AST SpaceMobile (ASTS) 12 May 25 2025 Q1 Earnings call transcript

Call transcript

Operator

Good day, and thank you for standing by. Welcome to the AST SpaceMobile First Quarter 2025 Business Update Call. Please be advised that today's conference is being recorded. I would now like to hand the conference over to your host today, Scott Wisniewski, President of AST SpaceMobile. Please go ahead.

Scott Wisniewski

Thank you, and good afternoon, everyone. Today, I'm also joined by Chairman and CEO, Abel Avellan; and CFO and Chief Legal Officer, Andy Johnson.

Let me refer you to Slide 2 of the presentation, which contains our safe harbor disclaimer.

During today's call, we may make certain forward-looking statements. These statements are based on current expectations and assumptions, and as a result, are subject to risks and uncertainties. Many factors could cause actual events to differ materially from the forward-looking statements on this call.

For more information about these risks and uncertainties, please refer to the Risk Factors section of AST SpaceMobile's annual report on Form 10-K for the year that ended December 31, 2024, with the Securities and Exchange Commission and other documents filed by AST SpaceMobile with the SEC from time to time. Also, after our initial remarks, we will be starting our Q&A section with questions submitted by our shareholders.

For those of you who may be new to our company and mission, there are over 5 billion mobile phones in use today around the world, but many of us still experience gaps in coverage as we live, work and travel.

Additionally, there are billions of people without cellular broadband and who remain unconnected to the global economy. The markets we are pursuing are massive and the problem we are solving is important and touches nearly all of us. In this backdrop, AST SpaceMobile is building the first and only global cellular broadband network in space to operate directly with everyday unmodified mobile devices and supported by our extensive IP and patent portfolio. It's now my pleasure to pass over to Chairman and CEO, Abel Avellan, who will give us an update on our activities since our last public call 2 months ago.

Abel Avellan
Thank you, Scott.

The first quarter was a strong start for us, and we're currently in an incredible inflection point for the company as we start to accelerate the launch and scaling of our network and revenue is starting to come in.

We continue executing on satellite manufacturing, commercialization, regulatory initiatives. And today, we are unveiling our orbital launch plan with 5 scheduled launches over the next 6 to 9 months. I will touch on each of those key pieces in more detail.

Let me start by discussing our orbital launch schedule.

We expect to deploy over 60 satellites during '25 and '26, which will drive continuous coverage in key markets such as the United States, Europe, Japan, the U.S. government and other strategic markets. We anticipate 5 orbital launches occurring over the next 6 to 9 months, with orbital launches occurring every 1 to 2 months on average during '25 and '26.

Our campaign will begin with the achievement of our first Block 2 BlueBird satellites in Q2 with launches scheduled during July. Simply put, speed to orbit means speed to commercial service. Scaling our constellation is critical to delivering on the global opportunity of providing space-based cellular connectivity to the modified phone in your pocket today. Satellite manufacturing remains on track, accelerating our target of building 40 Block 2 BlueBird satellite, each the largest ever commercial communication satellite low earth orbit alongside contracted orbit launches for every 60 satellites as of today.

We have accelerated our manufacturing efforts in order to move at the rapid speed to reach our goals. Scaling our satellite manufacturing will enable us to match or exceed the launch cadence necessary to build out our space-based cellular network for continued cellular broadband coverage beginning with the key markets mentioned earlier. In doing so, we're also on track to reach manufacturing cadence of 6 satellites per month during the fourth quarter of this year.

We also expect to reach an equivalent manufacturing cadence for our microns and phased array production during the third quarter of this year.

We expect to achieve this cadence through our expanded global footprint, streamlined process and 95% vertical integration strategy.

Our content manufacturing house or through third parties using own intellectual property help drive speed, certainty, lower cost, flexibility and reliability.

Specifically, the production of our microns or main building blocks for our satellites are fully vertically integrated within our manufacturing ecosystem. This is an extremely important process, which have helped right size our lines of production and have enabled us to operate with complete control over the entire micron production process.

Now that our satellite manufacturing cadence and accelerated production efforts support our launch schedule, we're now confident than ever -- we're now more confident than ever in our position to continue executing at scale as we lead the industry with cellular broadband from the space.

On the ASIC front, our novel ASIC chip are currently undergoing assembly and testing stages, while the validation and qualification stages are nearing completion.

We expect our ASIC chip will become available for satellite integration as early as June of this year.

As you will recall, our custom ASIC chip will support up to 10 gigahertz in processing bandwidth per satellite or 10x the processing compared to our current FPGAs with peak data speeds of up to 120 megabits per cell, supporting many thousands of cells per satellite, which is a key enabler of the first and only space-based broadband cellular system, together with the largest ever commercial communication satellites in low earth orbit.

On the commercial front, we continue to integrate our services with our MNO partners. Recently, our long-time partner, Rakuten Mobile completed a 2-way broadband video call in front of a live audience enabled by Block 1 satellites over Japan. The call was conducted using unmodified smartphones as part of our initial activation in the country and following successful video calls with partners like AT&T, Verizon and Vodafone in United States and Europe, respectively. The live activation is another example of our ability to successfully enable full cellular broadband capabilities, including voice, text, data, video and other native cellular capabilities. Japan is a country defined by its diverse geography, prone to national disasters. Being able to provide cellular broadband service direct to device over the country, mountains region, remote islands and densely populated cities during routine and emergency situations are transformational applications for our groundbreaking technology. I am proud of our company's long history of a strategic partnership with Rakuten. I'm excited for our continued progress in the country. Globally, we plan to activate initial cellular broadband capabilities in United States, Europe and Japan on premium low-band wireless spectrum, together with partners AT&T, Google, Rakuten, Verizon and Vodafone as well as other players in the wireless ecosystem. This is an important step for initial service activation, enabling activation across several key markets in the U.S., all with varying geographic and demographic factors, provide us the opportunity to optimize our network ahead of a full commercial deployment.

We also received a special temporary authority from the FCC for FirstNet direct-to-device satellite connectivity on public safety band 14 spectrum. The FCC grants direct-to-device cellular broadband connectivity in support of mission-critical capabilities. With over 7 million public safety connections, FirstNet network gives responders the critical connectivity they need across diverse geographies.

