
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 10-Q

(Mark One)
 QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended **June 30, 2022**

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: 001-39426

ASTRA SPACE, INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)
1900 Skyhawk Street
Alameda, CA
(Address of principal executive offices)

85-1270303
(I.R.S. Employer
Identification No.)
94501
(Zip Code)

Registrant's telephone number, including area code: (866) 278-7217

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 \$0.0001 per share	ASTR	The NASDAQ Global Select Market

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 checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input 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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of August 2, 2022, the registrant had 209,891,782 shares of Class A common stock, \$0.0001 par value per share, outstanding and 55,539,188 shares of Class B common stock, \$0.0001 par value per share, outstanding.

Table of Contents

	Page
PART I.	<u>1</u>
	FINANCIAL INFORMATION
Item 1.	1
	Condensed Consolidated Financial Statements (Unaudited)
	Condensed Consolidated Balance Sheets
	Condensed Consolidated Statements of Operations
	Condensed Consolidated Statements of Stockholders' Equity
	Condensed Consolidated Statements of Cash Flows
	Notes to Unaudited Condensed Consolidated Financial Statements
Item 2.	30
Item 3.	40
Item 4.	40
	Management's Discussion and Analysis of Financial Condition and Results of Operations
	Quantitative and Qualitative Disclosures About Market Risk
	Controls and Procedures
PART II.	43
	OTHER INFORMATION
Item 1.	43
Item 1A.	43
Item 2.	49
Item 3.	49
Item 4.	49
Item 5.	49
Item 6.	50
	Legal Proceedings
	Risk Factors
	Unregistered Sales of Equity Securities and Use of Proceeds
	Defaults Upon Senior Securities
	Mine Safety Disclosures
	Other Information
	Exhibits
	Signatures

PART I—FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements (unaudited)

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)
(Unaudited)

	As of	
	June 30, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 104,315	\$ 325,007
Marketable securities	96,368	—
Trade accounts receivable	3,447	1,816
Inventories	3,155	7,675
Prepaid and other current assets	3,931	12,238
Total current assets	211,216	346,736
Non-current assets:		
Property, plant and equipment, net	88,223	66,316
Right-of-use asset	8,601	9,079
Goodwill	58,251	58,251
Intangible assets, net	16,292	17,921
Other non-current assets	3,114	721
Total assets	\$ 385,697	\$ 499,024
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 14,331	\$ 9,122
Operating lease obligation, current portion	1,759	1,704
Accrued expenses and other current liabilities	45,182	29,899
Total current liabilities	61,272	40,725
Non-current liabilities:		
Operating lease obligation, net of current portion	6,745	7,180
Other non-current liabilities	18,757	14,599
Total liabilities	86,774	62,504
Commitments and Contingencies (Note 11)		
STOCKHOLDERS' EQUITY		
Founders convertible preferred stock, \$0.0001 par value; 1,000,000 shares authorized; none issued and outstanding as of June 30, 2022 and December 31, 2021	—	—
Class A common stock, \$0.0001 par value; 400,000,000 shares authorized; 209,408,425 and 207,451,107 shares issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	22	22
Class B common stock, \$0.0001 par value; 65,000,000 shares authorized; 55,539,188 and 55,539,189 shares issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	6	6
Additional paid in capital	1,875,527	1,844,875
Accumulated other comprehensive loss	(233)	—
Accumulated deficit	(1,576,399)	(1,408,383)
Total stockholders' equity	298,923	436,520
Total liabilities and stockholders' equity	\$ 385,697	\$ 499,024

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

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share data)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Revenues	\$ 2,682	\$ —	\$ 6,593	\$ —
Cost of revenues	17,445	—	28,459	—
Gross loss	(14,763)	—	(21,866)	—
Operating expenses:				
Research and development	40,798	10,458	78,725	22,435
Sales and marketing	4,636	1,125	9,400	1,189
General and administrative	20,608	18,318	41,594	30,931
Loss on change in fair value of contingent consideration	1,800	—	17,300	—
Total operating expenses	67,842	29,901	147,019	54,555
Operating loss	(82,605)	(29,901)	(168,885)	(54,555)
Interest income (expense), net	356	(678)	530	(1,213)
Other income (expense), net	(54)	(718)	339	(718)
Loss on extinguishment of convertible notes	—	—	—	(131,908)
Loss on extinguishment of convertible notes attributable to related parties	—	—	—	(1,875)
Loss before taxes	(82,303)	(31,297)	(168,016)	(190,269)
Income tax (benefit) provision	—	—	—	—
Net loss	\$ (82,303)	\$ (31,297)	\$ (168,016)	\$ (190,269)
Adjustment to redemption value on Convertible Preferred Stock	—	—	—	(1,011,726)
Net loss attributable to common stockholders	\$ (82,303)	\$ (31,297)	\$ (168,016)	\$ (1,201,995)
Net loss per share:				
Weighted average number of shares of Class A common stock outstanding – basic and diluted	209,021,924	20,035,183	208,569,794	18,131,574
Net loss per share of Class A common stock – basic and diluted	\$ (0.31)	\$ (0.47)	\$ (0.64)	\$ (18.52)
Weighted average number of shares of Class B common stock outstanding – basic and diluted	55,539,188	46,722,244	55,539,188	46,783,559
Net loss per share of Class B common stock – basic and diluted	\$ (0.31)	\$ (0.47)	\$ (0.64)	\$ (18.52)

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

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)
(Unaudited)

	For The Three Months Ended June 30,		For The Six Months Ended June 30,	
	2022	2021	2022	2021
Net loss	\$ (82,303)	\$ (31,297)	\$ (168,016)	\$ (190,269)
Other comprehensive loss:				
Unrealized loss on available-for-sale marketable securities	(78)	—	(233)	—
Total comprehensive loss	<u>\$ (82,381)</u>	<u>\$ (31,297)</u>	<u>\$ (168,249)</u>	<u>\$ (190,269)</u>

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

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
Six Months Ended June 30, 2022
(In thousands, except share data)
(Unaudited)

	Class A Common Stock		Class B Common Stock		Additional Paid in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance as of December 31, 2021	207,451,107	\$ 22	55,539,189	\$ 6	\$ 1,844,875	\$ —	\$ (1,408,383)	\$ 436,520
Stock-based compensation	—	—	(1)	—	17,041	—	—	17,041
Issuance of common stock under equity plans	1,159,383	—	—	—	793	—	—	793
Unrealized loss on available-for-sale marketable securities	—	—	—	—	—	(155)	—	(155)
Net loss	—	—	—	—	—	—	(85,713)	(85,713)
Balance as of March 31, 2022	<u>208,610,490</u>	<u>\$ 22</u>	<u>55,539,188</u>	<u>\$ 6</u>	<u>\$ 1,862,709</u>	<u>\$ (155)</u>	<u>\$ (1,494,096)</u>	<u>\$ 368,486</u>
Stock-based compensation	—	—	—	—	12,791	—	—	12,791
Issuance of common stock under equity plans	797,935	—	—	—	27	—	—	27
Unrealized loss on available-for-sale marketable securities	—	—	—	—	—	(78)	—	(78)
Net loss	—	—	—	—	—	—	(82,303)	(82,303)
Balance as of June 30, 2022	<u>209,408,425</u>	<u>\$ 22</u>	<u>55,539,188</u>	<u>\$ 6</u>	<u>\$ 1,875,527</u>	<u>\$ (233)</u>	<u>\$ (1,576,399)</u>	<u>\$ 298,923</u>

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

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF TEMPORARY EQUITY AND STOCKHOLDERS' EQUITY (DEFICIT)
Six Months Ended June 30, 2021
(In thousands, except share data)
(Unaudited)

	Temporary Equity		Permanent Equity										
	Convertible Preferred Stock		Common Stock (Pre-combination Astra)		Class A Common Stock (New Astra)		Class B Common Stock (New Astra)		Founders Preferred Stock		Addition al Paid in	Accumulat ed	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Deficit	
Balance as of December 31, 2020	90,768,286	\$ 108,829	62,961,258	\$ 6	—	\$ —	—	\$ —	12,302,500	\$ 1	\$ 50,282	\$ (190,697)	\$ (140,408)
Cumulative effect adjustment due to adoption of ASU 2020-06	—	—	—	—	—	—	—	—	—	—	(9,719)	691	(9,028)
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	2,177	—	2,177
Exercise of options	—	—	498,807	—	—	—	—	—	—	—	228	—	228
Issuance of Series C Convertible Preferred Stock, net of issuance costs	28,498,141	221,943	—	—	—	—	—	—	—	—	—	—	—
Conversion of Founders Convertible Preferred Stock to Series C Convertible Preferred Stock	5,073,576	—	—	—	—	—	—	(5,073,576)	—	8,156	—	—	8,156
Adjustment to redemption value on Convertible Preferred Stock	—	1,011,726	—	—	—	—	—	—	—	(51,131)	(960,595)	(1,011,726)	
Net loss	—	—	—	—	—	—	—	—	—	—	(158,972)	(158,972)	(158,972)
Balance as of March 31, 2021	124,340,003	\$ 1,342,498	63,460,065	\$ 6	—	\$ —	—	\$ —	\$ 7,228,924	\$ 1	\$ (7)	\$ (1,309,573)	\$ (1,309,573)
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	7,444	—	7,444
Exercise of options	—	—	1,812,081	—	—	—	—	—	—	—	1,081	—	1,081
Adjustment to redemption value on Convertible Preferred Stock	—	(1,011,726)	—	—	—	—	—	—	—	—	1,011,726	—	1,011,726
Merger recapitalization- Class A	(124,340,003)	(330,772)	(16,261,881)	(2)	140,601,884	14	—	—	—	—	330,751	—	330,763
Merger recapitalization- Class B	—	—	(49,010,265)	(4)	—	—	56,239,189	6	(7,228,924)	(1)	—	—	1
Private offering and merger financing, net of redemptions and equity issuance costs of \$23,337	—	—	—	—	57,489,019	6	—	—	—	—	406,863	—	406,869
Net loss	—	—	—	—	—	—	—	—	—	—	—	(31,297)	(31,297)
Balance as of June 30, 2021	—	\$ —	—	\$ —	198,090,903	\$ 20	56,239,189	\$ 6	—	\$ —	\$ 1,757,858	\$ (1,340,870)	\$ 417,014

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

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Six Months Ended June 30,	
	2022	2021
Cash flows from operating activities:		
Net loss	\$ (168,016)	\$ (190,269)
Adjustments to reconcile net loss to cash flows used in operating activities		
Stock-based compensation	29,832	17,777
Depreciation	6,004	1,918
Amortization of intangible assets	1,629	—
Inventory write-downs	18,828	—
Non-cash lease expense	729	426
Accretion (amortization) of marketable securities purchased at a premium (discount)	132	—
Loss on change in fair value of contingent consideration	17,300	—
Loss on extinguishment of convertible notes	—	131,908
Loss on extinguishment of convertible notes attributable to related parties	—	1,875
Amortization of convertible note discounts	—	315
Amortization of convertible note discounts attributable to related parties	—	55
Changes in operating assets and liabilities:		
Trade accounts receivable	(1,632)	—
Inventories	(13,446)	(1,182)
Prepaid and other current assets	7,447	(4,893)
Other non-current assets	(2,393)	—
Accounts payable	6,268	3,617
Lease liabilities	(631)	(547)
Accrued expenses and other current liabilities	1,153	2,334
Other non-current liabilities	4,934	2,011
Net cash used in operating activities	\$ (91,862)	\$ (34,655)
Cash flows from investing activities:		
Acquisition of trademark	(850)	(3,200)
Purchases of marketable securities	(102,010)	—
Maturities of marketable securities	5,277	—
Purchases of property, plant and equipment	(32,064)	(8,796)
Net cash used in investing activities	\$ (129,647)	\$ (11,996)
Cash flows from financing activities:		
Proceeds from business combination and private offering, net of transaction costs of \$23,337	—	463,648
Borrowings on Pendrell bridge loan	—	10,000
Repayment on Pendrell bridge loan	—	(10,000)
Proceeds from issuance of Series C preferred stock	—	30,000
Issuance cost of Series C preferred stock	—	(94)
Repayments on term loans	—	(2,800)
Repayments on equipment advances	—	(3,636)
Proceeds from stock issued under equity plans	106	1,309
Proceeds from Employee Stock Purchase Plan	711	—
Net cash provided by financing activities	\$ 817	\$ 488,427
Net increase (decrease) in cash and cash equivalents	\$ (220,692)	\$ 441,776
Cash and cash equivalents at beginning of period	325,007	10,611
Cash and cash equivalents at end of period	\$ 104,315	\$ 452,387
Non-cash activities:		
Conversion of Series A, Series B, Series C, and Founders' convertible preferred into common stock	\$ —	\$ 330,764
Assets acquired included in accounts payable and accrued expenses and other current liabilities	4,983	537
Public and private placement of warrants acquired as part of business combination	—	56,786
Change in redemption value of Convertible Preferred Stock	—	1,011,726
Supplemental disclosures of cash flow information:		
Cash paid for interest	\$ —	\$ 691

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

ASTRA SPACE, INC.
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Note 1 — Description of Business, Basis of Presentation and Significant Accounting Policies

Description of Business

Astra Space, Inc. designs, tests, manufactures and operates the next generation of launch services and space products and services that it expects to enable a new generation of global communications, earth observation, precision weather monitoring, navigation, and surveillance capabilities. Astra Space, Inc.'s mission is to Improve Life on Earth from Space[®] through greater connectivity and more regular observation and to enable a wave of innovation in low Earth orbit by expanding its space platform offerings.

Holicity Inc. ("Holicity") was originally incorporated in Delaware and was established as a special purpose acquisition company, which completed its initial public offering in August 2020. On June 30, 2021 (the "Closing Date"), Holicity consummated a business combination (the "Business Combination") pursuant to the Business Combination Agreement dated as of February 2, 2021 (the "BCA"), by and among Holicity, Holicity Merger Sub Inc., a wholly owned subsidiary of Holicity ("Merger Sub"), and Astra Space Operations, Inc. ("pre-combination Astra"). Immediately upon the consummation of the Business Combination, Merger Sub merged with and into pre-combination Astra with pre-combination Astra surviving the merger as a wholly owned subsidiary of Holicity. Holicity changed its name to "Astra Space, Inc." and pre-combination Astra changed its name to "Astra Space Operations, Inc."

Unless the context otherwise requires, "we", "us", "our", "Astra" and the "Company" refers to Astra Space, Inc., the combined company and its subsidiaries following the Business Combination and Astra Space Operations, Inc. prior to the Business Combination. See Note 3 — Acquisitions for further discussion of the Business Combination. The Company's Class A common stock is listed on the Nasdaq under the symbol "ASTR".

Basis of Presentation and Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of Astra and its subsidiaries, and have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP") as determined by the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission ("SEC") for financial reporting. The condensed consolidated financial statements included herein are unaudited, and reflect all adjustments which are, in the opinion of management, of a normal recurring nature and necessary for a fair statement of the results for the periods presented. The December 31, 2021 condensed consolidated balance sheet data were derived from Astra's audited consolidated financial statements included in its Annual Report on Form 10-K for year ended December 31, 2021 as filed with the SEC. All intercompany transactions and balances have been eliminated in consolidation. The operating results for the three and six months ended June 30, 2022 are not necessarily indicative of the results that may be expected for the year ending December 31, 2022, or for any other future period.

Business Combination

On June 30, 2021, the Business Combination pursuant to the BCA, by and among Holicity, Merger Sub, and pre-combination Astra, was accounted for as a reverse recapitalization as pre-combination Astra was determined to be the accounting acquirer under ASC 805. The determination is primarily based on the evaluation of the following facts and circumstances:

- the equity holders of pre-combination Astra hold the majority of voting rights in the Company;
- the board of directors of pre-combination Astra represent a majority of the members of the board of directors of the Company;
- the senior management of pre-combination Astra became the senior management of the Company; and
- the operations of pre-combination Astra comprise the ongoing operations of the Company.

In connection with the Business Combination, outstanding common stock and preferred convertible stock of the pre-combination Astra was converted into common stock of the Company, par value of \$0.0001 per share, representing a recapitalization, and the net assets of the Company were acquired and recorded at historical cost, with no goodwill or intangible assets recorded. Pre-combination Astra was deemed to be the predecessor and the condensed consolidated assets and liabilities and results of operations prior to the Closing Date are those of pre-combination Astra. Reported shares and earnings per share available to common stockholders, prior to the Business Combination, have been retroactively restated as shares reflecting the exchange ratio established in the BCA. The number of shares of preferred stock was also retroactively restated based on the exchange ratio. See Note 3 — Acquisitions for additional information.

Liquidity

The accompanying unaudited condensed consolidated financial statements have been prepared on a going concern basis. The Company has historically funded its operations primarily by equity financings and convertible promissory notes prior to the Business Combination and subsequently funded its operations through cash proceeds obtained as part of the Business Combination and related private placement. As of June 30, 2022, the Company's existing sources of liquidity included cash and cash equivalents of \$104.3 million and marketable securities of \$96.4 million. The Company has a limited history of operations and has incurred negative cash flows from operating activities and loss from operations in the past as reflected in the accumulated deficit of \$1,576.4 million as of June 30, 2022. The Company expects to continue to incur operating losses due to the investments it intends to make in its business, including the development of its products and services. The Company remains focused on managing its cash expenditures, including but not limited to, reducing its capital expenditures, consulting services and re-focusing its hiring efforts. In addition, the Company continues to evaluate opportunities to strengthen the Company's financial position, including through the issuance of additional equity securities or by entering into new financing arrangements, as appropriate. As an example, on August 2, 2022, the Company entered into a Common Stock Purchase Agreement with B. Riley Principal Capital II LLC ("B. Riley"), which would allow the Company to sell newly issued shares of its Class A Common Stock to B. Riley in aggregate amount not to exceed \$100,000,000 or 19.99% of the aggregate outstanding Class A and Class B Common Stock of the Company as of August 2, 2022. See Note 17 — Subsequent Events for additional information about this financing arrangement. The Company expects that its existing sources of liquidity will be sufficient to fund operating and capital expenditure requirements through at least twelve (12) months from the date of issuance of these financial statements.

Impact of the COVID-19 Pandemic

The Company has been actively monitoring the ongoing COVID-19 pandemic situation and its impact on the Company's business while keeping abreast of the latest developments, particularly the variants of the virus, to ensure preparedness for Astra's employees and its business. The COVID-19 pandemic had disrupted everyday life and markets worldwide, leading to significant business and supply-chain disruption, as well as broad-based changes in supply and demand. The Company has been diligent in testing and monitoring its employees, and there have been disruptions in productivity, although these disruptions have not resulted in suspension of its manufacturing facilities. However, there has been a trend in many parts of the world of increasing availability and administration of vaccines against COVID-19, as well as an easing of restrictions on social, business, travel and government activities and functions. On the other hand, infection rates and regulations continue to fluctuate in various regions and there are ongoing global impacts resulting from the pandemic, including challenges and increases in costs for logistics and supply chains, such as increased intermittent supplier delays and a shortfall of semiconductor supply. Ultimately, the Company cannot predict the duration of the COVID-19 pandemic. The Company will continue to monitor macroeconomic conditions to remain flexible and to optimize and evolve its business as appropriate and deploy its production, workforce and other resources accordingly.

