

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 or orbital path.

# AST SpaceMobile

Transforming how  
the world connects



NASDAQ: ASTS

**Business Update – Third Quarter 2021**

November 15, 2021

### 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 section of our Form S-1 Registration Statement filed with the SEC on June 25, 2021 (File No. 333-257425) as well as the Risk Factors contained in Part II, Item 1A of AST SpaceMobile’s Form 10-Q dated August 16, 2021. The Company’s securities filings can be accessed on the EDGAR section of the SEC’s website at [www.sec.gov](http://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.

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# Market opportunity

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

Source: GSMA market data.



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

**\$1 Trillion**  
global mobile wireless services market

**5 Billion**  
mobile phones moving in and out  
of coverage

**~50%**  
global population without cellular  
broadband



# SpaceMobile will connect directly to mobile phones

Source: GSMA Intelligence (data as of 3/31/2021).  
1. Metric defined as number of subscribers represented by mobile network operators who have agreements and understandings with AST SpaceMobile as of 9/30/2021.

## Building the first and only space-based cellular broadband network



### Giant total addressable market

Global wireless services market generates over \$1 trillion in annual revenue via 5 billion mobile devices



### Revolutionary tech, over 1,600 patent & patent-pending claims and first-mover advantage

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



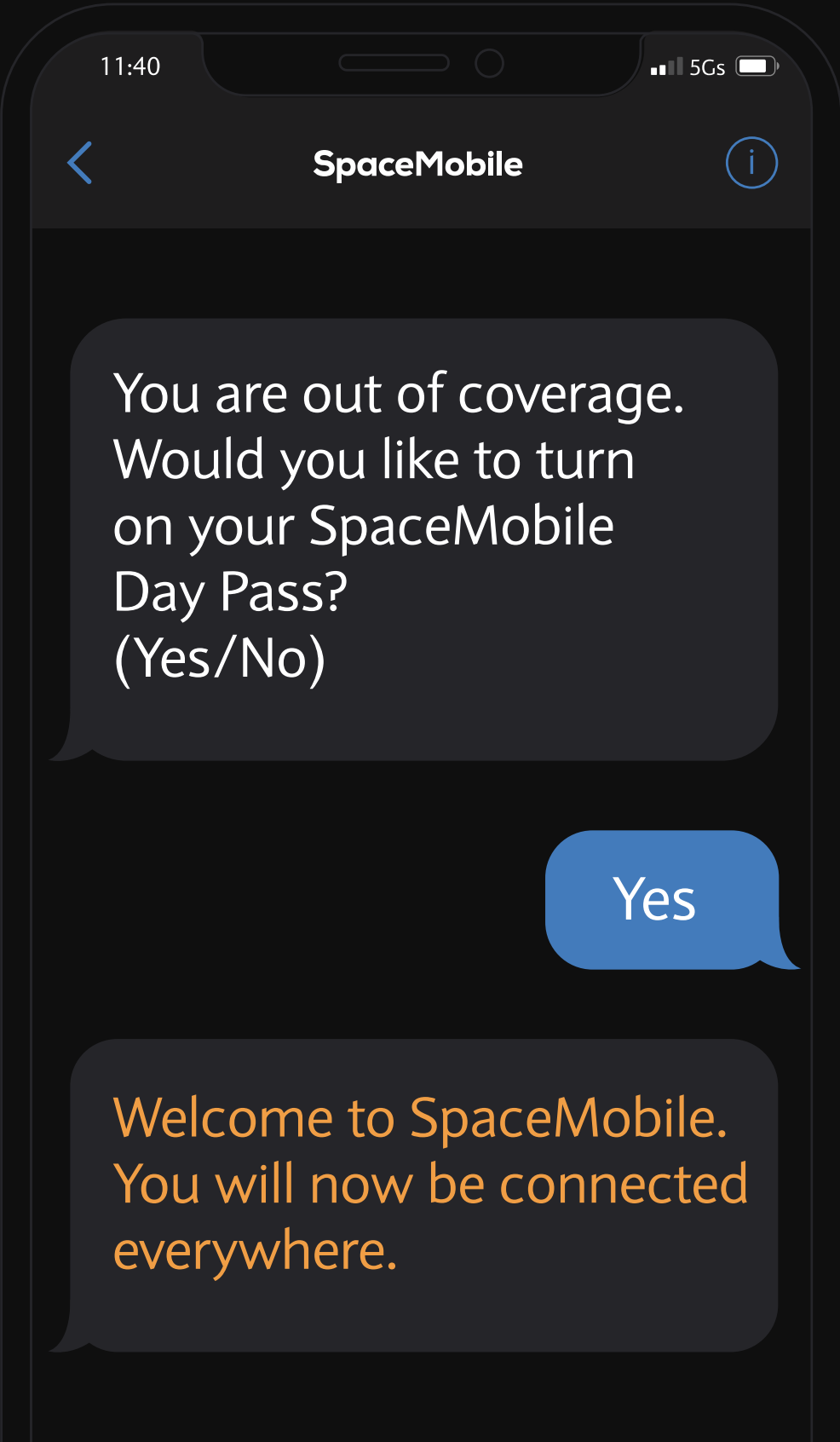
### Built-in customer base ready to be turned on

