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CORPORATE PARTICIPANTS

Chris C. Kemp *Astra Space, Inc. - Founder, President, Chairman & CEO*

Kelyn Brannon *Astra Space, Inc. - CFO*

Martin Attiq *Astra Space, Inc. - Chief Business Officer*

Michael Stitche *Astra Space, Inc. - VP of Compliance & Deputy General Counsel*

CONFERENCE CALL PARTICIPANTS

Colin Canfield

Ronald Jay Epstein *BofA Securities, Research Division - MD in Equity Research & Industry Analyst*

Xin Yu *Deutsche Bank AG, Research Division - Research Analyst*

PRESENTATION

Operator

Good day, and thank you for standing by. Welcome to Astra's Fourth Quarter Fiscal Year 2021 Financial Results Conference Call. Joining us today are Astra's Founder, Chairman and Chief Executive Officer, Chris Kemp; Chief Financial Officer, Kelyn Brannon; and Vice President of Compliance and Deputy General Counsel, Michael Stitche. (Operator Instructions) Please be advised that today's conference is being recorded. (Operator Instructions) I would now like to turn the conference over to Michael for introductory remarks. Please go ahead.

Michael Stitche - *Astra Space, Inc. - VP of Compliance & Deputy General Counsel*

Thank you, operator. Good afternoon, everyone, and thank you for joining us for Astra's Fourth Quarter 2021 Earnings Call. After the market closed, we released our financial results. The earnings release is available on the SEC's website and our Investor Relations website at investor.astra.com. This teleconference is also being broadcast over the Internet and will be archived and available on our Investor Relations website.

During our call today, we will reference non-GAAP financial measures, which we believe to be useful to investors as our management team uses these non-GAAP financial measures to plan, monitor and evaluate our financial performance. These non-GAAP financial measures exclude certain items and should not be considered as substitute for comparable GAAP financial measures.

Astra's methods of computing these non-GAAP financial measures may differ from similar non-GAAP financial measures used by other companies. A description of these items, along with the reconciliation of our non-GAAP financial measures to their most comparable GAAP financial measures, can be found in our earnings release.

Today's call will also contain forward-looking statements. These forward statements refer to future events, including Astra's future financial outlook. When used in this call, the words anticipate, could, enable, estimate, intend, expect, believe, potential, will, should, project and similar expressions as they relate to Astra are, as such, a forward-looking statement.

These forward-looking statements are subject to a number of risks and uncertainties. And as a result, Astra's actual future results and performance may differ materially from those discussed in this call. We encourage you to review our filings with the SEC in which we describe the factors that could cause actual results to differ materially from our current expectations.

We also refer to commercial launches in this earnings press release. When we use the phrases commercial launch, commercial revenue launch or commercial orbital launch, we mean a launch conducted under an FAA commercial launch license.

Additionally, each of our launch vehicles is noted by an asset title with the abbreviation of LV, standing in for launch vehicle, followed by the serial number. For instance, our March 15 and most recent launch vehicle was referenced as LV0009.

Finally, I would like to remind everyone that this call will be recorded. And it will be made available for replay via a link available on the Investor Relations section of our website.

With that, I would now like to turn the call over to Chris Kemp, Astra's Founder, Chairman and Chief Executive Officer. Chris?

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

Thanks, Michael, and good afternoon, everyone, and thank you for joining us today. I want to start by celebrating the historic accomplishments of our team.

Since our last quarterly operating results call, Astra conducted 3 launches from 2 different spaceports, successfully delivering 23 payloads to orbit for our customers, including our first successful orbital mission for the United States Space Force. Looking forward to our next launches, we're honored to have the opportunity to serve NASA to further our vision for a healthier and safer planet as we prepare for a multi-launch campaign out of Cape Canaveral to deploy the NASA TROPICS constellation. TROPICS will observe deep inside of cyclone so we can forecast storms better, improve disaster preparation and ultimately save lives.

These launches represent significant milestones for the company and our mission to improve life on earth from space. And what inspires me the most is knowing that this is just the beginning. I'm humbled by the brilliance and the perseverance of my Co-Founder, Adam London, and the perseverance and commitment of our entire team here at Astra.

After reviewing our accomplishments in 2021, I'd like to take a closer look at how these milestones that we've achieved since the last quarterly earnings results demonstrate measurable progress towards our objective of daily space delivery. I will then turn the call over to Kelyn for a closer look at the numbers.

