including any business combinations that may arise in the future. We have tested the controls designed for non-routine, unusual or complex transactions and are in the process of monitoring the controls for operating effectiveness.

IT General Controls

Management designed and maintained testing and approval controls for program development to ensure that the software is aligned with business and IT requirements. This includes final approval and testing of the software prior to migration to production. Over the course of 2022 and continuing through 2023, the Company designed and implemented certain IT general controls, including controls over user access rights and privileges and change management.

While the above actions and planned actions are subject to ongoing management evaluation and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period, we are committed to continuous improvement and will continue to diligently review our internal control over financial reporting. The material weaknesses will not be considered remediated until management completes the design and implementation of the measures described above, until the controls operate for a sufficient period of time, and until management has concluded, through testing, that the controls are effective.

Limitations on Effectiveness of Controls and Procedures

Our management, including our principal executive officer and principal financial officer, do not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Due to inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Changes in Internal Control over Financial Reporting

There have been no changes (other than those described above) in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

During the three months ended December 31, 2023, none of our directors or officers (as defined in Rule 16a-1(f) of the Exchange Act) adopted or terminated any contract, instruction or written plan for the purchase or sale of our securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) of the Exchange Act or any non-Rule 10b5-1 trading arrangement (as defined in the SEC's rules).

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item, including information about our Directors, Executive Officers and Audit Committee and Code of Business Conduct and Ethics, is incorporated by reference to the definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which will be filed with the SEC, no later than 120 days after December 31, 2023.

Item 11. Executive Compensation

The information required by this item is incorporated by reference to the definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after December 31, 2023.

Item 12. Security Ownership of Certain Beneficial Owners and Management, and Related Stockholder Matters

The information required by this item is incorporated by reference to the definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after December 31, 2023.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated by reference to the definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after December 31, 2023.

Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated by reference to the definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after December 31, 2023.

PART IV

Item 15. Exhibits, Financial Statement Schedules

The following documents are filed as part of this Annual Report on Form 10-K:

- (1) Consolidated Financial Statements: Our consolidated financial statements are listed in the “Index to Consolidated Financial Statements” under Part II, Item 8 of this Annual Report on Form 10-K.
- (2) Financial Statement Schedules: All financial statement schedules are omitted because the information called for is not required or is shown in the consolidated financial statements or in the notes thereto.
- (3) Exhibits: The documents listed below are incorporated by reference or are filed with this Annual Report on Form 10-K, in each case as indicated below.

