

The logo for AST SpaceMobile. 'AST' is in large, white, bold, sans-serif capital letters. 'SpaceMobile' is in a smaller, orange, bold, sans-serif font. The background is a dark space with a bright, glowing orange arc representing a satellite's path.

AST SpaceMobile

Transforming how
the world connects



NASDAQ: ASTS

Investor Presentation

August 2022

Forward Looking Statements

The information in this presentation and the oral statements made in connection therewith includes “forward-looking statements” for the purposes of federal securities laws that are not historical facts and involve risks and uncertainties that could cause actual results to differ materially from those expected and projected. All statements, other than statements of historical fact in this presentation and the oral statements made in connection therewith regarding AST SpaceMobile, Inc.’s, collectively with its subsidiaries (“SpaceMobile” or the “Company”), financial position, business strategy and the plans and objectives of management for future operations, are forward-looking statements. Words such as “expect,” “believe,” “anticipate,” “intend,” “estimate,” “seek” and variations and similar words and expressions are intended to identify such forward-looking statements. Such forward-looking statements relate to future events or future performance, but reflect management’s current beliefs, based on information currently available. A number of factors could cause actual events, performance or results to differ materially from the events, performance and results discussed in the forward-looking statements. For information identifying important factors that could cause actual results to differ materially from those anticipated in the forward-looking statements, please refer to the Risk Factors contained in AST SpaceMobile’s Annual Report on Form 10-K, filed with the SEC on March 31, 2022. The Company’s securities filings can be accessed on the EDGAR section of the SEC’s website at www.sec.gov. Except as expressly required by applicable securities law, the Company disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

Use of Non-GAAP Financial Measures

Adjusted operating expense is an alternative financial measure used by management to evaluate our operating performance as a supplement to our most directly comparable U.S. GAAP financial measure. We define Adjusted operating expense as Total operating expenses adjusted to exclude amounts of stock-based compensation expense and depreciation and amortization expense. We believe Adjusted operating expenses is a useful measure across time in evaluating the Company's operating performance as we use Adjusted operating expenses to manage the business, including in preparing our annual operating budget and financial projections. Adjusted operating expense is a non-GAAP financial measure that has no standardized meaning prescribed by U.S. GAAP, and therefore has limits in its usefulness to investors. Because of the non-standardized definition, it may not be comparable to the calculation of similar measures of other companies and are presented solely to provide investors with useful information to more fully understand how management assesses performance. This measure is not, and should not be viewed as, a substitute for its most directly comparable GAAP measure of Total operating expenses.

Industry and Market Data

This presentation includes market data and other statistical information from sources believed to be reliable, including independent industry publications, governmental publications or other published independent sources. Although AST SpaceMobile believes these sources are reliable, we have not independently verified the information and cannot guarantee its accuracy and completeness.

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SpaceMobile will connect directly to mobile phones

Source: GSMA Intelligence (data as of 12/31/2021).

1. Metric defined as number of subscribers represented by mobile network operators who have agreements and understandings with AST SpaceMobile as of 3/31/2022.

2. As of 8/15/2022.

Building the first and only space-based cellular broadband network



Giant total addressable market
Global wireless services market generates over \$1.1 trillion in annual revenue via 5.3 billion mobile phones and devices



Revolutionary tech, over 2,400 patent & patent-pending claims and first-mover advantage ²
Technology designed to deliver broadband from space to unmodified mobile devices, providing a one-of-a-kind service to fill cellular coverage gaps



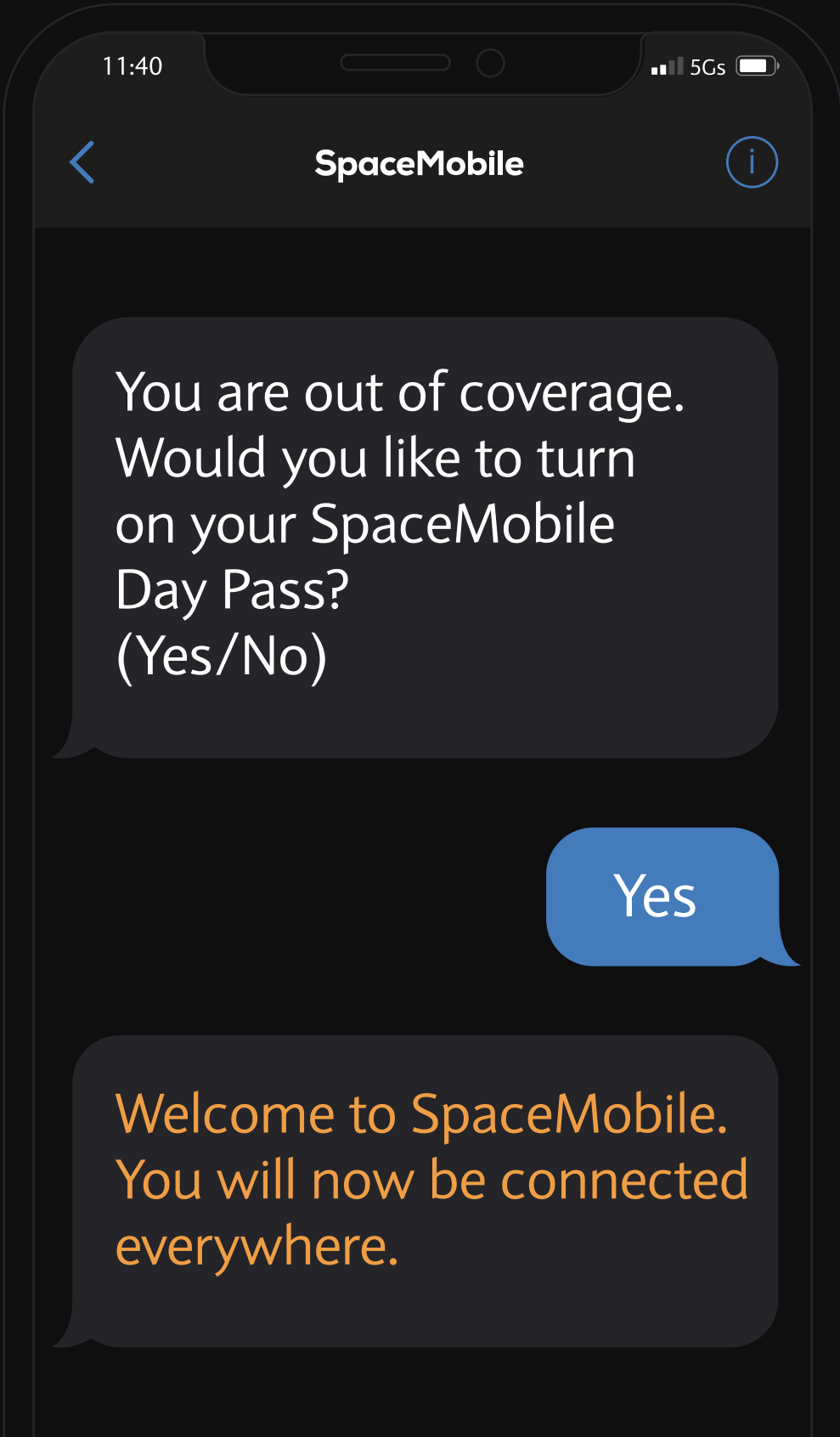
Industry-leading strategic partners
Investment, development and commercial relationships with Vodafone, American Tower, Rakuten and others



Built-in customer base ready to be turned on
When operational, SpaceMobile service will be available to our MNO customers, a growing list of leading companies that have over 1.8 billion existing subscribers ¹






Flexible, scalable, super-wholesale business model
The SpaceMobile network is designed to provide easy sign-up for existing MNO subscribers under revenue share agreements



AST SpaceMobile technology solution

1. Market size based on the sum of 2020A revenues of included providers, AST SpaceMobile market size based on GSMA estimate of total cellular wireless market spend.