As we begin Astra's first calendar year as a public company, I'd like to start this call off by reviewing Astra's strategy and inviting all of you to join us in our mission. Astra is a space technology company. Our mission is to improve life on earth from space.

And our vision for a healthier and more connected planet is what inspires everyone here at Astra. And it's what unites us with our customers, many of which, like Astra, are a new generation of space tech companies themselves, all pioneers in a new era of space, racing to build new applications and services that have the potential to improve the lives of everyone on earth.

You've seen the impact of these new space services over the past few weeks in Ukraine as pictures taken by companies that didn't exist just a few years ago are making the covers of all of our national newspapers and holding the leaders of the most powerful nations in the world accountable to their actions. New satellite broadband constellations are the only remaining connection to the Internet for millions of people.

The mission and vision are the foundation of Astra strategy, which we'll discuss in 3 phases. When we took Astra public last summer, Adam and I shared our vision for a frequent low-cost launch system that would allow us to develop, deploy and maintain a space services platform that would enable our customers to focus on building space applications instead of space infrastructure.

We shared a vision of a multi-tenant cloud constellation, composed of spacecraft that our customers can leverage like tech companies leverage cloud computing, providing network and computing services on demand with plug-and-play hardware peripherals that could be plugged into satellites just before launch. We believe that this is the future of space. And frequent access to space is a critical first step to enabling its future, the first phase of our strategy.

With hundreds of small satellite constellations in development and over a dozen companies that have gone public, collectively raising over \$20 billion in the last year, we see launch as the critical enabler of not only Astra's long-term plans, but of these new space tech companies. That's why

in Phase 1 of our strategy launch services, we're focused on dramatically increasing access to space by scaling our launch services business as quickly as possible.

However, only focusing on rockets would be like Amazon stopping at delivery trucks. As we've learned with rocket, the core technologies required to power next-generation satellites are simply not available at the cost performance levels and production scale that our vision for the future of space requires.

Therefore, in Phase 2, space technology, Astra plans to develop, license and acquire core space technologies that will be productized and incorporated into our rockets, satellites and other infrastructure that will be used to deliver space services. Core technologies include propulsion and solar power.

And the acquisition of Apollo Fusion last summer is one example of us acquiring and productizing a core space technology. The vast majority of the value in the \$1 trillion space economy forecasted in 2040 is in space services, just the communication services and a new generation of geospatial data services.

Just as the apps on your iPhone are powered by cloud services here on earth, we believe that the future space applications will be powered by the space equivalent of today's earthbound cloud data centers. So in Phase 3, space services, we plan to vertically integrate Astra's core technologies into an Astra constellation, which will be optimally launched and maintained by the Astra launch system, allowing us to power the space economy.

So let's talk about Phase 1. Today, Astra is focused on dramatically increasing access to space because you can't build a space platform that improves life on earth from space if you can't get to space. While rocket science may be notoriously complicated, economies of scale apply like any other industry. Put simply, if you produce something at higher and higher volumes regardless of how complex it is, it is easier to reduce the per unit cost.

To get to space more economically, you can either scale up your rocket and make a really big rocket or design a rocket that is easy and inexpensive to produce and scale out your factory to make many smaller rockets. And while large reusable rockets are ideal for transporting people and large cargo in the space, our customers tell us that the flexibility of getting to the right place in space as quickly as possible at the lowest possible per launch cost is what is important to them.

And this is why we've chosen to scale out our factory instead of scale up our rocket. We believe a thriving space economy requires both and the lowest cost leaders in each of these categories will be the winners. In addition to scale, Astra is focused on mobility and automation. Our entire launch system is mobile and can be easily and discretely transported anywhere in the world in a standard ISO shipping container by truck, ship, rail or cargo aircraft. What's more, a very small team, currently just 6 people, can deploy an entire launch system and be ready to launch in less than 7 days.

We demonstrated this capability earlier this quarter when we conducted our first launch out of Cape Canaveral for NASA. Astra's ability to launch quickly from anywhere shipping container can be delivered allows us to expand our launch services to more licensed locations without fixed capital investments.