Our groundbreaking technology stands to provide first responders with reliable and consistent space-based cellular broadband connectivity during crucial times of need.

On the government business, we continue to expand our U.S. government opportunity and are ramping up activity against our $43 million contract in support of the United States Space Development Agency. Even more recently, we signed a new contract award with another government agency through a prime contractor to provide support of communications over land, sea and air. Scott will speak more to our new contract award momentarily. But this contract award highlights AST SpaceMobile's innovative technologies to back critical government missions across various use cases, both for communications and non-communications applications.

In addition to advanced commercial and government efforts, we're working closely with regulators and government officials who recognize that our technology is going to make our country both more connected and more secure. In summary, all key elements of our business are progressing as expected or have accelerated to meet the customer demand for our groundbreaking technology.

The first quarter was a period of strong execution, serving as a springboard into another pivotal chapter of the company's life.

We have now reached an inflection point as we scale fundamental aspects of our business towards a full-scale commercialization. With our launch plan outlined, launch capacity secured, and commercial and government partnerships coming together, we expect positive momentum to compound at record speed for our months and quarters to come. Connectivity is a human right, and each step in this process is a reminder of the important mission at hand.

Let me now turn the call to Scott to provide more details on our progress and initiatives.

Scott Wisniewski
Thank you, Abel. This was a strong start to the year for AST SpaceMobile, and we're expecting continued progress across all aspects of our business as we charge into a pivotal year for the company.

Let me expand upon our achievements over the last few months and what they mean for the commercialization of the company.

Our commercial efforts are accelerating, and we're making major advancements in the deployment of our global network infrastructure, beginning with bookings of our gateway equipment. Gateways served as a precursor to the rollout of our SpaceMobile Service, providing a leading indicator of the markets where you'll see the initial service revenue. In the first quarter, we saw gateway equipment bookings of $13.6 million and expect continued bookings of approximately $10 million on average per quarter during 2025. We'll begin to recognize revenue from these bookings as and when gateways are installed and milestones are met, and we expect to continue to provide updates on bookings as we build out our ground infrastructure.

As a reminder, our network infrastructure was designed from inception to closely mirror terrestrial cellular architecture, prioritizing privacy and security of cellular data and information.

Our ground-based gateways receive signals from our satellites, each the largest ever commercially deployed communications satellites in low earth orbit and seamlessly link those signals into the networks of our mobile operating partners.

On the regulatory front, we were recently granted special temporary authority from the FCC for FirstNet on public safety's Band 14 spectrum, enabling us to begin activating test services to deliver space-based cellular broadband connectivity, supporting features critical to first responders. Through initial test activation, we're now able to address the massive opportunity of extending reliable broadband services to first responder agencies and consumers in emergency situations. This can be done across areas where terrestrial networks are unavailable as well as during network outages caused by infrastructure failures or natural disasters.

Our space-based cellular broadband solution provides seamless device compatibility and our satellites enable automatic handoffs as consumers move in and out of terrestrial networks. Together, this provides first responders with enhanced, reliable broadband connectivity during the most critical situations while maintaining the look and feel of the reliable terrestrial networks that they're used to. The sheer size of our satellites is another benefit in our effort to support first responder communications.

Our large antennas enable precise beamforming, meaning we can focus our signals on specific targeted areas over land and water. Emergencies can happen anywhere and responders need to stay connected across both accessible and hard-to-reach areas without geographical impediments. Continuing on to our partnership with Vodafone, I am also pleased to report that our jointly owned European satellite service business, called SatCo is progressing according to plan.

Now to the U.S. government business.

Our pipeline continues to strengthen, and as anticipated, we continue to expect it to be a meaningful contributor to revenue in the years to come.

Our recently announced contract award with the DIU, a government agency through a prime contractor, facilitates initial communication services across various use cases and applications, supporting communications over land, sea and air. We believe this contract could yield low tens of millions of dollars in revenue over the next 12 to 18 months. And earlier in the year, we also signed a $43 million revenue contract with the U.S. Space Development Agency through a prime contractor for services delivered on our first 5 Block 1 BlueBird satellites in orbit and our first Block 2 BlueBird satellite.

As a reminder, that contract is not a prepaid contract, but rather earned revenue we expect to receive and recognize under GAAP as we deliver those services. To date, our government contracts serve as important validation markers for our dual-use satellite technology, opening doors to sustained and substantial revenue streams across both communications and non-communications applications. I will now pass it over to Andy to walk you through our financial update.

Andrew Johnson
Thanks, Scott, and good afternoon, everyone.

During the first quarter of 2025, our global team at AST SpaceMobile worked tirelessly to accelerate satellite manufacturing efforts as we prepare to commence our launch campaign beginning this summer. The company's financial performance during Q1 reflects our intense focus on executing on our manufacturing and launch objectives while simultaneously preparing for a meaningful revenue ramp over the coming periods as we begin to monetize both commercial and government opportunities for our dual-use satellites.

As Abel and Scott conveyed in their earlier remarks, our progress against corporate objectives in Q1 positions us well to begin executing an extensive launch cadence in support of offering our SpaceMobile service while continuing to facilitate critical U.S. government applications in support of national security efforts. We've established our objective of manufacturing the next 40 satellites and are thrilled to start our launch campaign featuring at least 5 scheduled launches between Q2 of 2025 and Q1 of 2026.

Our focus today is to move quickly and responsibly to bring our stakeholders' space-based broadband connectivity directly to their unmodified smartphones. From a financial perspective, this objective requires careful consideration of our spending, both in terms of operating expenses as we scale up our organization and capital expenditures as we incur the necessary costs to secure not only the materials to manufacture our Block 2 BlueBird satellites, but also contracts for sufficient launch capacity across multiple providers to successfully deploy our constellation. Inherent to our focus on prudent spending is a strategic and thoughtful approach

to raising adequate capital in order to execute on our ambitious plans in the growing direct-to-device broadband market that AST created and invented.