Use of Estimates and Judgments

The preparation of the condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities in the condensed consolidated financial statements and accompanying notes. The Company bases these estimates on historical experience and on various other assumptions that it believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying amounts of assets and liabilities that are not readily apparent from other sources. Actual results could differ significantly from those estimates. Significant items subject to such estimates and assumptions include the valuation of goodwill and intangible assets, inventory valuation, stock-based compensation, pre-combination Astra common stock, useful lives of intangible assets and fixed assets, deferred tax assets, income tax uncertainties, contingent consideration and other contingencies.

Significant Accounting Policies

Other than those described below, there have been no changes to the Company's significant accounting policies described in the Company's Annual Report on Form 10-K for the year ended December 31, 2021, that have had a material impact on its unaudited condensed consolidated financial statements and related notes.

Marketable securities. Marketable securities consist of U.S. Treasury securities, corporate debt securities, commercial paper, and asset backed securities. The Company classifies marketable securities as available-for-sale at the time of purchase and reevaluates such classification as of each balance sheet date. Interest receivable on these securities is presented in other current assets on the condensed consolidated balance sheets. All marketable securities are recorded at their estimated fair values. When the fair value of a marketable security declines below its amortized cost basis, the carrying value of the security will be reduced to its fair value if it is more likely than not that management is required to sell the impaired security before recovery of its amortized basis, or management has the intention to sell the security. If neither of these conditions are met, the Company determines whether any portion of the decline is due to credit losses. Any portion of that decline attributable to credit losses, to the extent expected to be nonrecoverable before the sale of the security, is recognized in the Company's condensed consolidated statement of operations. When the fair value of the security declines below its

amortized cost basis due to changes in interest rates, such amounts are recorded in accumulated other comprehensive income (loss) and are recognized in the Company's condensed consolidated statement of operations only if the Company sells or intends to sell the security before recovery of its cost basis. Realized gains and losses are determined based on the specific identification method and are reported in other income (expense), net in the Company's condensed consolidated statements of operations.

Note 2 — Revenues

The Company recognizes revenue to reflect the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. Through its current and anticipated offerings, the Company expects to generate revenue by providing the following goods or services:

Launch Services — To provide rapid, global, and affordable launch services to satellite operators and governments in partnership with third-party spaceport providers globally. The launch services include services tied directly to launch along with complementary services that are not part of the Company's fixed pricing for which we charge a separate fee. The Company operated its launches from Pacific Spaceport Complex in Kodiak, Alaska and Cape Canaveral Space Force Station in Cape Canaveral, Florida. The Company is in discussions with SaxaVord UK Spaceport regarding an opportunity to launch from the United Kingdom.

Space Products — To design and provide space products based on the customers' needs for a successful satellite launch and other products that the Company may sell in the future. Currently the Company offers two in-space electric propulsion systems.

Space Services — To invest in building the Company's portfolio of space services, which includes communication service and constellation services, which will be based on a network of spacecraft that we intend to build and allow customers to access for use in their business. Specifically, the Company's space services encompass all aspects of hosted satellite and constellation services, including hosting customer payloads onto its spacecraft, and delivering services, such as communication services.

As of June 30, 2022, the Company has only entered into contracts for launch services and space products. As of June 30, 2022, the Company is in early stages of developing its space services offerings which includes communication service and constellation services. The Company's contracts may provide customers with termination for convenience clauses, which may or may not include termination penalties. In some contracts, the size of the contractual termination penalty increases closer to the scheduled launch date. At each balance sheet date, the Company evaluates each contract's termination provisions and the impact on the accounting contract term, i.e., the period in which the Company has enforceable rights and obligations. This includes evaluating whether there are termination penalties and if so, whether they are considered substantive. The Company applies judgment in determining whether the termination penalties are substantive. In July 2022, the Company decided to focus on the development and production of the next version of its launch system. As a result, the Company has discontinued the production of launch vehicles supported by its current launch system and does not plan to conduct any further commercial launches in 2022. The Company has begun discussions with customers for whom it agreed to launch payloads on launch vehicles supported by its old launch system and the shift of those flights to launch vehicles supported by our new launch vehicle. If a customer terminates its contract with the Company due to the shifting of the flights, the customer may not be obligated to pay the termination for convenience penalties.

Recognition of Revenue

The work performed by the Company in fulfilling launch services and space products performance obligations is not expected to create an asset to the customer since the launch vehicle that is built to deliver the customer's payload into orbit will not be owned by the customer or the propulsion systems that are built to thrust the customers' satellite into orbit will not be owned by the customer until they are delivered to the customer. The Company recognizes revenue at a point in time upon satisfaction of the performance obligations under its launch services and space products agreements. The following table presents revenue disaggregated by type of revenue for the periods presented:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Launch services	\$ 1,988	\$ —	\$ 5,899	\$ —
Space products	694	—	694	—
Total revenues	\$ 2,682	\$ —	\$ 6,593	\$ —

Contracts with governmental entities involving research and development milestone activities do not represent contracts with customers under ASC 606 and as such, amounts received are recorded in other income (expense), net in the condensed consolidated statements of operations. No such income was recorded for the three months ended June 30, 2022. The Company recorded \$0.4 million in other income for the six months ended June 30, 2022. No such income was recorded for the three and six months ended June 30, 2021.

Contract Balances and Remaining Performance Obligations

Contract balances. Contract assets and liabilities represent the differences in the timing of revenue recognition from the receipt of cash from the Company's customers and billings. Contract assets reflect revenue recognized and performance obligations satisfied in advance of customer billing. Contract liabilities relate to payments received in advance of the satisfaction of performance under the contract. Receivables represent rights to consideration that are unconditional. Such rights are considered unconditional if only the passage of time is required before payment of that consideration is due. The Company had no contract assets as of June 30, 2022 and December 31, 2021. The Company had contract liabilities of \$12.7 million and \$10.4 million as of June 30, 2022 and December 31, 2021, respectively. The Company recognized revenue of \$2.7 million and \$4.9 million during the three and six months ended June 30, 2022, respectively, that was included in the contract liabilities balance at the beginning of the period. No revenue was recognized for the three and six months ended June 30, 2021.

Remaining performance obligations. Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied. It includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods and does not include contracts where the customer is not committed. Customers are not considered committed when they are able to terminate their contractual obligations to us without payment of a substantive penalty under the contract. Many of the Company's contracts allow the customer to terminate the contract prior to launch or delivery without a substantive penalty, and therefore the enforceable contract is for a period less than the stated contractual term. Further, the Company has elected not to disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less. The Company had unsatisfied performance obligations of \$30.7 million as of June 30, 2022.

Note 3 — Acquisitions**Acquisition of Apollo Fusion, Inc.**

On July 1, 2021, or the Apollo Acquisition Date, the Company, through its wholly owned indirect subsidiary, merged with Apollo Fusion, Inc. ("Apollo"). The results of Apollo's operations have been included in the unaudited condensed consolidated financial statements since that date. Apollo designs, tests, manufactures and operates propulsion modules to enable satellites to orbit in space.

The fair value of the consideration paid as of July 1, 2021, was \$70.8 million, net of cash acquired (the "Apollo Merger"), which consisted of the following:

<i>Purchase Consideration (in thousands)</i>	
Cash paid for outstanding Apollo common stock and options	\$ 19,926
Fair value of Astra Class A common stock issued	33,008
Fair value of contingent consideration	18,400
Total purchase consideration	71,334
Less: cash acquired	566
Total purchase consideration, net of cash acquired	\$ 70,768

The fair value of the shares of Class A common stock issued in the Apollo Merger was determined based on the closing market price of the Company's Class A common stock on the Apollo Acquisition Date.

The vesting of all unvested stock options of Apollo granted prior to the Apollo Acquisition Date were accelerated prior to the acquisition and were then cancelled in exchange for a right of each option-holder to cash, equity and contingent consideration based on their pro-rata percentage, assuming all stock options of Apollo had been exercised.

The contingent consideration requires the Company to pay \$75.0 million of additional consideration to Apollo's former shareholders and option-holders, if Apollo meets certain customer revenue related milestones over a two and half year period ending on December 31, 2023. The contingent consideration is earned, which is a combination of total contract value and relevant payout ratio, if the contract with the customer is entered into after the acquisition date and 25% of revenue under the contract is recognized by December 31, 2023 under ASC 606. Contingent consideration is payable on a quarterly basis based on the milestones achieved. The fair value of the contingent consideration arrangement at the acquisition date was \$18.4 million. The Company estimated the fair value of the contingent consideration using a Monte Carlo simulation model. This fair value measurement is based on significant inputs not observable in the market and thus represents a Level 3 measurement as defined in ASC 820. As of June 30, 2022, the contingent consideration recognized increased to \$31.0 million as a result of changes in forecasted revenues subject to milestone payments and the passage of time. The Company has recognized \$12.6 million in cumulative net losses on changes in fair value of contingent consideration from the Apollo Acquisition Date, of which \$1.8 million and \$17.3 million in loss was recognized in the condensed consolidated statement of operations for the three and six months ended June 30, 2022, respectively.

An additional \$10.0 million of cash ("Cash Earnout") will be paid to employees of Apollo that joined Astra, subject to certain vesting conditions, as amended. The Cash Earnout is accounted for as compensation expense over the requisite service period in the post-acquisition period as the payment is subject to the employee's continued employment with the Company. The Company has recognized \$8.4 million in compensation cost from the Apollo Acquisition Date, of which \$1.2 million and \$2.6 million in compensation cost was recognized in research and development expense in the condensed consolidated statement of operations for the three and six months ended June 30, 2022, respectively. The earned, but unpaid, amount of the Cash Earnout of \$3.6 million and \$3.9 million is recorded within accrued expenses and other current liabilities in the condensed consolidated balance sheet as of June 30, 2022 and December 31, 2021, respectively.

In addition, the Company awarded 1,047,115 Performance Stock Units ("PSUs") to employees of Apollo that joined Astra, subject to certain performance-based milestones, as amended, and other vesting provisions. The PSUs are accounted for as compensation expense over the requisite service period in the post-acquisition period as the vesting of PSUs is subject to time-based and performance-based vesting conditions. See Note 14 — Stock-based Compensation for additional information.

The Company allocated the fair value of the purchase consideration to the tangible assets, liabilities and intangible assets acquired, based on the fair values. The excess purchase price over those fair values is recorded as goodwill. The valuation assumptions of acquired assets and assumed liabilities require significant estimates, especially with respect to intangible assets. The final purchase consideration allocation is presented in the following table.

<i>(in thousands)</i>	Fair Value
Inventory	\$ 131
Prepaid and other current assets	796
Property, plant and equipment	996
Right of use assets	163
Goodwill	58,251
Intangible assets	15,350
Other non-current assets	75
Total assets acquired	<u>75,762</u>
Accounts payable	(950)
Accrued expenses and other current liabilities	(1,939)
Operating lease obligation	(163)
Other non-current liabilities	(1,942)
Total liabilities assumed	<u>(4,994)</u>
Fair value of net assets acquired	<u>\$ 70,768</u>

Goodwill is primarily attributable to the assembled workforce and anticipated synergies expected from the integration of the Apollo business. The synergies include operating efficiencies, and other strategic benefits projected to be achieved as a result of the Apollo Merger. Goodwill is not deductible for tax purposes.

There were \$0.7 million of revenues recorded during the three and six months ended June 30, 2022 related to Apollo. It was impracticable to determine the effect on net income attributable to Apollo as the Company had integrated a substantial portion of Apollo into its ongoing operations during the year.

Intangible Assets

	Fair Value	Weighted-Average Amortization Periods
	<i>(in thousands)</i>	<i>(in years)</i>
Developed technology	\$ 12,100	6
Customer contracts and related relationships	2,900	3
Order backlog	200	1
Tradename	150	2
Total identified intangible assets	<u>\$ 15,350</u>	

Developed technology relates to propulsion modules. The Company valued the developed technology using the relief-from-royalty method under the income approach. This method is based on the application of a royalty rate to forecasted revenue that are expected to be generated by developed technology. The economic useful life was determined based on the technology cycle related to the developed technology, as well as the cash flows over the forecast period.

Customer contracts and related relationships represent the fair value of future projected revenue that will be derived from sales of products to existing customers of Apollo. Customer contracts and related relationships were valued using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the customer contracts and related relationships less charges representing the contribution of other assets to those cash flows. The economic useful life was determined based on historical customer turnover rates.

Order backlog represents business under existing contractual obligations. The fair value of backlog was determined using the multi-period excess earnings method under the income approach based on expected operating cash flows from future contractual revenue. The economic useful life was determined based on the expected life of the backlog and the cash flows over the forecast period.

Trade name relates to the “Apollo” trade name. The fair value was determined by applying the relief-from-royalty method under the income approach. This method is based on the application of a royalty rate to forecasted revenue under the trade name. The economic useful life was determined based on the expected life of the trade name and the cash flows anticipated over the forecast period.

The Company believes the amounts of purchased intangible assets recorded above represent the fair values of, and approximate the amounts a market participant would pay for, these intangible assets as of the Apollo Acquisition Date.

Reverse Recapitalization

On June 30, 2021, pre-combination Astra Space, Inc. and Holicity Inc. consummated the Business Combination contemplated by the BCA, with pre-combination Astra surviving the merger as a wholly owned subsidiary of Holicity. Upon consummation of the Business Combination, Holicity changed its name to Astra Space, Inc., and pre-combination Astra changed its name to Astra Space Operations, Inc.

Immediately following the Business Combination, there were 198,090,903 shares of Class A common stock and 56,239,189 shares of Class B common stock issued and outstanding with a par value of \$0.0001. Additionally, there were outstanding options to purchase an aggregate of 5,993,412 shares of Class A common stock and outstanding warrants to purchase 15,813,829 shares of Class A common stock.

The Business Combination was accounted for as a reverse recapitalization in accordance with GAAP as pre-combination Astra has been determined to be the accounting acquirer. Under this method of accounting, while Holicity was the legal acquirer, it has been treated as the “acquired” company for financial reporting purposes. Accordingly, the Business Combination was treated as the equivalent of pre-combination Astra issuing stock for the net assets of Holicity, accompanied by a recapitalization. The net assets of Holicity were stated at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Business Combination are those of pre-combination Astra. Reported shares and earnings per share available to holders of the Company’s common stock, prior to the Business Combination, have been retroactively restated as shares reflecting the exchange ratio established in the BCA (approximately one pre-combination Astra share to 0.665 of the Company’s shares).

The most significant change in the post-combination Company’s reported financial position and results was an increase in cash, net of transactions costs, of \$463.6 million, including \$200.0 million in gross proceeds from the private placements (the “PIPE”). In connection with the Business Combination, \$25.2 million of transaction costs were paid on the Closing Date. Additionally, on the Closing Date, the Company repaid the short-term promissory notes with Pendrell (the “Bridge Loan”) of \$10.4 million, which included principal of \$10.0 million and end of term fee of \$0.4 million as of June 30, 2021. The Company also repaid the outstanding principal and interest of \$4.6 million for the term loan and equipment advances with Silicon Valley Bank. Refer to Note 6 – Long-term Debt.

The Company incurred \$25.5 million in transaction costs relating to the merger with Holicity, of which \$23.3 million has been recorded against additional paid-in capital in the Condensed Consolidated Balance Sheets and the remaining amount of \$2.2 million was recognized as general and administrative expenses on the Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2021. On the date of the Business Combination, the Company recorded a liability related to the Public and Private Placement Warrants of \$56.8 million, with an offsetting entry to additional paid-in capital. In relation to the Public and Private Placement Warrants, the Company recognized a portion of pre-combination Astra’s capitalizable transaction costs relating to the merger with Holicity, using the relative fair value method, as general and administrative expenses in the Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2021.

Upon closing of the Business Combination, the shareholders of Holicity, including Holicity founders, were issued 37,489,019 shares of Class A common stock. In connection with the Closing, holders of 10,981 shares of common stock of Holicity were redeemed at a price per share of \$10.00. In connection with the Closing 20,000,000 shares were issued to PIPE investors at a price per share of \$10.00.

The number of shares of Class A common stock issued immediately following the consummation of the Business Combination were:

Common stock of Holicity	29,989,019
Holicity founder shares	7,500,000
Shares issued in PIPE	20,000,000
Business Combination and PIPE shares	57,489,019
Pre-combination Astra shares	140,601,884
Total shares of Class A common stock immediately after Business Combination	198,090,903

In addition, in connection with the consummation of the Business Combination, 56,239,189 shares of Class B common stock were issued to two executive officers and founders of the Company: Chris Kemp and Adam London in exchange for an aggregate 73,699,647 shares of common stock and an aggregate 10,870,562 shares of Founders Preferred Stock of pre-combination Astra.

Note 4 — Supplemental Financial Information

Inventories

<i>in thousands</i>	As of June 30, 2022	As of December 31, 2021
Raw materials	\$ —	\$ 5,775
Work in progress	3,155	941
Finished goods	—	959
Inventories	\$ 3,155	\$ 7,675

There were \$13.3 million and \$18.8 million of inventory write downs recorded within cost of revenues during the three and six months ended June 30, 2022, respectively, of which \$10.2 million of inventory write-downs related to the discontinuance of production of the current version of its launch vehicle as the Company focuses on developing the new version of its launch system. There were no inventory write downs recorded during the three and six months ended June 30, 2021.

Property, Plant and Equipment, net

Presented in the table below are the major classes of property, plant and equipment:

<i>in thousands</i>	As of June 30, 2022	As of December 31, 2021
Construction in progress	\$ 6,809	\$ 39,246
Computer and software	6,539	3,092
Leasehold improvements	56,444	14,177
Research equipment	11,731	8,935
Production equipment	21,708	10,442
Furniture and fixtures	1,573	1,001
Total property, plant and equipment	104,804	76,893
Less: accumulated depreciation	(16,581)	(10,577)
Property, plant and equipment, net	\$ 88,223	\$ 66,316

Depreciation expense amounted to \$4.0 million and \$1.0 million for the three months ended June 30, 2022 and 2021, respectively. Depreciation expense amounted to \$6.0 million and \$1.9 million for the six months ended June 30, 2022 and 2021, respectively. No impairment charges were recorded for the three and six months ended June 30, 2022 and 2021.