Our mobile launch system also enables our allies, governments that do not have access to space to rapidly establish their own sovereign space launch capabilities by partnering with Astra. Finally, our unique ability to mass produce and permanently and discretely deploy turnkey launch systems could play an essential role in enabling America's strategy for a resilient national security space infrastructure. At Astra, we're focused on delivering for our customers. And with over 50 launches under contract and a \$160 million backlog, our customers have spoken. They want more launches more frequently from more locations at a lower per launch cost. Our long-term goal remains to reliably launch daily, and a 33-day period between our last 2 launches demonstrates progress towards that goal.

Turning to Phase 2, technology. In Phase 2, we're focused on productizing core space technologies. The key to success in Phase 1 has been our ability to rapidly iterate on hardware. To enable this, we invested in building Astra Factory, a vertically integrated manufacturing facility that is currently producing our launch system, including our rocket stages, rocket engines, valves, mechanisms, avionics and more with many parts machined out of raw materials on site. We're now expanding into over 0.25 million square feet of facilities on our campus in Alameda, California.

We will leverage this capability to productize the core technologies that we develop, license or acquire and of course, use our ever more frequently launched rockets to test and qualify these products in space.

Like Tesla selling batteries to other automakers, we believe that by productizing core technologies, such as spacecraft engines and selling them to our customers, even our competitors, will drive scale and increase the profitability and total value of the space economy powered by the Astra platform. Phase 3. Finally, we're laying the foundation for the space platform by securing licenses for spectrum, qualifying core space technologies and securing anchor customers for Astra services.

So in summary, we recognize that this is a long-term plan. And while we're in the early innings, we've demonstrated significant progress at a rapid pace. Astra is in this for the long haul, and we strongly believe that bringing scale to the space economy is necessary to improve life on earth from space. I'd like to highlight a few events that have occurred so far this year in 2022. In January, NASA awarded Astra the Venture-Class Acquisition of Dedicated Rideshare contract, along with other launch providers, which represents a \$300 million opportunity over the next 5 years.

In February, we conducted our first launch out of Cape Canaveral under the very first FAA Part 450 license in history, both important accomplishments of our team. Unfortunately, an anomaly at (inaudible) operation prevented us from delivering the payloads to our customer, but we took the opportunity to understand what occurred and quickly implemented corrective actions and fixes prior to the next flight.

2 weeks ago, our successful launch from Kodiak, Alaska was a huge milestone for Astra, as it marked the first delivery of 22 customer payloads into orbit, 33 days before -- just 33 days after our prior flight, which is less than half the cycle time we achieved in our prior 2 launches. I continue to be impressed with the speed, passion and diligence of our team as they continue to improve our production and launch operations, as well as invest in improving the reliability and future capabilities of our launch system.

Let's quickly review 2021, which was a busy year for Astra. We announced our planned merger with Hologic in February, and we completed the transaction in June. This transaction added \$464 million of liquidity to our balance sheet that is funding the scaling of our production and launch capabilities and development of our launch system. Throughout 2021, Astra attracted key employees to grow the depth and breadth of our leadership and broader team. There were many high-impact hires in 2021, and I am proud of the team we're building. And it's particularly gratifying to work with Benjamin Lyon, our Chief Engineer after 22 years at Apple; Carla Supanich, our SVP of People, after successful roles at both Tesla and Apple; and Will Drewery, our VP of Supply Chain, formerly of Tesla, who've consistently overcome supply chain challenges in the past year to meet our rocket production targets.

We also recruited a talented and diverse group of Board members to help Astra navigate its path. Joining our Board were Michèle Flournoy, who served as under Secretary of Defense for 2 presidents and was the highest-ranking woman in the Department of Defense history Lisa Nelson, a Microsoft alumni, who founded and led Microsoft Ventures; and last but not least, Mike Lehman, a leader in the tech industry, including CFO roles at Sun Microsystems, Palo Alto Networks and Arista Networks.

Our acquisition of Apollo Fusion in July marked the first core technology acquisition, expanding our launch capabilities by giving customers the ability to reach or maintain orbits with efficient electric propulsion systems and will be a key component of Astra's future satellites. In August, our first thrusts are ignited on orbit, and its continued operation has expanded our sales opportunities in both commercial and government markets.