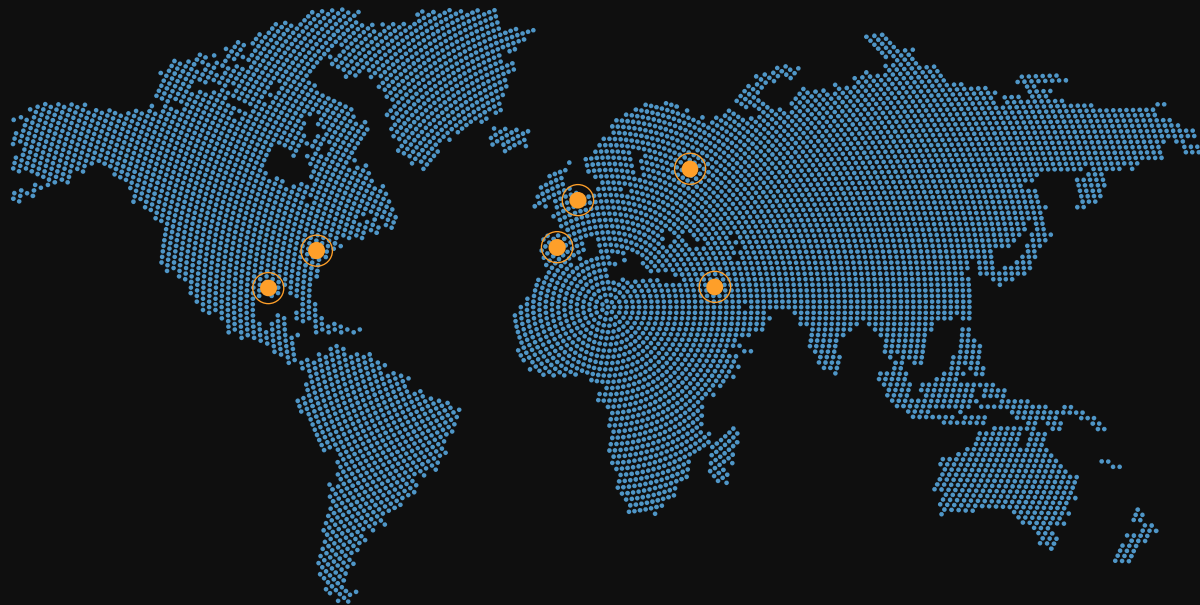
Differentiated approach compared to existing space-based communications

	First & Only Broadband Direct To Mobile Phones	Direct via Proprietary Mobile Phones	Indirect via Complex, Expensive Hardware
			
	Any standard mobile phone	Provider-specific satphones (~\$1K)	Provider-specific antennas mounted on planes, ships, vehicles, buildings (~\$1K-\$200K+)
End Users	Mass market mobility and the unconnected	Narrowband service on satphones	Enterprise, Maritime, Aviation, Government, Residential
Market Size ¹	> \$1 trillion	< \$2 billion	< \$20 billion

Company snapshot

Founder-led leadership and deep team with decades of successful execution

Global Infrastructure



Midland HQ /
Manufacturing Facilities

Israel
RF/Hardware
Design

Lithuania
Prototyping/
Support

Maryland Satellite Operations and
Network Operations Center /
Space Assembly Lab

Spain
Mechanical
Design

United Kingdom
Manufacturing/
Support



Abel Avellan
Chairman and CEO

- 25+ years space industry experience
- Co-inventor of 18 U.S. Patents
- Former Founder and CEO of EMC (Emerging Markets Comms.) until \$550mm sale in 2016
- Provided initial seed capital for AST SpaceMobile



Sean Wallace
Chief Financial Officer

- 25+ years senior management and banking experience
- Prior CFO and Treasurer of Cogent Communications
- Former banking leadership positions at Standard Chartered Bank and J.P. Morgan



Scott Wisniewski
Chief Strategy Officer

- 15+ years of M&A / financing experience
- Previously Managing Director, TMT Investment Banking at Barclays
- Advised AST on its \$110mm Series B in 2019 and the SPAC merger / PIPE financing in 2021



Brian Heller
General Counsel and Secretary

- 20+ years of public company legal experience
- Prior General Counsel of Castle Brands Inc.
- Former Partner practicing Corporate and IP law



Chris Ivory
Chief Commercial Officer

- 25+ years in satcom, business development and government / regulatory affairs
- Led Commercial Business Unit as EVP Globecomm
- Former SVP of Satellite Land Services at EMC



Dr. Huiwen Yao
Chief Technology Officer

- 30+ years RF engineering + satcom
- Prior: Northrop Grumman Innovation Systems (Orbital ATK)
- 40+ GEO satellites built



Dr. Ray Sedwick
Chief Space Scientist

- Director, Space Power and Propulsion Lab at University of Maryland
- NASA Innovative Advanced Concepts Fellow

Manufacturing and
assembly,
integration &
testing

Two locations in Midland, Texas with combined 185,000 sq ft with potential capacity to produce up to 6 satellites per month

Headquarters



Site 2





The Market

Market opportunity

Significant opportunity to change the lives of
billions of people around the globe

Source: GSMA market data as of 12/31/2021.



Designed to eliminate coverage
gaps and enable billions of people
globally to stay connected through their
mobile phones