Moving now to the operating and capital metrics slide, let's review the key operating metrics for the first quarter of 2025.

On the first chart, for the first quarter, we incurred non-GAAP adjusted cash operating expenses of $44.9 million versus $40.8 million in the fourth quarter of 2024.

As a reminder, non-GAAP adjusted operating expenses excludes certain non-cash operating costs, including depreciation and amortization and stock-based compensation.

This quarter-over-quarter increase of $4.1 million resulted from $1.8 million in increased R&D costs, a $1.7 million increase in adjusted general and administrative costs and a slight increase of $600,000 in adjusted engineering service costs. This modest increase in adjusted OpEx for Q1 was expected and in line with the guidance I provided on our last earnings call as we continue to scale manufacturing, and importantly, add critical talent to our growing organization.

Turning towards the second chart on this slide.

Our capital expenditures for the first quarter of 2025 were approximately $124 million versus $86 million for the fourth quarter of 2024. This figure was made up of approximately $105 million of capitalized direct materials, labor for our Block 2 Bluebird satellites and payments made in connection with certain launch contracts with the balance relating to facility and production equipment expenditures. This amount was slightly less than the guidance of approximately $150 million to $175 million that I provided during our last earnings call and was primarily driven by changes in timing of certain launch contract payments from Q1 to later quarters during 2025. In line with our adjusted operating expenses for the first quarter of 2025, we estimate that our adjusted cash operating expenses for the second quarter this year will come in at a similar level of approximately $45 million.

We expect our capital expenditures to increase significantly as compared to the first quarter, driven by our ramp in manufacturing, enabling us to reach our bold plan of producing 6 satellites per month in the fourth quarter of this year as well as planned payments related to our multiple launch contracts for our 2025 and 2026 launch schedule. In line with our increasing CapEx needs, we currently estimate that the average capital costs, including direct materials and launch costs for our constellation of over 90 Block 2 BlueBird satellites will fall in the range of $21 million to $23 million per satellite. This increase over our previous estimate of $19 million to $21 million per satellite is primarily driven by higher launch costs from our announced near-term launch schedule as well as higher direct materials costs due to recently announced tariffs.

Our revised cost per satellite estimates are subject to fluctuations based on dynamic geopolitical factors, which impact our direct materials costs. We believe that the intrinsic value of our future business opportunities far outweighs the modest increase in costs due to tariffs.

We are empowered by the rising demand for space-based cellular broadband connectivity, an industry that we created and invented and we are validated by the growing commercial and government opportunities before us and want to execute on them as quickly as possible. Despite this increase in cost per satellite, we reiterate our belief that the operation of a constellation of 25 Bluebird satellites will enable us to potentially generate cash flows from operating activities. We do expect an increase in CapEx in Q2 to a range we believe will be between $230 million to $270 million to primarily reflect the timing of payments on multiple launch contracts. The timing of the changes in our adjusted operating expenditures and capital expenditures, as I have just described, could be delayed or may not be realized due to a variety of factors.

While Q1 and prior recent quarters reflect the company's stage as pre-monetization with only modest revenue recognized in connection with primarily a limited government application contract, I am pleased to begin speaking to you about our expectations for revenue in the coming periods.

Our revenue opportunity is intimately linked to the number of our deployed satellites.

As we previously stated, we believe we can enable continuous SpaceMobile service across key markets such as the United States, Europe, Japan and other strategic markets with the launch and operation of approximately 45 to 60 Bluebird satellites.

We also plan to achieve non-continuous SpaceMobile service in selected targeted geographical markets with the launch of a total of 25 Bluebird satellites.

Additionally, we will continue to support U.S. government applications currently ongoing and accelerating as we launch additional satellites.

As we execute our launch and operation commencement efforts, we expect revenue to ramp towards the end of the year and into 2026.

Specifically, we believe we have a revenue opportunity in 2025 in the range of $50 million to $75 million back-end loaded in the second half of the year and based on several contingencies, including: one, the successful launch and deployment of Block 2 Bluebird satellites related to U.S. government applications' contractual milestone achievements; two, critical gateway equipment sales to our MNO partners in support of their anticipated commercialization efforts of SpaceMobile service; and three, service revenues in connection with the activation of our commercial service provided by our existing and planned deployed and operational satellites, currently 6 in low earth orbit with more to come over the 6 to 9 months. There can be no

assurances that we will achieve any or all of these objectives, and our actual revenue results will vary based on a multitude of factors. Nevertheless, the AST team is proud to be commencing our revenue ramp, and I look forward to updating you in subsequent quarters on our progress.

Finally, on the final chart on the slide, we ended the first quarter with $874.5 million in cash, up from $567.5 million at the end of the fourth quarter of 2024. This significant increase in cash was driven primarily by approximately $403 million received from the convertible notes offering in late January that I discussed last call and approximately $55 million raised from the remaining amount available under the September 2024 at-the-market or ATM facility.

Our effective use of the ATM facility over the past 9 months allowed us to increase critical liquidity and supplement other strategic financing initiatives.

Now that, that facility is fully utilized, today, we are establishing an incremental 2025 at-the-market or ATM facility for up to $500 million over the next 3 years, available to the company to accelerate our bold operational plans to bring our SpaceMobile service to market as soon as possible.

We will continue to utilize this funding source in a disciplined fashion, balancing our capital needs to align with the interest of our shareholders.

We are also evaluating a path to provide for an equipment loan facility of between $50 million to $100 million in the form of non-dilutive funding to support our manufacturing expansion.

We will provide additional information on that facility as we progress our conversations. And finally, we continue to make good progress on nondilutive financing from quasi-governmental sources of capital in the United States. We recently completed initial clearances for funding, which commences an approximately 6 to 9-month diligence and documentation phase for over $0.5 billion in potential nondilutive capital from multiple U.S. and international agencies.

We will provide updates as appropriate, and we will be working with the partner banks and our advisers to refine our alternatives. Revenue is ramping on plan and AST SpaceMobile remains well positioned to fund our near-term operational plans.

We will continue to leverage our balance sheet and ATM facility with prudence while focusing on the myriad opportunities available to us in the form of nondilutive prepayments.