We're incredibly pleased with how well the Astra spacecraft engine has been received by the market. In August, we launched LV0006, the first serial number of our upgraded version of our launch system that we completed over the first half of the year. The flight had an anomaly at liftoff leading to a single engine shutdown, but the rocket was able to autonomously recover and perform most of the first stage burn prior to being shut down by the range. Interestingly, data from recent flights suggests that this flight had enough performance to reach orbit even with the engine out. November, we applied for a V-band spectrum license with the FCC to support Phase 3 of our strategy to build and operate a high-margin space services platform. And finally, late November, we accomplished a significant milestone when Astra became one of only several privately funded companies to place its spacecraft in Earth orbit with the flight of LV0007 for the United States Space Force.

Looking ahead to 2022, the Astra team is excited to test our ability to execute a rapid launch cadence with the upcoming TROPICS launches. As our first launch system 1.0 design has stabilized and we're focused more on production and launch operations, our engineering teams are busy

increasingly spending their time on the next version of our launch system, which we are designing to be more capable, more scalable than the current system. And we expect to share more details about this upgrade in the next few months.

I'd like to thank all of our employees whose dedication to our mission has enabled Astra to reach orbit so quickly and within months, launch again and again. We are just getting started, and we're grateful for the unwavering support of our customers and investors and their commitment to our mission.

For all of you who have taken the time to join this conference call, current investors and those considering investing in Astra, industry experts and those of you who are as inspired as we are by the potential to commercialize space in ways that make our lives better, I want to thank you. We look forward to sharing even more detail about our strategy later in Q2 at our first Annual Investor Day that we'll host at our newly expanded rocket factory here at our headquarters in Alameda, California. So stay tuned for more information on that.

So I'd like to turn it over to Kelyn to discuss our fourth quarter financial results before we begin Q&A. Kelyn?

Kelyn Brannon - Astra Space, Inc. - CFO

Thank you, Chris, and good afternoon, everyone. As you heard from Chris, we accomplished several product and strategic goals in 2021 and early 2022. Most notable is the acceleration in our launch cadence to just 33 days between [LV0008 and LV0009.] The 33-day interval between the launches demonstrate meaningful increases in our production and launch efficiency. Moving on to our financial results, and as a reminder, all nonrevenue financial figures I will discuss today are adjusted, unless I state them as a GAAP measure. You will find a reconciliation from GAAP to non-GAAP results in today's press release. Next, let's review our financial results for the fourth quarter ended December 31, 2021. Fourth quarter adjusted net loss was \$37.5 million. Adjusted EBITDA was a loss of \$36.1 million and below our fourth quarter guidance range for a loss of \$40 million to a loss of \$44 million.

On a GAAP basis, our fourth quarter net loss was \$51.3 million. The sequential increase in net loss was primarily related to 2 nonoperating items: first, a reduction in benefit of our warrant revaluation to \$5.2 million in the fourth quarter from \$20.5 million that occurred in the third quarter; and second, an increase in stock-based compensation expense to \$19.3 million in the fourth quarter from \$2.7 million that occurred in the third quarter.

For modeling purposes, fourth quarter stock-based compensation expense breaks down as follows: research and development, \$8.3 million; G&A, \$10.8 million; and sales and marketing, \$150,000. Fourth quarter capital expenditures were \$19.6 million and primarily related to the expansion of our Alameda manufacturing facility. As Chris mentioned, we have moved our operations into the expanded facility, which has increased space for our production floor. Given this, we expect capital expenditures to moderate in Q1 before increasing for the remainder of 2022 as we purchase and integrate automation equipment for launch manufacturing and expand our testing capability. We ended the quarter with cash and cash equivalents of \$325.0 million.

Next, I'll provide an outlook for our first quarter ending March 31, 2022. We are not planning to provide full year guidance. For the first quarter, we currently expect an adjusted EBITDA loss to be between \$44 million and \$48 million, depreciation and amortization to be between \$1.9 million and \$2 million, stock-based compensation to be between \$20 million and \$25 million, cash taxes are forecasted to be 0, basic shares outstanding to be between 263 million and 265 million shares, capital expenditures to be between \$10 million and \$15 million. Let me provide some additional color on our guidance. The first quarter increase in our share count is largely due to new shares attributable to our redemption of public and private warrants. We redeemed the 15.3 million warrants for 3.8 million new common shares and \$58,608 in cash.

We exercised Astra's right to redeem the warrants prior to their expiration to limit potentially greater dilution in the future. All 15.3 million warrants were related to our merger with Holicity, and the redemption was effective on December 27, 2021.