\$1.1 Trillion+
global mobile wireless services market

5.3 Billion
mobile phones and devices moving in and out
of coverage

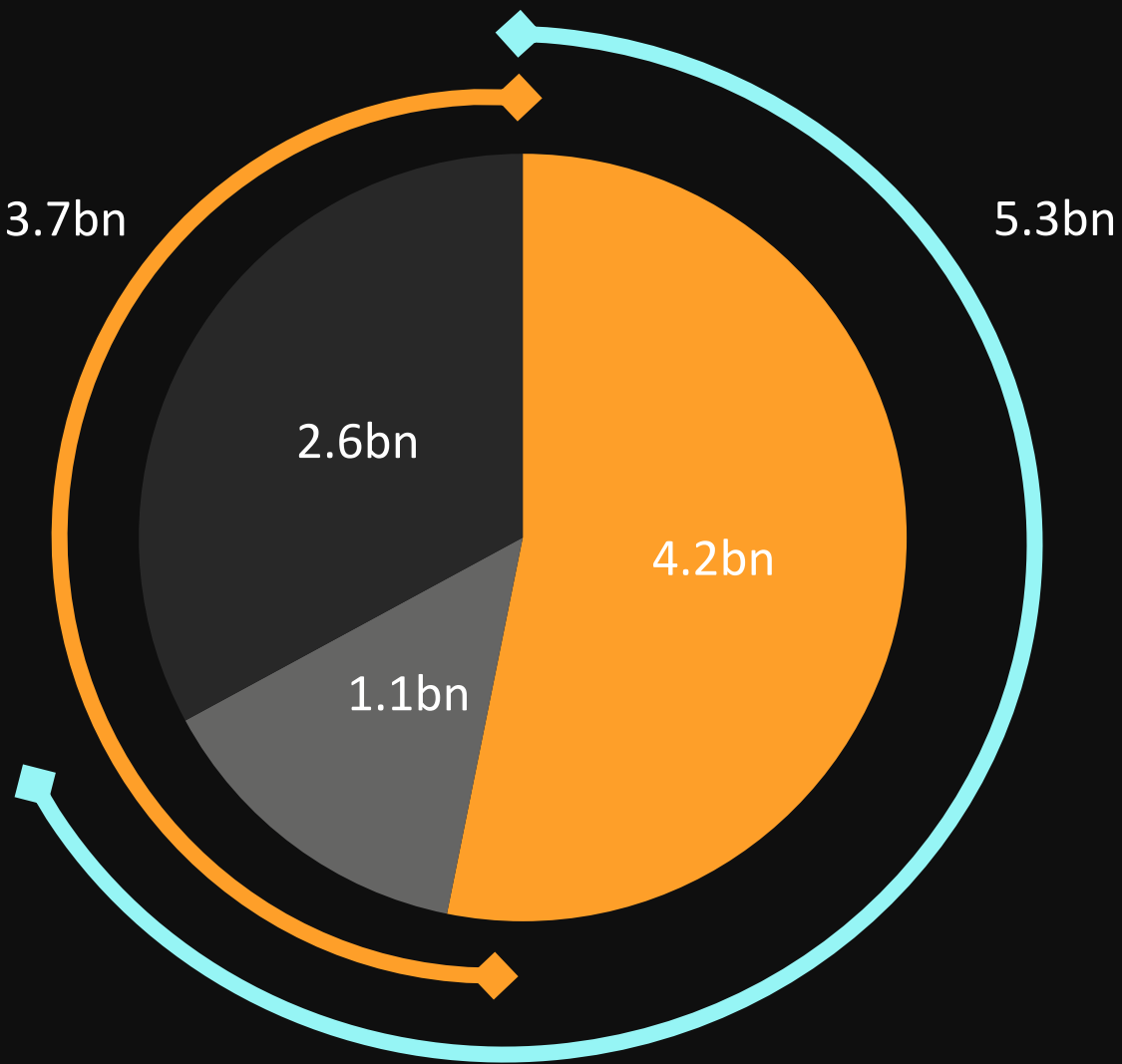
~50%
global population without cellular
broadband



5.3 billion
mobile phones
and devices globally

Global wireless services market generates over \$1.1 trillion in annual revenue, with a backdrop of evolving and imperfect networks

Global Population – 7.9 billion



5.3 billion
unique cellular
subscribers

*move in and out
of coverage as
they live, work
and travel*

3.7 billion
not subscribed
to cellular
broadband

*0.5 billion
have no
coverage*

*3.2 billion
usage gap*

- Cellular subscribers - broadband
- Cellular subscribers - no broadband
- Not a cellular subscriber

Source: GSMA Intelligence (data as of 12/31/2021).

Everyone
connected
all the time



How subscribers are expected to use SpaceMobile

Service designed to be compatible with the 5.3 billion existing mobile phones and devices in use globally today

Significant flexibility in go-to-market strategy, with multiple potential ways for cellular subscribers to access more and better connectivity



Day Pass
(Ad-Hoc)

- Subscribers receive a text on their phone asking if they would like to turn on SpaceMobile service



Monthly Add-on
(Consumer)

- A fixed monthly rate to add SpaceMobile as a supplemental service to existing cellular plan
- Automatically connect with SpaceMobile’s network upon entering an area without cell tower coverage



Monthly Add-on
(Enterprise)

- Same as consumer, but with more data targeting power users



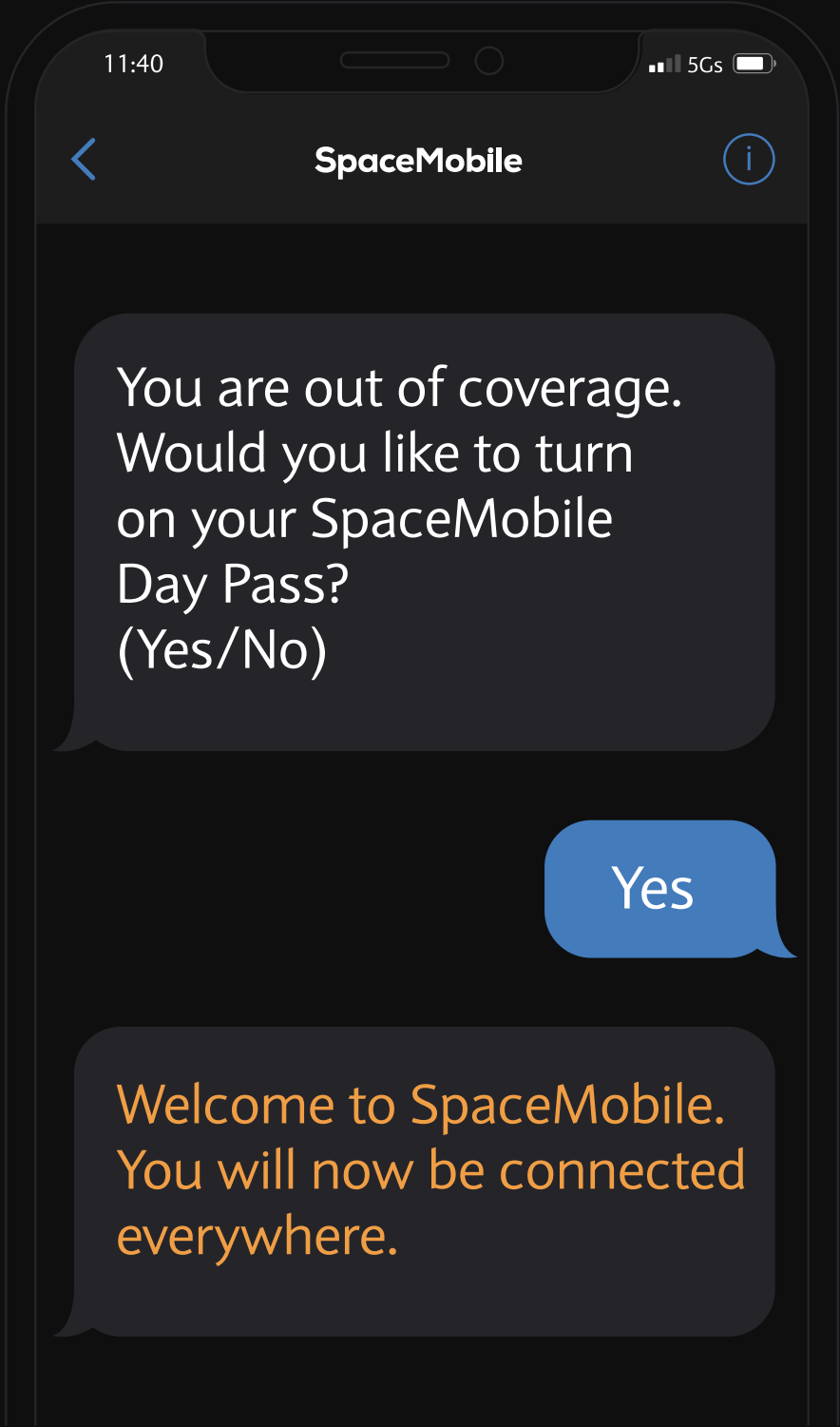
Standalone Plan
(Unconnected Subs)