Accrued Expenses and Other Current Liabilities

<i>in thousands</i>	As of June 30, 2022	As of December 31, 2021
Employee compensation and benefits	\$ 9,102	\$ 9,927
Contract liabilities, current portion	6,196	10,162
Fair value of contingent consideration, current portion	19,800	—
Construction in progress related accruals	577	3,726
Accrued expenses	6,745	3,464
Other (miscellaneous)	2,762	2,620
Accrued expenses and other current liabilities	<u>\$ 45,182</u>	<u>\$ 29,899</u>

Other Non-Current Liabilities

<i>in thousands</i>	As of June 30, 2022	As of December 31, 2021
Fair value of contingent consideration, net of current portion	\$ 11,200	\$ 13,700
Contract liabilities, net of current portion	6,541	149
Other (miscellaneous)	1,016	750
Other non-current liabilities	<u>\$ 18,757</u>	<u>\$ 14,599</u>

Note 5 — Intangible Assets

<i>in thousands</i>	Carrying Amount	Accumulated Amortization	Net Book Value
As of June 30, 2022:			
Definite-lived intangible assets			
Developed technology	\$ 12,100	\$ 2,017	\$ 10,083
Customer contracts and related relationship	2,900	966	1,934
Order backlog	200	200	—
Trade names	150	75	75
Intangible assets subject to amortization	<u>15,350</u>	<u>3,258</u>	<u>12,092</u>
Indefinite-lived intangible assets			
Trademarks	4,200	—	4,200
Total	<u>\$ 19,550</u>	<u>\$ 3,258</u>	<u>\$ 16,292</u>

<i>in thousands</i>	Carrying Amount	Accumulated Amortization	Net Book Value
As of December 31, 2021:			
Definite-lived intangible assets			
Developed technology	\$ 12,100	\$ 1,008	\$ 11,092
Customer contracts and related relationship	2,900	483	2,417
Order backlog	200	100	100
Trade names	150	38	112
Intangible assets subject to amortization	<u>15,350</u>	<u>1,629</u>	<u>13,721</u>
Indefinite-lived intangible assets			
Trademarks	4,200	—	4,200
Total	<u>\$ 19,550</u>	<u>\$ 1,629</u>	<u>\$ 17,921</u>

Based on the amount of intangible assets as of June 30, 2022, the expected amortization expense for each of the next five years and thereafter is as follows:

<i>in thousands</i>	Expected Amortization Expense	
2022 (remainder)	\$	1,529
2023		3,021
2024		2,500
2025		2,017
2026		2,017
Thereafter		1,008
Total intangible assets	\$	12,092

Note 6 — Long-Term Debt

There is no short-term and long-term debt outstanding as of June 30, 2022 and December 31, 2021, respectively. In connection with the Business Combination, all outstanding debt with the exception of the Paycheck Protection Program note was paid on June 30, 2021. Refer to Note – 3 Acquisitions. In August 2021, the Company's application for forgiveness of the Paycheck Protection Program note was approved in the full amount of the outstanding principal balance and accrued interest.

Term Loan and Equipment Advances

On December 25, 2018, the Company entered into a loan agreement (the "2018 Loan Agreement") with Silicon Valley Bank ("SVB"). Pursuant to the 2018 Loan Agreement, the Company could borrow up to a total of \$3.0 million term loans ("2018 Term Loans") and \$7.0 million equipment loans ("2018 Equipment Advances") with access period ended on April 30, 2020 for 2018 Term Loans and June 30, 2019 for 2018 Equipment Advances. Amounts borrowed under the 2018 Loan Agreement were repaid prior to or on June 30, 2021.

In connection with the execution of the 2018 Loan Agreement, the Company entered into a 2018 warrant agreement which granted certain warrants to SVB (the "Warrants"). The Warrants were issued in one initial tranche on December 25, 2018 and three subsequent tranches in 2019 each time the Company made an additional debt draw under the 2018 Loan Agreement. Pursuant to the warrant agreement, SVB had the option to purchase an aggregate of 480,520 shares of Class A common stock. The warrants had a weighted average exercise price of \$0.24 per share and were exercisable for a period of 10 years. The Company accounted for all the Warrants issued as equity instruments since the Warrants were indexed to the Company's common shares and met the criteria for classification in stockholders' equity. In July 2021, SVB exercised all the outstanding Warrants and the Company issued 472,113 shares of Company's Class A Common Stock, net of exercise price.

Paycheck Protection Program Note ("PPP Note")

On April 20, 2020, the Company received loan proceeds of approximately \$4.9 million under the Paycheck Protection Program ("PPP"), offered by the U.S. Small Business Administration (the "SBA") pursuant to Title 1 of the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"). The PPP Note proceeds were available to be used to pay for payroll costs, including salaries, commissions, and similar compensation, group health care benefits, and paid leaves, rent and utilities, and mortgage interest payments. The PPP Note was subject to forgiveness to the extent proceeds were used for payroll costs, including payments required to continue group health care benefits, and certain rent, utility, and mortgage interest expenses (collectively, "Qualifying Expenses"), pursuant to the terms and limitations of the PPP Note.

The Company used the PPP Note amount intended for Qualifying Expenses. During the three months ended March 31, 2021, the Company submitted a forgiveness application to its lender seeking full forgiveness of the PPP Note. On August 24, 2021, the Company received notice from the lender that the Small Business Administration has approved the application for forgiveness of the PPP Note in the full amount.

Convertible Notes

Issuance of Convertible Notes

From June 2019 through July 2019, the Company issued \$14.8 million of convertible promissory notes (the "June 2019 Convertible Notes") to certain investors. The June 2019 Convertible Notes matured on June 10, 2021 and accrued interest at 2.37% or 2.13%, compounded annually on basis of 360-days year of twelve 30-day months. Principal and any accrued but unpaid interest were due and payable at maturity.

From October 2019 through December 2020, the Company issued \$45.0 million of convertible promissory notes (the “October 2019 Convertible Notes” and collectively with the June 2019 Convertible Notes, the “Convertible Notes”) to certain investors. The October 2019 Convertible Notes matured on October 1, 2021 and accrued interest at 1.69%, 1.59% or 1.85%, compounded annually on basis of 360-days year of twelve 30-day months. Principal and any accrued but unpaid interest were due and payable at maturity.

Settlement of Convertible Notes

On January 28, 2021, the Company entered a stock purchase agreement with certain investors to close the issuance of Series C convertible preferred stock at a cash purchase price of \$6.62 per share and settle all outstanding Convertible Notes through Series C convertible preferred stock at a conversion price of \$1.33 or \$1.71 per share (“Series C Financing”). The Company issued 38,323,292 shares of Series C Convertible Preferred Shares (pre-combination) for conversion of outstanding Convertible Notes of \$61.0 million.

The June 2019 Convertible Notes were settled pursuant to the contractual conversion upon the Next Equity Financing feature with such financing yielding at least \$20.0 million in a single transaction. The Company credited the net carrying amount of the June 2019 Convertible Notes of \$14.5 million, including any unamortized debt discount, to Series C convertible preferred stock with no gain or loss recognized.

The October 2019 Convertible Notes were settled based on negotiated terms between the Company and the note holders as the Series C Financing did not meet the definition of Next Equity Financing for the October 2019 Convertible Notes. The Company assessed the economics of the settlement of the October 2019 Convertible Notes and concluded that it should be treated as a privately negotiated debt redemption/settlement transaction where debt extinguishment accounting should be applied. Therefore, the Company derecognized the net carrying amount, including any unamortized debt discount, of the October 2019 Convertible Notes of \$42.6 million and recognized the Series C convertible preferred stock issued specifically to settle the October 2019 Convertible Notes at fair value as the reacquisition consideration. Accrued and unpaid interest of \$0.6 million was settled and not paid in cash and therefore it was included in calculating the extinguishment loss. The difference between the net carrying amount of the October 2019 Convertible Notes, plus accrued and unpaid interest, and the reacquisition consideration was recorded as a loss on extinguishment in the condensed consolidated statement of operations for the six months ended June 30, 2021.

The Company issued in aggregate 26,727,308 shares of Series C convertible preferred stock (pre-combination) to settle the October 2019 Convertible Notes. The fair value of the Series C convertible preferred stock was determined to be \$176.9 million using the cash purchase price of \$6.62 per share on January 28, 2021. These October 2019 Convertible Notes had a carrying amount plus accrued and unpaid interest of \$43.2 million upon settlement. The difference of \$133.8 million was recognized as a loss on extinguishment on the Company’s condensed consolidated statement of operations for the six months ended June 30, 2021.

Bridge Loan

On May 20, 2021, the Company entered into a short-term promissory note (the “Bridge Loan”) with Pendrell as the lender, pursuant to which Pendrell agreed to make available to the Company up to \$20.6 million in borrowings. Pendrell is the parent of X-icity Holdings Corporation, the sponsor of Holicity. The interest rate on the Bridge Loan borrowings was a fixed rate of 5.00% per annum. However, if repaid in full in connection with the closing of the Business Combination, then no interest will be due and payable. The Company was required to pay an upfront fee in the amount of 1.00% of the principal amount and an end of term fee in the amount of 2.00% of the principal amount. The funds drawn on the Bridge Loan may be prepaid by the Company at any time. The Bridge Loan matures upon the earliest of (a) the closing of the Business Combination, (b) 60 days following the abandonment of the Business Combination and (c) the date when the commitment amount is otherwise paid in full or accelerated pursuant to the terms of the Bridge Loan. Under the terms of the Bridge Loan, the Company borrowed \$10.0 million in June 2021, and subsequently paid off the outstanding principal and end of term fee totaling \$10.4 million on June 30, 2021. Refer to Note – 3 Acquisitions.

Note 7 — Warrant Liabilities

As part of Holicity’s initial public offering (“IPO”) in 2020, Holicity issued 9,999,976 warrants to third party investors, and each whole warrant entitled the holder to purchase one share of the Company’s Class A common stock at an exercise price of \$11.50 per share (the “Public Warrants”). Simultaneously with the closing of the IPO, Holicity completed the private sale of 5,333,333 warrants to Holicity’s sponsor (“Private Placement Warrants”) and each Private Placement Warrant allowed the sponsor to purchase one share of the Company’s Class A common stock at \$11.50 per share.

The Private Placement Warrants and the shares of common stock issuable upon the exercise of the Private Placement Warrants were not transferable, assignable or salable until after the completion of a Business Combination, subject to certain limited exceptions. Additionally, the Private Placement Warrants were exercisable for cash or on a cashless basis, at the holder’s option, and were non-redeemable so long as they were held by the initial purchasers or their permitted transferees. If the Private Placement Warrants were held by someone other than the initial purchasers or their permitted transferees, the Private Placement Warrants will be redeemable by the Company and exercisable by such holders on the same basis as the Public Warrant.

The Company accounted for Public Warrants and Private Placement Warrants as liability-classified instruments based on an assessment of the warrant's specific terms and applicable authoritative guidance in FASB ASC 480, Distinguishing Liabilities from Equity ("ASC 480") and ASC 815, Derivatives and Hedging ("ASC 815"). Specifically, the exercise of the Public and Private Placement Warrants may be settled in cash upon the occurrence of a tender offer or exchange that involves 50% or more of the Company's Class A shareholders. Because not all of the Company's shareholders needed to participate in such tender offer or exchange to trigger the potential cash settlement and the Company did not control the occurrence of such an event, the Company concluded that the Public Warrants and Private Placement Warrants did not meet the conditions to be classified in equity. Since the Public and Private Placement Warrants met the definition of a derivative under ASC 815, the Company recorded these warrants as liabilities on the balance sheet at fair value upon the closing of the Business Combination, with subsequent changes in their respective fair values recognized in the consolidated statement of operations at each reporting date.

On November 26, 2021, the Company issued a notice of redemption to redeem all of its Public Warrants and Private Placement Warrants ("Redeemable Warrants") outstanding as of December 27, 2021. Under the Warrant Agreement, the Company was entitled to redeem not less than all of the outstanding Redeemable Warrants at a Redemption Price of \$0.10 per Redeemable Warrant, provided that the last reported sales price of the Class A common stock had been at least \$10.00 per share on the trading day prior to the date on which notice of redemption is given, and further provided that there is an effective registration statement covering the shares of Class A common stock issuable upon exercise of the Redeemable Warrants and a current prospectus relating thereto, available through the Redemption Date.

Under the notice of redemption, Company required holders of the Redeemable Warrants to exercise their Warrants on a cashless basis, (the "Cashless Exercise Option") and holders were not permitted to exercise Redeemable Warrants by paying the \$11.50 per share exercise price in cash. Pursuant to the Cashless Exercise Option, an exercising holder of the Redeemable Warrants received a number of shares of Class A common stock (the "Exercise Shares") equal to the quotient obtained by dividing the product of the number of shares of Class A common stock underlying the Redeemable Warrants, multiplied by the excess of the fair market value of the Class A common stock over the exercise price of the Redeemable Warrants by the fair market value. Since the fair market value was less than the exercise price of the Redeemable Warrants, no Exercise Shares would have been issued if a holder would have elected to exercise its Redeemable Warrant pursuant to the Cashless Exercise Option. Alternatively, holders of the Redeemable Warrants were entitled to elect to receive, in lieu of the redemption price or exercising their Redeemable Warrants pursuant to the Cashless Exercise Option, 0.2560374 shares of Class A common stock for each Redeemable Warrants.

In connection with the redemption, the holders of 9,413,895 Public Warrants and 5,333,333 Private Placement Warrants elected to receive, in lieu of the redemption price, an aggregate 3,775,709 shares of Class A common stock at 0.2560374 shares of Class A Common Stock per Warrant. A total of 586,075 Public Warrants remained unexercised as of December 27, 2021 and the Company redeemed the Public Warrants for a redemption price of \$0.10 per Redeemable Warrant on December 27, 2021.

Note 8 — Income Taxes

The Company computes its provision for income taxes by applying the estimated annual effective tax rate to year-to-date income from recurring operations and adjust the provision for discrete tax items recorded in the period.

There has historically been no federal or state provision for income taxes because the Company has incurred operating losses and maintains a full valuation allowance against its net deferred tax assets. For the three and six months ended June 30, 2022 and 2021, the Company recognized no provision for income taxes consistent with the losses incurred and the valuation allowance against the deferred tax assets.

Utilization of net operating loss carryforwards, tax credits and other attributes may be subject to future annual limitations due to the ownership change limitations provided by Section 382 of the Internal Revenue Code and similar state provisions.

The Company files income tax returns in the U.S. federal jurisdiction and various states. The Company is not currently under examination by income tax authorities in federal, state or other jurisdictions. All tax returns will remain open for examination by the federal and state authorities for three and four years, respectively, from the date of utilization of any net operating loss or credits.

Note 9 — Leases

The Company has operating leases for warehouse, production, and office facilities and equipment. Lease contracts have remaining lease terms of less than one year to seven years, some of which include options to extend the term by up to 5 years. The Company included renewal options that are reasonably certain to be exercised as part of the lease term. Additionally, some lease contracts include termination options. The Company does not expect to exercise the majority of termination options and generally excludes such options when determining the term of leases.

The operating lease costs were \$0.5 million and \$0.4 million for the three months ended June 30, 2022 and 2021, respectively. The operating lease costs were \$1.0 million and \$0.6 million for the six months ended June 30, 2022 and 2021, respectively.

The weighted average remaining lease term was 6.12 years and 6.68 years as of June 30, 2022 and December 31, 2021, respectively. The weighted average discount rate was 7.34% as of each of June 30, 2022 and December 31, 2021.

Cash flows arising from lease transactions for the three and six months ended June 30, 2022 and 2021 were as follows (in thousands):

<i>in thousands</i>	For the Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Cash paid for amounts included in the measurements of lease liabilities — operating cash flows	\$ (482)	\$ (760)	\$ (942)	\$ (770)
Right-of-use assets obtained in exchange for operating leases liabilities	\$ —	\$ —	\$ 251	\$ —

Future minimum lease payments under non-cancellable leases in effect as of June 30, 2022 are as follows (in thousands):

	Operating Leases
2022 (remainder)	\$ 930
2023	1,790
2024	1,677
2025	1,655
2026	1,642
Thereafter	2,840
Total future undiscounted minimum lease payments	\$ 10,534
Less: imputed Interest	2,030
Total reported lease liability	\$ 8,504

Note 10 — Fair Value Measurements

The Company measures its financial assets and liabilities at fair value each reporting period using a fair value hierarchy that prioritizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. A financial instrument's classification within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Three levels of inputs may be used to measure fair value, as follows:

- Level 1 Observable inputs, such as quoted prices in active markets for identical assets or liabilities;
- Level 2 Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3 Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The Company uses the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

The carrying amounts of Company's financial instruments, which include cash equivalents, accounts receivable, prepaid expenses, other current assets, accounts payable, accrued liabilities and certain other current liabilities approximate fair value because of their short-term maturities.

The following table presents information about the Company's assets and liabilities that are measured at fair value on a recurring basis (in thousands):

Description	As of June 30, 2022			Total
	Level 1	Level 2	Level 3	
Assets				
Cash equivalents:				
Money market account	\$ 3,417	\$ —	\$ —	\$ 3,417
Marketable securities				
US Treasury securities	22,959	—	—	22,959
Corporate debt securities	—	21,967	—	21,967
Commercial paper	—	40,912	—	40,912
Asset backed securities	—	10,530	—	10,530
Total financial assets	\$ 26,376	\$ 73,409	\$ —	\$ 99,785
Liabilities:				
Contingent consideration	\$ —	\$ —	\$ 31,000	\$ 31,000
Total financial liabilities	\$ —	\$ —	\$ 31,000	\$ 31,000

Description	As of December 31, 2021			Total
	Level 1	Level 2	Level 3	
Assets				
Cash equivalents:				
Money market account	\$ 100,000	\$ —	\$ —	\$ 100,000
Total financial assets	\$ 100,000	\$ —	\$ —	\$ 100,000
Liabilities:				
Contingent consideration	\$ —	\$ —	\$ 13,700	\$ 13,700
Total financial liabilities	\$ —	\$ —	\$ 13,700	\$ 13,700

The following table presents a summary of the changes in fair value of the Company's Level 3 financial instruments:

<i>in thousands</i>	Contingent Consideration
Fair value as of December 31, 2021	\$ 13,700
Loss on change in fair value of contingent consideration	17,300
Fair value as of June 30, 2022	\$ 31,000

The fair value of contingent consideration related to Apollo acquisition is classified as Level 3 financial instruments. To determine the fair value of the contingent consideration, the Company used a Monte Carlo simulation model. The Monte Carlo simulation considered assumptions including revenue volatilities, risk free rates, discount rates and additional revenue discount rate. Additionally, other key assumptions included forecasted revenues from new customers and probability of achieving it. The following table sets forth the range of inputs for the significant assumptions utilized to determine the fair value of contingent consideration as of June 30, 2022 and December 31, 2021:

	As of June 30, 2022	As of December 31, 2021
Risk-free interest rate	2.62 %	0.56 %
Expected revenue volatility	19.0 %	20.0 %
Revenue discount rate	7.50 %	5.50 %
Discount rate	4.80 %	3.25 %

The Company began investing in available-for-sale marketable securities in the first quarter of 2022. These marketable securities are classified as short term investments on the condensed consolidated balance sheets. The following is a summary of available-for-sale marketable securities as of June 30, 2022 (in thousands):

Description	As of June 30, 2022		
	Amortized Cost	Gross Unrealized Loss	Fair Value
U.S. Treasury securities	\$ 23,006	\$ (47)	\$ 22,959
Corporate debt securities	22,093	(126)	21,967
Commercial paper	40,912	-	40,912
Asset backed securities	10,590	(60)	10,530
Total available-for-sale marketable securities	<u>\$ 96,601</u>	<u>\$ (233)</u>	<u>\$ 96,368</u>

The following table presents the breakdown of the available-for-sale marketable securities in an unrealized loss position as of June 30, 2022 (in thousands).