When operational, SpaceMobile service will be available to the 1.5 billion existing MNO subscribers of AST SpaceMobile's wireless customers <sup>1</sup>



### Flexible, scalable, super-wholesale business model

The SpaceMobile network is designed to provide frictionless access to existing MNO subscribers under revenue share agreements







# Update



# AST SpaceMobile headquarters at Midland International Air & Space Port

85,000 sq ft facility with potential capacity to produce up to 2 satellites per month





# Second facility in Midland, Texas under contract

On October 14<sup>th</sup>, AST SpaceMobile entered into an agreement to purchase a ~100,000 sq ft expansion facility in Midland, Texas

The new facility, together with additional on-site investment, provides potential capacity to produce 6 spacecraft per month with highly automated processes





Final assembly,  
integration, testing  
and delivery

Midland facility clean room where final AIT of BlueWalker 3 is being conducted





Final assembly,  
integration, testing  
and delivery  
(cont'd)

Second generation launch  
vehicle adapter



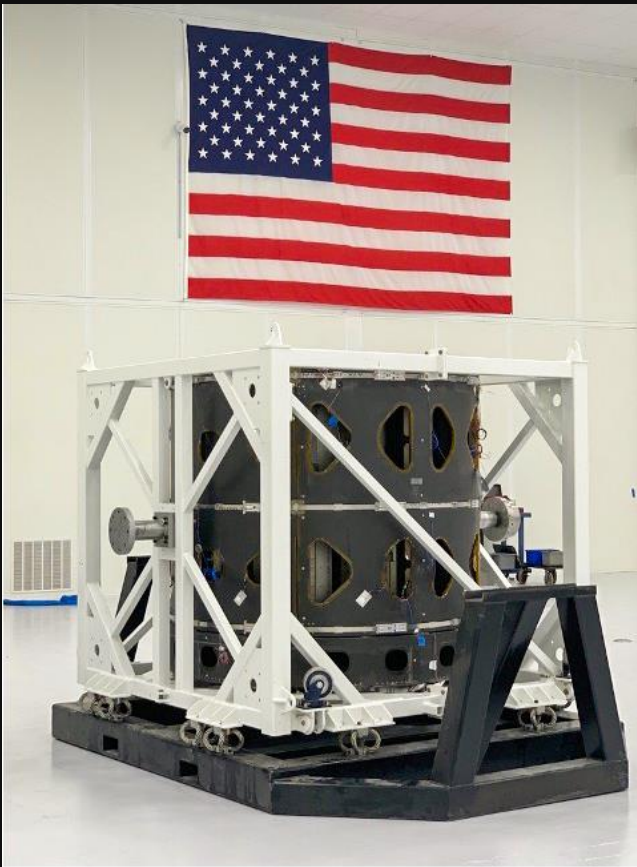
Assembly line preparation



Full satellite radio frequency testing



Vibration testing



Satellite container arrives





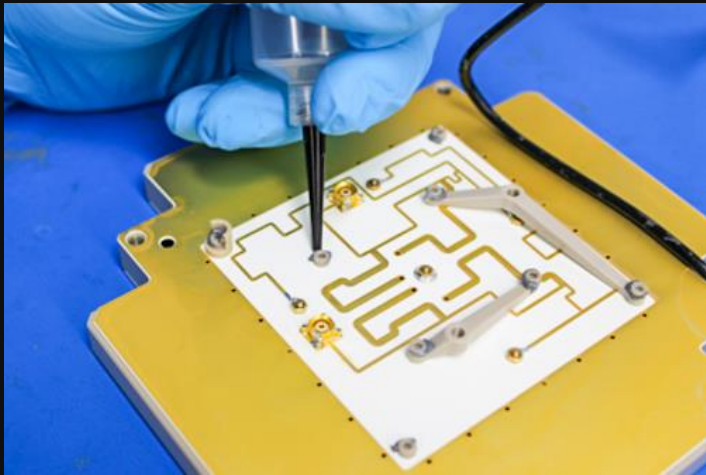
# BW3 micron assembly

All BW3 components are now on hand, either purchased from a 3<sup>rd</sup> party or manufactured in house