Exhibit Index

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
2.1	Business Combination Agreement, dated as of February 28, 2021, by and among the registrant, NavSight Merger Sub Inc., Spire Global Subsidiary, Inc., Peter Platzer, Theresa Condor, Joel Spark, and Jeroen Cappaert	S-4/A	333-256112	Annex A	July 16, 2021
2.2	Arrangement Agreement and Plan of Arrangement, dated as of September 13, 2021, by and among the registrant, exactEarth Ltd. And Spire Global Canada Acquisition Corp., as amended October 15, 2021	10-Q	001-39493	2.1	November 10, 2021
3.1	Certificate of Incorporation of Spire Global, Inc.	S-1	333-259733	3.1	September 23, 2021
3.2	Certificate of Amendment to Certificate of Incorporation of Spire Global, Inc., dated August 30, 2023	8-K	001-39493	3.1	August 30, 2023
3.3	Bylaws of Spire Global, Inc.	S-1	333-259733	3.2	September 23, 2021
4.1	Specimen Class A Common Stock Share Certificate	8-K	001-39493	4.1	August 20, 2021
4.2	Form of Blue Torch Warrant to Purchase Common Stock of Spire Global, Inc., dated as of June 13, 2022.	8-K	001-39493	4.1	June 14, 2022
4.3	Form of GPO Warrant to Purchase Common Stock of Spire Global, Inc., dated as of June 13, 2022.	8-K	001-39493	4.2	June 14, 2022
4.4	Form of Amended and Restated Blue Torch Warrant to Purchase Common Stock of Spire Global, Inc., dated as of September 27, 2023	8-K	001-39493	4.1	October 2, 2023
4.5	Form of Blue Torch Warrant to Purchase Common Stock of Spire Global, Inc., dated as of September 27, 2023	8-K	001-39493	4.2	October 2, 2023
4.6	Description of Securities.				
10.1	Financing Agreement dated as of June 13, 2022, among Spire Global, Inc., Spire Global Subsidiary, Inc., Austin Satellite Design, LLC, Blue Torch Finance LLC and the lenders party thereto.	8-K	001-39493	10.1	June 14, 2022
10.2	Security Agreement dated as of June 13, 2022, among Spire Global, Inc., Spire Global Subsidiary, Inc., Austin Satellite Design, LLC and Blue Torch Finance LLC.	8-K	001-39493	10.2	June 14, 2022
10.3	Amendment No. 1 to Financing Agreement, dated as of March 21, 2023, among Spire Global, Inc., Spire Global Subsidiary, Inc., Austin Satellite Design, LLC, Blue Torch Finance LLC and the lenders party thereto.	8-K	001-39493	10.1	October 2, 2023
10.4	Waiver and Amendment No. 2 to Financing Agreement, dated as of September 27, 2023, among Spire Global, Inc., Spire Global Subsidiary, Inc., Austin Satellite Design, LLC, Blue Torch Finance LLC and the lenders party thereto	8-K	001-39493	10.2	October 2, 2023
10.5	Equity Distribution Agreement, dated September 14, 2022, by and between Spire Global, Inc. and Canaccord Genuity LLC.	8-K	001-39493	10.1	September 14, 2022
10.6	Amendment to the Warrant Agreement, dated December 19, 2022, by and between Company and American Stock Transfer & Trust Company.	8-K	001-39493	10.1	December 19, 2022
10.7	Investor Rights Agreement, dated as of February 28, 2021, by and among the registrant, Six4 Holdings, LLC, Gilman Louie, Henry Crumpton, Jack Pearlstein, Robert Coleman, William Crowell, Peter Platzer, Theresa Condor, William Porteous and Stephen Messer.	S-4/A	333-256112	Annex I	July 16, 2021
10.8+	Spire Global, Inc. 2021 Equity Incentive Plan, conformed to reflect the First Amendment effective August 2, 2023 and the reverse stock split effective August 31, 2023	8-K	001-39493	10.1	September 7, 2023
10.9+	Spire Global, Inc. 2021 Employee Stock Purchase Plan, conformed to reflect the reverse stock split effective August 31, 2023	8-K	001-39493	10.2	September 7, 2023
10.10+	Offer Letter between Leonardo Basola and Spire Global Subsidiary, Inc., effective as of August 10, 2023	8-K	001-39493	10.1	August 16, 2023
10.11+	Executive Employment Agreement, dated as of November 27, 2023, between Spire Global, Inc. and Leo Basola	8-K	001-39493	10.3	December 1, 2023-
10.12+	Consulting Agreement between Thomas Krywe and Spire Global, Inc., dated as of August 15, 2023	8-K	001-39493	10.2	August 16, 2023
10.13+	Spire Global, Inc. Outside Director Compensation Policy, as amended, effective June 13, 2023.	10-Q	001-39493	10.2	August 9, 2023
10.14+	Spire Global, Inc. Executive Officer Short-Term Incentive Plan.	10-Q	001-39493	10.1	August 9, 2023
10.15+	Loan and Security Agreement by and among Spire, certain lenders party thereto, FP Credit Partners, L. P., as agent for the lenders, and certain of Spire's subsidiaries as guarantors, dated as of April 15, 2021, with Amendment No. 1 dated as of May 17, 2021 and Amendment No. 2 dated as of August 5, 2021.	S-1	333-259733	10.17	September 23, 2021
10.16+	Long Term Employment Contract, dated as of January 1, 2022, by and between Spire Global Luxembourg Sàrl and Peter Platzer.	10-K	001-39493	10.6	March 30, 2022
10.17+	Expatriation Letter, dated as of December 12, 2017, by and between Spire Global, Inc. and Peter Platzer.	S-4/A	333-256112	10.10	July 16, 2021