As a stakeholder in AST SpaceMobile, your takeaway for the first quarter of 2025 is simple. The company is on target and continuing to execute against its accelerated operational plans for 2025 and 2026.

We have a lot to accomplish this calendar year, and the first quarter was a solid start to what we expect to be the most exciting year in AST's short but impressive history. Thank you all for your continued support. And with that, this completes the presentation component of our business update call, and I'll pass it back to Scott.

Scott Wisniewski
Thank you, Andy.

Before we go to the queue of analyst questions, would like to address a few of the questions submitted by our investors. Operator, could you please start us off with the first question?

Operator
Scott from Indiana asks, "Any further details to share on the Ligado transaction?"

Andrew Johnson
Yes. This is Andy. I'll be happy to take that question and appreciate the question, Scott. Yes, there are some updates that we'd be happy to share. I mean, as a reminder, the transaction that Scott asked about is for AST to acquire usage rights for 45 megahertz of mid-band spectrum in the United States.

So we view this as a huge fuel to our business here in the U.S. as we look to actually access spectrum ourselves that can augment our service. We announced the definitive agreements signed toward the end of the quarter in late March, and we're happy to say that we believe the approval process is on schedule and that we'll have more to say about this in the coming weeks.

Importantly, we are looking at a structure in which we are financing our usage rights with collateral that is restricted to the actual spectrum we're acquiring.

So there will be a modest impact in G&A in subsequent quarters, but we are putting in place a separate financing package related to this strategic L-band acquisition.

So thanks for the question.

Operator
Rick from The Netherlands asks, "Looks like the defense use case is growing. What is the outlook there?"

Scott Wisniewski
We've been talking about the government use case with increasing emphasis over the last 4 quarters or so. And in general, as everybody can see, government demand for space-based solutions like ours and others has been surging. This is driven by an increased focus on defending our nation in space and it is something that we're well positioned around because of

our extremely innovative new tech and the largest phased arrays that we can put into orbit today commercially.

So, we've already started deriving revenue from some of our government contract awards. There's now 6 of them to date that served as initial validations for this technology. These contract awards provide clear paths for applications in a couple of use cases. In late 2024, we were selected by the Space Development Agency for a $43 million contract and that's a non-communications use case. But importantly, today, we're announcing a DIU contract. And that is -- you can read that as communications use cases across many government agencies, across many use cases.

So, I think we've seen really great progress on several different use cases that our unique technology can offer, and we're really excited about continuing to grow that even as early as the second half of the year, as Andy talked about.

Operator
Matt from Massachusetts asks, "Do you plan to submit any proposals for the announced $25 billion Golden Dome project?"

Abel Avellan
Thank you, Matt, for the question. We really think that we are very well positioned with our technology to be an important contributor to the actual goals outlined in the Golden Dome. We think the size and power of our satellites are unique and completely differentiated of what can be done by industry or by our adversaries. And we think that our technology will enable applications for national security that are going to be important for this particular program. Scott, you may want to talk a little bit about the size of the program and where it's approved?

Scott Wisniewski
Yes.

For those not as familiar with this, the $25 billion is a reference to what left the House Armed Services Committee recently, and will go for a vote with the whole house as part of the budget reconciliation process.

Importantly, this is not part of the new budget for fiscal year 2026. This is part of the budget reconciliation package that is only subject to a 50 vote in the Senate.

So, this is a way that the House Armed Services Committee is looking to prefund Golden Dome and support this really significant national security goal.

Operator
Scott from Indiana asks, "Are shareholders expected to be invited to future launches this fall?"

Scott Wisniewski
Yes, absolutely. We loved hosting our shareholders at the September launch event at the Cape. And we were really excited to host over 1,000 people in the middle of the night in the rain. Many of you enjoyed that, and we certainly did.

For the upcoming launch in July, for reasons beyond our control, we won't be able to invite folks to our launch in India. But as Abel laid out, our launch schedule, with an orbital launch every 1 to 2 months on average, going forward, we expect a lot of exciting events to come at the Cape and we'll be sure to keep everybody updated as these come together and hope to see many of you there.

Operator
Murillo from Portugal asks, "On Monday, April 28, there was a power outage that led to most of Spain and Portugal being at a standstill, grounding planes, halting public transport and forcing hospitals to suspend routine operations and mainly cutting all types of communications, landlines, mobile phones or Internet access. In my case, it was 10 hours without access to any type of communications except radio. I don't know if you are aware of it, but I would be happy to know ASC's short-term plans for Europe?"

Scott Wisniewski
Thank you, Murillo. And we saw this event on the news, of course, and watched it with interest. Emergencies, whether caused by infrastructure failures or natural disasters, these cause immediate and lingering need, which is only compounded when communication is inaccessible So, our service stands to provide cellular broadband connectivity directly to the phone in your pocket. And this means consumers can feel safer in emergency situations, knowing they'll still have this connectivity despite what's happening on the ground. And as this applies to Europe specifically, our joint venture with Vodafone will exclusively distribute our service across Europe. This means that we'll be sharing ground-based infrastructure to manage geographic boundaries and drive turnkey solutions to increase take-up, both for connectivity for citizens across the continent as well as in very important emergency periods of need like the one you described. And of course, outside of Europe, we recently received special temporary authority from the FCC to do FirstNet testing activation on public safety spectrum. That's really important to us as a priority here in the United States. And in Japan, of course, our long-time partner, Rakuten Mobile, successfully did a video call in front of a live audience.

So these are places where this capability, both emergency backup, disaster recovery and consumer emergency support that we can really support quite nicely. And with that, I'd like to thank our shareholders for submitting those questions. Operator, let's open the call to analyst questions now.

Operator

[Operator Instructions] Our first question comes from the line of Colin Canfield with Cantor Fitzgerald.

Colin Canfield
Maybe if you could discuss the nature of the higher launch costs and talk me through or talk us through how is that related to -- is that related to like more faring configuration per satellite? Or are there other pricing factors to consider? And then lastly, if you can maybe talk about how AST thinks about passing through those costs to other launch suppliers in the form of liquidated damages?