Micron assembly line



Antenna manufacturing process



Micron





# BW3 micron testing

Thermal testing highly-automated process



Radio frequency testing

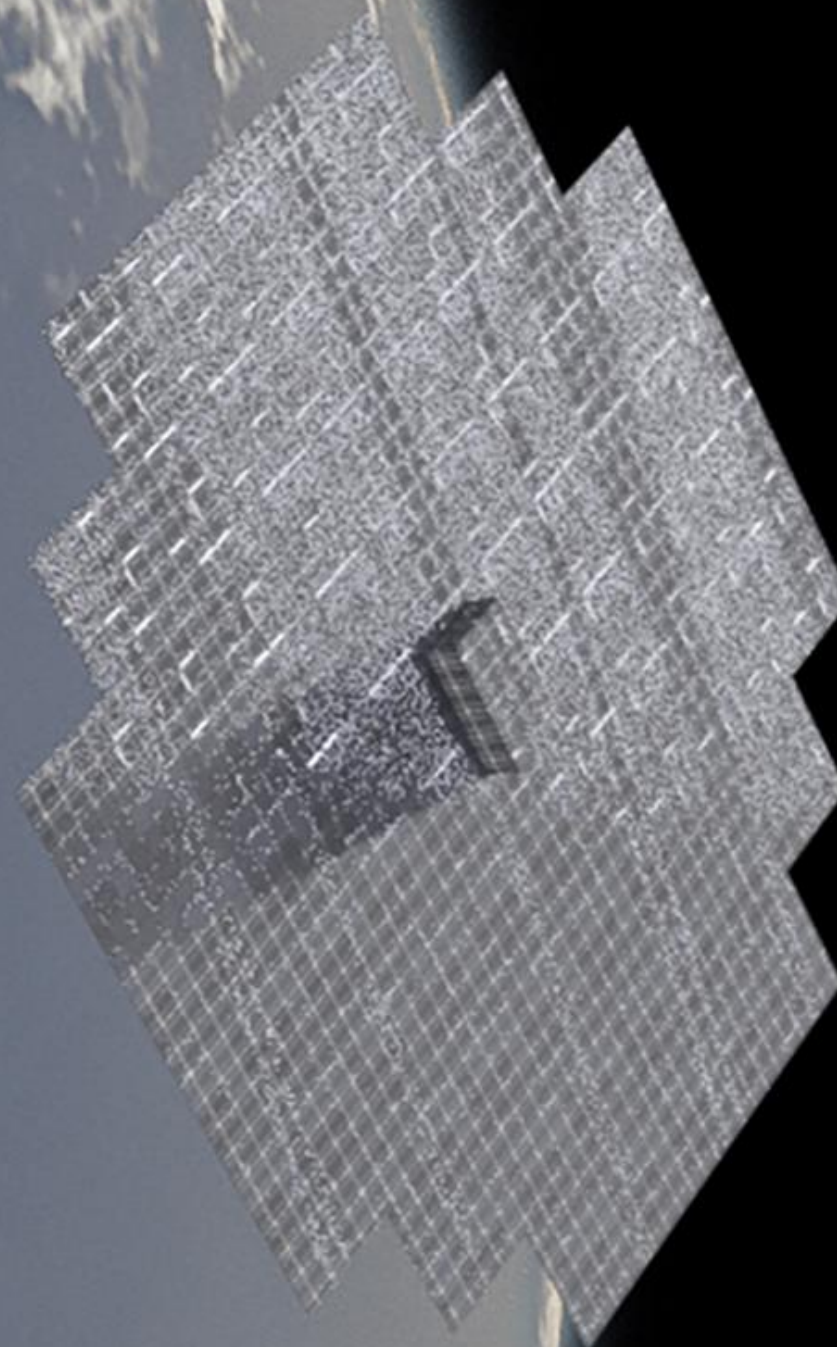


Antenna component testing





# BlueWalker 3 in-orbit plan



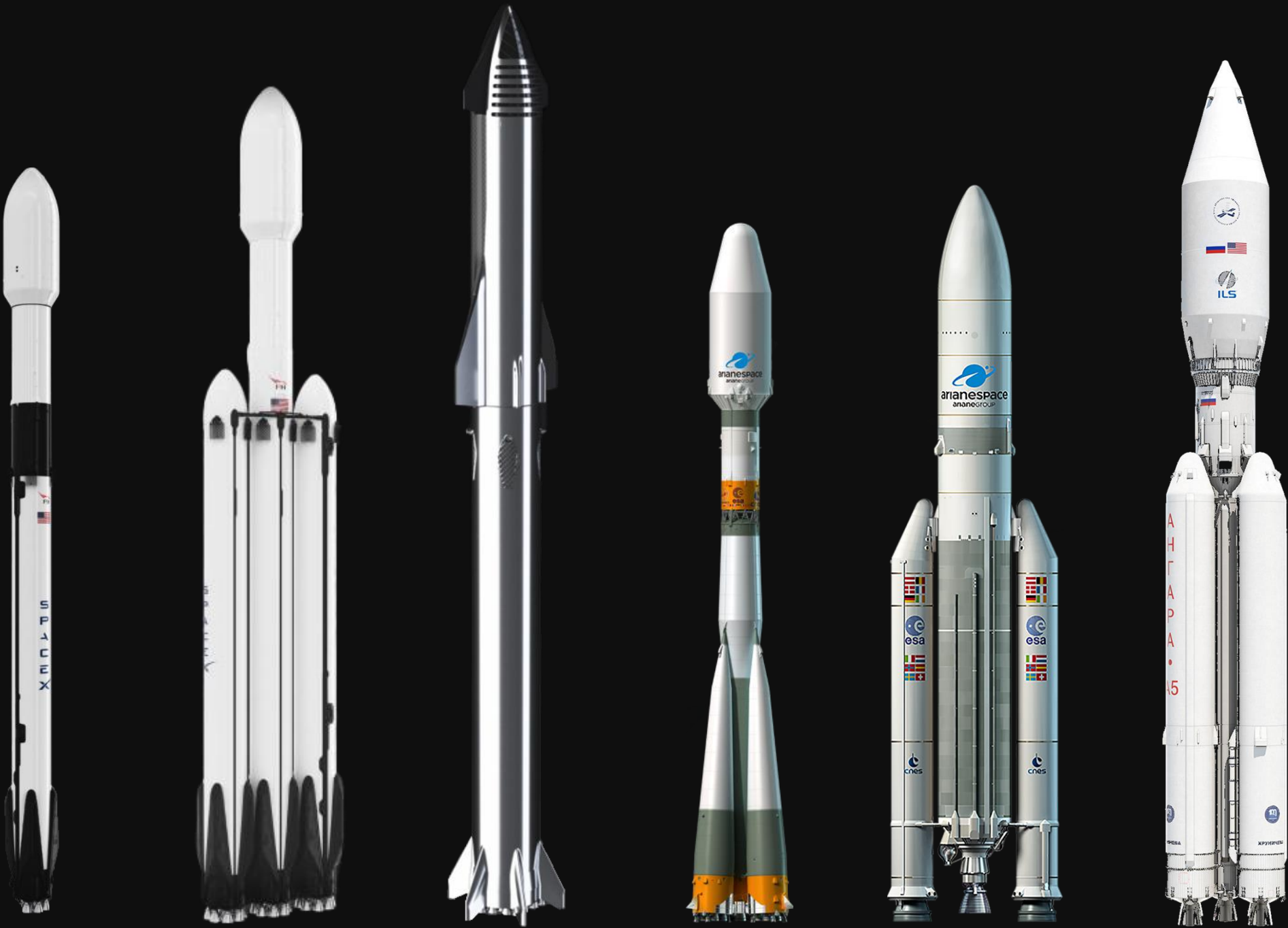
- Size: 693 square-foot phased array
- We believe BW3 will be one of the largest phased array antenna deployed into low Earth orbit
- Altitude: ~400 kilometers (~250 miles)
- Orbit: 53 degrees inclined
- Speed: ~25,000 km/h (~17,000 mph)
- Circle the Earth every ~90 minutes