10.18+	Tax Equalization Policy, dated as of December 12, 2017, by and between Spire Global, Inc. and Peter Platzer.	S-4/A	333-256112	10.11	July 16, 2021
10.19+	Managing Director Service Agreement, dated as of November 27, 2023, between Spire Global Germany GmbH and Peter Platzer	8-K	001-39493	10.1	December 1, 2023
10.20+	Form of Offer Letter by and between Spire Global, Inc. and each of Tom Krywe and Boyd Johnson.	S-4/A	333-256112	10.12	July 16, 2021
10.21+	Executive Employment Agreement, dated as of November 27, 2023, between Spire Global, Inc. and Boyd Johnson				
10.22+	Long Term Employment Contract, dated as of January 1, 2018, by and between Spire Global Luxembourg Sàrl and Theresa Condor.	S-4/A	333-256112	10.15	July 16, 2021
10.23+	Employment Contract, dated as of November 27, 2023, between Spire Global Germany GmbH and Theresa Condor	8-K	001-39493	10.2	December 1, 2023
10.24+	Form of Spire Global, Inc. 2022 Commission Plan.	10-K	001-39493	10.16	March 15, 2023
10.25+	Form of Spire Global, Inc. 2022 Salary Adjustment and Annual Performance Bonus.	10-K	001-39493	10.17	March 15, 2023
10.26+	Form of Change in Control and Severance Agreement of Spire Global, Inc.	S-4/A	333-256112	10.18	July 16, 2021
10.27	Contribution Agreement by and between Her Majesty the Queen in Right of Canada and exactEarth Ltd. dated as of October 18, 2018, with Amendment No. 1 dated as of November 22, 2021.	10-K	001-39493	10.15	March 30, 2022
21.1	Subsidiaries of Registrant.				
23.1	Consent of PricewaterhouseCoopers LLP.				
24.1	Power of Attorney (included on signature page).				
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
97.1	Spire Global, Inc. Compensation Recovery Policy				
101	The following financial statements from the Company's Annual Report on Form 10-K for the year ended December 31, 2023, formatted in Inline XBRL: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Loss, (iv) Consolidated Statements of Changes in Stockholders' Equity, (v) Consolidated Statements of Cash Flows, and (vi) Notes to consolidated financial statements.				
104	Cover Page Interactive Data File (contained in Exhibit 101)				

+ Indicates management contract or compensatory plan.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Spire Global, Inc.

Date: March 6, 2024

By: /s/ Peter Platzer
Peter Platzer
Chief Executive Officer and Director
(Principal Executive Officer)

Date: March 6, 2024

By: /s/ Leonardo Basola
Leonardo Basola
Chief Financial Officer
(Principal Financial and Accounting Officer)

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Leonardo Basola and Boyd Johnson, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such individual in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or the individual's substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Peter Platzer</u> Peter Platzer	Chief Executive Officer and Director (Principal Executive Officer)	March 6, 2024
<u>/s/ Leonardo Basola</u> Leonardo Basola	Chief Financial Officer (Principal Financial and Accounting Officer)	March 6, 2024
<u>/s/ Theresa Condor</u> Theresa Condor	Chief Operating Officer and Director	March 6, 2024
<u>/s/ Joan Amble</u> Joan Amble	Director	March 6, 2024
<u>/s/ Dirk Hoke</u> Dirk Hoke	Director	March 6, 2024
<u>/s/ Stephen Messer</u> Stephen Messer	Director	March 6, 2024
<u>/s/ William Porteous</u> William Porteous	Director	March 6, 2024

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