Scott Wisniewski
Colin, I'll kick off and Andy can add anything additional. Basically, the demand signals we're receiving are to get the service to market as fast as possible.

So, the way we've organized the whole program over the last year, 1.5 years is against that goal.

So what you're seeing is essentially a little bit of pull forward on launch in a time when launch was harder to get.

And so, we've spent a little bit more than anticipated just to keep the timeline moving fast, as Andy said. And on the tariff side, there's a little bit in there. We -- more than half of our CapEx is launched at this point, but the portion that's materials, there's some, particularly raw materials, that we source from abroad.

So I think when you look at the totality of the move there in unit price, it's -- those 2 elements are what's driving it.

Andrew Johnson
Scott, this is Andy. I completely agree. I would just add, and I think I mentioned this, that this is a dynamic situation. I mean, we're looking at a tariff impact that many companies are looking at right now, but we all know that's somewhat volatile and it ebbs and flows with geopolitical news.

So, we'll continue to work to optimize.

We continue to look at our own ability to optimize things like payload to look at future launch optionality. But as Scott said, the name of the game is getting our satellites built and launched quickly. And in exchange for doing that in an environment in which tariffs are a reality, we have a slight increase from, call it the 20 midpoint to the 22 midpoint. And we'll continue to press on that. But the good news is, as we started the notes, we're about to kick off a launch cadence that starts in July with 1 to 2 -- every 1 to 2 months as we head out of '25 into '26.

So, that's our priority right now. And as I noted, we reiterate our belief that even an increase like that is mitigated considerably by the opportunity of bringing our service to market as quickly as possible.

Colin Canfield
Okay. Alright, appreciate the color. And then maybe talking a little bit about spectrum portfolios and spectrum sharing, like 2 subject dynamics to consider. One is maybe talk about how you think about EchoStar's spectrum portfolio and maybe where you could unlock the most amount of value across RF bands. And then also maybe some commentary on the FCC spectrum sharing commentary and maybe just communicating kind of how customers are talking about any potential interference in pricing recovery or damages recovery from other players?

Abel Avellan
Colin, that's a great question. Well, for those that are not familiar with this business, spectrum is like fuel for our business. And we are on a strategy that actually maximize access to existing phones in availability of spectrum on the phones. And also, we have basically split the program in 2 phases. One that we call low band which we started with AT&T and Verizon, Vodafone, Rakuten and others, where we're basically sharing the spectrum of the operator and reusing that spectrum that is -- it was originally allocated exclusively for terrestrial. We're sharing it for space application. We believe that that's the faster go-to-market, and we believe also that is the best service possible that we can offer to the customers given the premium nature of that spectrum in terms of penetration, ability to go through walls, the frame of an airplane, the fuselage of a car that we have been demonstrated with our current operating satellites. But as you're probably aware, we also have signed a definitive agreement to complement our low-band spectrum coming from our partner operators with our own spectrum in the mid-band in the neighborhood of 45 megahertz, which together with the size of our satellites will enable 120 megabits per second per individual cell and supporting thousands of cells per satellite.

So, our spectrum strategy is the combination of the low band and the mid-band, low-band partner with the operators to get access to that premium band that is available in every phone that works today without requiring any modification to the phone or any new change to the phone and keep fueling the network with a spectrum, in this case, when we concluded the current transaction to own that 45 megahertz, fueling that with probably one of the largest block of spectrum certainly that exists below the 6 gigahertz in the United States.

Operator
Our next question comes from the line of Mike Crawford with B. Riley Securities.

Michael Crawford
Just continuing on that theme where you have this bifurcated strategy of sharing low-band spectrum with your MNO partners, but now getting the cell band spectrum from Ligado, does

that change the way you're thinking about future or current MNO agreements where they might become more bespoke versus kind of a very standard template that you initially have been working towards?

Abel Avellan
Well, not really. I mean, our focus is the user experience for the consumer that buy the service from the MNO. We think entering into the market with the low-band spectrum give us a great access to billions of phones. I mean, the 5 billion phones that have access to the low-band spectrum. But this is simply a way to enhance and permit more simultaneous users with higher data rates when we combine both spectrums as part of 1 network, which is our network.

So we don't -- we see it as a technical capability to basically give the user the best of both spectrum. One is penetration and availability on phones, another one is density with a large block of capacity, in this case, 45 megahertz.

Michael Crawford
Okay. And then just one final question from me.

On the custom ASIC, will we -- what batch of satellites out of the 4 you're launching after this Indian launch, would you expect to be the first ones with the custom ASIC included?

Abel Avellan
It will be in approximately 2 launches after the next launch. It will be very soon. It's in the final integration to the actual satellite built out, and that is planned not in this next imminent launch, but 1 or 2 launches after that. And as we said, yes, we're trying to get into a cadence so that we'll be launching very constantly during the next 6 to 9 months.

Operator
Our next question comes from the line of Chris Schoell with UBS.

Christopher Schoell
Great. Last quarter, you indicated you were preparing to run beta tests with your carrier partners. Can you update us on the status of those tests and any early learnings you're willing to share at this stage? And you talked about being able to manufacture 6 satellites per month by 4Q, which is later than the timeline you mentioned last quarter. Can you just walk us through the cause and what still needs to be done to achieve that milestone?

Abel Avellan
Yes. We had already started activations in the U.S., Europe and Japan. I mean, as a matter of fact, Rakuten, Vodafone, AT&T and Verizon, they all announced the initial usage of video capabilities, which is basically the most difficult application to run when you're running a broadband capability.

So that means that we support streaming, we support voice, we support text, we support e-mail, we support FaceTime. We support any application that you can run in your -- if you can run a video call, which is a live streaming capability, you can support basically any native application that is in your phone.

So, we are at that phase.

We will be also starting lining up all the 5600 cells in United States. We're starting that process starting in June, July till we complete that into the beta service. And we will start offering a service that it will reset -- on our beta plan, it will be an offer that resemble as much as possible the final service when we have full constellation, but intermittent as we build out more satellites.