	June 30, 2022	
	Fair Value	Gross Unrealized Loss
U.S. Treasury securities		
Less than 12 months	\$ 22,959	\$ 47
Total	<u>\$ 22,959</u>	<u>\$ 47</u>
Corporate debt securities		
Less than 12 months	\$ 21,967	\$ 126
Total	<u>\$ 21,967</u>	<u>\$ 126</u>
Commercial paper		
Less than 12 months	\$ 40,912	\$ -
Total	<u>\$ 40,912</u>	<u>\$ -</u>
Asset backed securities		
Less than 12 months	\$ 2,828	\$ 25
Greater than 12 months	7,702	35
Total	<u>\$ 10,530</u>	<u>\$ 60</u>

The Company does not believe these available-for-sale marketable securities to be other-than-temporarily impaired as of June 30, 2022. There were no realized gains or losses on available-for-sale marketable securities during the three and six months ended June 30, 2022.

in thousands	As of June 30, 2022	
	Amortized Cost	Fair Value
Due in 1 year or less	\$ 88,864	\$ 88,666
Due in 1-2 years	\$ 7,737	\$ 7,702

Note 11 — Commitments and Contingencies

Legal Proceedings

The Company is party to ordinary and routine litigation incidental to its business. On a case-by-case basis, the Company engages inside and outside counsel to assess the probability of potential liability resulting from such litigation. After making such assessments, the Company makes an accrual for the estimated loss only when the loss is probable, and an amount can be reasonably estimated.

On February 9, 2022, a putative class action was filed in the United States District Court for the Eastern District of New York styled *Artery v. Astra Space, Inc. et al.*, Case No. 1:22-cv-00737 (E.D.N.Y.) (the “Artery Action”). The complaint alleges that the Company and certain of its current and former officers violated provisions of the Securities Exchange Act of 1934 with respect to certain statements concerning the Company’s capabilities and business prospects. The complaint seeks unspecified damages on behalf of a purported class of purchasers of the Company’s securities between February 2, 2021 and December 29, 2021. On March 23, 2022, a second putative class action was filed in the United States District Court for the Eastern District of New York styled *Riley v. Astra Space, Inc., et al.*, Case No. 1:22-cv-01591 (E.D.N.Y.) (the “Riley Action,” with the Artery Action, the “Securities Actions”). The Riley Action alleges the same claims, based upon similar facts, against the same defendants, and seeks the same damages. The Company expects that the two cases will be consolidated into a single action. Defendants intend to move to dismiss once the Court appoints a lead plaintiff and an amended complaint is filed. The Company believes that the Securities Actions are without merit and intend to defend them vigorously. Due to the early stage of the cases, neither the likelihood that a loss, if any, will be realized, nor an estimate of the possible loss or range of loss, if any, can be determined.

On March 8, 2022, a stockholder derivative suit was filed in the United States District Court for the State of Delaware styled *Meyer, et al., v. Kemp, et al.*, Case No. 22-cv-00308 (D. Del.). The complaint asserts claims against the current members of the Company’s board of directors and certain of its current and former officers, for breach of their fiduciary duty, waste, unjust enrichment, and contribution under the Securities Exchange Act of 1934, based upon the conduct alleged in the Artery Action. The plaintiffs seek monetary damages in favor of the Company in an unstated amount, reformation of the Company’s corporate governance and internal procedures, restitution including a disgorgement of any compensation, profits or other benefits achieved, and reimbursement of the plaintiffs’ reasonable fees and costs, including attorney’s fees. The Company believes that the case is without merit and intends to defend it vigorously. Due to the early stage of the case, neither the likelihood that a loss, if any, will be realized, nor an estimate of the possible loss or range of loss, if any, can be determined. See Note 17 — Subsequent events for information regarding the status of this lawsuit.

On April 27, 2022, a stockholder derivative suit was filed in the United States District Court for the Eastern District of New York styled *Gonzalez v. Kemp, et al.*, Case No. 22-cv-02401 (E.D.N.Y.). The complaint asserts claims against the current members of the Company’s board of directors and certain of its current and former officers for alleged breaches of their fiduciary duties, unjust enrichment, abuse of control, mismanagement, and waste of corporate assets, alleged violations of Section 14(a) of the Securities Exchange Act of 1934 (the “Exchange Act”), and for contribution under Section 10(b) and 21D of the Exchange Act based upon the conduct alleged in the Artery Action described above. The plaintiff seeks monetary damages in favor of the Company in an unstated amount, reforms to the Company’s corporate governance and internal procedures, restitution including disgorgement of any compensation, profits or other benefits received, and reimbursement of the plaintiff’s reasonable fees and costs, including attorney’s fees. The Company believes that the case is without merit and intends to defend it vigorously. Due to the early stage of the case, neither the likelihood that a loss, if any, will be realized, nor an estimate of the possible loss or range of loss, if any, can be determined.

The Company has tendered defense of each of the three foregoing claims under its Directors’ and Officers’ policy. The retention under this policy is \$20.0 million.

Indemnification Obligations to former Company Board Members

On May 20, 2022, a putative class action was filed in the Court of Chancery of the State of Delaware styled *Newbold v. McCaw et. al.*, Case No. 2022-0439 (the “Newbold Action”). The complaint alleges that Pendrell Corporation, X-icity Holdings Corporation f/k/a Pendrell Holicity Holdings and certain former officers, directors or controlling stockholders of Holicity, Inc. n/k/a Astra Space, Inc., breached their fiduciary duties to the Company in closing on the Business Combination. The complaint seeks unspecified damages on behalf of a purported class of stockholders of the Company’s securities from June 28, 2021 through June 30, 2021.

Neither the Company nor any of its board members are parties in this action. The Company’s former board member, Mr. McCaw, is a defendant in this action, but the allegations relate to periods prior to the Business Combination. Astra is obligated to indemnify certain of the defendants in the Newbold Action. The Company has tendered defense of this action under its Directors’ and Officers’ Policy. The Company tendered defense of this claim under the tail policy it was required to purchase in connection with the Business Combination. The retention under that policy is \$1.5 million. Due to the early stage of this case, neither the likelihood that a loss, if any, will be realized, nor an estimate of the possible loss or range of loss, if any, can be determined.

Purchase Commitments

On May 25, 2021, the Company entered a contract with a supplier to purchase components. The Company is obligated to purchase \$22.5 million of components over 60 months. The Company may terminate the supply agreement by paying 50% of the remaining purchase commitment at any point during the contract term. The Company made total purchases of \$0.8 million under the contract from the contract date of which \$0.4 million related to purchases made during the six months ended June 30, 2022. The Company also made advance payments of \$0.4 million under the contract during the six months ended June 30, 2022.

Note 12 — Convertible Preferred Stock*Convertible Preferred Stock*

From pre-combination Astra's inception until the consummation of the Business Combination, approximately \$100.2 million of cash capital contributions was raised, net of issuance costs, through the issuance of three rounds of convertible preferred equity.

The three classes of convertible preferred stock of pre-combination Astra were: Series A convertible preferred stock, Series B convertible preferred stock and Series C convertible preferred stock (collectively, the "Convertible Preferred Stock"). Immediately before the consummation of the Business Combination, the Convertible Preferred Stock of pre-combination Astra consisted of:

Series	Shares Outstanding (pre-combination Astra)	Liquidation Price Per Share	Conversion Price Per Share	Annual Noncumulative Dividend Rights Per Share
A	65,780,540	\$ 0.243233	\$ 0.243233	\$ 0.019459
B	70,713,123	1.333008	1.333008	0.106640
C	50,483,785	6.620970	6.620970	0.529680
Total	<u>186,977,448</u>			

Upon the consummation of the Business Combination in June 2021, 186,977,448 shares of Convertible Preferred Stock (pre-combination Astra) converted into 124,340,003 shares of Class A common stock of the Company. The Company no longer had Convertible Preferred Stock authorized, issued or outstanding subsequent to the close of Business Combination in June 2021.

On January 28, 2021, concurrent with Series C Financing, the Company amended its certificate of incorporation to add a merger with a special purpose acquisition company ("SPAC Transaction") as one of the defined Deemed Liquidation events. In addition, upon triggering of the Deemed Liquidation events, the holders of the Convertible Preferred Stock were entitled to receive the greater of their liquidation preference per share and the as converted value per share. As of March 31, 2021, the Company assessed the probability of a SPAC Transaction to be probable and therefore, the Convertible Preferred Stock were considered probable of becoming redeemable.

Subsequent measurement of Convertible Preferred Stock was then required for the three months ended March 31, 2021. The Company elected to apply the current redemption value method to measure the redeemable Convertible Preferred Stock. Under the method, changes in the redemption value were recognized immediately as they occurred and the carrying value of the Convertible Preferred Stock was adjusted to the redemption value at the end of each reporting date. In the absence of retained earnings, adjustments to redemption value were recorded against additional paid-in capital, if any, and then to accumulated deficit. As of March 31, 2021, adjustments to the carrying amount of the Convertible Preferred Stock of \$1.1 billion, reflecting the estimated redemption value of \$7.18 per share as of March 31, 2021, were treated as deemed dividends and were recognized against additional paid-in capital and accumulated deficit on the consolidated balance sheet.

On the Closing Date of the Business Combination, all outstanding Convertible Preferred Stock converted into Class A common stock of the Company, therefore, the Company applied conversion accounting to derecognize the existing carrying amount of the Convertible Preferred Stock and increased additional paid-in capital as of June 30, 2021.

Note 13 — Stockholders' Equity*Common and Preferred Stock*

As of June 30, 2022, the Company had authorized a total of 466,000,000 shares of stock, consisting of (i) 400,000,000 shares of Class A common stock, par value \$0.0001 per share ("Class A common stock"), (ii) 65,000,000 shares of Class B common stock, par value \$0.0001 per share ("Class B common stock"), and (iii) 1,000,000 shares of preferred stock, par value \$0.0001 per share ("Preferred

Stock”). As of June 30, 2022, the Company had 209,408,425 and 55,539,188 shares of Class A and Class B common stock issued and outstanding, respectively. There were no shares of preferred stock outstanding as of June 30, 2022.

Holders of the Class A and Class B common stock have identical distribution rights, except that holders of the Class A common stock are entitled to one vote per share and holders of the Class B common stock are entitled to ten votes per share. Each share of Class B common stock can be converted into one share of Class A common stock at any time at the option of the stockholder and automatically convert upon sale or transfer, except for certain transfers specified in the Company's amended and restated certificate of incorporation.

In connection with the Business Combination, the Company's executive officers and founders, Chris Kemp and Adam London, converted an aggregate 10,870,562 shares of Founders Preferred Stock and an aggregate 3,599,647 shares of Class A common stock of pre-combination Astra, which were entitled to one vote per share, into 9,622,689 shares of Class B common stock of the Company, which are entitled to ten votes per share.

Founders Convertible Preferred Stock

The Company issued 18,500,000 shares of pre-combination Astra's Founders Convertible Preferred Stock in 2016. Upon vesting, the compensation expense associated with the Founders Convertible Preferred Stock was recorded as stock-based compensation based on the fair value of the Founders Convertible Preferred Stock on the grant date fair value. Immediately before the closing of the Business Combination, 10,870,562 shares of pre-combination Astra's Founders Convertible Preferred Stock were outstanding. Upon closing of the Business Combination, the shares of Founders Convertible Preferred Stock were converted into shares of Class B common stock of the Company, which are entitled to ten votes per share. Refer to Note 3 – Acquisitions.

Note 14 — Stock-based Compensation

Stock-based incentive awards are provided to employees under the terms of various Astra equity incentive plans.

2021 Omnibus Incentive Plan

In June 2021, the Board of Directors approved the 2021 Omnibus Incentive Plan (the “2021 Plan”), which reserved 36.8 million shares of Class A common stock for issuance for awards in accordance with the terms of the 2021 Plan. On January 1, 2022, pursuant to the terms of the 2021 Plan, the number of shares of Class A common stock available for issuance under the 2021 Plan increased by 13.1 million. Similarly, the share reserve increases on January 1 of each year from 2023 to 2031 by the lesser of (i) 5% of the sum of number of shares of (x) Class A common stock and (y) Class B common stock outstanding as of the close of business on the immediately preceding December 31 and (ii) the number of shares of Class A common stock as determined by the Board. On June 1, 2022, the shareholders of the Company approved the amendment of 2021 Plan to increase the Class A common stock available for issuance under the 2021 plan by 6 million. The purpose of the 2021 Plan is to advance the Company's interests by providing for the grant to employees, directors, consultants and advisors of stock and stock-based awards. As of June 30, 2022, 20.5 million shares remain available for issuance under the plan.

2021 Employee Stock Purchase Plan

In June 2021, the Board of Directors approved the 2021 Employee Stock Purchase Plan (the “2021 ESPP”) to reserve 5.0 million shares of Class A common stock for issuance for awards in accordance with the terms of the ESPP. On January 1, 2022, pursuant to the terms of the 2021 ESPP, the number of shares of Class A common stock available for issuance under the 2021 ESPP increased by 2.6 million. Similarly, the number of shares of Class A common stock reserved for issuance under the 2021 ESPP will ultimately increase on January 1 of each year from 2023 to 2031 by the lesser of (i) 1% of the sum of number of shares of Class A common stock and Class B common stock outstanding as of the close of business on the immediately preceding December 31 and (ii) the number of shares of Class A common stock as determined by the Board. The purpose of the 2021 ESPP is to enable eligible employees to use payroll deductions to purchase shares of Class A common stock and thereby acquire an interest in the company. Eligible employees are offered shares through a 24-month offering period, which consists of four consecutive 6-month purchase periods. Employees may purchase a limited amount of shares of the Company's stock at a discount of up to 15% of the lesser of the fair market value at the beginning of the offering period or the end of each 6-month purchase period. 0.2 million shares were issued under the Employee Stock Purchase Plan during the six months ended June 30, 2022. As of June 30, 2022, 7.5 million shares remain available for issuance under the 2021 ESPP. As of June 30, 2022, the Company had \$1.5 million of unrecognized stock-based compensation expense related to the 2021 ESPP. This cost is expected to be recognized over a weighted-average period of 1.09 years.

2016 Equity Incentive Plan

In 2016, pre-combination Astra adopted the 2016 Equity Incentive Plan (the “2016 Plan”). Under this Plan, the Board of Directors or a committee appointed by the Board of Directors is authorized to provide stock-based compensation in the form of stock options, stock appreciation rights, restricted stock, and other performance or value-based awards within parameters set forth in the Plan to employees, directors, and non-employee consultants.

In connection with the Business Combination, the Company assumed the 2016 Plan upon closing. Each outstanding and unexercised option (“Astra Option”) was converted, at the exchange ratio established in the BCA, into an option (“New Astra Option”) to acquire shares of the Company’s Class A common stock with the same terms and conditions as applicable to the Astra Option immediately prior to the Business Combination. As of June 30, 2022, there were no shares available for issuance under the plan.

The following table summarizes stock-based compensation expense that the Company recorded in the condensed consolidated statements of operations for the three and six months ended June 30, 2022 and 2021, respectively:

<i>in thousands</i>	For the Three Months Ended June 30,		For The Six Months Ended June 30,	
	2022	2021	2022	2021
Cost of revenues	\$ 456	\$ —	\$ 697	\$ —
Research and development	4,832	125	11,568	3,304
Sales and marketing	1,417	42	2,997	54
General and administrative	6,086	7,277	14,570	14,419
Stock-based compensation expense	<u>\$ 12,791</u>	<u>\$ 7,444</u>	<u>\$ 29,832</u>	<u>\$ 17,777</u>

On November 22, 2021, under the 2021 Plan, the Company’s compensation committee issued 1,047,115 PSUs to the employees of Apollo who joined Astra. PSUs are subject to certain performance-based and service-based vesting conditions and would vest over four years with 25% of awards vesting on July 1, 2022, and the remaining 75% vesting quarterly over the remaining 12 quarters beginning on November 15, 2022, only for the portion of PSUs that is eligible to become vested which will be determined based upon timely satisfaction of performance conditions. The number of PSUs vested will be determined by multiplying the total number of PSUs granted by the percentage of milestones achieved and by the percentage of PSUs that satisfy the time-based vesting condition on such time-vesting date.

Certain performance conditions for PSUs are subjective and the number of PSUs related to these performance conditions do not meet the criteria for the grant date. Accordingly, 523,557 PSUs and 52,355 PSUs related to the performance conditions that are not subjective are considered granted as of November 22, 2021 and January 21, 2022, respectively. The remaining PSUs issued did not meet the grant date criteria as of June 30, 2022. The Company will re-assess at the end of each reporting period if any further PSUs has met the grant date criteria and account for it in the period in which it meets the grant date criteria.

As of June 30, 2022, the Company assessed the probability of success for the performance conditions that are not subjective and determined that the Company has achieved certain of these performance conditions within the requisite period. Therefore, the Company recognized \$0.3 million and \$1.2 million compensation costs related to PSUs for the three and six months ended June 30, 2022, respectively.

On September 20, 2021, under the 2021 Plan, the Company’s compensation committee granted 3,972,185 restricted stock units (“RSUs”), 3,426,094 time-based stock options and 13,016,178 performance stock options (“PSOs”) to its executive officers. RSUs and time-based stock options granted have service-based vesting conditions only. The service conditions vary for each executive officer and is based on their continued service to the Company. Option holders have a 10-year period to exercise their options before options expire. Forfeitures are recognized in the period of occurrence and stock-based compensation costs are recognized based on grant-date fair value as RSUs and time-based stock options vest.

PSOs, only eligible to the executive officers of the Company, are subject to performance conditions as follows, and the milestones do not need to be achieved in any specific order or sequence:

Milestone A: The Company has had a successful orbital delivery.

Milestone B: The Company has had six orbital launches during a six consecutive month period.

Milestone C: The Company has completed a prototype for a spacecraft that has achieved an orbital launch.

Milestone D: The Company has conducted twenty-six orbital launches during a six consecutive month period.

Milestone E: The Company has achieved an orbital launch for an aggregate of 100 spacecraft.

These PSOs also require the volume weighted average share price for a period of thirty trading days meet share price thresholds of \$15.00, \$20.00, \$30.00, \$40.00 and \$50.00 following the achievement of the first milestone, second milestone, third milestone, fourth milestone and fifth milestone, respectively, before a milestone will be deemed achieved. After each milestone is achieved, 20% of the PSOs will vest on the vesting date immediately following the date at which the price thresholds are met. For this purpose, a "vesting date" is February 15, May 15, August 15 and November 15 of any applicable year. The milestones must be achieved over a period of approximately five years, with the earliest vesting date of November 15, 2022, and the last vesting date no later than November 15, 2026, if all vesting conditions are met. No unvested portion of the PSOs shall vest after November 15, 2026. As of June 30, 2022, the Company assessed the probability of success for the five milestones mentioned above and determined that it is probable that the Company will achieve Milestone A and Milestone B within the requisite period. Therefore, the Company recognized \$4.1 million and \$9.0 million compensation costs related to PSOs for the three and six months ended June 30, 2022, respectively. As of June 30, 2022, we had unrecognized stock-based compensation expense of \$32.8 million for the milestones that were not considered probable of achievement.

In April 2021, the Board of Directors approved the acceleration of the vesting of 1,900,000 pre-combination Astra stock options issued to two executive officers: Kelyn Brannon and Martin Attiq, on December 27, 2020. The Company recognized the remaining stock-based compensation expense of \$7.2 million on its Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2021.

