

Spire Global, Inc.
Fourth Quarter and Full Year 2023
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Presenters

Peter Platzter, Chief Executive Officer
Leo Basola, Chief Financial Officer
Ben Hackman, Head of Investor Relations

Q&A Participants

Austin Moeller - Canaccord Genuity
Ric Prentiss - Raymond James
Jeffrey Meuler - Baird
Erik Rasmussen - Stifel
Suji Desilva - ROTH MKM

Operator

Hello, and welcome to the Spire Global Fourth Quarter and Full-Year 2023 Conference Call and Webcast. If anyone should require operator assistance, please press star, zero on your telephone keypad. A question-and-answer session will follow the formal presentation. You may be placed in the question queue at any time by pressing star, one on your telephone keypad. It is now my pleasure to turn the call over to Ben Hackman, Head of Investor Relations. Please go ahead, Ben.

Benjamin Hackman

Thank you. Hello, everyone, and thank you for joining us for our fourth quarter 2023 earnings conference call. Our earnings press release and SEC filings can be found on our IR website at ir.spire.com. A replay of today's call will also be made available. With me today on the call is Peter Platzter, CEO; and Leo Basola, CFO.

As a reminder, our commentary today will include non-GAAP items. Reconciliations between our GAAP and non-GAAP results, as well as our guidance, can be found in our earnings press release and in our investor presentation, both of which can be found on our IR website at ir.spire.com. Some of our comments today contain forward-looking statements that are subject to risks, uncertainties, and assumptions.

In particular, our expectations around our results of operations and financial condition are uncertain and subject to change. Should any of these expectations fail to materialize or should our assumptions prove to be incorrect, actual company results could differ materially from these forward-looking statements. A description of these risks, uncertainties and assumptions, and other factors that could affect our financial results is included in our SEC filings.

With that, let me hand the call over to Peter.

Peter Platzer

Thank you, Ben. Good afternoon, everyone. I am thrilled to welcome you to today's call. As we embark on this discussion, I want to extend my deepest gratitude to our dedicated team. Their resilience and innovation propelled us from pre-profitability to a landmark year. In 2023, we achieved not only positive operating cash flow but also positive adjusted EBITDA that surpassed our expectations for Q4.

Our journey last year was nothing short of remarkable. We rallied together as a team with grit and determination to be a reliably collaborative partner for our customers. We captured the surging demand for our radio frequency geolocation data, vital for addressing global security threats, and we forged strong partnerships to build powerful solutions for the future. This translated into significant achievements for Spire.

We secured multiple million-dollar contracts, reinforcing our market value and trust with our customers. We celebrated the signing of three pivotal significant Space Services deals involving 18 satellites, showcasing our expanding capabilities. Our launch of 23 satellites across multiple missions marked a record for the operational versatility and applicability of our solutions. The introduction of our DeepVision platform and high-resolution weather model revolutionized for our customers how they can understand and prepare for imminent weather patterns.

The deployment of our satellite mission operations platform signified a leap forward for the industry in efficiency, reliability, and management of space assets. And the signing of a strategic partnership and investment in AI/ML-powered solutions set the foundation for cutting-edge advancements in maritime domain awareness. These milestones contributed to our 10th consecutive quarter of record revenue and a substantial 32 percent annual revenue growth rate. We met and exceeded our objective of generating positive operating cash flow, and we achieved positive adjusted EBITDA earlier than anticipated.

These milestones also align with two global megatrends that shape our world today and have been at the core of Spire's long-term business plan since its inception almost 12 years ago: climate change and global security. From the intensifying weather events to geopolitical tensions, these trends underscore the critical nature of our work at Spire. From floods to droughts to wildfires and devastating storms, a scan of the daily headlines reminds us of the weather volatility that is becoming ever more common.

Warmer temperatures are leading to record heat waves throughout the globe and record intensification of storms, while wildfires are contributing to poor air quality in cities thousands of miles away. The U.S. set a new record for the number of billion-dollar weather disasters in 2023 at 28 in total, 6 more than the previous record, which was set only 3 years earlier. Already in 2024, shocking images have emerged of a lake forming at Death Valley, no less, one

of the hottest places on earth, and houses balancing on the edge of a cliff after record amounts of rainfalls have caused land to collapse into the ocean.