During Q1, we expected incremental spending will be driven primarily by R&D, production and related equipment as we focus on the continuing development of our next-generation rocket and space services initiatives. Our first quarter guidance is subject to various important cautionary factors referenced in the section entitled Forward-Looking Statements below and our Form 10-K, including risks and uncertainties associated with the ongoing COVID-19 pandemic as well as the Russian/Ukraine conflict and their potential impact on our business.

We expect calendar year 2022 to be a transformative year as Astra continues expanding our product road map and scaling production. During the year, we expect to embark on a product cycle transition to our next-generation launch system, Rocket 4, as well as expand space product offerings led by Astra spacecraft engines. Our annual spending plan is focused on resource and capital efficiency. As we think about investments in the business, we are prioritizing design, manufacturing and automation expertise for the production ramp of all products. My finance team is prioritizing capital efficiency by targeting asset-based lending for future automation equipment purchases and focusing capital on programs with near-term revenue and gross profit impact. We are also focused on reducing the use of consultants for functions now managed in-house and streamlining the process around public company reporting.

Our spending adjustments give me greater comfort about Astra's liquidity in 2022 and 2023 when we expect the Rocket 4 production. As Chris mentioned earlier, and you will see in our 10-K to be filed later today, we are adjusting the description for Astra's lines of business as follows: first, launch services will continue to be revenue from orbital delivery of customer payloads; second, Space Force addition will focus on expanding our launch capacity to support accelerating launch cadence.

Interest in our launch services is growing internationally with governments and regulators pursuing policies to bring launch capabilities within their jurisdiction. Governments are showing a desire to sponsor Space Force, domestic satellite operators and launch services. As a result, international Space Force will likely result in launch services revenue rather than a separate space port revenue line. Third, satellite services will be classified as space services, which will include future revenue from the Astra constellation and other related services, which we expect after 2025. And lastly, Space Products reflects our ability to develop market and sell differentiated satellite and spacecraft components, such as our Astra spacecraft engine.

Today, these engines or thrusters are operating successfully for customers in space, and we are encouraged by the growing customer interest. To be clear, we are in the first phase of our business with our primary focus being our launch services business line. As we move into future quarters, we expect to transition our focus to the other business lines discussed above. Finally, a comment on our backlog. Backlog increased to \$160 million at the end of 2021, up 7% from the \$150 million, which we announced in February of 2021. Note that during 2021, our backlog was impacted by the attrition of one customer due to market consolidation. The customer acquisition by another space company resulted in a decrease of \$30 million to our previously stated backlog. Excluding this reduction, our backlog increased \$40 million or 33%. We are pleased with the growth of our backlog as we continue to scale. Before I turn the call back to Chris, I want to thank our team for their hard work and dedication to Astra. As Chris mentioned, we look forward to hosting our inaugural Analyst Day during the second quarter at our newly expanded rocket factory in Alameda.

And with that, operator, could you please open the call for questions?

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) Our first question comes from Edison Yu with Deutsche Bank.

Xin Yu - Deutsche Bank AG, Research Division - Research Analyst

I wanted to hit a couple of topics. First, can you give us an update on the Rocket 4? What still needs to be done? What kind of decisions are still ongoing? And I think you mentioned that it will be transitioned this year, the level of confidence in that.

Chris C. Kemp - Astra Space, Inc. - Founder, President, Chairman & CEO

Yes, I think that one of the things we'd like to do, Edison, is invite everyone else to come see, and we're planning on hosting an event here at our Rocket factory. And we'll have, I think, a lot of the kind of core components of that, that you'll be able to kind of put your hands on.

It's going well. And what we're really trying to do, frankly, given the events in Ukraine and the increased demand that we're seeing for launch services is pull it in. But I can't give you dates because, obviously, we want to do some test flights, and we do remain on track to do some test flights of the 4.0 version of the Rocket later this year.

Xin Yu - Deutsche Bank AG, Research Division - Research Analyst

Understood. The topic that you just mentioned, the Russia, Ukraine, can you maybe give us some examples of situations where you're able to support that effort? Obviously, we saw OneWeb go with SpaceX. What kind of other opportunities are you getting in that pipeline?