In February 2021, the Board of Directors approved the acceleration in vesting of 206,250 pre-combination Astra stock options that were issued to one employee on May 15, 2020. The remaining unvested options were fully vested upon acceleration. The Company recorded a \$1.4 million stock-based compensation expense related to the modification for the three months ended March 31, 2021.

As of June 30, 2022, the Company had \$119.1 million of unrecognized stock-based compensation expense related to all of the Company's stock-based awards. This cost is expected to be recognized over a weighted-average period of 3.0 years.

Secondary Sales

In April 2021, four executive officers, Chris Kemp, CEO, Adam London, CTO, Kelyn Brannon, Chief Financial Officer ("CFO"), and Martin Attiq, Chief Business Officer ("CBO"), entered into stock purchase agreements with new investors to sell 2,534,793, 865,560, 1,500,000 and 400,000 shares, respectively, of Class A common stock of pre-combination Astra, at a purchase price per share of \$5.66 ("April 2021 Secondary Sales"). No additional stock-based compensation expense was recognized for the three and six months ended June 30, 2021 as the purchase price was below fair market value of Class A common stock of pre-combination Astra at the time of the sales.

In January 2021, concurrent with Series C Financing, two executive officers, Chris Kemp, founder and Chief Executive Officer ("CEO"), and Adam London, founder and Chief Technology Officer ("CTO"), entered into stock purchase agreements with certain investors including ACME SPV AS, LLC to sell 3,775,879 and 2,265,529 shares, respectively, of Founders Convertible Preferred Stock at purchase prices in excess of the estimated fair value at the time of the transactions ("January 2021 Secondary Sales") to certain investors. Upon the sale, the Founders Convertible Preferred Stock automatically converted into Series C Convertible Preferred Stock. The Company's board member, Scott Stanford, is a member of ACME SPV AS, LLC and the Company facilitated the January 2021 Secondary Sales. As a result, for the three months ended March 31, 2021, the Company recorded a total of \$8.2 million in stock-based compensation expense for the difference between the price paid by these investors and the estimated fair value of the Founders Convertible Preferred Stock on the date of the transaction.

Stock Options Awards

The following is a summary of stock option activity for the six months ended June 30, 2022:

	No. of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Term (in Years)	Aggregate Intrinsic Value
Outstanding – December 31, 2021	20,326,384	\$ 7.52	9.4	\$ 22,782,654
Granted	1,142,027	5.21		
Exercised	(231,491)	0.45		
Forfeited	(49,394)	1.69		
Expired	(5,067)	6.75		
Outstanding – June 30, 2022	21,182,459	\$ 7.48	8.94	\$ 2,733,826
Unvested – June 30, 2022	18,525,741	\$ 8.23	9.11	\$ 1,037,708
Exercisable – June 30, 2022	2,656,718	\$ 2.26	7.76	\$ 1,696,117

The Company uses the Black-Scholes option pricing-model to calculate the grant date fair value of time-based options. The following table summarizes the assumptions used in estimating the fair value of options granted in the six months ended June 30, 2022:

Time Based Stock Options	
Expected terms (years) ⁽¹⁾	5.81
Expected volatility ⁽²⁾	68.9%
Risk-free interest rate ⁽³⁾	1.70%
Expected dividend rate ⁽⁴⁾	-
Grant-date fair value	\$ 3.20

- (1) The expected term is the length of time the grant is expected to be outstanding before it is exercised or terminated. This number is calculated as the midpoint between the vesting term and the original contractual term (contractual period to exercise). If the option contains graded vesting, then the vesting term would be based on the vesting pattern.
- (2) Expected volatility, or the standard deviation of annualized returns, was calculated based on comparable companies' reported volatilities.
- (3) Risk-free interest was obtained from US treasury notes for the expected terms noted as of the valuation date.
- (4) The Company has assumed a dividend yield of zero as it has no plans to declare dividends in the foreseeable future.

Restricted Stock Units Awards

The following is a summary of restricted stock units for the six months ended June 30, 2022:

	Number of RSUs Outstanding	Weighted-Average Grant Date Fair Value Per Share
Outstanding – December 31, 2021	10,678,818	\$ 9.20
Granted	7,859,084	3.38
Vested	(1,570,858)	8.76
Forfeited	(1,341,095)	8.62
Outstanding – June 30, 2022	15,625,949	\$ 6.36

Total fair value as of the respective vesting dates of restricted stock units vested for the six months ended June 30, 2022 was approximately \$4.9 million. As of June 30, 2022, the aggregate intrinsic value of unvested restricted stock units was \$20.3 million.

Note 15 — Loss per Share

Founders Convertible Preferred Stock and Convertible Preferred Stock were participating securities in periods of income, as the Founders Convertible Preferred Stock and Convertible Preferred Stock participated in undistributed earnings on an as-if-converted or as-vested basis. However, the Founders Convertible Preferred Stock and Convertible Preferred Stock, did not share in losses.

The Company computes earnings per share of Common Stock using the two-class method required for participating securities and does not apply the two-class method in periods of net loss. Basic and diluted earnings per share were the same for the periods presented as the inclusion of all potential Common Stock outstanding would have been anti-dilutive. Earnings per share calculations for all periods prior to the Business Combination have been retrospectively restated to the equivalent number of shares reflecting the exchange ratio established in the BCA. Subsequent to the Business Combination, earnings per share was calculated based on weighted average number of shares of common stock then outstanding.

The following tables set forth the computation of basic and diluted loss for the three months ended June 30, 2022 and 2021, and the six months ended June 30, 2022 and 2021:

<i>(in thousands, except share and per share amounts)</i>	For The Three Months Ended June 30,			
	2022		2021	
	Class A Common	Class B Common	Class A Common	Class B Common
Net loss attributed to common stockholders	\$ (65,025)	\$ (17,278)	\$ (9,393)	\$ (21,904)
Adjustment to redemption value on Convertible Preferred Stock	—	—	—	—
Net loss attributed to common stockholders	\$ (65,025)	\$ (17,278)	\$ (9,393)	\$ (21,904)
Basic weighted average common shares outstanding	209,021,924	55,539,188	20,035,183	46,722,244
Dilutive weighted average common shares outstanding	209,021,924	55,539,188	20,035,183	46,722,244
Loss per share attributable to common stockholders:				
Basic and Diluted loss per share	\$ (0.31)	\$ (0.31)	\$ (0.47)	\$ (0.47)

<i>(in thousands, except share and per share amounts)</i>	For The Six Months Ended June 30,			
	2022		2021	
	Class A Common	Class B Common	Class A Common	Class B Common
Net loss attributed to common stockholders	\$ (132,684)	\$ (35,332)	\$ (53,144)	\$ (137,125)
Adjustment to redemption value on Convertible Preferred Stock	—	—	(282,587)	(729,139)
Net loss attributed to common stockholders	\$ (132,684)	\$ (35,332)	\$ (335,731)	\$ (866,264)
Basic weighted average common shares outstanding	208,569,794	55,539,188	18,131,574	46,783,559
Dilutive weighted average common shares outstanding	208,569,794	55,539,188	18,131,574	46,783,559
Loss per share attributable to common stockholders:				
Basic and Diluted loss per share	\$ (0.64)	\$ (0.64)	\$ (18.52)	\$ (18.52)

There were no preferred dividends declared or accumulated as of June 30, 2021. The following securities were not included in the computation of diluted shares outstanding because the effect would be anti-dilutive:

	As of June 30,			
	2022		2021	
	Class A Common	Class B Common	Class A Common	Class B Common
Stock options	8,166,274	—	5,993,412	—
RSUs	15,558,491	—	—	—
Convertible Preferred Stock	—	—	—	—
Warrants	—	—	15,813,829	—
Total	23,724,765	—	21,807,241	—

Note 16 — Related Party Transactions

Cue Health, Inc.

In August 2021, the Company entered into a six-month subscription arrangement with Cue Health Inc. for the purchase of COVID-19 test readers and the related test cartridges. Under Cue Health Inc.'s standard subscription arrangement, the Company receives a twenty percent (20%) discount on each Cue Reader and fourteen percent (14%) discount on each test cartridge. Mr. Stanford, a member of the Board and the Company's Lead Director, serves on the board of directors of Cue Health Inc. Funds affiliated with ACME Capital collectively beneficially own 10.4% of the outstanding common stock of Cue Health Inc. Mr. Stanford was not involved in the negotiation of the Company's arrangement with Cue Health Inc. The Company conducted its independent evaluation of Cue's services and determined in its sole judgment Cue's product and services were the best option for the Company to ensure it could maintain a safe and productive work environment. The Company made purchases of \$0.2 million and \$0.6 million during the three and six months ended June 30, 2022. No such purchases were made during the three and six months ended June 30, 2021.

Convertible Promissory Notes

In June 2019, the Company issued promissory convertible notes to A/NPC Holdings LLC and Sherpa Ventures Fund, II LP for gross proceeds of \$10.0 million and \$0.6 million, respectively. In November 2020, the Company issued promissory convertible notes to Sherpa Ventures Fund II, LP and Eagle Creek Capital LLC, for gross proceeds of \$0.2 million and \$0.5 million, respectively. Some of the Company's board members at that time were or are related parties of these entities. Nomi Bergman, who was serving as the Company's director when the promissory convertible notes were issued, is a principal of A/NPC Holdings LLC and Scott Stanford, who serves as the Company's director, is a principal of Sherpa Ventures Fund II, LP and a member of Eagle Creek Capital, LLC. In all instances the terms of these transactions were the same as third-party investors.

On January 28, 2021, the Company settled the promissory convertible notes through the issuance of Series C convertible preferred stock. 7,819,887 and 469,193 shares of Series C convertible preferred stock were issued to A/NPC Holdings LLC and Sherpa Ventures Fund II, LP at a per share price of \$1.33 to settle \$10.4 million and \$0.6 million outstanding principal and accrued interest, respectively. Additionally, 264,928 and 115,771 shares of Series C convertible preferred stock were issued to Eagle Creek Capital, LLC and Sherpa Ventures Fund II, LP at a per share price of \$1.71 to settle \$0.5 million and \$0.2 million outstanding principal and accrued interest, respectively. See Note 6 — Long-Term Debt for mechanism of settlement.

Note 17 — Subsequent Events

On July 8, 2022, the plaintiffs voluntarily dismissed their stockholder derivative suit filed in the United States District Court for the State of Delaware styled Meyer, et al., v. Kemp, et al., Case No. 22-cv-00308 (D. Del.). The dismissal was without prejudice to plaintiffs' right to re-file the lawsuit in the Court of Chancery of the State of Delaware.

On July 28, 2022, the Company entered into a lease agreement for approximately 60,000 square feet of manufacturing facility in Sunnyvale, California having a lease term of 36 months with an option to extend for a period of additional 36 months. The undiscounted base rent payments for the first year of this lease is approximately \$1.8 million with a 4% increase in base rent for each subsequent year. In addition to base rent, the Company will be responsible for the management fee of 5% of the base rent. In lieu of a cash security deposit, the Company is required to provide the landlord an irrevocable letter of credit in the amount of \$0.3 million. This new lease facility will enable expansion of space product production and development capacity, thermal testing capacity, as well as providing production and engineering space for future space services business.

On August 2, 2022, the Company entered into a Common Stock Purchase Agreement (the “Purchase Agreement”) and a Registration Rights Agreement (the “Registration Rights Agreement”) with B. Riley Principal Capital II, LLC (“B. Riley Principal Capital”). Pursuant to the Purchase Agreement, the Company will have the right to sell to B. Riley Principal Capital up to the lesser of (i) \$100,000,000 of newly issued shares (the “Shares”) of the Class A Common Stock, and (ii) 53,059,650 Shares of Class A Common Stock, which number of shares is equal to 19.99% of the sum of Class A Common Stock and Class B common stock issued and outstanding immediately prior to the execution of the Purchase Agreement (subject to certain conditions and limitations), from time to time during the term of the Purchase Agreement. Upon execution of the Purchase Agreement, the Company issued 359,098 shares of Class A Common Stock to B. Riley as consideration for its irrevocable commitment to purchase shares of our Class A Common Stock from time to time.

Sales of the Shares pursuant to the Purchase Agreement, and the timing of any sales, are solely at the option of the Company over the 24-month period from the date of initial satisfaction of the conditions to B. Riley Principal Capital's obligation to purchase the Shares of Class A Common Stock set forth in the Purchase Agreement, including that a registration statement registering the resale by B. Riley Principal Capital of the Class A Common Stock under the Securities Act that may be sold to B. Riley Principal Capital by the Company under the Purchase Agreement is declared effective by the Securities and Exchange Commission (the “SEC”) and a final prospectus relating thereto is filed with the SEC. The purchase price of the Class A Common Stock that the Company may sell to B. Riley Principal Capital pursuant to the Purchase Agreement will be 97% of the average of the volume weighted average price of the Company’s Class A Common Stock as calculated per the terms set forth in the Purchase Agreement. The net proceeds from sales, if any, under the Purchase Agreement, will depend on the frequency and prices at which the Company sells the Shares of Class A Common Stock. To the extent the Company sells the Shares of Class A Common Stock under the Purchase Agreement, the Company currently plans to use any proceeds for working capital and general corporate purposes.

The Purchase Agreement prohibits the Company from issuing or selling any shares of Class A Common Stock to B. Riley Principal Capital under the Purchase Agreement which, when aggregated with all other shares of Class A Common Stock then beneficially owned by B. Riley Principal Capital and its affiliates would result in B. Riley Principal Capital beneficially owning more than 4.99% of the outstanding shares of Class A Common Stock.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of the financial condition and results of operations of Astra Space, Inc. should be read together with our audited consolidated financial statements as of and for the years ended December 31, 2021 and 2020 and unaudited interim condensed consolidated financial statements as of and for the three and six months ended June 30, 2022 and 2021, together with related notes thereto. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those projected in these forward-looking statements as a result of various factors, including those set forth in the risk factors previously disclosed in our annual report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 31, 2022, as updated by factors disclosed in the section titled “Risk Factors” in this Quarterly Report on Form 10-Q. Certain amounts may not foot due to rounding. Unless the context otherwise requires, all references in this section to “the Company” “Astra,” “us,” “our” or “we” refer to Astra Space, Inc. after the closing of the Business Combination on June 30, 2021, and Astra Space Operations, Inc, formerly known as Astra Space, Inc, prior to the Business Combination.

Overview

Our mission is to launch a new generation of launch services and space products and services to Improve Life on Earth from Space[®]. These services and products are enabled by new constellations of small satellites in Low Earth Orbit (“LEO”), which have rapidly become smaller, cheaper, and many times more numerous than legacy satellites. Launch vehicles, however, have not evolved in the same way — most rockets remain focused on serving legacy satellites and human spaceflight missions and we aim to provide the world’s first mass-produced orbital launch system.

In July 2022, we decided to focus on the development and production of the next version of our launch system, which we unveiled at our inaugural SpaceTech Day on May 12, 2022. As a result, we have discontinued the production of launch vehicles supported by our current launch system and do not plan to conduct any further commercial launches in 2022. As part of the development cycle for our new launch system, we expect to conduct test launches of our new launch system in 2023 but are not certain whether we will be able to conduct paid commercial launches in 2023 using this new launch system. Whether we will be able to conduct paid commercial launches in 2023 will depend in part upon the success of these test launches.

Our new launch system is intended to support launch vehicles that will serve a market focused on populating mega constellations. We have designed this launch system to support more payload capacity and a more frequent launch cadence, which we believe will allow us to offer our customers more dependable services. We have begun discussions with customers for whom we agreed to launch payloads on our Rocket 3 series launch vehicles (aka launch system 1.0) and the shift of those flights to our Rocket 4 series (aka launch system 2.0). Please carefully review our Risk Factors contained in this quarterly report on Form 10-Q for information regarding possible risks and uncertainties that our decision to focus on the development of our new launch system may have on our business, results of operations and future prospects.

We have also been focusing on the growth of our space products business with the sale of our Astra Spacecraft Engine. The Astra Spacecraft Engine is a propulsion engine that assists satellites in achieving and maintaining targeted orbits. Including 14 units in Apollo Fusion’s backlog on July 1, 2021, we have received cumulative committed orders for 103 Astra Spacecraft Engines, an increase of 69% compared to March 31, 2022.

While our primary focus remains the development of our launch services offerings and growth of our existing space products, we continue to develop other space products and service offerings to support our overall mission to improve life on Earth from space. We are also focused on adding to our core space technology to support the growth and development of our product and service offerings.

COVID-19 Impact

On March 11, 2020, the World Health Organization declared the novel strain of coronavirus (“COVID-19”) a global pandemic and recommended containment and mitigation measures worldwide. The extent of the impact of the coronavirus pandemic on Astra’s operational and financial performance will depend on various future developments, including variants of the disease, the duration and spread of the outbreak and impact on its customers, suppliers, and employees, all of which is uncertain at this time. Astra believes the COVID-19 pandemic may adversely impact future revenue and results of operations, but Astra is unable to predict at this time the size and duration of this adverse impact. Astra has seen some signs of positive effects for its long-term business prospects and partnerships as a result of the pandemic. The COVID-19 pandemic has created an even greater need for broadband internet access, and businesses are thinking differently about how their workforce can stay connected. There have also been recent government and commercial announcements about continuous investments in this area and we believe this will continue to support the growth of the small satellite market for the foreseeable future.

Key Factors Affecting Our Results and Prospects

We believe that our performance and future success depend on a number of factors that present significant opportunities for us but also pose risks and challenges, including competition from better known and well-capitalized companies, the risk of actual or perceived safety issues and their consequences for our reputation and the other factors discussed under "Risk Factors" in our Annual Report on Form 10-K for the period ended December 31, 2021, filed with the SEC on March 31, 2022, as updated by factors disclosed in the section titled "Risk Factors" in this Quarterly Report on Form 10-Q. We believe the factors discussed below are key to our success.

Commencing and Expanding Commercial Operations

We commenced paid commercial launch services in 2022, with our launch on February 10, 2022, of launch vehicle LV0008. After a nominal first stage flight, the payload fairing did not fully deploy prior to the upper stage ignition due to an electrical issue which, together with a software issue, resulted in the upper stage not reaching orbit and the end of the mission. Through our investigation process, we identified and have since corrected the issues that caused the error in the payload fairing's deployment and addressed the software issue. On March 15, 2022, we conducted an orbital launch on our launch vehicle LV0009 for three customers of Spaceflight, Inc. and confirmed our first delivery of customer payloads into Earth orbit. On June 12, 2022, we conducted our first launch for NASA's TROPICS-1 mission on our launch vehicle LV0010. While we had a nominal first stage flight, our upper stage shut down early and we did not deliver the payloads into low Earth orbit. We have been working closely with NASA and the FAA to investigate the failure. We have reviewed all the flight data, and continue to eliminate branches and elements of the fault tree. To conduct our launches, we are required to receive commercial space transportation licenses from the FAA. Any delays in commencing our commercial launch operations, including due to delays or cost overruns in obtaining FAA licenses or other regulatory approvals for future versions of our launch vehicles or at future spaceports, could adversely impact our results and growth plans.

We have made substantial progress towards demonstrating a monthly launch production capability during the first two quarters of 2022, with a goal of reaching an even more frequent launch production capability in the future. We have decided to focus on the development of our new launch system and thus, have discontinued the production of launch vehicles supported by our current launch system. When we refer to a "commercial launch," we mean a launch conducted under an FAA commercial launch license.

