Sallye Clark
202 434 7405
sclark@mintz.com

MINTZ

701 Pennsylvania Avenue, NW
Suite 900
Washington, DC 20004
202 434 7300
mintz.com

February 22, 2021

Marlene H. Dortch
Secretary
Federal Communications Commission
Washington, D.C. 20554

Re: Call Sign S3065; IBFS File Nos. SAT-PDR-20200413-00034, SAT-APL-20200727-00088 and SAT-APL-20201028-00126
Notice of Ex Parte Presentation by AST&Science LLC

Dear Ms. Dortch,

On February 18, 2021, representatives of AST&Science LLC ("AST") met with Ethan Lucarelli and David Strickland of the Office of Acting Chairwoman Rosenworcel. In attendance from AST were: Abel Avellan, CEO; Chris Ivory, CCO; Vikram Raval, Head of Global Regulatory Affairs; the undersigned; and Laura Stefani of this office.

AST provided a briefing of its planned SpaceMobile services, consistent with the attached presentation. It noted that SpaceMobile will have the ability to provide 5G connectivity, and accelerate 5G rollout, anywhere in the U.S., and AST expects to be an active participant in the 5G Fund auctions. As a U.S. company, AST is looking to the leadership of the Federal Communications Commission ("FCC") to lead the way for regulators around the world.

Please direct any questions to the undersigned.

Sincerely,

/s/ *Sallye Clark*
Sallye Clark
Attorney for AST&Science, LLC

Attachment

cc: Ethan Lucarelli
David Strickland
Umair Javid

AST SpaceMobile

Transforming How the World Connects

Meeting with Office of Acting Chairwoman Rosenworcel

February 18, 2021

SpaceMobile connects directly to mobile phones

The first and only space-based cellular broadband network

Coverage everywhere
Eliminate cellular coverage gaps and dropped calls

Compatible with all existing 5 billion mobile phones
Provide seamless service with no modifications to the phone

Broadband data speeds
Have high data rates with low-latency, cellular-quality service levels

Connecting the Unconnected
Be affordable for all, including rural and underserved

Fully funded for commercial launch

More than $500M raised upon close of transaction

AST & Science to Become Public Company Through Combination with New Providence Acquisition Corp.

- AST & Science LLC ("AST SpaceMobile") is building the first and only space-based cellular broadband network accessible directly by standard mobile phones
- AST SpaceMobile to become publicly listed through a business combination with New Providence Acquisition Corp. (NASDAQ: NPA, NPAUU and NPAWW)
- Combined company to have an estimated post-transaction enterprise value of $1.4 billion and will become listed on the NASDAQ under the ticker symbol "ASTS" following expected transaction close in the first quarter of 2021
- Transaction to provide up to $462 million in gross proceeds, comprised of New Providence Acquisition Corp.'s $232 million of cash held in trust (assuming no redemptions) and a $230 million fully committed common stock PIPE at $10.00 per share, including investments from Rakuten, Vodafone, American Tower, UBS O'Connor and a broad base of financial institutions
- AST SpaceMobile LLC shareholders Vodafone, Rakuten, American Tower, and Cisneros will increase their equity holding through participation in the PIPE financing in support of AST SpaceMobile's transition into the publicly listed company

Industry-Leading Strategic Partners

Strategic Investors

vodafone — #1 Mobile Network Operator (Outside China)

Rakuten — #1 e-Commerce Platform in Asia (Outside China)

AMERICAN TOWER® — #1 Global Cell Tower Company

SAMSUNG NEXT — #1 Manufacturer of Mobile Phones

Customers

vodafone

AT&T

Rakuten

LIBERTY LATIN AMERICA

Indosat ooredoo

TELECOM

Telstra

tigo

Telefónica

US Company

AST World Headquarters in Midland, Texas

Company Locations

Midland (TX) Intl. Air & Space Port HQ/Manufacturing

Israel RF/Hardware Design

Lithuania Prototyping/ Support

Maryland Space Assembly Lab

Barcelona Mechanical Design

India Digital Signal Processing

Expert Team

161 space scientists and engineers

24 of whom are PhDs

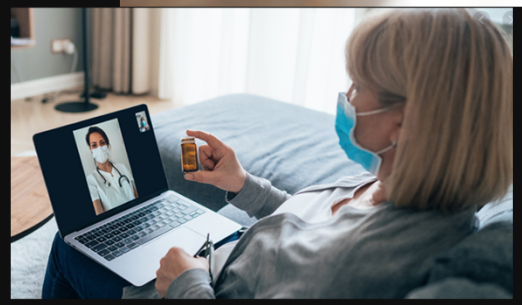
90+ combined prior satellite builds/ launches