- In areas without reliable cellular coverage today, subscribers would use and pay for SpaceMobile as their primary network
- Incumbent wireless companies would sell phones and market service



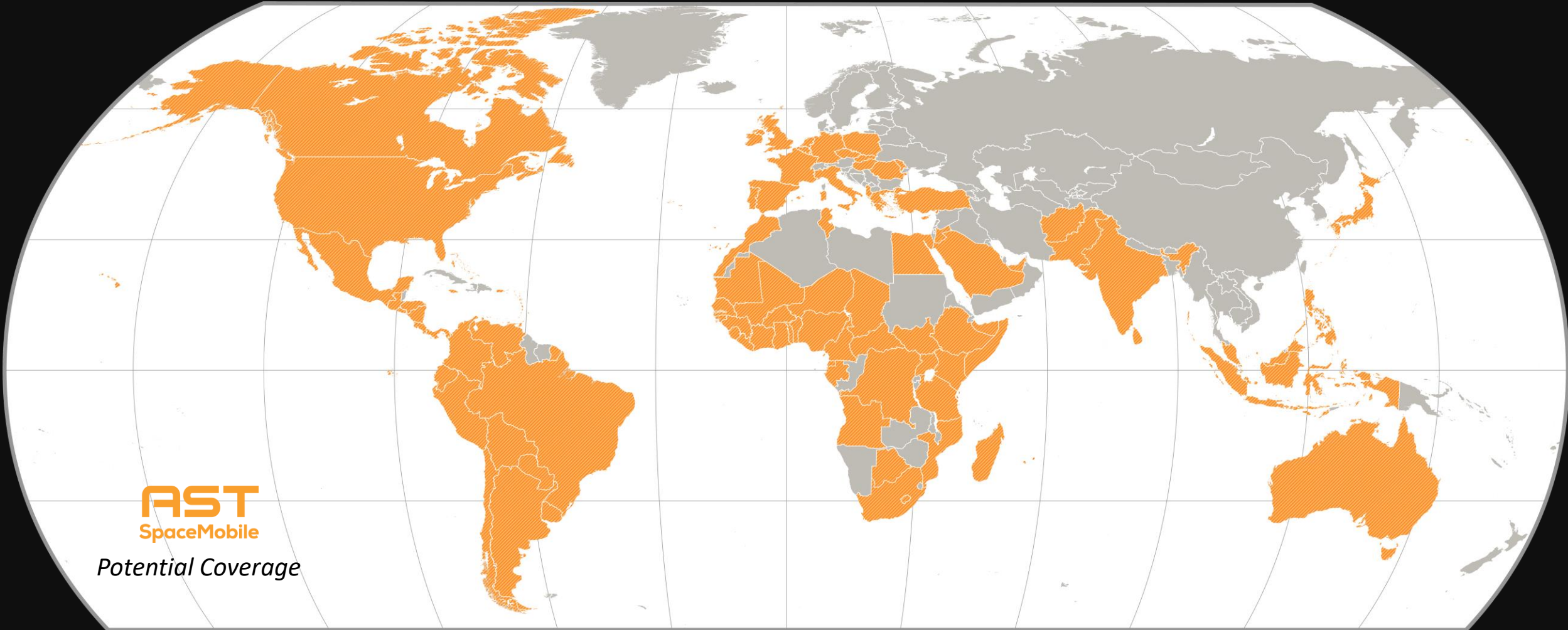
Emergency
Connection

- Subscribers would use SpaceMobile during emergencies and natural disasters when terrestrial networks have failed



Critical MNO relationships

When operational, SpaceMobile service will be available to our MNO customers, a growing list of leading companies that have over 1.8 billion existing subscribers¹



Source: GSMA Intelligence (data as of 12/31/2021).

1. Metric defined as number of subscribers represented by mobile network operators who have agreements and understandings with AST SpaceMobile as of 8/15/2022.

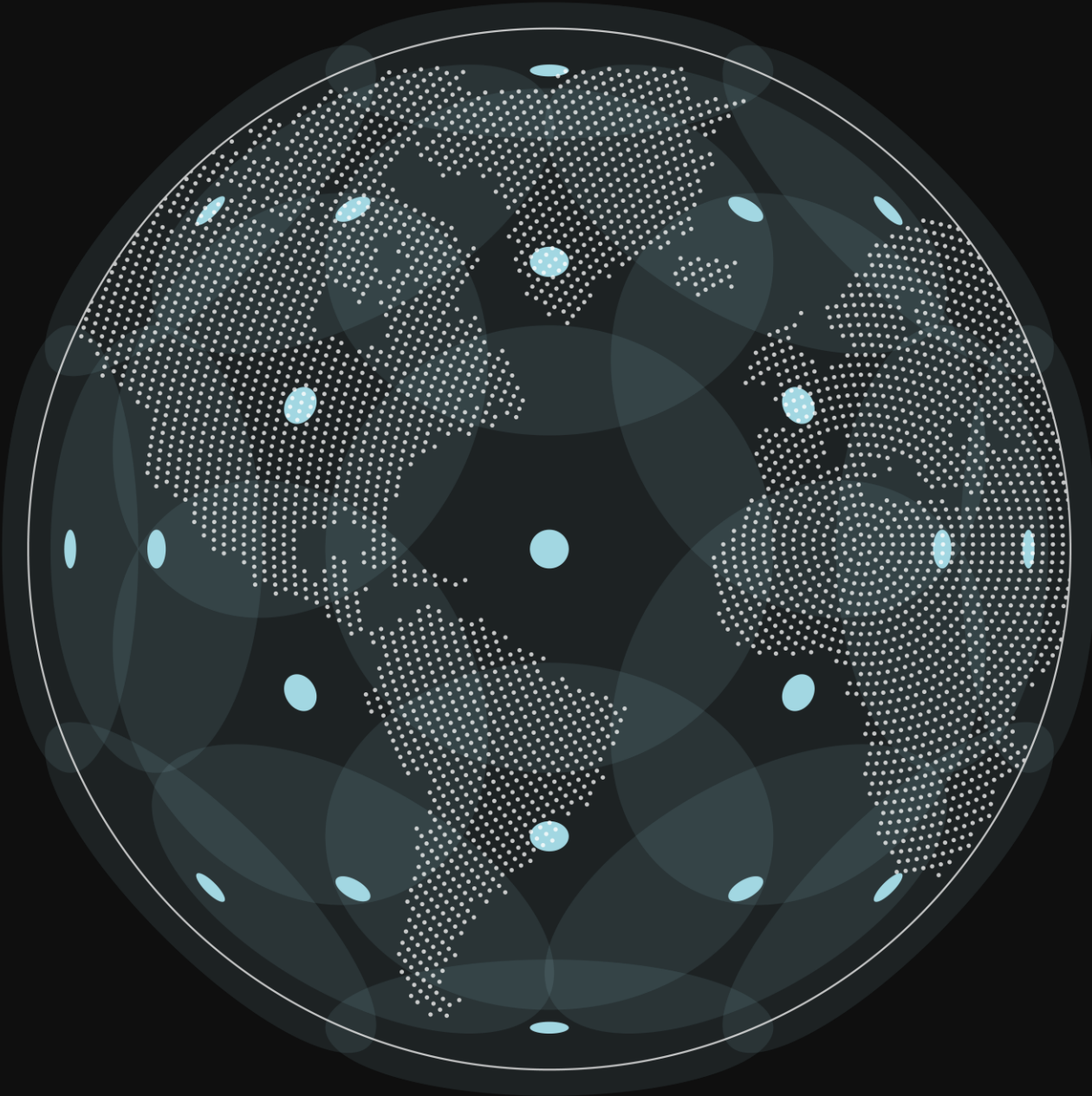
- ✓ Leverages existing 5.3 billion mobile phones and devices
- ✓ Strategic relationship with Vodafone
- ✓ Super-wholesale revenue share model
- ✓ Drives new MNO revenue and reduced churn
- ✓ Direct-to-phone native cellular architecture
- ✓ Easy sign-up for cellular subscribers