We also commenced delivery of space products during the three months ended June 30, 2022. We expect the volume of delivery of our space products would increase in the future as we continue to fulfill our obligations under existing space products contracts and enter into contracts with potential new customers. In late July 2022, the Company entered into a lease agreement for approximately 60,000 square feet of manufacturing facility in Sunnyvale, California having a lease term of 36 months. This new lease facility will enable expansion of our space products production and development capacity, thermal testing capacity, as well as providing production and engineering space for future space services business.

Lowering Manufacturing Costs and Increasing Payloads

We aim to be a cost-efficient dedicated orbital launch system provider. We plan to increase the maximum payload capacity of our launch vehicle to meet customer needs and demands through a process of iterative development and improvement. We have made significant investment in our manufacturing facility located in Alameda, California. Please see risk factors previously disclosed in our Annual Report on Form 10-K for the period ended December 31, 2021, filed with the SEC on March 31, 2022, as updated by factors disclosed in the section titled "Risk Factors" in this Quarterly Report on Form 10-Q, for factors that could affect our ability to realize benefits from the investment in our manufacturing facility. While we believe that our estimate is reliable, any delays in our achieving full manufacturing capacity could adversely impact our results and growth plans.

Leveraging Core Technologies

We plan to develop, license or acquire core space technologies that we expect to commercialize and incorporate into our launch vehicles, spacecrafts and other infrastructure that we will use to deliver our product and space service offerings. These core technologies including, among other things, electric propulsion and solar power. For example, we acquired propulsion technology through our merger with Apollo Fusion, which we announced on June 2, 2021, and closed on July 1, 2021.

Expand Our Space Services Offerings

We are in the preliminary stages of developing our space services offering, providing modular configurable satellite buses for customers, leveraging both in-house and partner-provided subsystem components and in-house design and integration services, as well as operational support of satellites on orbit, to turn-key provision of entire constellations, offering "concept to constellation" in months instead of years. Specifically, our space services encompass all aspects of hosted satellite and constellation services, including hosting customer payloads onto our satellites, and delivering services, such as communication services. These services are expected to allow customers to focus on developing innovative payloads rather than having to design or develop complete satellite buses or satellites or

constellations, which we will provide, along with ancillary services that are likely to include telemetry, tracking and control ("TT&C"), communications, processing, as well as software development and maintenance.

On November 4, 2021, we filed an application with the FCC, under which we requested authority to launch and operate a non-geostationary orbit satellite system using V-band frequencies (the "Constellation") as we work to build out our space services offering to enable communications. We anticipate a response within 12 to 30 months from the date of application.

In the future, we would expect to make significant investments in our space services programs. Although we believe that our financial resources will be sufficient to meet our capital needs for at least 12 months from the date of this Quarterly Report on Form 10-Q, our timeline and budgeted costs for these offerings are subject to substantial uncertainty, including due to compliance requirements of U.S. federal export control laws and applicable foreign and local regulations, the impact of political and economic conditions, the need to identify opportunities and negotiate long-term agreements with customers for these services, among other factors.

Key Components of Results of Operations

We are an early-stage company and our historical results may not be indicative of our future results for reasons that may be difficult to anticipate. Accordingly, the drivers of our future financial results, as well as the components of such results, may not be comparable to our historical or future results of operations.

Revenues

We commenced our first paid commercial launch, which occurred in February 2022, followed by subsequent paid commercial launches which occurred in March 2022 and June 2022. These launches represent the start of our paid commercial launch operations. As discussed earlier, we have discontinued the production of launch vehicles supported by our current launch system and do not plan to conduct any further commercial launches in 2022. See "Overview" for more information about our decision to stop producing launch vehicles supported by our current launch system.

We also commenced delivery of space products to our customers during the three months ended June 30, 2022. We also expect to generate revenues by delivering space services to our customers in the future.

Cost of Revenues

Cost of revenues consist primarily of direct material, direct labor, manufacturing overhead, other personnel-related expenses, which include salaries, bonuses, benefits and stock-based compensation expense and depreciation expense. Cost of revenues also includes inventory write-downs to reduce the carrying value of inventory related to launch services when the carrying value exceeds its estimated net realizable value. We anticipate recording write-downs to our inventory over the foreseeable future as we continue to ramp production of launch vehicles supported by our new launch system. We expect our cost of revenues to increase in future periods as we sell more launch services and space products. As we grow into our current capacity and execute on cost-reduction initiatives, we expect our gross margins to improve over time.

Operating Expenses

Research and Development Expense

Our research and development expenses consist primarily of internal and external expenses incurred in connection with our research activities and development programs. These expenses include, but are not limited to, development supplies, testing materials, personnel and personnel-related costs (including salaries, bonuses, benefits, and stock-based compensation expense), depreciation expense, amortization of intangible assets, overhead allocation (consisting of various support and facility costs) and consulting fees. Research and development costs are expensed as incurred.

We allocate research and development costs by function rather than by project, as a significant majority of our historical research and development spending was related to the initial development and testing of our underlying technology, including preparation for multiple test launches.

Our current primary research and development objectives focus on the development and finalization of our offerings. The successful development of these offerings involves many uncertainties, including:

- timing in finalizing launch and space systems design and specifications;
- successful completion of analyses and ground test programs to validate that new or changed designs perform as expected;
- successful completion of flight test programs, including flight safety tests;

- our ability to obtain additional applicable approvals, licenses or certifications from regulatory agencies, if required, and maintaining current approvals, licenses or certifications;
- performance of our manufacturing facilities despite risks that disrupt productions, such as natural disasters and hazardous materials;
- performance of a limited number of suppliers for certain raw materials and components;
- performance of our third-party contractors that support our research and development activities;
- our ability to maintain rights from third parties for intellectual properties critical to research and development activities; and
- our ability to continue funding and maintain our current research and development activities.

A change in the outcome of any of these variables could delay the development of our launch and space systems, which in turn could impact the timing of commercialization of our offerings.

As we are developing and building our launch services, we have expensed all research and development costs associated with developing and building our launch services offering. We expect that our research and development expenses will increase in the short-term as we invest in improving and further reducing the costs of our launch system as well as developing and improving our space services offering.

Sales and Marketing Expense

Sales and marketing expenses consist of personnel and personnel-related expenses (including stock-based compensation expense) for our business development team as well as advertising and marketing expenses. We expect to increase our sales and marketing activities in order to grow our customer base and increase market share. We also expect that our sales and marketing expenses will increase over time as we continue to hire additional personnel to scale the business.

General and Administrative Expense

General and administrative expenses consist primarily of personnel and personnel-related costs (including salaries, bonuses, benefits, and stock-based compensation expense) for personnel in executive, finance, accounting, corporate development and other administrative functions. General and administrative expenses also include legal fees, professional fees paid for accounting, auditing, consulting, tax, and investor relations services, insurance costs, and facility costs not otherwise included in research and development expenses and costs associated with compliance with the rules and regulations of the SEC and the stock exchange. We expect our general and administrative expenses will increase over time as we expand our business operations and product and service offerings.

Income Tax (Benefit) Expense

Our income tax provision consists of an estimate for U.S. federal and state income taxes based on enacted rates, as adjusted for allowable credits, deductions, uncertain tax positions, changes in deferred tax assets and liabilities, and changes in the tax law. We maintain a valuation allowance against the full value of our U.S. and state net deferred tax assets because we believe the recoverability of the tax assets is not more likely than not.

Other Income (Expense), Net

Other income (expense), net primarily consists of income from government research and development contracts.

Critical Accounting Estimates

Our financial statements have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. Preparation of the financial statements requires our management to make a number of judgments, estimates and assumptions relating to the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We consider an accounting judgment, estimate or assumption to be critical when (1) the estimate or assumption is complex in nature or requires a high degree of judgment and (2) the use of different judgments, estimates and assumptions could have a material impact on our consolidated financial statements. Our significant accounting policies are described in Note 2 in our Annual Report on Form 10-K for the year ended December 31, 2021, as updated as applicable in Note 1 to the condensed consolidated financial statements herein.

There were no significant changes in our critical accounting estimates during the three and six months ended June 30, 2022 compared to those previously disclosed in “Critical Accounting Estimates” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in the 2021 Annual Report on Form 10-K.

Results of Operations

Comparison of the Three and Six Months Ended June 30, 2022 and 2021

<i>(in thousands, except percentages)</i>	For The Three Months Ended June 30,		Period over period change		For The Six Months Ended June 30,		Period over period change	
	2022	2021	(\$)	(%)	2022	2021	(\$)	(%)
Revenues	\$ 2,682	\$ —	\$ 2,682	n.m.	\$ 6,593	\$ —	\$ 6,593	n.m.
Cost of revenues	17,445	—	17,445	n.m.	28,459	—	28,459	n.m.
Gross loss	(14,763)	—	(14,763)	n.m.	(21,866)	—	(21,866)	n.m.
Operating expenses:								
Research and development	40,798	\$ 10,458	\$ 30,340	290 %	78,725	\$ 22,435	\$ 56,290	251 %
Sales and marketing	4,636	1,125	3,511	312	9,400	1,189	8,211	691
General and administrative	20,608	18,318	2,290	13	41,594	30,931	10,663	34
Loss on change in fair value of contingent consideration	1,800	—	1,800	n.m.	17,300	—	17,300	n.m.
Total operating expenses	67,842	29,901	37,941	127	147,019	54,555	92,464	169
Operating loss	(82,605)	(29,901)	(52,704)	176	(168,885)	(54,555)	(114,330)	210
Interest (expense) income, net	356	(678)	1,034	(153)	530	(1,213)	1,743	(144)
Other income (expense), net	(54)	(718)	664	(92)	339	(718)	1,057	(147)
Loss on extinguishment of convertible notes	—	—	—	n.m.	—	(131,908)	131,908	n.m.
Loss on extinguishment of convertible notes attributable to related parties	—	—	—	n.m.	—	(1,875)	1,875	n.m.
Loss before taxes	(82,303)	(31,297)	(51,006)	163	(168,016)	(190,269)	22,253	(12)
Income tax (benefit) expense	—	—	—	n.m.	—	—	—	n.m.
Net loss	\$ (82,303)	\$ (31,297)	(51,006)	163	\$ (168,016)	\$ (190,269)	22,253	(12)
Adjustment to redemption value on Convertible Preferred Stock	—	—	—	n.m.	—	(1,011,726)	1,011,726	n.m.
Net loss attributable to common stockholders	\$ (82,303)	\$ (31,297)	\$ (51,006)	163 %	\$ (168,016)	\$ (1,201,995)	\$ 1,033,979	(86)

n.m. = not meaningful.

Revenues

Revenues were \$2.7 million for the three months ended June 30, 2022 of which \$2.0 million related to launch services and \$0.7 million related to space products. We launched launch vehicle LV0010 on June 12, 2022 which was a paid commercial launch. We also commenced delivery of space products to our customers during the three months ended June 30, 2022. No revenues were recognized during the three months ended June 30, 2021.

Revenues were \$6.6 million for the six months ended June 30, 2022 of which \$5.9 million related to launch services and \$0.7 million related to space products. We commenced paid commercial launch services and delivery of space products during the six months ended June 30, 2022. We launched launch vehicles LV0008, LV0009 and LV0010 on February 10, 2022, March 15, 2022 and June 12, 2022, respectively, all of which were paid launches. The orbital launch of LV0009 conducted on March 15, 2022, represents our first paid delivery of customer payloads into Earth orbit. No revenues were recognized for the six months ended June 30, 2021.

Cost of Revenues

Cost of revenues were \$17.4 million for the three months ended June 30, 2022 which was primarily driven by recording of \$13.3 million of inventory write-downs and \$4.1 million of cost of launch services and space products. The \$13.3 million of inventory write-downs was driven by \$10.2 million related to the discontinuance of launch vehicles supported by our current launch system and \$3.1 million of other write-downs. The cost of launch services does not reflect the actual gross margins as certain inventory values were recorded at net realizable value. No cost of revenues were recognized for the three months ended June 30, 2021.

Cost of revenues were \$28.5 million for the six months ended June 30, 2022 which was primarily driven by recording of \$18.8 million of inventory write-downs and \$9.6 million of cost of launch services and space products. The \$18.8 million of inventory write-downs was driven by \$10.2 million related to the discontinuance of launch vehicles supported by our current launch system, \$5.5 million related to the net realizable value write-downs and \$3.1 million of other write-downs. The cost of launch services does not reflect the actual gross margins as certain inventory values were recorded at net realizable value. In the first six months of 2022, we conducted our first paid commercial launch and have not yet achieved economies of scale in our manufacturing processes. We also decided to stop paid commercial launches for the remainder of 2022 so that we can focus on developing our new launch system. As a result, we will continue to incur negative gross margins for the remainder of 2022. No cost of revenues were recognized for the six months ended June 30, 2021.

Research and Development

Research and development costs were \$41.0 million for the three months ended June 30, 2022, compared to \$10.5 million for the three months ended June 30, 2021. The \$30.5 million increase mainly reflected a \$14.2 million increase in personnel-related costs due to headcount increases in research and development departments, a \$5.9 million increase in research and development materials expense, a \$5.2 million increase in stock-based compensation expense, a \$3.1 million increase in depreciation and amortization expense, a \$2.9 million increase in third party consulting and recruitment costs and a \$1.2 million increase in technology licensed and software subscription licenses related expenses with the remainder due to changes in other research and development expenses. These increases were to support our product roadmap and launch services.

Research and development costs were \$78.9 million for the six months ended June 30, 2022, compared to \$22.4 million for the six months ended June 30, 2021. The \$56.5 million increase mainly reflected a \$26.0 million increase in personnel-related costs due to headcount increases in research and development departments, a \$9.7 million increase in research and development materials expense, a \$9.0 million increase in stock-based compensation expense, a \$4.8 million increase in third party consulting and recruitment costs, a \$4.4 million increase in depreciation and amortization expense and a \$1.9 million increase in technology licensed and software subscription licenses related expenses with the remainder due to changes in other research and development expenses. These increases were to support our product roadmap and launch services.

Sales and Marketing

Sales and marketing expenses were \$4.6 million for the three months ended June 30, 2022, compared to \$1.1 million for the three months ended June 30, 2021. The \$3.5 million increase mainly reflected a \$1.5 million increase in personnel-related costs, a \$1.4 million in stock-based compensation expense and a \$0.3 million increase in depreciation expense with the remainder due to changes in other sales and marketing expenses. These increases were to support business development and marketing activities.

Sales and marketing expenses were \$9.4 million for the six months ended June 30, 2022, compared to \$1.2 million for the six months ended June 30, 2021. The \$8.2 million increase mainly reflected a \$3.3 million increase in personnel-related costs, a \$2.9 million in stock-based compensation expense and a \$0.8 million increase in depreciation expense with the remainder due to changes in other sales and marketing expenses. These increases were to support business development and marketing activities.

General and Administrative

General and administrative expenses were \$20.6 million for the three months ended June 30, 2022, compared to \$18.3 million for the three months ended June 30, 2021. The \$2.3 million increase was primarily due to a \$5.0 million increase in employee costs due to increased headcount, a \$1.7 million increase in insurance related expenses, a \$1.1 million increase in technology licensed and software subscription licenses related expenses, a \$0.5 million increase in third party consulting and recruitment costs and a \$0.4 million increase in accounting, audit and legal related fees which is partially offset by a \$2.2 million decrease from transaction costs incurred and expensed by the Company in relation to the Business Combination, a \$1.2 million decrease in stock-based compensation expense with the remainder due to changes in facilities costs, IT equipment fees, and other services.

General and administrative expenses were \$41.5 million for the six months ended June 30, 2022, compared to \$30.9 million for the six months ended June 30, 2021. The \$10.6 million increase was primarily due to a \$10.4 million increase in employee costs due to increased headcount, a \$3.7 million increase in insurance related expenses, a \$2.4 million increase in technology licensed and software subscription licenses related expenses, a \$1.1 million increase in third party consulting and recruitment costs and a \$1.7 million increase in accounting, audit and legal related fees which is partially offset by a \$2.2 million decrease from transaction costs incurred and expensed by the Company in relation to the Business Combination with the remainder due to changes in facilities costs, IT equipment fees, and other services.

Loss on Change in Fair Value of Contingent Consideration

Loss on change in fair value of contingent consideration of \$1.8 million and \$17.3 million for the three and six months ended June 30, 2022, respectively, was due to higher revenues forecasted in estimating the fair value of contingent consideration. No loss on change in fair value of contingent consideration was recorded for the three and six months ended June 30, 2021.

Interest (Expense) Income, Net

Interest income was \$0.4 million for the three months ended June 30, 2022, compared to interest expense of \$0.7 million for the three months ended June 30, 2021. The \$1.1 million increase in interest (expense) income, net was primarily due to the settlement of outstanding debt during the year ended December 31, 2021. Therefore, we did not incur any interest expense during the period and an increase of \$0.4 million in interest income related to investment in marketable securities during the three months ended June 30, 2022.

Interest income was \$0.5 million for the six months ended June 30, 2022, compared to interest expense of \$1.2 million for the six months ended June 30, 2021. The \$1.7 million increase in interest (expense) income, net was primarily due to the settlement of outstanding debt during the year ended December 31, 2021. Therefore, we did not incur any interest expense during the period and an increase of \$0.5 million in interest income related to investment in marketable securities during the six months ended June 30, 2022.

Other Income (Expense), Net

Other expense, net was \$0.1 million for the three months ended June 30, 2022, compared to \$0.7 million for the three months ended June 30, 2021. The \$0.6 million decrease in other income (expense), net was primarily due a non-recurring payment to one of Legacy Astra's investors for the three months ended June 30, 2021. No such payment was made or due during the three months ended June 30, 2022.

Other income, net was \$0.3 million for the six months ended June 30, 2022, compared to other expense, net of \$0.7 million for the three months ended June 30, 2021. Other income, net for the six months ended June 30, 2022 of \$0.3 million was primarily due to a \$0.4 million in income from government research and development contracts which is partially offset by other miscellaneous expenses. There was no income from government research and development contracts recorded for the six months ended June 30, 2021. Other expense, net for the six months ended June 30, 2021 of \$0.7 million was primarily due to a \$0.6 million in expense of a nonrecurring payment to one of Legacy Astra's investors with the remainder due to other miscellaneous expenses. No such payment was made or due during the six months ended June 30, 2022.

Loss on Extinguishment of Convertible Notes

No loss on extinguishment of convertible notes was recorded for the three months ended June 30, 2022 and 2021.

No loss on extinguishment of convertible notes was recorded for the six months ended June 30, 2022. Loss on extinguishment of convertible notes of \$131.9 million was recorded for the six months ended June 30, 2021 due to the settlement of convertible notes on January 28, 2021.

Loss on Extinguishment of Convertible Notes Attributable to Related Parties

No loss on extinguishment of convertible notes attributable to related parties was recorded for the three months ended June 30, 2022 and 2021.

No loss on extinguishment of convertible notes attributable to related parties was recorded for the six months ended June 30, 2022. Loss on extinguishment of convertible notes attributable to related parties of \$1.9 million was recorded for the six months ended June 30, 2021 due to the settlement of convertible notes attributable to related parties on January 28, 2021.