So we are on target for that this year. We're on target to start the beta services this year to offer broadband that include voice, text, data, e-mail, Internet, FaceTime and video calls.

So, that is still on target. The launch for the next generation, which is the largest generation, is 3.5x bigger than the Block 1 is scheduled for July. And we have maintained our plan to maintain a capacity of 6 per month, a raise which start in June, July again, also this year. When we're referring to the 6 satellites per month is the fully integrated satellite, they're more closer towards the end of the year.

Christopher Schoell
And if I can just fit in one more. Appreciate there's a number of moving pieces, but as you look to 2026 and the ability to fund the launch of the 60 satellites, any help sizing the amount of capital you would need to raise and how you evaluate the different sources, whether it'd be the ATM or the quasi-government progress you mentioned?

Abel Avellan
Yes, I will let Scott and Andy to answer that in more detail, but we are focusing in non-diluted capital. I mean, for the first time, we're giving initial indication of revenue for the second half of this year between $50 million and $75 million.

We have advanced significantly our non-dilutive financing from sources like IFC and the EXIM Bank. And more importantly, contracts, either government contracts, MNO contracts, infrastructure payments from operators. And that's our focus, is basically getting financed by non-dilutive sources.

Andrew Johnson
Right. Abel, this is Andy here. Chris, as well.

Just to kind of piggyback on that. I mean the ATM gives us great flexibility, and we've proven to be very disciplined in how we use it. And it's an instrument that we like to have as we look at all optionality. It's not the priority for sure. Last quarter, we did mention that our convertible raise

put us in a position to fund through the 25 satellites, which is our threshold for non-continuous service in major markets and beyond. And as you look at a constellation for over 60 for the U.S. and similar geographies and over 90, you can do the math and sort of look at what the average cost with materials and launch costs are that we give and you get a sense for what we need. The reality is, we feel very fortunate that we have a lot of opportunities, both on the equity side as well as debt programs like the EXIM Bank financing, different manufacturing equipment, which we're quite mature in our exploration to do.

So, you put all that together and also layer on top of it the priority to move quickly. Last quarter, we did say 6 satellites per month. We had a reference to during the second half of 2025.

Our message this quarter is consistent with that. We just are more precise in Q4.

So, when you're trying to move as quickly as we are and you're manufacturing at the pace which has never been done before, ever. This is novel. It's never been done.

You look at your financing needs as a package of opportunity and you sort of weigh when you access the capital markets versus other alternatives, while always prioritizing the prepayments from our partners, which has proven to be a great structure.

So that kind of gives you a flavor. We're in great position with the balance sheet. But if we want to move quickly and if we want to expedite manufacturing, like we talked about today, we want to make sure that that balance sheet stays incredibly strong in what we all know is a very volatile macro climate for the markets right now.

So, that's how we look at it, and hopefully, that's responsive to your question.

Operator
Our next question comes from the line of Caleb Henry with Quilty Space.

Caleb Henry
A couple of questions. One on the Ligado spectrum and kind of how that would be implemented. Am I right in thinking that that will require some sort of modification to the satellite, like a hosted payload or something? And if so, how does AST plan to kind of go forward with that, kind of introducing that new spectrum?

Abel Avellan
Yes. When we are at pace, which is 6 per month, that's 72 satellites per year, and our basic design is 96 satellites in low band, 96 satellites in mid-band. We already have in our ASICs and our core technology, the support of this band and all the mid-band spectrum of our partner operators.

So the MSS, LS, 3GPP spectrums in mid-band are already part of our design.

Caleb Henry
Okay. Great. And then a clarification just on the Barcelona facility. I read that it was for manufacturing space, but it wasn't quite clear to me what it would be building. Is that a secondary factory for manufacturing satellites? Is that gateways, ASICs? Can you provide some clarity on what that will be used for?

Abel Avellan
Yes.

Our focus on manufacturing is manufacturing here in the United States So, 95% -- we're 95% vertically integrated, all the parts, final integration testing, it happened here in Texas.

We are approaching 0.5 million square feet of manufacturing facility, when we add the new Barcelona facility and the new Florida facilities. In Spain, we do build certain high reliability parts that are used in the central unit, but all of them get integrated here in -- finally in Texas where we integrate and test the complete spacecraft.

Caleb Henry
Okay. And then my last question was just on gateways.

You mentioned looking at those rolling out, and I think it was $10 million expected a year. Do you have a sense of how many gateways AST will have up by the end of the year and kind of how that plots alongside the ramp-up of the constellation? I don't know if there's a need of x number of gateways per satellite or something to that effect.

Scott Wisniewski
Caleb, just a few reminders for the audience. Because our satellites are large, the largest ever in low earth orbit, as we say, they have a large field of view.

So what that means practically is, fewer gateways than is typical in a constellation.

And so, in the U.S., we'll have 4 or more gateways we've applied for. In other countries, it will be 1 or 2.

So it's a much smaller lift on the ground infrastructure side, and it's one that we've designed to be shared with the operators because when the operators roll out a new wireless service, they are accustomed to a deployment of base stations.

And so those base stations are integrated into our centralized gateways.

So, when you look at all of it, and we go country by country, there's 1 or 2 in a country, bigger countries will have more. In Europe, we've got a -- more of a continental solution that manages the smaller size of the countries individually.

And so, what all that means is, you're going to see gateways deployed low-single-digit millions per gateway and you roll that up and we're building it out and taking orders now.

So, in terms of how many we have at the end of the year, we won't give a firm target on that, but you've heard us say repeatedly, U.S., Europe and Japan are our priorities.

So those are certainly places you'll start seeing more gateways installed faster.

Operator
Our next question comes from the line of Tim Horan with Oppenheimer & Company.

Timothy Horan
Can you give us an update when you might -- well, when we might see a commercial launch in the United States? And have you worked out a wholesale agreement yet with the carriers in the United States dividing the economics? And to be clear, when you do that commercial launch, it will have the full suite of services that you mentioned?