The Technology

Technology highlights

With 2,400+ patent and patent-pending claims (as of 8/15/2022), AST SpaceMobile's technology is designed to provide global broadband service directly to unmodified mobile phones



Patented

Ultra-powerful satellites leveraging existing technologies

2G/3G/4G LTE/5G & NB-IoT connectivity

No modifications to standard mobile phones or IoT devices



Seamless

Automatic roaming from land networks to space

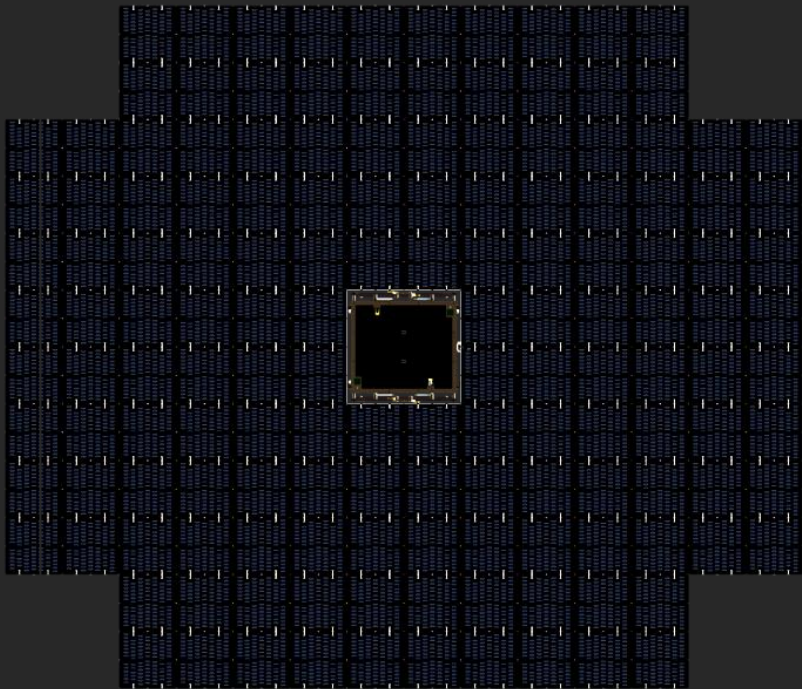


Everywhere

Worldwide 4G/5G speeds on land, at sea and in flight

Satellite-to-cellular architecture

SpaceMobile network designed to closely mirror terrestrial cellular architecture



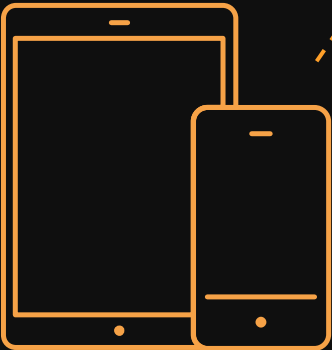
Satellites in low Earth orbit offer low-latency and attractive look angles

Large satellites designed to create over 1 million fixed terrestrial cells globally with broadband capacity

Low- and mid-band frequencies shared with wireless customers on non-interference basis