Chris C. Kemp - Astra Space, Inc. - Founder, President, Chairman & CEO

I think there's a couple of different areas. I think that the opportunity to help some of the customers that we're planning on flying on Soyuz is something that we're really engaged in. And I think that some of those flights were in 2023 and 2024. And it does look like there's a pretty substantial opportunity for our launch system 2.0, the Rocket 4, to kind of fill some of those gaps, and we're really excited to help out where we can there. But also, there's (inaudible) components. A lot of core technologies were coming out of Ukraine and Russia and were being supplied to American space companies. As you know, Astra designs and builds and manufactures everything here in the States. And so to the extent that our spacecraft engine can replace spacecraft electric propulsion systems that were being exported from Russia and Ukraine, this is an opportunity as well. So I think we're excited about both of these opportunities.

Xin Yu - Deutsche Bank AG, Research Division - Research Analyst

Got it. And last one for me on Apollo Fusion, are there any updates in terms of kind of wins there? I think with electric propulsion, you may be going after some high-volume constellations. Should we expect some sort of update on that this year?

Chris C. Kemp - Astra Space, Inc. - Founder, President, Chairman & CEO

Yes, you should. And what we're going to try to do is announce them, and we want to highlight each of those opportunities, kind of one by one and do that in coordination with those customers. But as I said before, we're very pleased with how the market has received that product and stay tuned for updates on that.

Operator

Our next question comes from Colin Canfield with Barclays.

Colin Canfield

Going to your commentary on the Phase 3 of your strategy, if you can kind of talk about what sort of launch costs that you're contemplating within that basis. I understand that on a single vehicle basis, having the cheapest vehicle can enable you to win, call it, smaller launch vehicles.

But as we get to kind of scaled constellations, it seems like kind of the former math around your spec commentary of \$1 million launch cost, maybe 150 kilograms of mass implied maybe \$7,000 per kilogram. So thinking within that framework, what are the kind of the drivers that get you below that basis? Or how should we be thinking about it?

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

So the way I think about it is where are the primary costs in performing launches and which ones scale on a prelaunch basis and which ones don't. So there's obviously the BOM cost of the rocket itself. And with each generation of our rockets, we challenged our engineering teams to both increase performance but also decrease costs. And so we do that, frankly, by using less expensive materials, more automation in our factory and really just trying to simplify the thing so we can scale. And that's category 1.

Category 2 is -- so there's the material costs themselves. So we try to use aluminum versus carbon fiber. We try to use machined parts or cast parts versus 3D printed parts. And so as we increase scale, we get even more advantages of this strategy, right? So casting part versus 3D printing a part is a great example. As we start to make more and more of these rockets, we'll start to use these casting approaches, which are probably in order of magnitude less expensive than a 3D printed part or more.

The second area is an automation in factory itself. So it's using robots instead of people to put things together. And then the third area is in the launch operations cost. So it's how many people are in mission control, how many people get deployed with the rocket. And what is the overhead associated with the range. And so we have really tried to simplify what we have to deploy in the field, so that it's easy to operate by a very small number of people, and we require less range support. And of course, as we continue to seek additional spaceports, we'll increasingly have opportunities to operate for more locations where we have more control over the cost, and we have more choice.

And so I think those are the primary areas. But I do think actually at scale, small rockets are very competitive with large rockets when you consider all these factors.

Colin Canfield

Got it. Got it. And then if we think about kind of what drives you to scale or what enables you to scale, as you think about the kind of the potential mass payload of the Rocket 4, is there a good framework to think about where you're trying to capture in terms of types of satellites, end user operators, typical intelligent satellite used in a couple of hundreds of kilograms or communication satellites could be in the kind of tens to hundreds of kilograms. So if we think about that dynamic, what kind of enables you to win contracts in the interim?

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

I think the vast -- we did a launch a couple of weeks ago where we had 22 different payloads on board, and the capacity of that rocket as you know is 50 kilograms. So satellites can actually be pretty capable even if they're pretty small. But in some of these constellations like the OneWeb satellites are a great example. They're upwards of 180, 200 kilograms. And what we need to be able to do is address the customers that we have in the market today and -- call it in 2023. In 2024 and 2025, we'll see new constellations with potentially different size satellites.

I want to just reiterate what Astra has done is we have demonstrated in 5 years to make 3 generations of rockets. And I think with Rocket 4.0, they will be 4. And so we're averaging a new rocket where we've been able to respond to the market. We've been able to factor in the changes in our customers' requirements, our scale roughly every 12 to 18 months. And that's not going to stop. And so I think as some of these larger mega constellations figure out where they're going to land, we will simply adapt Rocket 5.0 to meet the needs of those customers. So customers should come to us and tell us what their needs are because we built an entire company that can be very focused on delivering for customers what they need.