Meanwhile, the world is watching a number of upcoming elections and the events surrounding those elections. Speculation abounds on what may result from those outcomes. There has been ongoing conflict in Europe, the Middle East, and strained tensions in Asia. Shipping has been interrupted in the Red Sea. Funding of certain geopolitical activities and sanctions against other activities have resulted in a highly dynamic environment, an environment for which truth and transparency have never been more important, an environment that remains supportive and, some might say, in need of Spire's solutions.

Spire has continued to make investments in our products to capture demand stemming from these trends. Last fall, we announced a new weather platform, DeepVision, along with a high-resolution weather model. Forecasts from the Spire high-resolution weather model achieved world-class accuracy and allows our users to make decisions concerning the weather faster than ever. Through the incorporation of Spire's weather data into government weather forecasts, individuals across the world have better, more valuable weather predictions.

The rapid emergence of AI and machine learning capabilities in weather prediction is swiftly moving the power from those with access to massive super computers to those with access to massive super data, in particular from space. Spire is at the very forefront of capitalizing on this shift, and I could not be more excited about the new products, services, and partnerships that the Spire team is rolling out to help communities, corporations, and countries tackle the challenges of climate and weather to their safety, business models and security.

Our technological advancements and strategic alliances, like the partnership with Signal Ocean, are a testament to our leadership. Spire will contribute its unique proprietary data set relevant for precise monitoring of the maritime domain, while Signal Ocean will bring its best-in-class expertise in the AI, machine learning, and in particular, natural language processing to create new, innovative solutions. Together, we are enhancing maritime digitalization and global security.

Moreover, we have continued to see demand for our differentiated, highly valuable solutions. A couple of weeks ago, we announced a multimillion-dollar award from the European Maritime Safety Agency for vessel monitoring, particularly in the polar region, where coverage outside of Spire's space-based data is very limited indeed. During the fourth quarter and in early January, we announced agreements to build and operate a six satellite, dedicated IoT constellation for Lacuna Space, a multimillion-dollar award related to weather data from EUMETSAT and a \$9.4 million award from NOAA for eight months of weather data.

As geopolitical interests are more frequently turning to space, Space Situational Awareness is becoming more important in an increasingly contested environment. We were excited to be deploying the first commercial Space Situational Awareness Satellite constellation for NorthStar

through our Space Services offering. Our white glove end-to-end Space Services offering allows companies to quickly deploy and rapidly scale a constellation to take advantage of emerging trends from, for example, Space Situational Awareness to wildfire and greenhouse gas monitoring.

What starts as a handful of satellites can quickly multiply to a full constellation in a matter of just a few years. As the capability and power of smaller satellites continue to improve tenfold every five years, we are now able to deploy a full constellation in roughly the same time frame in which a single legacy satellite would traditionally have been produced. This is transformational technical capability at work, creating a more prosperous and safe future for all.

Looking ahead to 2024 and beyond, our track record speaks for itself. Over the last two years, we've not just met our profitability targets, we more often than not exceeded them, even amid the roller-coaster of economic conditions during this period. This speaks volumes about our strategic focus and operational excellence. Our ability to meet or surpass our ambitious annual profitability guidance set each March underscores our unwavering commitment to financial health and shareholder value.

In navigating through a period marked by unprecedented challenges, from geopolitical tensions to economic uncertainties, including inflation, potential recession, and the rapid shift in Central Bank policies, our strategy has been unwavering. Our adaptability in the face of such adversity has not only kept us on course but has also proven the resilience and robustness of our business model. Despite the external pressures, we have not only stayed the course but have also marked significant milestones towards our goal of sustained profitability.

Our anticipation of positive free cash flow by the summer is a commitment we made two years ago, one we are poised to fulfill. This achievement is not just a mere milestone. It is a clear indication of our strategic foresight and the effective execution of our business plan. Our ability to pivot and adapt, all while driving towards profitability, demonstrates the strength and sustainability of our model.