Income Tax (Benefit) Expense

We did not incur income tax expense for the three and six months ended June 30, 2022 and 2021.

Adjustment to redemption value on Convertible Preferred Stock

No adjustment to redemption value on convertible preferred stock was recorded for the three months ended June 30, 2022.

No adjustment to redemption value on convertible preferred stock was recorded for the six months ended June 30, 2022. Adjustment to redemption value on Convertible Preferred Stock of \$1,011.7 million for the six months ended June 30, 2021 was recorded due to the re-measurement of Convertible Preferred Stock to its redemption value due to the likelihood of a redemption event becoming probable.

Liquidity and Capital Resources

The following section discusses our principal liquidity and capital resources as well as our primary liquidity requirements and uses of cash. Our cash and cash equivalents are maintained in highly liquid investments with remaining maturities of 90 days or less at the time of purchase. We believe our cash equivalents are liquid and accessible.

We measure liquidity in terms of our ability to fund the cash requirements of our research and development activities and our current business operations, including our capital expenditure needs, contractual obligations and other commitments. Our current liquidity needs relate to business operations, research and development activities, mainly in connection with the ongoing development of our technology, lease obligations and capital expenditures, which primarily relate to the development of our manufacturing facility.

The condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q have been prepared on a going concern basis. We have historically funded our operations primarily by equity financings and convertible promissory notes prior to the Business Combination and subsequently funded our operations through cash proceeds obtained as part of the Business Combination and related private placement. As of June 30, 2022, our existing sources of liquidity included cash and cash equivalents of \$104.3 million and marketable securities of \$96.4 million. We have a limited history of operations and have incurred negative cash flows from operating activities and loss from operations in the past as reflected in the accumulated deficit of \$1,576.4 million as of June 30, 2022. We expect to continue to incur operating losses due to the investments it intends to make in its business, including the development of our products and services. Management remains focused on managing its cash expenditures, including but not limited to, reducing its capital expenditures, consulting services and re-focusing its hiring efforts. In addition, Management continues to evaluate opportunities to strengthen our financial position, including through the issuance of additional equity securities or by entering into new financing arrangements, as appropriate. We expect that our existing sources of liquidity will be sufficient to fund operating and capital expenditure requirements through at least 12 months from the date of filing this Quarterly Report on Form 10-Q. The Company's current liquidity may not be sufficient to meet the required long-term liquidity needs associated with continued use of cash from operating activities at historical levels, in addition to its other liquidity needs associated with its capital expenditures, and other investing requirements and the Company is actively evaluating other sources of liquidity to further support its long-term business operations. For additional information regarding our cash requirements from contractual obligations and lease obligations, see Note 11 — Commitments and Contingencies and Note 9 — Leases in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Committed Equity Purchases

On August 2, 2022, we entered into an \$100 million Class A common stock purchase agreement with B. Riley Principal Capital, LLC to support working capital and other general corporate needs. Under the terms of this agreement, we have the right, without obligation, to sell and issue up to \$100 million of our Class A common stock over a period of 24 months to B. Riley Principal Capital, LLC at the Company's sole discretion, subject to certain limitations and conditions. See Note 17 — Subsequent Events in Part I, Item 1 of this Quarterly Report on Form 10-Q for more details.

Summary Statement of Cash Flows for the Six Months Ended June 30, 2022 and 2021

The following table sets forth the primary sources and uses of cash and cash equivalents for the periods presented below:

(in thousands)	For The Six Months Ended June 30,		Period over period change	
	2022	2021	\$	%
Net cash used in operating activities	\$ (91,862)	\$ (34,655)	\$ (57,207)	165 %
Net cash used in investing activities	(129,647)	(11,996)	(117,651)	981
Net cash provided by financing activities	817	488,427	(487,610)	(100)
Net increase (decrease) in cash and cash equivalents	<u>\$ (220,692)</u>	<u>\$ 441,776</u>	<u>\$ (662,468)</u>	<u>(150)%</u>

Cash Flows used in Operating Activities

Our cash flows from operating activities are significantly affected by our cash expenditures to support the growth of our business in areas such as research and development and general and administrative and working capital. Our operating cash inflows include cash from milestone billing under certain space products and launch services. These cash inflows are offset by our payments to suppliers for production materials and parts used in our manufacturing process as we ramp up our production for space products, payments to our employees and other operating expenses.

For the six months ended June 30, 2022, net cash used in operating activities was \$91.9 million. The primary factors affecting the Company's operating cash flows during the period were a net loss of \$168.0 million. This is offset by non-cash charges including stock-based compensation expense of \$29.8 million, inventory reserves including write-offs and net realizable value write-downs of \$18.8 million, loss on change in fair value of contingent consideration of \$17.3 million, depreciation and amortization expense of \$7.6 million and non-cash lease expense of \$0.7 million. Changes in operating working capital items is mainly due to increased headcount and ramp-up of our production and primarily reflect the increase in trade accounts receivable of \$1.6 million, inventories of \$13.4 million, other non-current assets of \$2.4 million, accounts payable of \$6.3 million, accrued expense and other current liabilities of \$1.2 million and other non-current liabilities of \$4.9 million. Changes in operating working capital items was partially offset by a decrease in prepaid and other current assets of \$7.4 million and lease liabilities of \$0.6 million.

For the six months ended June 30, 2021, net cash used in operating activities was \$34.7 million. The primary factors affecting the Company's operating cash flows during this period were net loss of \$190.3 million, offset by non-cash charges including a non-cash loss on extinguishment of convertible notes of \$133.8 million, stock-based compensation expense of \$17.8 million, depreciation expense of \$1.9 million, and amortization of convertible note debt discounts of \$0.4 million. Changes in operating working capital items primarily reflect the increase in inventories of \$1.2 million, prepaid and other current assets of \$4.9 million, accounts payable of \$3.6 million, accrued expenses and other current liabilities of \$2.3 million and other non-current liabilities of \$2.0 million. This was partially offset by a decrease in lease liabilities of \$0.5 million.

Cash Flows used in Investing Activities

For the six months ended June 30, 2022, net cash used in investing activities was \$129.6 million, which was comprised mainly of purchases of marketable securities of \$102.0 million, purchases of property, plant and equipment of \$32.1 million mainly related to the construction of our manufacturing facility and acquisition of an indefinite-lived intangible trademark asset of \$0.9 million. This was partially offset maturities of marketable securities of \$5.3 million.

For the six months ended June 30, 2021, net cash used in investing activities was \$12.0 million, which was comprised mainly of the acquisition of an indefinite-lived intangible trademark asset of \$3.2 million and purchases of tooling equipment, manufacturing equipment and furniture and fixtures of \$8.8 million.

Cash Flows from Financing Activities

For the six months ended June 30, 2022, net cash provided by financing activities amounted to \$0.8 million and consisted primarily of proceeds from employee stock purchase plan of \$0.7 million and issuance of stock under equity plans of \$0.1 million.

For the six months ended June 30, 2021, net cash provided by financing activities amounted to \$488.4 million and consisted primarily of proceeds from Business Combination and private offering, net of transaction costs, of \$463.6 million, proceeds from the issuance of Series C of \$30.0 million and borrowings of \$10.0 million, offset by repayments on borrowings of \$16.4 million.

Commitments and Contractual Obligations

We are a party to operating leases primarily for land and buildings (e.g., office buildings, manufacturing and testing facilities and spaceport) and certain equipment (e.g., copiers) under non-cancellable operating leases. The following table summarizes our lease commitments as of June 30, 2022:

Year Ended December 31	Minimum Lease Commitment
	(in thousands)
2022 (remainder)	\$ 930
2023	1,790
2024	1,677
2025	1,655
2026	1,642
Thereafter	2,840
Total future undiscounted minimum lease payments	\$ 10,534
Less: Imputed Interest	2,030
Total reported lease liability	\$ 8,504

On July 28, 2022, the Company entered into a lease agreement for approximately 60,000 square feet of manufacturing facility in Sunnyvale, California having a lease term of 36 months with an option to extend for a period of additional 36 months. The undiscounted base rent payments for the first year of this lease is approximately \$1.8 million with a 4% increase in base rent for each subsequent year. In addition to base rent, the Company will be responsible for the management fee of 5% of the base rent. In lieu of a cash security deposit, the Company is required to provide the landlord an irrevocable letter of credit in the amount of \$0.3 million. This new lease facility will enable expansion of space product production and development capacity, thermal testing capacity, and is expected to provide production and engineering space for our future space services business.

On May 25, 2021, the Company entered a contract with a supplier to purchase components. The Company is obligated to purchase \$22.5 million of components over 60 months. The Company may terminate the supply agreement by paying 50% of the remaining purchase commitment at any point during the contract term. The Company made total purchases of \$0.8 million under the contract of which \$0.4 million related to purchases made during the six months ended June 30, 2022. We also made advance payments of \$0.4 million under the contract as of June 30, 2022.

Apart from the aforementioned leases and purchase commitments, we do not have any other material contractual obligations, commitments or contingent obligations.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We have not, to date, been exposed to material market risks given our early stage of operations. As we expand our commercial operations, we expect to be exposed to foreign currency exchange rate and commodity price risks, particularly related to rocket propellants, helium, and aluminum, among others, and potentially other market risks, including those related to interest rates or valuation of financial instruments, among others.

Interest Rate Risk

As of June 30, 2022, we had \$3.4 million of cash equivalents invested in money market funds and \$96.4 million invested in marketable securities, which consisted of U.S. Treasury securities, corporate debt securities, commercial paper and asset backed securities. Our cash and cash equivalents are held for working capital purposes. We do not enter into investments for trading or speculative purposes. There was no material interest rate risk for the six months ended June 30, 2022 and year ended December 31, 2021.

Inflation Risk

We are exposed to inflation risk. Inflationary factors, such as increases in raw material and overhead costs, could impair our operating results. Although there has been a significant increase in inflation recently, it has not had a substantial impact on our results of operations for the three and six months ended June 30, 2022, respectively. However, a higher rate of inflation in the future may have an adverse effect on our ability to recover increasing costs and we might not be able to pass along cost increases to our customers.

Foreign Currency Risk

There was no material foreign currency risk for the three and six months ended June 30, 2022 and year ended December 31, 2021. Our activities to date have been limited and were conducted in the United States.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures

We maintain disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer, who serves as our principal executive officer, and Chief Financial Officer, who serves as our principal financial officer, as appropriate, to allow for timely decisions regarding required disclosures. In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints, and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Our management, with the participation of our principal executive officer and principal financial officer, evaluated, as of the end of the period covered by this quarterly report on Form 10-Q, the effectiveness of our disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were not effective as of June 30, 2022 due to the material weaknesses in our internal control over financial reporting described below.

Material Weaknesses and Remediation Plan

As previously disclosed, we have identified material weaknesses in our internal control over financial reporting and these material weaknesses continued to exist as of June 30, 2022. 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. Specifically, material weaknesses identified are:

Control Environment

We did not maintain an effective control environment to enable the identification and mitigation of risks of material accounting errors based on the following control deficiencies:

- We did not design and maintain effective controls over segregation of duties and related conflicts with respect to our information technology systems, including administrative access to our financially relevant information technology systems.
- We did not design and maintain effective controls over formalizing our accounting policies and procedures.
- We did not design and maintain effective controls over preparing and recording journal entries within our accounting systems related thereto.
- We did not design and maintain effective controls over accounting for complex transactions and instruments, including, the inaccurate accounting for Public and Private Placement Warrants and the inaccurate application of conversion accounting related to our convertible instruments in connection with the restatement of our financial statements for the period ended June 30, 2021 as set forth in our Form 10-Q/A (Amendment No. 1) filed with the SEC on October 22, 2021.

Risk Assessment

We did not design and maintain controls over an effective risk assessment, including: (i) identifying, assessing, and communicating appropriate objectives, (ii) identifying and analyzing risks to achieve these objectives, and (iii) identifying and assessing changes in the business that could impact our system of internal controls.

Control Activities

We did not design and maintain effective control activities as the control activities did not adequately (i) address relevant risks, (ii) provide evidence of performance, (iii) provide appropriate segregation of duties, or (iv) operate at a level of precision to identify all potentially material errors.

Information and Communication

We did not design and implement controls over information and communication relating to communicating accurate information internally and externally, including providing information pursuant to objectives, responsibilities, and functions of internal control.

Monitoring Activities

We did not design and implement effective monitoring controls to ascertain whether the components of internal control are present and functioning.

These material weaknesses resulted in a restatement to Additional paid-in-capital, Accumulated deficit and Adjustment to redemption value on Convertible Preferred Stock as well as audit adjustments to substantially all of our accounts and disclosures, which were recorded as of and for the year ended December 31, 2021. Additionally, these material weaknesses could result in a misstatement of substantially all of our account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

We have begun the process of, and are focused on, designing and implementing effective internal control measures to improve our internal control over financial reporting and remediate the material weaknesses. Our efforts include a number of actions:

- We are actively recruiting additional personnel, in addition to engaging and utilizing third party consultants and specialists to supplement our internal resources and segregate key functions within our business processes, where appropriate.
- We also continue to take actions to improve our IT general controls, segregation of duties controls, period-end financial reporting controls, and journal entry controls.
- We are in the process of formally documenting accounting policies and procedures complying with applicable financial reporting standards.
- We are implementing comprehensive controls over the preparation and review of journal entries, establishing additional controls to verify transactions are properly classified in the financial statements and program change management controls to ensure that IT program and data changes affecting financial IT applications and underlying accounting records are identified, tested, authorized and implemented appropriately.
- While we have processes to identify and evaluate the appropriate accounting technical pronouncements and other literature for all significant or unusual transactions, we are in the process of enhancing these processes to better evaluate, research and understand the nuances of the accounting standards for complex transactions and instruments. We plan to provide internal resources with enhanced access to accounting literature and research materials while increasing communication with third-party professionals with whom we consult regarding the application of accounting standards over complex transactions and instruments.

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.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as that term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended June 30, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

Discussion of legal matters is incorporated by reference from Part I, Item 1, Note 11 - Commitments and Contingencies, of this Quarterly Report on Form 10-Q, and should be considered an integral part of Part II, Item 1, "Legal Proceedings."

Item 1A. Risk Factors

Except for the risk factors set forth below, there have been no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the period ended December 31, 2021, filed with the SEC on March 31, 2022, and investors are encouraged to review these risk factors prior to making an investment in the Company and in conjunction with their review of this Quarterly Report on Form 10-Q.

Summary of Risk Factors

A summary of the material risks affecting our business, operations and financial results that have been included in this Quarterly Report on Form 10-Q include the following:

- We have only conducted one launch which deployed customer satellites into orbit and are currently only delivering to our customers two versions of our Astra Space Engine propulsion system. Any setbacks occurring during our launches and subsequent upgrades to our launch systems or space products could have a material adverse effect on our business, financial condition, and operations, and could harm our reputation.
- We have incurred significant losses since inception and we may not be able to achieve or maintain profitability.
- The success of our business will be highly dependent on our ability to effectively market and sell our launch services for small LEO satellites and our space products and services and to convert contracted revenues and our pipeline of potential contracts into actual revenues.
- We may not be able to convert our estimated contracted revenue or potential contracts into actual revenue.
- We have limited data and history to test our launch vehicles for the successful deployment of a LEO satellite.
- Regulatory, availability, and other challenges may delay our progress in establishing the number of launch sites we require for our targeted annual launch rate, which could have an adverse effect on our ability to grow our business.
- We may face litigation and other risks as a result of the material weaknesses in our internal control over financial reporting and the restatement of our financial statements.
- We are subject to stringent U.S. export and import control laws and regulations.
- Our prospects and operations may be adversely affected by changes in customer preferences and economic conditions that affect demand for our launch services and space products.
- The majority of our customer contracts may be terminated by the customer at any time for convenience as well as other provisions permitting the customer to discontinue contract performance for cause (for example, if we do not achieve certain milestones on a timely basis) which if terminated could adversely impact our results of operation.
- We may become involved in litigation that may materially adversely affect us.

We have only conducted one launch which deployed customer satellites into orbit and are currently only delivering to our customers two versions of our Astra Space Engine propulsion system. Any setbacks occurring during our launches and subsequent upgrades to our launch systems or space products could have a material adverse effect on our business, financial condition, and operations, and could harm our reputation.

The success of our launch and space services offerings will depend on our ability to successfully and regularly deliver customer satellites into orbit. In November 2021, we successfully launched launch vehicle LV0007 to an inclination of 86.0 degrees at an altitude of 500 km and demonstrated orbital placement of test payload. Our data from this launch suggest that we achieved sufficient orbital velocity to successfully inject a satellite into orbit and serve as an opportunity to learn from the experience and to make further refinements to the design and manufacturing processes used to construct our launch vehicles and rockets. On February 10, 2022, we launched launch vehicle LV0008. After a nominal first stage flight, the payload fairing did not fully deploy prior to the upper stage ignition due to an electrical issue which, together with a software issue, resulted in the upper stage not reaching orbit and the end of the mission. On March 15, 2022, we successfully launched launch vehicle LV0009 and confirmed our first delivery of customer

payloads into Earth orbit. On June 12, 2022, we conducted our first launch for NASA's TROPICS-1 mission on our launch vehicle LV0010. While we had a nominal first stage flight, our upper stage shut down early and we did not deliver the payloads into low Earth orbit. In July 2022, we decided to focus on the development and production of the next version of our launch system and discontinued the production of launch vehicles supported by our current launch system. Given this, we do not plan to conduct any further commercial launches in 2022 and may not be able to conduct any paid commercial launches in 2023. Whether we will be able to conduct paid commercial launches in 2023 will depend in part upon the success of test launches of our new launch system. The new launch system is intended to support more payload capacity and a more frequent launch cadence. If we are not successful in developing our new launch system and ensuring that it can deliver payloads into low-earth orbit, our launch services business, and ultimately our space services offerings will suffer. Any delay in our ability to successfully deploy payloads under our new launch system will have a material adverse affect on our revenues, results of operations and future prospects.

The success of our space products offerings will depend on our ability to successfully and timely deliver propulsion systems that can thrust a customer's satellite while in orbit. During the three months ended June 30, 2022, we delivered the first set of our propulsion system to the customer.

The success of our strategy depends on our ability to successfully upgrade our rockets, launch vehicles, propulsion system, spacecraft, and related technology which may require significant adjustments to the design, manufacturing process and performance to achieve intended technological and performance goals. There is no guarantee that our planned development and production of our new launch system will be successful or our propulsion system delivered can thrust a customer's satellite while in orbit. While we have built operational processes to ensure that the design, manufacture, performance and servicing of our launch vehicles and propulsion systems meet rigorous performance goals, there can be no assurance that we will not experience operational or process failures and other problems during our planned launches. Any failures or setbacks could harm our reputation and have a material adverse effect on our business, financial condition and results of operation.

We have incurred significant losses since inception and we may not be able to achieve or maintain profitability.

We have incurred significant losses since our inception. We incurred net losses of \$257.8 million, \$68.3 million and \$53.2 million for the years ended December 31, 2021, 2020 and 2019, respectively. While we have generated limited income to date, it is difficult for us to predict our future operating results. As a result, our losses may be larger than anticipated, and we may not achieve profitability when expected, or at all, and even if we do, we may not be able to maintain or increase profitability.