Connecting Rural America

97% of US land mass is rural
21 mm lack broadband access

5G and 4G LTE speeds will support needed rural connectivity for remote learning and tele-health

- Compatible with any standard smartphone or cellular device
- 100% geographic and population coverage for 4G LTE and 5G
- Affordable cellular broadband for all Americans
- Accelerate 5G availability to all Americans
- Assure communications in any crisis or emergency response for FirstNet and first responders
- Close the digital divide in rural America
- Close the homework gap
- Increase accessibility to medical care
- Reduction of carbon footprint



US Government Support

Congressional Support

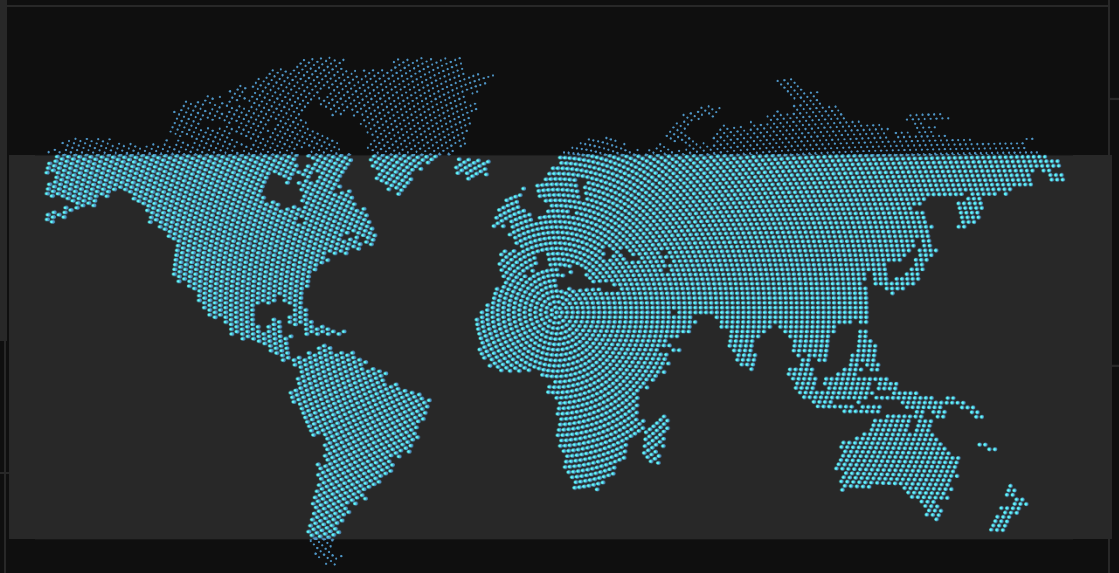
- **Key House and Senate Member Support**
  - Letters of support submitted for Market Access application
- **Briefed relevant Telecommunications, Space and Satellite House and Senate Committees**

Legislative Provisions

- **Next-Generation Broadband Networks for Rural America**
  - Fiscal year 2021 Senate Appropriations Bill for Financial Service and General Government
  - Provision citing their interest in direct satellite to cellular technologies and encourages the FCC to address regulatory hurdles and promote private sector development of such networks
- **Next-Generation LEO-Based Satellite Technology**
  - The Fiscal Year 2020 House National Defense Authorization Committee Report, directs policy for DoD
  - Provision citing Congressional interest in next generation LEO based satellite technology capable of providing direct satellite to broadband cellular connectivity, without the need for traditional terrestrial ground infrastructure
- **FirstNet Satellite Technology**
  - Fiscal year 2019 House Appropriations Bill for Commerce, Justice, Science and Related Agencies
  - Provision encourages NTIA, in cooperation with FirstNet, to leverage advanced satellite technology to enable emergency communications in environments where traditional infrastructure does not exist or where it has been compromised

Global Coverage

Supported by Phase 1 cash flow, key global markets expected to be added to SpaceMobile network on a rolling basis