# Launch provider flexibility

Configuration supports compatibility with several leading launch vehicles, and the forecasted pipeline of new heavy-launch vehicles should present additional transportation options for the planned constellation

Source: Company websites, press and Wall Street research.



Launcher:	Falcon 9	Falcon Heavy	Starship	Soyuz	Ariane 5	Angara A5
Provider:	SpaceX	SpaceX	SpaceX	Arianespace	Arianespace	Various








# Business



# 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 <sup>1</sup>	> \$1 trillion	< \$2 billion	< \$20 billion



# AST SpaceMobile differentiation



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



Novel technology solution applicable to a market of 5 billion mobile phones and the related \$1 trillion TAM<sup>1</sup>



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 \$360 million cash and cash equivalents to fund business operations and the first phase of production spacecraft<sup>2</sup>

1. AST SpaceMobile market size based on GSMA Intelligence estimate of total cellular wireless market spend.  
2. As of September 30, 2021.



# How subscribers are expected to use SpaceMobile

Service designed to be compatible with the 5 billion existing mobile phones used 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



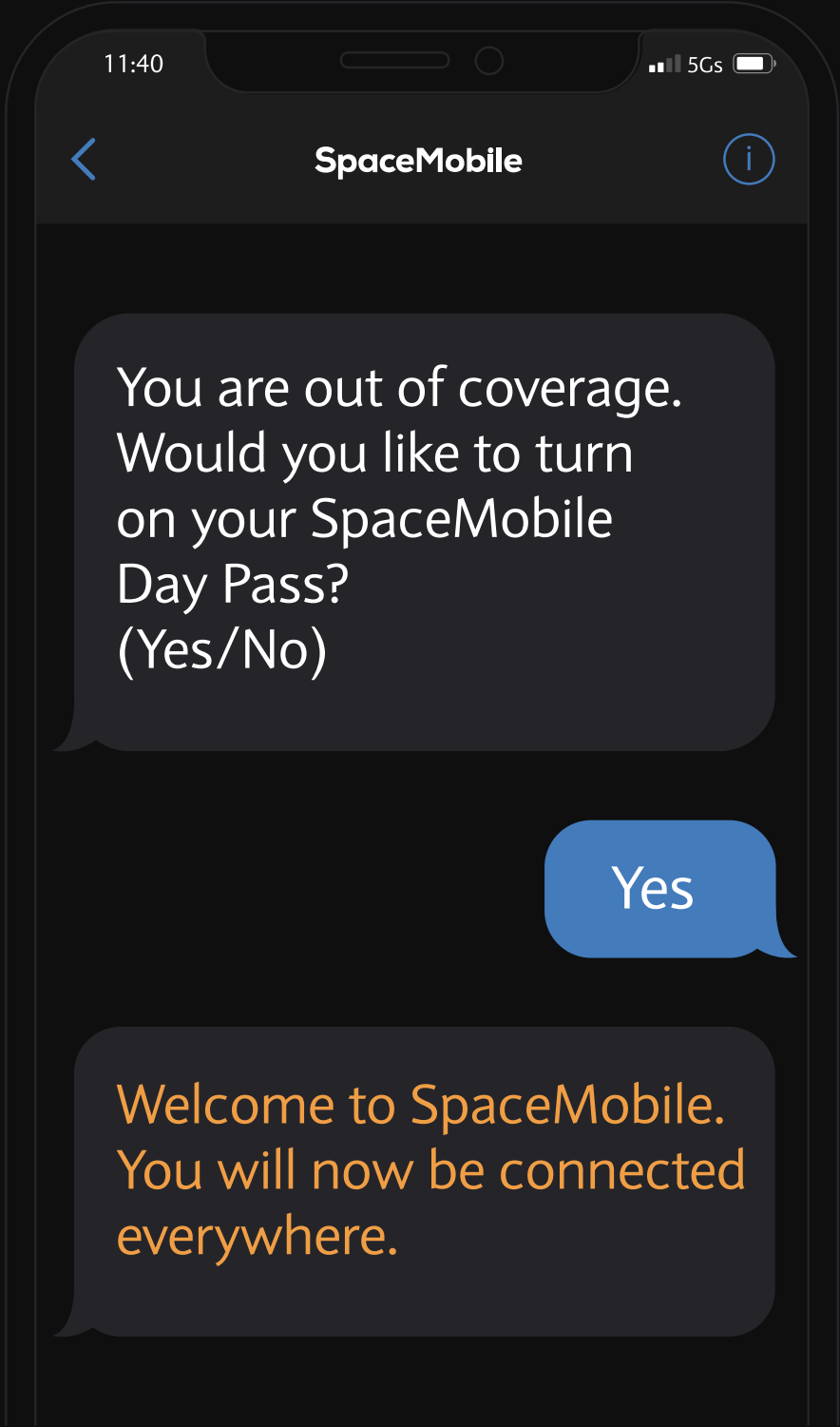
Standalone Plan  
(Unconnected Subs)

- 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





# Continued business momentum

Commercial and organizational progress in parallel with technology and industrialization

## Commercial



**New MOUs signed with:**  
MTN Group  
YTL (Malaysia)  
Somcable (Somaliland)

**1.5 billion subscribers** represented by mobile network operators with whom we have agreements and MOUs <sup>1</sup>

Source: GSMA Intelligence (data as of 3/31/2021).  
1. Metric defined as number of subscribers represented by mobile network operators who have agreements and understandings with AST SpaceMobile.