Colin Canfield

Got it. And then as we think about kind of the bridge to that Rocket 5 or even a Rocket 4, it seems like the capital allocation strategy is, I won't call it, shifting, but emphasizing cash flow a little bit more as you think about Apollo Fusion versus some of your peers buying pretty healthy margin products with Sinclair and SolAero. So if we think about kind of where your capital allocation strategy goes from here, what are kind of the valuations

you're seeing in the underlying component markets? And where are you most constructive on where you can kind of add cash generation to the business?

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

I'm not sure how high margin some of those businesses are. But I would say that there are opportunities as we think about the core technologies and the things that we'll need to be able to produce at scale as we discussed in the Phase 3 of our plan, where there are opportunities for some significant margins, right?

But I think that the path is not to acquire aerospace companies, but it's to find core technologies and scale their production and develop them for the requirements that we're trying to need for the services that we're building. I remember a time in the computer industry, where you could buy an "enterprise-class" hard drive for \$10,000, but you could also go down to Best Buy and buy a drive with the same capacity for \$100.

And we started to figure out if you make millions of the thing that cost \$100 and you put them in large quantities into a giant cloud data center, it's actually a lot more reliable because you've designed the software to be fault tolerant across many of these devices. In constellations like Starlink and like Planet Constellation are designed around the reliability of the constellation, not the individual rocket or satellite.

And so we're skating to where the puck is going here. We're not focused on extremely expensive components and perfectly reliable satellites or rockets. What we want to do is we want to focus on the services that have the best economics and best margins and best capabilities. And we get that through scale, not through ultra-high-margin aerospace-grade perfect components.

Operator

(Operator Instructions) Our next question comes from Ron Epstein with Bank of America.

Ronald Jay Epstein - *BofA Securities, Research Division - MD in Equity Research & Industry Analyst*

Just a couple of questions, a quick one. So how should we think about the number of launches for 2022? Can you just kind of give us a broad framework? Just as outsiders watching things, launches are one of the things we can track.

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

What I can tell you is that the factory is producing about a rocket a month. And we are about to go and launch the TROPICS mission for NASA, which will be 3 more launches. And the plan is just to start those launches this quarter or this coming quarter. And after that, we have some more launches. But I think the question will be, and we're going to have this big Analyst Investor Day here next quarter as well, things are going pretty well with launch system 2.0.

And I actually want to give the team the opportunity to switch over, to start doing the test flights because we have a lot of demand for a higher capacity, higher volume production rate rocket. And so I think what we're looking at is achieving -- showing the market that we can achieve a roughly monthly launch rate. And with the launch just 33 days after the previous launch, we're really seeing the right indications that the company has the capability. Keep in mind, those 2 launches were actually conducted from 2 different launch systems deployed simultaneously at 2 different spaceports. And so we're going to go, and we're going to continue to demonstrate that capability with the TROPICS missions.

And then at some point, later this year, we're going to cut the production line over to start developing -- start producing the Rocket 4s. And I think that's what we're going to provide some more insight into, and we're going to show you if you come here when we do the annual earnings day, which we hope you do. Did that help?

Ronald Jay Epstein - *BofA Securities, Research Division - MD in Equity Research & Industry Analyst*

Yes, sure. And then maybe just maybe a more detailed financial question. When we think about backlog, I mean, how are deposits done? And then what are the penalties? Like in the case if you do back out, how does that work? I mean, I know you don't -- there's competitive stuff here, but if you can give us a broad feeling on how you think about deposits and penalty.

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

Yes. I've actually -- Kelyn -- I've got Martin Attiq, who's our Chief Business Officer, who negotiates a lot of these things here in the room. So frankly, he's in the contract more than I am, so I'll just hand it over to him.

Martin Attiq - *Astra Space, Inc. - Chief Business Officer*

Thanks, Chris. And Ron, yes, so the way that we think about backlog is that it is committed backlog, which is associated with a customer deposit for a certain launch. There are other folks who report uncommitted backlog or nonbinding backlog, like we don't do that, like we wait until a customer does commit and (inaudible) a deposit. So that's first and foremost.