High-throughput Q/V-band feeder links for backhaul

Direct link to unmodified mobile phones and other cellular devices



Gateways / Partner Network



Terrestrial Telecom Network

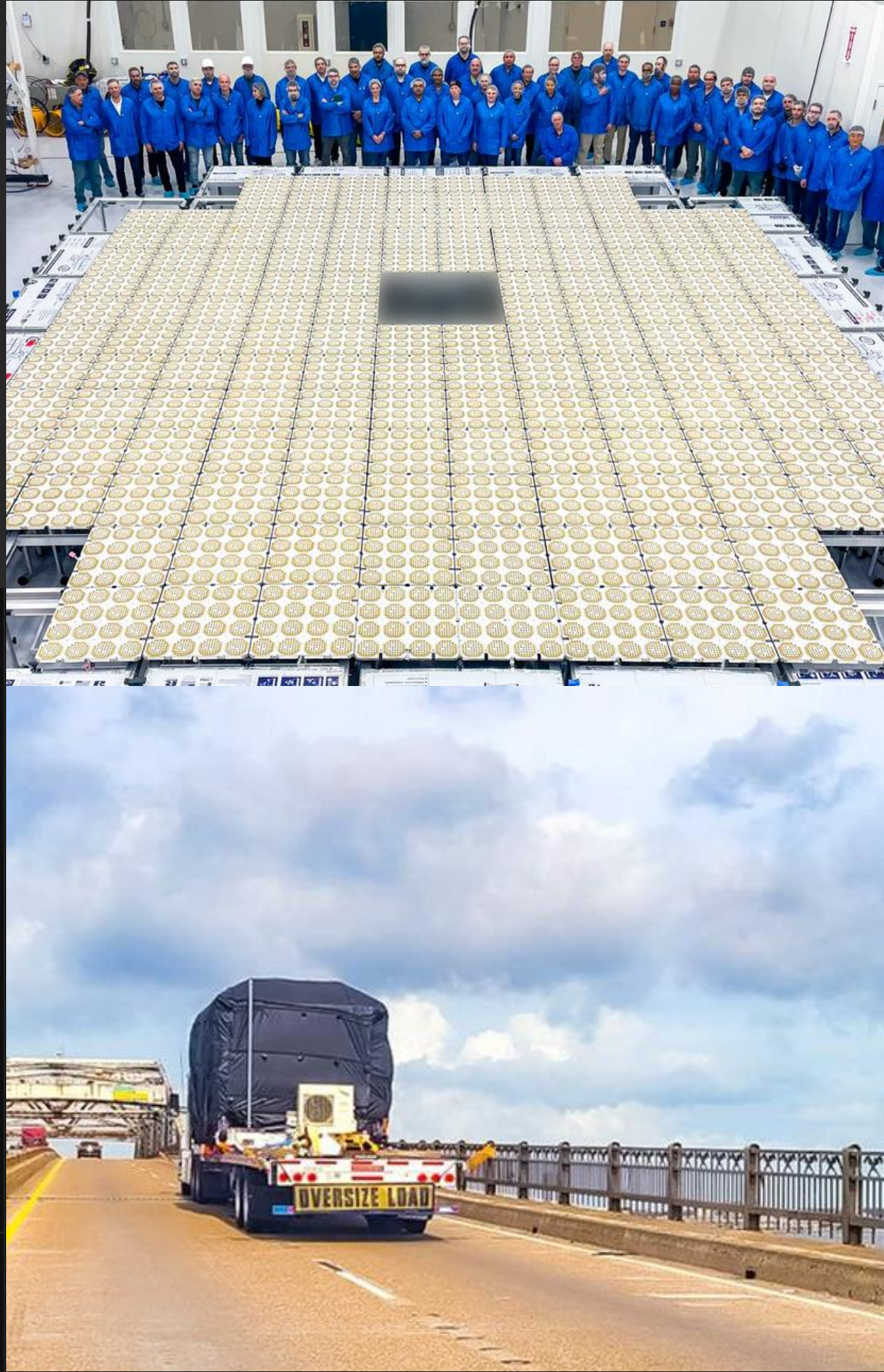
BlueWalker 3 Test Satellite



The Update

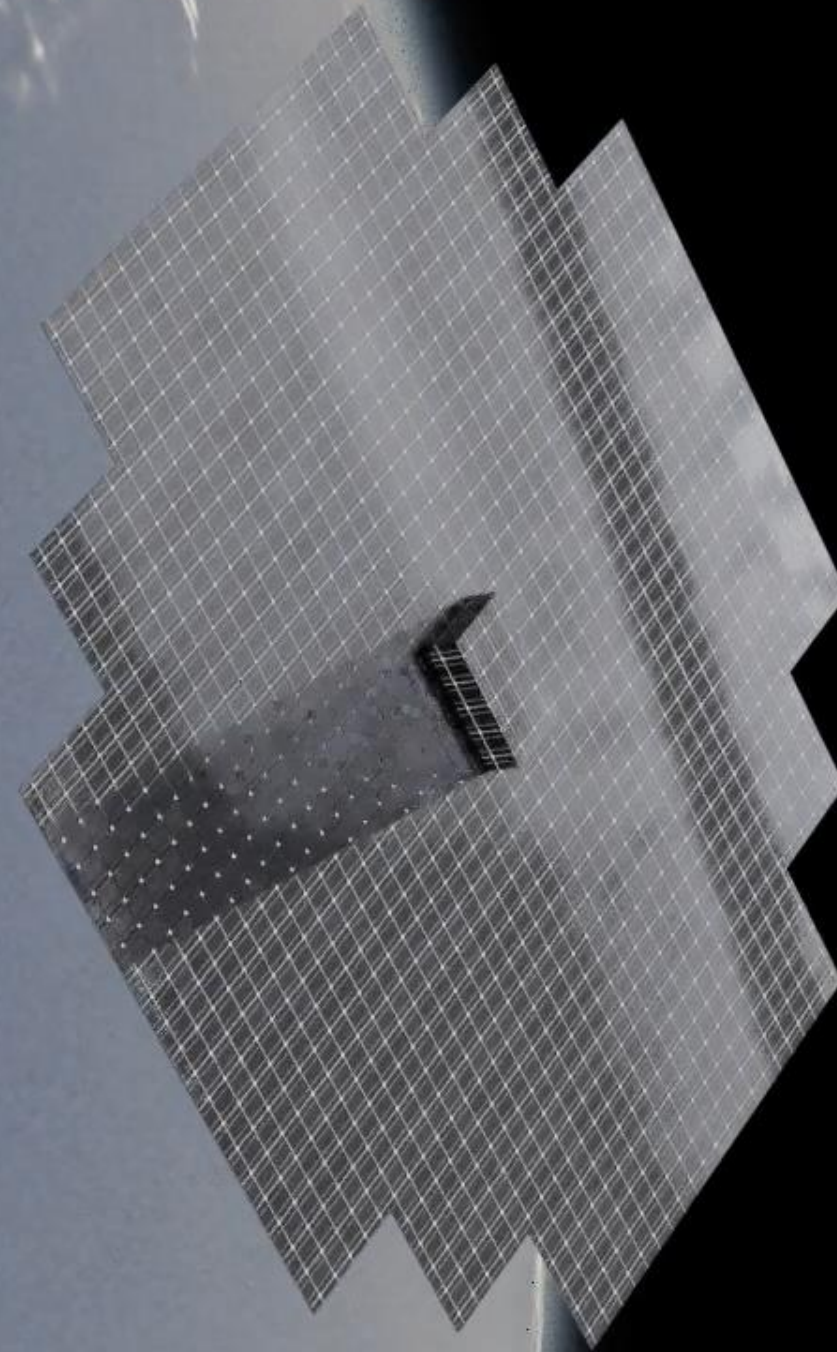


Technology and industrialization update



- ✓ Fully-assembled BlueWalker 3 (BW3) test satellite delivered to Cape Canaveral, FL
- ✓ Upcoming planned launch, with a launch window for early to mid-September
- ✓ The next five satellites are in initial phase of component construction, with design based on similar technology to BW3, including FPGA, reaction wheels and antennas, with launch planned in late 2023
- ✓ Commercial agreements in place with suppliers for most components of the next five Block 1 BlueBird satellites and next generation satellites
- ✓ Construction of the extension production facility (Site 2) in Texas is on schedule

BlueWalker 3 in-orbit plan



- Size: 693 square-foot phased array
- We believe BW3 will be one of the largest phased array antenna deployed into low Earth orbit
- Target Altitude: low Earth orbit
- Target Orbit: 53 degrees inclined
- Expected Speed: ~25,000 km/h (~17,000 mph)
- Expected to circle the Earth every ~90 minutes

BlueWalker 3 launch and testing timeline

Path to launch and BW3 in-orbit operations roadmap

BW3 Launch Milestones

July 19

- Transported BW3 to California for testing
- Successfully completed environmental testing

August 9

- Transported BW3 to Cape Canaveral, FL for final preparations and continuation of testing

T: Early to Mid Sep

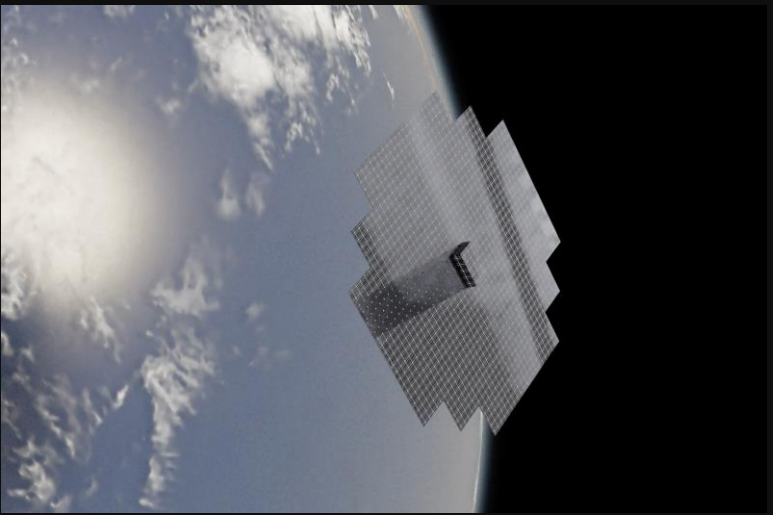
- Planned launch window on Falcon 9 Launch Vehicle from Cape Canaveral, FL

T+2 Months

- BW3 placed into orbit
- Initial in-orbit testing
- Unfold phased array
- Deploy QV antennas

T+6 Months

- Cellular broadband direct-to-cell phone testing on standard handsets, in cooperation with participating MNOs on six continents
- Testing with our BW3 satellite to be conducted utilizing Nokia and Rakuten commercial MNO infrastructure



Continued business momentum



Added three new operators ¹

new memoranda of understanding signed with additional operators, including Smartfren Telecom (Indonesia)