## Organizational



**Increase of 40 employees** during Q3, now with a team of 509, including 301 full-time employees, other full-time contractors and 3<sup>rd</sup> party engineering services

**Increase to 1,600 patent- and patent-pending claims** supports strong and expanding competitive moat (as of 11/11/2021)



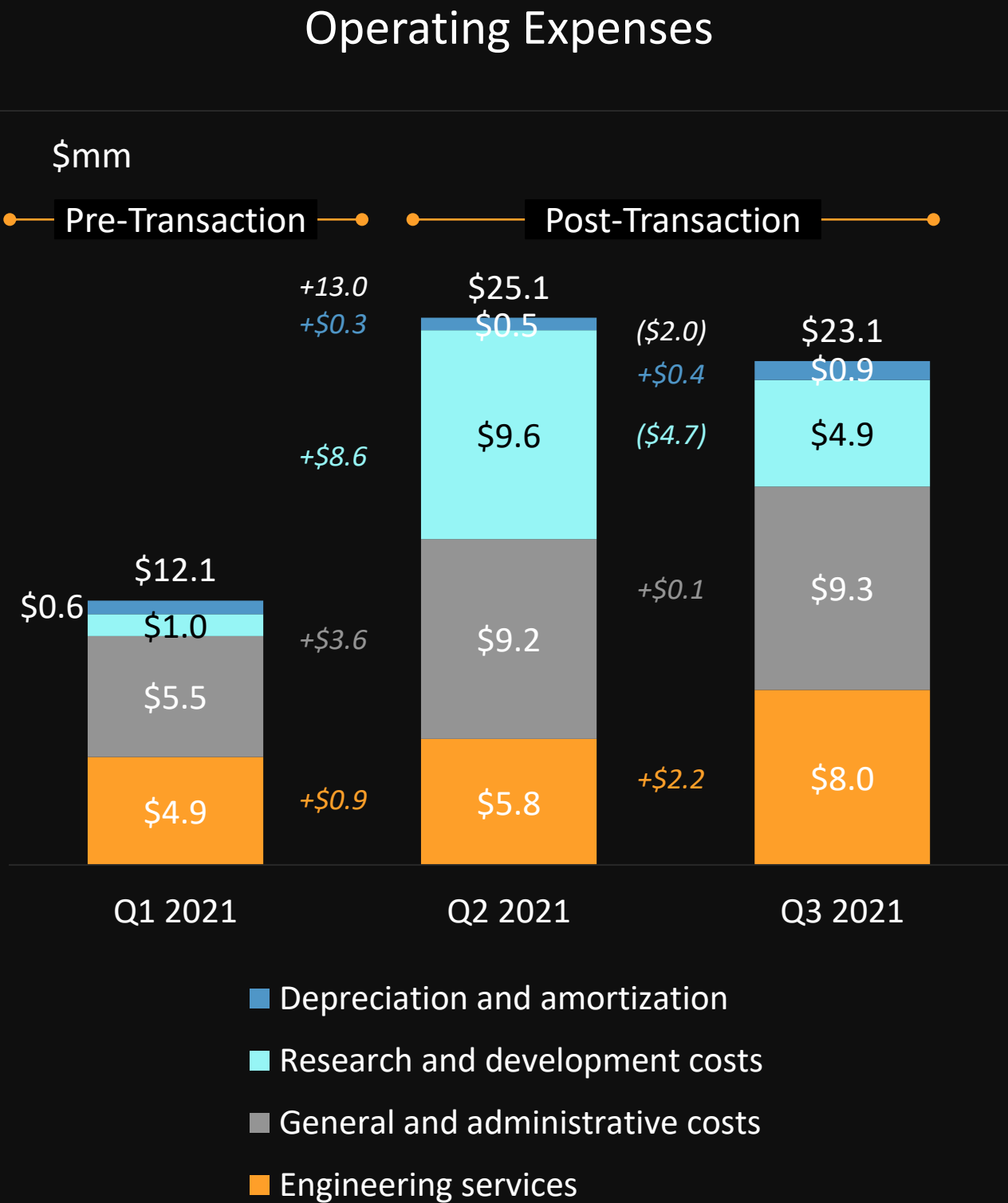
# Financial Results





# Q3 2021

## key financial metrics



As of 9/30, we have \$56.7mm invested in BW3 and expect to incur an additional \$10mm - \$12mm including non-recurring engineering, components and launch





# AST SpaceMobile

 Nasdaq  
NASDAQ: ASTS