Phase 1
20 Satellites
Equatorial constellation

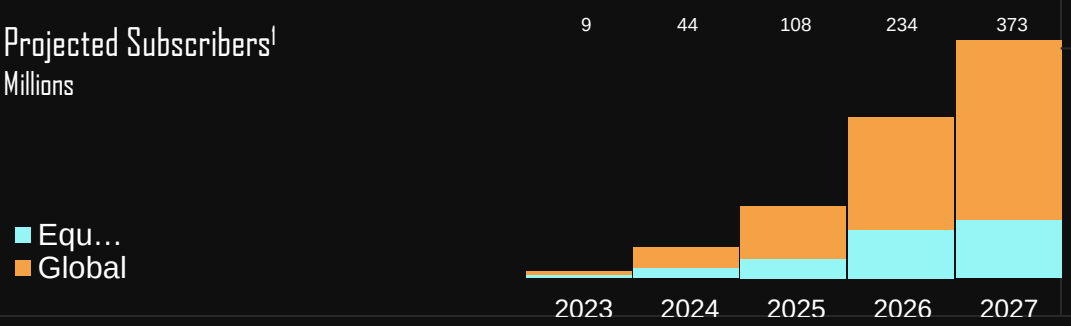
Phase 2
45 Satellites
North America, Europe and Asia

Phase 3
45 Satellites
Full global coverage

Phase 4
58 Satellites
Full global MIMO coverage with faster data rates

Projected Subscribers[1]

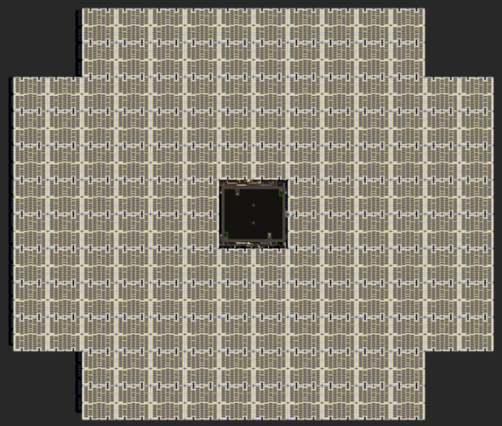
Millions



1. SpaceMobile subscribers based on market level data, company estimates and assumptions on subscriber adoption, insurance costs and satellite effectiveness.

Superior space-based low-latency broadband architecture

SpaceMobile will offer connectivity from low Earth orbit, akin to cell towers in space



Satellites at 700km altitude offer low-latency and attractive look angles

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

Low- and mid-band frequencies shared with wireless partners 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

AST SpaceMobile

FCC Regulatory Requirements

FCC can lead the world, and address pressing digital divide challenges, by moving expeditiously on AST's requests

- Petition for Declaratory Ruling for market access for a non-U.S. licensed constellation. Filed April 2020 (SAT-PDR-20200413-00034), pleading cycle concluded Nov. 18.*
  - 243 satellites, two stages of launch (equatorial, worldwide)
  - Gateway operations to and from 2-3 fixed earth stations in U.S.
  - 37.5-42.5 GHz (downlink); 45.5-47, 47.2-50.2, and 50.4-51.4 GHz (uplink)
  - Waiver of Part 25 and Section 2.106 to operate on a non-interference, non-protected basis on 42-42.5 GHz and 45.5-47 GHz
  - Waiver of processing round rules
- Authority from Wireless Telecommunications Bureau to allow partner operators to augment terrestrial capabilities with ancillary satellite authority.
  - Decided on a case-by-case basis through spectrum leasing application reviews of waiver requests

*July Amendment (SAT-APL-20200727-00088) sought authority for wireless frequencies (mid-band); October Amendment (SAT-APL-20201028-00126) withdrew July Amendment. Last pleading cycle concluded with no comments.

Successful Interference Management

SpaceMobile will protect all authorized users pursuant to FCC rules

Compliance with FCC Rules for Coexistence

SpaceMobile will meet all FCC EMC requirements

V Band Interference Management

SpaceMobile will comply with FCC and Article 21 power flux density limits. The constellation can successfully coexist with other systems through multiple features: steerable antennas with narrow beamwidth; low sidelobe levels that minimize the potential interference outside of the antenna main beam, and the ability to switch off any gateway beam and seamlessly move traffic to another

Terrestrial Co-Channel and Adjacent Channel Interference Management

SpaceMobile's satellite design has many flexibilities to allow it to achieve co-channel and adjacent channel interference management, ensuring that there will be no harmful interference to terrestrial systems. An interference protection level of -20 dB I/N can be achieved for both co-channel and adjacent channel protection