More than 1.8 billion subscribers ²

represented by mobile network operators with whom we have agreements and understandings



Increase to more than 2,400 patent and patent-pending claims ³

supports strong and expanding competitive advantage



Agreement to sell majority ownership stake in NanoAvionika UAB

at enterprise valuation of €65 million, and the Company expects to receive approximately \$27 million in net proceeds at closing ⁴



4G LTE/5G technology agreement with Nokia

for the integration of Nokia's AirScale System, which is planned to be offered as part of SpaceMobile's MNO infrastructure

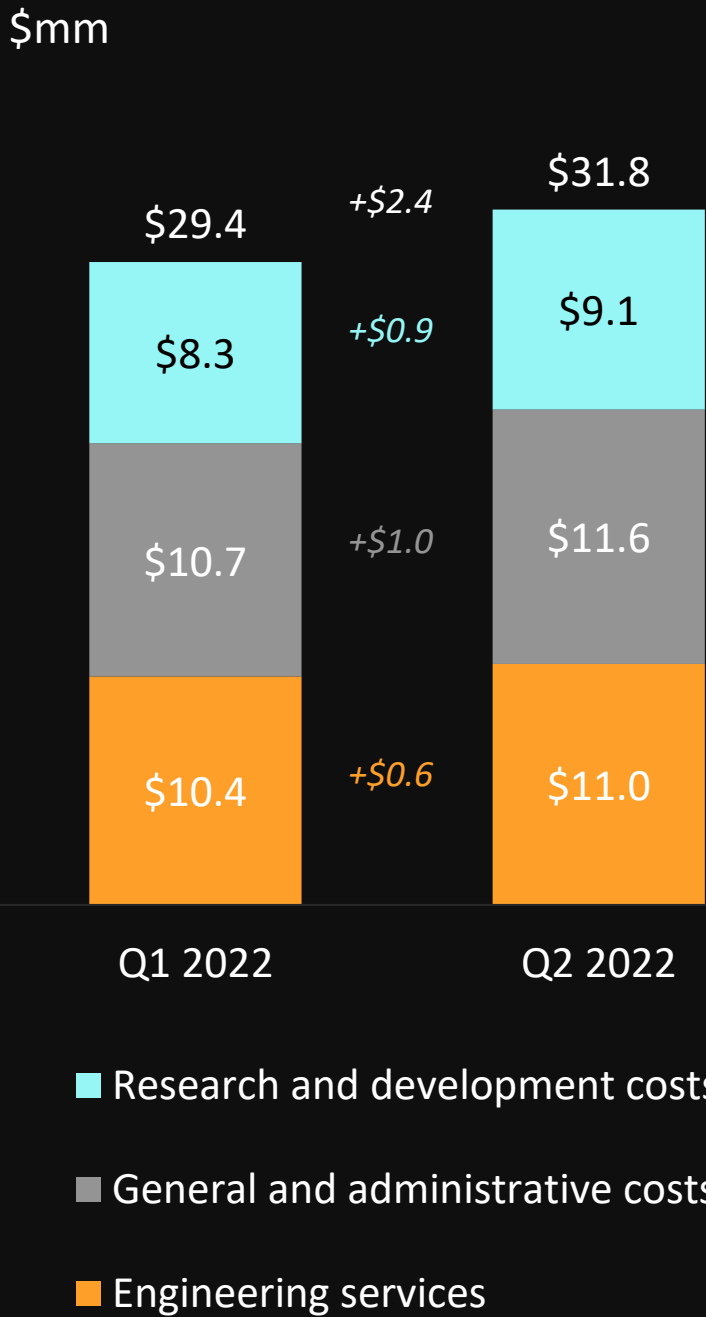
Source: GSMA Intelligence (data as of 12/31/2021).

1. Since last business update provided on May 16, 2022.
2. Metric defined as number of subscribers represented by mobile network operators who have agreements and understandings with AST SpaceMobile as of August 15, 2022.
3. As of August 15, 2022, compared to more than 2,300 as of May 16, 2022.
4. Expected to close in the third quarter of 2022, subject to customary closing conditions including any required regulatory reviews. Reflects current estimate of net proceeds. Actual proceeds subject to fluctuation in the EUR / USD currency exchange rate and final closing balance sheet accounts.

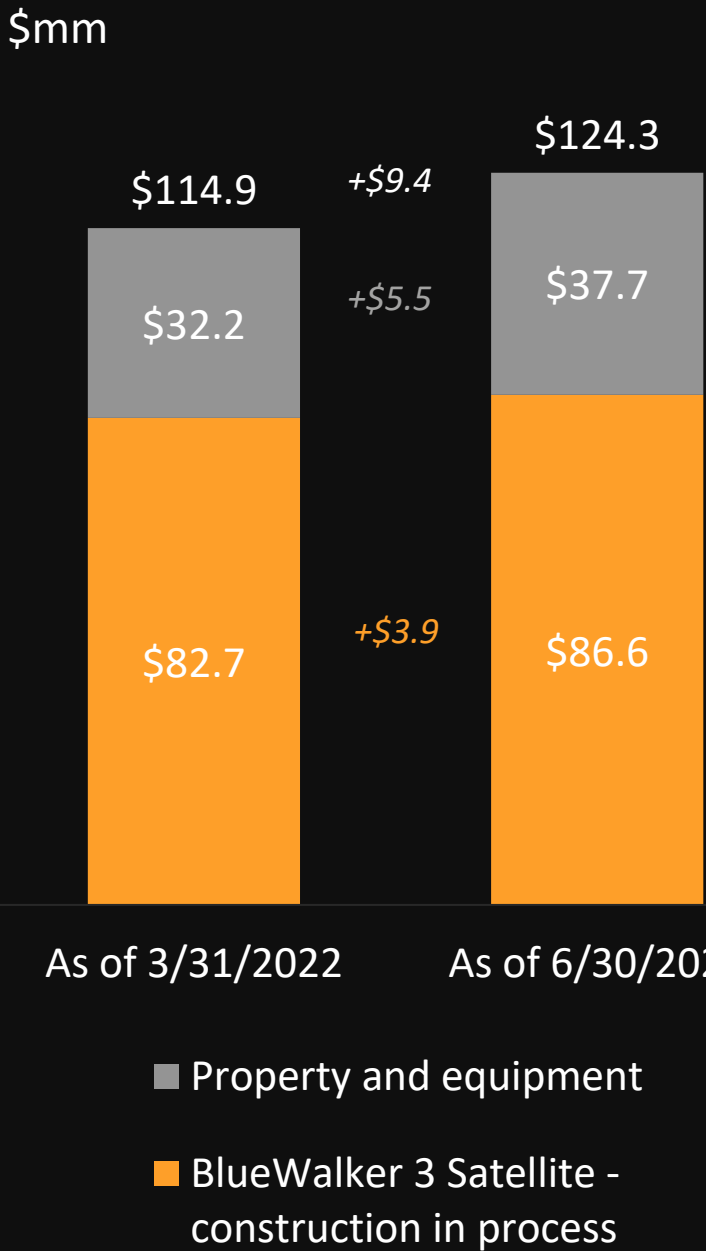
Second quarter 2022 financial metrics

- See the next slide for a reconciliation. Adjusted operating expenses is equal to total operating expense less non-cash operating expense such as depreciation and amortization and stock based-compensation expense. Depreciation and amortization for the three months ended June 30, 2022 and March 31, 2022 was \$1.2 million and \$1.1 million, respectively. Stock-based compensation for the three months ended June 30, 2022 and March 31, 2022 consisted of \$1.0 million and \$1.3 million of engineering services expense and \$1.5 million and \$1.0 million of general and administrative costs, respectively.
- Cumulative as of date specified. Net of depreciation and amortization.