Secondly, it's around ensuring that we have strong protections around termination. So if a termination is needed that there are significant penalties so that we dissuade folks from terminating. And as Chris mentioned, we're seeing significant demand. So if there's a need to replace, for example, a specific launch, there's a cadre of folks that we can go to, to replace any single launch.

Ronald Jay Epstein - *BofA Securities, Research Division - MD in Equity Research & Industry Analyst*

Got it. And could you give us some color on that demand? How much of it is government? How much of it is private sector? How much of it is international? Just broadly, so we can get a sense of that.

Martin Attiq - *Astra Space, Inc. - Chief Business Officer*

Yes. A big chunk of the demand is coming from the commercial sector. So you could think of mega constellation customers or other small satellite companies that are building constellation, many of which we've already announced. So we've announced -- obviously, on the government side, we've announced NASA, Space Force, the DIU. And then on the commercial side, we've announced Planet, Spire. And there's a number of others that we haven't announced.

So the demand that we're seeing is coming from -- mostly coming from the commercial side. And the demand, in part, is coming from the dislocations that you're seeing in Europe where that's opening up opportunities. (inaudible). It was -- it produced a lot of launches with high frequency with a lot of different customers on it, and that represents an opportunity for us.

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

I think you also saw that we announced a multi-launch agreement with Spaceflight. And I think you also saw Spaceflight will not be flying on Falcon 9. So again, a lot of things are creating an incentive for us to accelerate the scale of our production line and accelerate the introduction of the launch system that's capable of doing more capacity to orbit. So if you would have -- if you are appearing to Astra, it's a whole bunch of people trying to figure out how to go faster pretty much every day.

Ronald Jay Epstein - *BofA Securities, Research Division - MD in Equity Research & Industry Analyst*

Got it. Got it. And then maybe one more if I may. How should we think about ITAR and what it does do? And what is exportable? And how do you have to think about the different customers on sort of -- from an ITAR perspective?

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

Well, I think that in each case where we operate our system in the United States, we -- we're a company that operates as an ITAR entity here in Alameda. When we have an opportunity to potentially launch overseas, we have to have export licenses and TAAs that are worked out. This was actually something that, frankly, one of our competitors established for us where they were operating in another country and a TAA was established that allowed them to exist in both the United States and in other countries even though they were formed in another country and largely operated in other countries. So there's a precedent for this. This is a case where Astra is a U.S. company that has U.S. citizens produces this entire system, but it's totally mobile. So we can put it in containers, we can fly it, ship it, truck it, set it up and do a launch and literally turn the system down the next day and bring it back with us. So for Astra, spaceport is just a place we have a license to operate.

Martin Attiq - *Astra Space, Inc. - Chief Business Officer*

Yes. And I would just add to that, Ron, that it is a competitive advantage because what we're seeing across the globe is countries want to have their own ability to launch. And they want to support their own satellite operators within their countries to launch out of their home country.

And so that means for us is that, that represents an opportunity. So if there's demand coming from Europe or Asia or other parts of the world, where the government is saying, "Hey, satellite operators, we want to support your business, but we want you to launch out of this country," there are a very small number of companies that can actually support that. And so -- and that is one of the value props of our system so that we can set up our spaceports across the globe and be able to meet the local launch demand that's there.

Ronald Jay Epstein - *BofA Securities, Research Division - MD in Equity Research & Industry Analyst*

Got it. Got it. That makes sense. And then maybe just one last quick one and then I'll jump off. I know there's other people who kind of held in time here. When we think about that backlog again, would it be wrong to kind of characterize it like 2/3 commercial, 1/3 government? Is that -- I know -- I'm not trying to be specific, but just kind of broadly, is that a reasonable way to think about it?

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

At present, yes, that's roughly correct in broad strokes.

Operator

And at this time, I'm currently showing no further questions in the queue. I'd like to hand the conference back over to Mr. Chris Kemp for any closing remarks.

Chris C. Kemp - *Astra Space, Inc. - Founder, President, Chairman & CEO*

Excellent. We really appreciate everyone's time today, and we look forward to inviting everyone to come out to Astra headquarters, see our rocket factory, see some of the new hardware that the teams are working on. We are going to get back and start focusing on getting some rockets out to Cape Canaveral for NASA. Thank you all, and we'll see you next quarter.

Operator

Ladies and gentlemen, this concludes today's conference call. Thank you for your participation. You may now disconnect. Everyone, have a good day.

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