We expect our operating expenses to increase over the next several years as we focus on the development of our new launch system, continue to refine and streamline our design and manufacturing processes for our launch vehicles, increase the payload of our rockets, make technical improvements, increase our flight cadence, hire additional employees and continue research and development efforts relating to new products and technologies, including our space services. 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 keep pace with our investments and other expenses could prevent us from achieving or maintaining profitability or positive cash flow. Furthermore, if our future growth and operating performance fail to meet investor or analyst expectations, or if we have future negative cash flow or losses resulting from our investment in acquiring customers or expanding our operations, this could have a material adverse effect on our business, financial condition and results of operations.

The success of our business will be highly dependent on our ability to effectively market and sell our launch services for small LEO satellites and our space products and services and to convert contracted revenues and our pipeline of potential contracts into actual revenues.

We expect that our success will be highly dependent, especially in the foreseeable future, on our ability to effectively forecast, market and sell our launch services for small LEO satellites and space products. We have limited experience in forecasting, marketing and selling these services and products, and if we are unable to use our current or future sales organization effectively in order to adequately target and engage our potential customers, our business may be adversely affected.

We also expect that our success will be highly dependent on our ability to convert contracted revenues and our pipeline of potential contracts into actual revenues. We have received interest from a wide range of customers across various satellite applications or use cases. Our contracted revenues and our estimated pipeline may not fully convert into actual revenues because certain of our customers have the right to terminate their contracts if we do not achieve certain milestones or unable to conduct launches on the contracted schedule. If our customers terminate these contracts, the value of our contracted revenues may be significantly lower than our current estimates. Additionally, if we are unable to keep up with the demand for our launch services from a production and delivery perspective, we may not be in a position to deliver on our contracted revenues or our pipeline of potential contracts.

We remain in active discussions with potential customers and anticipate an increase in contracted revenue as the small satellite and satellite constellation markets continue to develop. Our success depends, in part, on our ability to attract new customers in a cost-effective manner. Notwithstanding our estimated contracted revenue, we expect that we will need to make significant investments in

order to attract new customers. Our sales growth is dependent upon our ability to implement strategic initiatives, and these initiatives may not be effective in generating sales growth. In addition, marketing campaigns, which we have not historically utilized, can be expensive and may not result in the acquisition of customers in a cost-effective manner, if at all. Further, as our brand becomes more widely known, future marketing campaigns or brand content may not attract new customers at the same rate as past campaigns or brand content. If we are unable to attract new customers, our business, financial condition and results of operations will be harmed.

We may not be able to convert our estimated contracted revenue or potential contracts into actual revenue.

We expect that our success will be highly dependent on our ability to convert contracted revenues and our pipeline of potential contracts into actual revenues. Our contracted revenues and our estimated pipeline may not fully convert into actual revenues because certain of our customers have the right to terminate their contracts if we do not achieve certain milestones, or other termination rights. We may not meet these milestones, in which case the value of our contracted revenues may be significantly lower than our current estimates.

Some of our existing customer contracts include provisions allowing the customers to terminate the contracts for convenience, some with a termination penalty for at least the amounts already paid, or to terminate the contracts for cause (for example, if we do not achieve certain milestones on a timely basis). If any of our significant customer contracts are terminated and not replaced, our results of operations may differ materially and adversely from those anticipated. In addition, our contracts with government customers often contain provisions with additional rights and remedies favorable to such customers that are not typically found in commercial contracts. As a result, we may not receive revenue from these orders, and any contracted revenue we report may not be indicative of our future actual revenue.

Our decision to focus on the development of our new launch system and stop the production of launch vehicles supported by our current launch system could require that launches we currently have under contract be moved to future time periods. This shift in flight schedule may cause us to fail milestones or otherwise be in default under these contracts and provide our customers with the right to terminate. We have begun discussions with customers for whom we agreed to launch payloads on our old system regarding shifting those flights to launch vehicles supported by our new system. Whether customers will agree to shift the flight schedule for their launches will depend on a number of factors, many of which are outside of our control. Customers who do not want to move their flights will likely terminate their contracts and there can be no assurance as to whether we will be able to enter into a future contract with those customers or receive any revenue in connection with those terminations. In some cases where the termination results from our material breach, we may have termination penalties to pay to those customers. At this time, any obligation to pay termination penalties are highly speculative and unknown, but such penalties, if incurred, could have a material adverse impact on our cash flow and liquidity.

In addition, many other events may cause a delay in our ability to fulfill our existing or future orders, or cause planned launches or deliveries to not be completed at all, some of which may be out of our control, including unexpected weather patterns, maintenance issues, natural disasters, changes in governmental regulations or in the status of our regulatory approvals or applications or other events that force us to cancel or reschedule launches, which could have an adverse impact on our business, financial condition and results of operations.

We have limited data and history to test our launch vehicles for the successful deployment of a LEO satellite.

In November 2021, we successfully launched launch vehicle LV0007 to an inclination of 86.0 degrees at an altitude of 500 km and demonstrated orbital placement of test payload. Our data from this launch suggest that we achieve sufficient orbital velocity to successfully inject a satellite into orbit and serve as an opportunity to learn from the experience and to make further refinements to the design and manufacturing processes used to construct our launch vehicles and rockets. Although our November 2021 launch was a success, we may not be successful in reaching space and achieving sufficient orbital velocity during our subsequent launches planned. For example, on February 10, 2022, we launched launch vehicle LV0008. After a nominal first stage flight, the payload fairing did not fully deploy prior to the upper stage ignition due to an electrical issue which, together with a software issue, resulted in the upper stage not reaching orbit and the end of the mission. On March 15, 2022, we successfully launched launch vehicle LV0009 and confirmed our first delivery of customer payloads into Earth orbit. On June 12, 2022, we conducted our first launch for NASA's TROPICS-1 mission on our launch vehicle LV0010. While we had a nominal first stage flight, our upper stage shut down early and we did not deliver the payloads into low Earth orbit. If we fail to continue to successfully inject payloads into orbit, our business, financial condition and results of operations could be materially and adversely impacted.

As part of our strategy, we plan to increase the maximum payload capacity of our launch vehicle to meet the customer needs and demands, which would make us a more compelling alternative for LEO constellation deployment and satellite replenishment. This payload capacity improvement will come from numerous improvements, enhancements and modifications to our rocket. We may not be successful in our efforts to make improvements to our rocket to achieve the full increase in payload capacity, and if we are unable to demonstrate our ability launch heavier satellites to LEO, our business, financial condition and results of operations could be materially and adversely impacted.

Regulatory, availability, and other challenges may delay our progress in establishing the number of launch sites we require for our targeted annual launch rate, which could have an adverse effect on our ability to grow our business.

Part of our strategy involves increasing our launch capability and approaching a more frequent than monthly launch capability, which will depend on our ability to add new launch sites. We currently operate launch sites at the Pacific Spaceport Complex in Kodiak, Alaska, and Cape Canaveral Space Force Station in Cape Canaveral, Florida, and we expect to enter into a variety of arrangements to secure additional launch sites, which may include ownership, leasing, licensing, and permitting in the United States and outside the United States. We have in the past and may in the future experience delays in our efforts to secure additional launch sites around the globe based upon our customers' inclination needs. Challenges as a result of regulatory processes or in our ability to secure the necessary permissions to establish these launch sites could delay our ability to achieve our target cadence and could adversely affect our business.

We may face litigation and other risks as a result of the material weaknesses in our internal control over financial reporting and the restatement of our financial statements.

The Company, in consultation with the Audit Committee and Company's management, determined that it was appropriate to restate our previously filed financial statements for the period ended June 30, 2021. As part of the restatement, we identified a material weakness in our internal control over financial reporting.

As a result of such material weakness and such restatement, we face potential for litigation or other disputes which may include, among others, claims invoking the federal and state securities laws, contractual claims or other claims arising from the restatement and material weaknesses in our internal control over financial reporting and the preparation of our financial statements. As of the date of this Quarterly Report, Astra is currently a defendant or nominal defendant in three actions alleging violations of federal securities laws. Please see "Legal Proceedings" for more information about these actions. We can provide no assurance that additional litigation or dispute will not arise in the future. Any such litigation or dispute, whether successful or not, could have a material adverse effect on our business, results of operations and financial condition.

We are subject to stringent U.S. export and import control laws and regulations.

Our business is subject to stringent U.S. import and export control laws and regulations as well as economic sanctions laws and regulations. We are required to import and export our products, software, technology and services, as well as run our operations in the United States, in full compliance with such laws and regulations, which include the EAR, the ITAR, and economic sanctions administered by the Treasury Department's OFAC. Similar laws that impact our business exist in other jurisdictions. These foreign trade controls prohibit, restrict, or regulate our ability to, directly or indirectly, export, deemed export, re-export, deemed re-export or transfer certain hardware, technical data, technology, software, or services to certain countries and territories, entities, and individuals, and for end uses. We have had inadvertent disclosures of certain of our products or components which are subject to the requirements of these U.S. import and export control laws, including one which occurred recently (the "Recent Incident"). The Recent Incident relates to a disclosure of a photograph of one of our components. Our practice is to provide a voluntary disclosure to the appropriate regulatory authority when such an inadvertent disclosure occurs and, in the case of the Recent Incident, we did provide an initial voluntary disclosure notification to the appropriate regulatory agency. Subsequent to the occurrence of the Recent Incident and after filing our initial voluntary disclosure notification, we sought approval from the Department of Defense to release this photo publicly, which was granted on June 24, 2022. Given the approval of the Department of Defense to the public release of the photograph at issue in the Recent Incident, we requested and received approval to close our voluntary disclosure notification with the regulatory agency to whom it was submitted. While no such regulatory authority has yet determined that any such inadvertent disclosure has violated these U.S. import and export control laws, we could be found to be in violation of these laws and regulations. Such a violation, if determined, could result in civil and criminal, monetary and non-monetary penalties, the loss of export or import privileges, debarment and reputational harm. If we are unable to maintain adequate controls related to the disclosure of information subject to U.S. import and export control laws and regulations, we may have future incidents that could result in violations of these laws and regulations.

Pursuant to these foreign trade control laws and regulations, we are required, among other things, to (i) maintain a registration under the ITAR, (ii) determine the proper licensing jurisdiction and export classification of products, software, and technology, and (iii) obtain licenses or other forms of U.S. government authorization to engage in the conduct of our spaceflight business. The authorization requirements include the need to get permission to release controlled technology to foreign person employees and other foreign persons. Changes in U.S. foreign trade control laws and regulations, or reclassifications of our products or technologies, may restrict our operations. The inability to secure and maintain necessary licenses and other authorizations could negatively impact our ability to compete successfully or to operate our spaceflight business as planned. Any changes in the export control regulations or U.S. government licensing policy, such as those necessary to implement U.S. government commitments to multilateral control regimes, may restrict our operations. Given the great discretion the government has in issuing or denying such authorizations to advance U.S. national security and foreign policy interests, there can be no assurance we will be successful in our future efforts to secure and maintain necessary licenses, registrations, or other U.S. government regulatory approvals.

Under the “Exon-Florio Amendment” to the U.S. Defense Production Act of 1950, as amended (the “DPA”), the U.S. President has the power to disrupt or block certain foreign investments in U.S. businesses if he determines that such a transaction threatens U.S. national security. The Committee on Foreign Investment in the United States (“CFIUS”) has been delegated the authority to conduct national security reviews of certain foreign investments. CFIUS may impose mitigation conditions to grant clearance of a transaction.

The Foreign Investment Risk Review Modernization Act (“FIRRMA”), enacted in 2018, amended the DPA to, among other things, expands CFIUS’s jurisdiction beyond acquisitions of control of U.S. businesses. Under FIRRMA, CFIUS also has jurisdiction over certain foreign non-controlling investments in U.S. businesses that have involvement with critical technology or critical infrastructure, or that collect and maintain sensitive personal data of U.S. citizens (“TID U.S. Businesses”), if the foreign investor receives specified triggering rights in connection with its investment. We are a TID U.S. Business because we develop and design technologies that would be considered critical technologies. Certain foreign investments in TID U.S. Businesses are subject to mandatory filing with CFIUS. These restrictions on the ability of foreign persons to invest in us could limit our ability to engage in strategic transactions that could benefit our stockholders, including a change of control, and could also affect the price that an investor may be willing to pay for our common stock.

Our prospects and operations may be adversely affected by changes in customer preferences and economic conditions that affect demand for our launch services and space products.

Because our offerings are currently concentrated on launch services and space products, we are vulnerable to changes in customer preferences or other market changes, such as general economic conditions, energy and fuel prices, recession and fears of recession, interest rates, tax rates and policies, inflation, war and fears of war, inclement weather, natural disasters, terrorism and outbreak of viruses or widespread illness. The global economy has in the past, and will in the future, experience recessionary periods and periods of economic instability. During such periods, our potential customers may choose not to expend the amounts that we anticipate based on our expectations with respect to the addressable market for launch and satellite services. There could be a number of other effects from adverse general business and economic conditions on our business, including insolvency of any of our third-party suppliers or contractors, inflationary and supply chain pressures, decreased customer confidence, decreased discretionary spending and reduced customer or governmental demand for launch services and space products, which could have a material adverse effect on our business, financial condition and results of operations.

The majority of our customer contracts may be terminated by the customer at any time for convenience as well as other provisions permitting the customer to discontinue contract performance for cause (for example, if we do not achieve certain milestones on a timely basis) which if terminated could adversely impact our results of operation.

We are subject to a variety of contract-related risks. Some of our existing customer contracts, including those with the government, include provisions allowing the customers to terminate their contracts for convenience, with a termination penalty for at least the amounts already paid, or to terminate the contracts for cause (for example, if we do not achieve certain milestones on a timely basis). Customers that terminate such contracts may also be entitled to a pro rata refund of the amount of the customer’s deposit. In addition, some of our customers are pre-revenue startups or otherwise not fully established companies, which exposes us to a degree of counterparty credit risk. Please see “*We may not be able to convert our estimated contracted revenue or potential contracts into actual revenue*” above for information regarding how our decision to focus on the development of our new launch system could impact contracts where customers have the right to terminate for convenience or in the case of a default.

Part of our strategy is to market our launch services to key government customers. We expect we may derive limited revenue from contracts with NASA and the U.S. government and may enter into further contracts with the U.S. or foreign governments in the future, and this subjects us to statutes and regulations applicable to companies doing business with the U.S. government, including the Federal Acquisition Regulation (“FAR”). These U.S. government contracts customarily contain provisions that give the government substantial rights and remedies, many of which are not typically found in commercial contracts and which are unfavorable to contractors. For instance, most U.S. government agencies include provisions that allow the government to unilaterally terminate or

modify contracts for convenience, in which case the counterparty to the contract may generally recover only its incurred or committed costs and settlement expenses and profit on work completed prior to the termination. If the government terminates a contract for default, the defaulting party may be liable for any extra costs incurred by the government in procuring undelivered items from another source.

Our government contracts may be subject to the approval of appropriations being made by the U.S. Congress to fund the expenditures under these contracts. In addition, government contracts normally contain additional requirements that may increase our costs of doing business, reduce our profits, and expose us to liability for failure to comply with these terms and conditions. These requirements include, for example:

- specialized disclosure and accounting requirements unique to government contracts;
- financial and compliance audits that may result in potential liability for price adjustments, recoupment of government funds after such funds have been spent, civil and criminal penalties, or administrative sanctions such as suspension or debarment from doing business with the U.S. government;
- public disclosures of certain contract and company information; and
- mandatory socioeconomic compliance requirements, including labor requirements, non-discrimination and affirmative action programs and environmental compliance requirements.

Government contracts are also generally subject to greater scrutiny by the government, which can initiate reviews, audits and investigations regarding our compliance with government contract requirements. Further, audits or investigations by other governmental agencies related to the conduct of our business, including those agencies who oversee our compliance with import and export laws, may also impact our government contracts. In addition, if we fail to comply with government contract laws, regulations and contract requirements, our contracts may be subject to termination, and we may be subject to financial and/or other liability under our contracts, the Federal Civil False Claims Act (including treble damages and other penalties), or criminal law. In particular, the False Claims Act's "whistleblower" provisions also allow private individuals, including present and former employees, to sue on behalf of the U.S. government. Any penalties, damages, fines, suspension, or damages could adversely affect our ability to operate our business and our financial results.

If any customer were to unexpectedly terminate, cancel, or decline to exercise an option to renew with respect to one or more of our significant contracts for any reason, including as a result of our failure to meet certain performance milestones, or if a government customer were to suspend or debar us from doing business with such government, our business, financial condition, and results of operations would be materially harmed.

We may become involved in litigation that may materially adversely affect us.

From time to time, we may become involved in various legal proceedings relating to matters incidental to the ordinary course of our business, supplier, customer, or relationships with third-parties, including intellectual property, commercial, product liability, employment, class action, whistleblower and other litigation and claims, and governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources from the operation of our business, and cause us to incur significant expenses or liability or require us to change our business practices. Because of the potential risks, expenses and uncertainties of litigation, we may, from time to time, settle disputes, even where we believe that we have meritorious claims or defenses. Because litigation is inherently unpredictable, we cannot assure you that the results of any of these actions will not have a material adverse effect on our business. We are currently a defendant or nominal defendant in three actions, alleging violations of federal securities laws. We also are obligated to indemnify certain other defendants in these actions. Please see "Legal Proceedings" for more information about these actions. We can provide no assurance that additional litigation or dispute will not arise in the future. While we believe these actions are not meritorious, these actions (and any future litigation or dispute), whether successful or not, could have a material adverse effect on our business, results of operations and financial condition. Further, while we have insurance to cover the defense of the existing actions (including our indemnification obligations), the amount of our retention is \$20.0 million and we will need to incur costs in that amount before we will be eligible for assistance from our insurer.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Description	Incorporated by Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.1	Common Stock Purchase Agreement, dated August 2, 2022, between Astra Space, Inc. and B. Riley Principal Capital II, LLC.	8-K	001-39426	10.1	August 2, 2022
10.2	Registration Rights Agreement, dated August 2, 2022, between Astra Space, Inc. and B. Riley Principal Capital II, LLC.	8-K	001-39426	10.2	August 2, 2022
31.1*	Certification of Chief 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 Chief 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 Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2**	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.				
101.SCH	Inline XBRL Taxonomy Extension Schema Document				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document				
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)				

* Filed herewith.

** Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Astra Space, Inc.

Date: August 4, 2022

By: /s/ Chris C. Kemp
Chris C. Kemp
Chief Executive Officer

Date August 4, 2022

By: /s/ Kelyn J. Brannon
Kelyn J. Brannon
Chief Financial Officer, Principal Financial Officer and Principal
Accounting Officer

**CERTIFICATION 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**

I, Chris Kemp, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Astra Space, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2022

By: /s/ Chris C. Kemp
Chris C. Kemp
Chief Executive Officer

**CERTIFICATION 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**

I, Kelyn Brannon, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Astra Space, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2022

By: /s/ Kelyn J. Brannon
Kelyn J. Brannon
Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Astra Space, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: August 4, 2022

By: /s/ Chris C. Kemp
Chris C. Kemp
Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Astra Space, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: August 4, 2022

By: /s/ Kelyn J. Brannon
Kelyn J. Brannon
Chief Financial Officer