Abel Avellan
Yes. The answer is yes. We did announce a definitive agreement with AT&T, and we're working on the details for the commercial agreement with Verizon. And the idea is to have a beta service sometime by the end of this year, our commercial service fully open for consumers sometime during early 2026. And it will be -- and on our plan, it is for this service to be text, Internet data, and access to applications like video conferencing.

Timothy Horan
Great. And just out of curiosity, why do you think you need the Ligado spectrum when you're doing spectrum sharing? I'm assuming you're doing spectrum sharing in areas primarily where they're not using the spectrum.

So, I guess, can you just maybe elaborate how much spectrum you expect to get from your partners? And why would you need Ligado if you're getting enough from them?

Abel Avellan
Yes. One thing that is important to recognize that we don't only serve where there is absolutely nothing. When you're in a camping location, when you're in a remote location, we have the ability to serve the consumer wherever their service is not good enough or is not supporting a full 5G experience for the end user.

So, in order to support that, you need a lot of capacity in order to basically fill up what we call the imperfections of the network. And you need to be able to overlap terrestrial and satellite over the same footprint. And then you need to have a lot of traffic that make that possible.

So, with the low-band spectrum, we get access to, we call it premium spectrum with great penetration, go through trees, it goes through walls, it goes through cars and it's available in every phone. But there's typically limitations on how much spectrum you can allocate in low band.

So, it's the first -- I mean, like historically, operators have deployed spectrum, they always start with the lowest spectrum because that's the one that provides most coverage, better penetration, better user experience.

As the network gets filled up by usage, you keep adding spectrum, and that's -- you go back in time and when it happens with -- when initially cellular network were originally deployed, they always start in the low band and then keep going up in frequency to create more density. And that's the intent of our planned 45-megahertz band is to basically being able to continue adding subscribers for our network partners.

Operator
Our next question comes from the line of Scott Searle with ROTH Capital.

Scott Searle
Maybe just to follow-up on the Ligado front.

In terms of L-band support within existing cell phones in North America, how is that progressing? From day 1, provided you're able to close the transaction, how long does it take before you have a large supply of users within the United States that support the L-band spectrum? And then I had a follow-up.

Abel Avellan
Yes. I mean the -- currently, the L-band is already in the Android ecosystem. Actually, you have that band enabled as part of the 3GPP standard. We anticipate, with the support of AT&T, Verizon, Vodafone and 50 operators around the globe that we'll benefit off this band. We anticipate 1 or 2 interactions on the new phones for the phone, be available with the full band in every phone.

So, that's the reason why we always had a hybrid approach where we start with low band, where we get the advantage of it's in every phone, it is -- have an RF performance that is much better, maximize coverage and then add the L-band in the tail end of our deployment.

Scott Searle
Great. Very helpful. And if I could, just on the U.S. government and budget front, defense space has done actually very well in terms of whether it's continuing resolution or the projected discretionary budget, I guess, for fiscal '26.

So -- but there are some give and takes there, too, because like FEMA has been a little bit on the ropes.

So I'm wondering, as you kind of look at some of the opportunities and programs and discussions you're having, whether it's PLEO or otherwise, I'd even throw FirstNet into the mix there, a huge opportunity to be able to support Band 14. How do you see the gives and takes between what's getting funded, what's not getting funded, and you guys still feel very comfortable about the position with the U.S. government opportunities.

Abel Avellan
Yes. I mean what I would say, the U.S. government is using our satellites now.

So, what is the capability that they get from our technology? It is actually very, very clear for them at this point. That has been resulted in 6 programs that we have ongoing with them. We see the Golden Dome opportunity as an opportunity that we feel very strong in participating as the government is already using our satellites for applications that are supported for the needs of that program.

So, a portion of that program was prioritized by the government, and we believe that there is a good opportunity for us to be part of that.

Scott Wisniewski
And I would also, Scott, that you've seen us building small contracts over the last couple of quarters with them. It's been pretty broad-based dialogue, broad-based early contracts. And in terms of where money is flowing and where it's not, one good example is the DIU, which is the contract we just announced today. That's one area that just received another incremental large increase of funding.

So, we think it's -- the puts and takes is much more puts than takes, of course, and we're a novel technology that's being used, as Abel said today, and we're on the short list as we have conversations, and we see a lot of positive momentum, broad-based, but also in places that are receiving more funding and incremental funding even recently.

Operator
Our next question comes from the line of Bryan Kraft with Deutsche Bank.

Bryan Kraft
I had 2 if I could.

First question, how many satellites will the first 5 launches this year actually include, roughly? And is that a mix of launch providers or is it 1 particular launch provider that's doing all of those or most of them? And I guess, just a high-level strategic question. I was wondering if you could just talk about what you think your competitive moat looks like at this point? I mean, obviously

the market, while encouraged by the great progress that you guys have made over the last few years, there's always this concern about another company or companies effectively competing with you, maybe with a much larger fleet of smaller satellites.

So, I was wondering if you could just talk about that. Would love to hear your perspective on it.

Abel Avellan
Yes. I will say in terms of competitive landscape, what has been proven possible by any other system is simply text messaging.

We have a capability that is way beyond that and that it basically goes from text, voice, data, Internet and video.

So -- and there is a limitation of what you can do with smaller satellites. That's basically physics. There's also a lot of inherent problems when you have thousands of satellites, the revisit time, these handovers and basically just the practicality of the phone being able to connect to a smaller satellite.

So, I think at this point, it's been proved, what the industry has been -- historically been capable of doing.

Our capability has been supported by the vast majority of the operators is a capability for broadband. And we think that our capability is very differentiated. And it's a capability that is also dual use. That means -- what we mean by dual use is used by governments, particularly our government and the vast majority of the network operators around the globe.

We have access through the agreement that we have with operators today, we have access to billions of subscribers provided that we build enough capacity for them.

So that's why we continue to build our portfolio of spectrum starting in the United States.

Bryan Kraft
Appreciate that thoughtful answer. And I don't know if you can say anything around the first 5 launches and how many satellites that will encompass and whether that's a single launch provider providing those first 5 or if it's a mix of providers?

Scott Wisniewski
Bryan, our strategy has been multi-operator all along, launch vehicle agnostic all along.