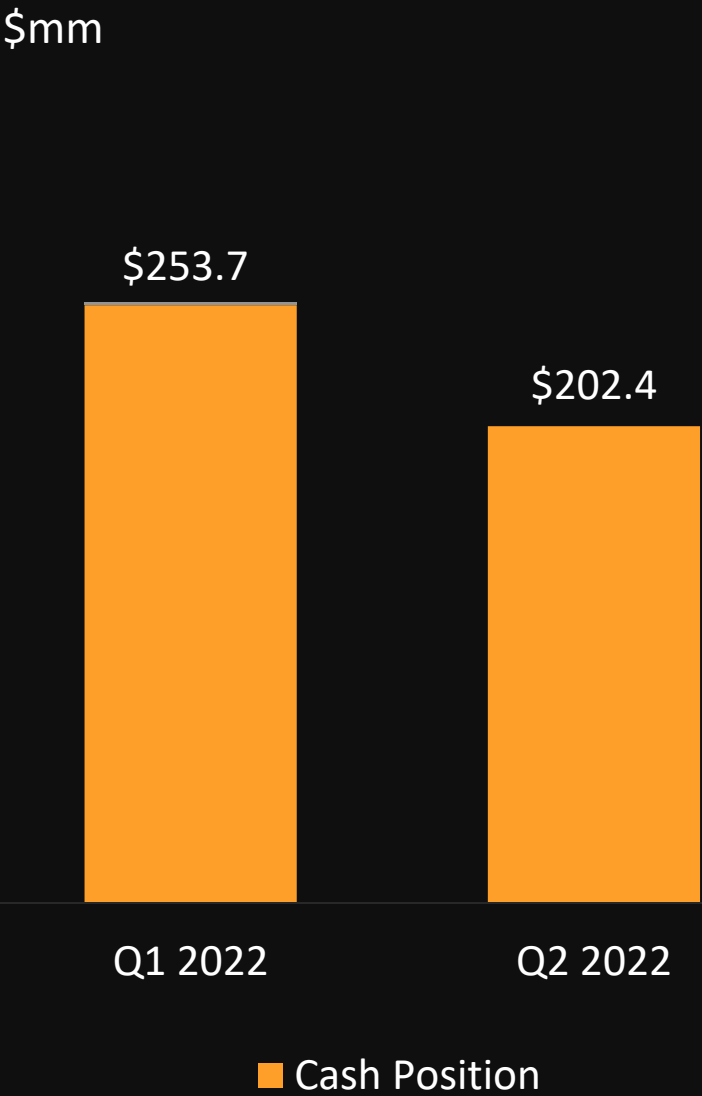
Adj. Operating Expenses ¹



Capital Expenditures ²



Liquidity



AST SpaceMobile differentiation

1. AST SpaceMobile market size based on GSMA Intelligence estimate of total cellular wireless market spend. As of 12/31/2021.
2. As of June 30, 2022.



Only pure play, low Earth orbit (LEO) broadband communications company that is publicly-traded



Novel technology solution applicable to a market of 5.3 billion mobile phones and devices and the related \$1.1 trillion+ TAM ¹



Jointly going to market, not competing, with mobile network operators with hundreds of millions of subscribers



Revenue share business model designed to allow users to sign up with a simple text message



Approximately \$202 million cash and cash equivalents to fund business operations and initial production satellites ²

Appendix



ASTS

share count

- Following the Business Combination with NPA on April 6, 2021, the Company was organized as an umbrella partnership-C corporation (“Up-C”) structure. As a result of the Up-C structure, the Company is a holding company and, accordingly, all the business of AST is held directly by AST LLC, of which we are the managing member.
- The Class B and C common stockholders own economic interests in AST LLC which are redeemable into either shares of Class A common stock on a one-for-one basis or cash at the option of the Election Redemption Committee. See AST’s Quarterly Report on Form 10-Q, filed with the SEC on August 15, 2022, for additional detail.
- Mr. Avellan has historically asked not to be paid any base salary in excess of applicable minimum wage requirements under federal law and, as such, has received substantially below-market base salary. Effective as of the completion of the Business Combination, Mr. Avellan is not receiving any base salary from the Company.
- Includes 11.3 million AST LLC 2019 Incentive Equity Options. Except as otherwise provided by the AST Board of Directors, each AST Incentive Equity Unit will be redeemable for one share of Class A Common Stock on the later of April 6, 2023 and the six-month anniversary of the vesting date.
- Basic shares count as of 8/5/2022. Warrants, incentive equity options, and RSUs as of 6/30/2022.

Shares ⁵	millions	Comment
Class A common stock	53.2	Publicly-traded shares
Class B common stock ^{1,2}	51.6	Series A / B shares
Class C common stock ^{1,2}	78.2	Abel Avellan ³ shares
Total basic shares	183.0	

Other ⁵		
Public warrants	11.5	\$11.50 exercise price
Sponsor warrants	6.1	\$11.50 exercise price
Incentive equity ⁴ / stock options and RSUs	16.2	Management grants outstanding as of 6/30/2022

Reconciliation to non-GAAP measures – adj. operating expenses

1. Stock-based compensation for the three months ended June 30, 2022, March 31, 2022, and June 30, 2021 consisted of \$1.0 million, \$1.3, and \$0.2 million of engineering services expense and \$1.5 million, \$1.0, and \$0.0 million of general and administrative costs, respectively.
2. Stock-based compensation for the six months ended June 30, 2022 and 2021 consisted of \$2.3 million and \$0.5 million of engineering services expense and \$2.4 million and \$0.1 million of general and administrative costs, respectively.

Adj. operating expenses – 3 months ended

<i>(\$ in thousands)</i>	June 30, '22	Mar 31, '22	June 30, '21
Engineering services	11,999	11,717	5,784
General and administrative costs	13,075	11,643	9,157
Research and development costs	9,145	8,281	9,589
Depreciation and amortization	1,185	1,100	567
Total operating expenses	35,404	32,741	25,097
Less: Depreciation and amortization	(1,185)	(1,100)	(567)
Less: Stock-based Compensation Expense ¹	(2,440)	(2,255)	(242)
Total adj. operating expenses	31,779	29,386	24,288

Adj. operating expenses – 6 months ended

<i>(\$ in thousands)</i>	June 30, '22	June 30, '21
Engineering services	23,716	10,731
General and administrative costs	24,718	14,693
Research and development costs	17,426	10,603
Depreciation and amortization	2,285	1,182
Total operating expenses	68,145	37,209
Less: Depreciation and amortization	(2,285)	(1,182)
Less: Stock-based Compensation Expense ²	(4,695)	(598)
Total adj. operating expenses	61,165	35,429

The logo for AST SpaceMobile is displayed against a dark space background with a bright, glowing orange arc. The letters 'AST' are in white, and 'SpaceMobile' is in orange.

AST SpaceMobile

The Nasdaq logo, consisting of a stylized 'N' icon followed by the word 'Nasdaq' in white.

Nasdaq

NASDAQ: ASTS