And so these early launches, we expect will be consistent with that strategy. We do have some flexibility. These things are a little dynamic.

So we can't make firm commitments on all of it. But in aggregate, we feel that the timeline we laid out makes a lot of sense.

So 5 launches in the next 6 to 9 months. And our first one, of course will only have 1 satellite.

Some of the earlier launches will have fewer than full capacity. But we'd really like to be in a position to have 20 satellites up as soon as we can thereabouts. But we're doing everything we can to keep moving to the left on time. We're overproducing with our factory for sure, to make sure that we're not the long pole. And we've been very proactive on this multi-operator -- multi-launch provider strategy.

So that's kind of how we're thinking about it, Bryan, and we're going to -- we'll play it out month by month and quarter-by-quarter and give you better updates, but we're pushing hard on this because we know that we'll have the satellites to launch when we have the vehicles to go to orbit.

Abel Avellan
And as a guidance, I mean, depending on the vehicle, you're talking about 3 to 4 vehicles per satellite or 8 vehicles per satellite. And as a reminder, these are very large satellites. I mean these are the largest ever satellite launched for communication.

So, typically, we try to -- the first launch, it will be single launch given the vehicle that we're using. But our launch contract support 3 to 4 on the smaller vehicles and 8 in the bulk of the launch agreements that we have.

Operator
Our next question comes from the line of Chris Quilty with Quilty Space.

Christopher Quilty
Didn't expect to get a second bite at the apple, but just wanted to follow up on the Block 2 Bluebird launch. Should we view that -- is that a fully operational off the production line or is it still being viewed as more of a pathfinder in terms of testing the unfurling mechanism and other aspects that will be bled into the production? Is it more the former than the latter?

Abel Avellan
No, no, it's a full-blown operational satellite. It does use the same microns, which as you know, is the building block of the phase array. Exact same models that we use on the Block 1 satellites, which we have now in operation. But of course, it's larger. It's 3.5x larger than the Block 1 satellites. But it's come out of the production line. And by the way, we're producing -- we're launching FM1, but we are producing 40 satellites this year.

We will be -- we think that we will get closer to 53 satellites worth of phase arrays by the end of the year.

So, it's coming out of the production line. It's an operational satellite. It will be part of the constellation.

Christopher Quilty
But to be clear, I think you said by the fourth launch, that production line will shift from FPGAs to ASICs, correct?

Abel Avellan
Yes, the first batches are FPGA.

Christopher Quilty
Great.

Second question, real quickly, I guess in the press release, you said the $50 million to $75 million of revenue in the second half of the year. How much of that is actual service type revenue versus contractual payments as milestones with customers?

Scott Wisniewski
Chris, I would say a big contributor, of course, is our government business, including the $43 million SDA contract we announced last quarter and is milestone-based, but based on work being done on our 5 Block 1 satellites and our first Block 2 satellite.

So, there's a good portion of it that is milestone payments and there'll probably be some other government revenue in there. But there's also expected to be a good component of commercial revenue as well, with early activations, and importantly, those gateway installations we walked through earlier in the call.

So it will be a balance. Certainly, government is a big contributor of our early revenue, and that's primarily milestone-based. But on the commercial side, you'll see both the gateway installations and then also some initial activations, we think.

Christopher Quilty
Got you. And just to follow up on the gateways. Thanks for the guidance, around $10 million a quarter. Is there any reason that should ever accelerate? Or is that a good run rate to kind of expect as we look out the next year and the year after? And fair to assume that you're running that mostly as a loss leader, not a profit center in terms of how we should model the margin contribution?

Abel Avellan
Yes, that's correct. I mean, the gateway is just an enabler. I mean we're taking -- basically, the gateway for United States are ready to operations.

So then the JV in Europe is taking up the initial activations that we've been using actually for the initial activation that we had, in particular in the U.K.

So that would be a shared infrastructure in Europe. And then Japan is also partially activated.

We have multiple gateways; we have one in operations now.

So, as we said, initial focus is U.S., Europe, Japan and then some selected markets where we're getting payments, prepayments from MNOs. And to put it in perspective, U.S. is 4 gateways; a large country like Brazil is 3 gateways. And then, block of smaller countries are shared infrastructure in Europe.

Andrew Johnson
And in terms of modeling, Chris, I would add, there is a margin on those. It's a low margin. We view this as a way to enable the service, but it's not a loss leader. And second, we think there's upside to that quarterly guidance we gave, for sure. But note that these can be lumpy as well.

So we wanted to be conservative as we started talking about this metric.

Operator
Our next question comes from the line of Colin Canfield with Cantor Fitzgerald.

Colin Canfield
Just want to make sure I understand the DIU contract. Maybe talk about kind of how we think about that as a task order of a larger contract or if that's the ceiling value of the contract? And then maybe talk about the conversations that you've had with folks like Lockheed, you have former American Tower Corp executives that are leading the company and maybe some of the other primes?

Scott Wisniewski
Colin, I think I would say on the DIU, this is -- they recently received $2 billion of additional funding. This is definitely a place where the government is looking to support new technologies and move fast with them. The way to think about it is that it's a little bit of an incubation place where a broad base of different government agencies can take a look at the tech across different types of applications and it's a good place to get projects moving fast.

So, I think on the one side, think of it as a place to germinate new use cases for us, but it's also a place to accelerate use cases we've been discussing that maybe just didn't hit the first half a dozen in our priority conversations.

So these are -- and in terms of the dollar amount, I gave some guidance on low tens of millions potential, and then we set a $20 million ceiling.

Some of these are a little artificial relative to how some of these contracts get initially awarded.

I think this is just a great place for us to continue to push the use cases across a broad reach within the DoD and beyond.

Operator

And we have reached the end of the question-and-answer session. I would like to turn the floor back to Scott Wisniewski for closing remarks.

Scott Wisniewski
Thank you, operator. We want to thank everyone for their questions, all shareholders and the research analysts that joined the call. We look forward to providing more updates in the future, and stay tuned.

Operator
Thank you. And this concludes today's conference, and you may disconnect your lines at this time. We thank you for your participation, and have a great day.