Spire's unique subscription business model is the cornerstone of this success. By blending the high barriers to entry and large addressable markets characteristics of deep tech with the cost efficiencies and scalability of software companies, we have created a model that not only supports rapid growth but also ensures profitability. Spire clearly stands out in the industry landscape as our high gross margins and growth rates are not just numbers, they are a reflection of an innovative business model designed for resilience and long-term financial health.

Given that all our products are sold as a subscription, we benchmark ourselves against the SaaS metrics of public companies. In 2023, public SaaS companies saw a slowdown in a few of their growth metrics as the industry has pivoted to focus on profitability. Spire has been focused on

reaching profitable growth since becoming a public company. As a result of this focus, we have been able to maintain a strong growth rate while dramatically improving each quarter our profitability metrics, reaching our first profitable quarter on an adjusted EBITDA basis in Q4.

While revenue growth for public SaaS companies cooled from about 28 percent to 19 percent in 2023, Spire excelled with a growth rate of 32 percent, mitigating the contraction and retention rate to a mere 15 percentage points, a figure inclusive of a key contract secured at the onset of 2024 and better than public comparables. With eyes trained onto 2024, we envision strong top-line growth, surpassing 30 percent and steering towards a 35 percent midpoint growth guidance.

Delving a bit deeper into profitability indicators, the lifetime value of a customer relative to customer acquisition costs shines a spotlight on the profitability of your customer base and whether additional value can be created by investing in more sales and marketing. A benchmark ratio of about 3 times is deemed quite robust in the SaaS domain. Spire, however, currently generates lifetime value of over 12 times our customer acquisition cost, a vivid demonstration of the exceptional and lasting value Spire delivers to its customers.

Thanks to Spire's very high gross retention rates, customers may stay with Spire for many, many years. As such, we are also attracting a more conservative metric, which discounts the value of future money to a net present value. This more conservative net present lifetime value still covers our customer acquisition costs eight times over. This bolsters our confidence to accelerate Spire's growth by strategically channeling further investment into our sales and marketing efforts, all while preserving a robust bottom line.

With our subscription business model, Spire has cracked the code of building a high-growth, high-margin space company. As we project our goals further out, we are not content with just maintaining our trajectory. We aim to accelerate, driving top-line growth consistently about 30 percent, achieving gross margins over 70 percent, and maintaining positive cash flow. These are more than objectives. They are the hallmark of great subscription companies, and we plan to stand firmly among them. Our achievements to date are just the beginning of this journey, yet they already set us apart in the competitive landscape. We are committed to continuing this trajectory, driving value for our shareholders and redefining the possibilities for our industry.

Space has inspired people for millennia, bringing hope for a better future, with the space economy estimated to reach \$1 trillion or more by 2030. As thousands and thousands of companies look for and find ways to leverage space, Spire is bringing that hope to people and places all around the world. We are mission-driven to improve life on Earth, with data and insights that can only be collected from space. Our commitment to this mission is stronger than ever, and I'm excited for Spire to deliver on this promise in increasingly impactful ways, and thank you for your trust and support on this journey.

And with that, I'll turn it over to Leo.

Leo Basola

Thank you, Peter. I hope listeners are as excited as I am about Spire. For any CPA, that would be a tough act to follow, but let me keep the energy high. Our results clearly support that level of excitement. The fourth quarter was yet another quarter of strong execution. At \$27.7 million of revenue, we met our expectations for the fourth quarter, an even more significant achievement considering that the launch of our NorthStar constellation moved from December 2023 to January 2024 and delayed some revenue recognition.

Our Q4 results, yet again, saw a trend of continued record revenue for the 10 quarters we have been a public company. Our full-year revenues of \$105.7 million fell within our guidance range, and at 32 percent growth met our expectations for annual revenue year-over-year growth of over 30 percent. Reported ARR at quarter end was \$106.8 million. This excludes a \$9.4 million eight-month contract for Radio Occultation, or RO weather data. This award was received January 4, 2024, only 96 hours after close due to an administrative systems issue on our customer side.

As a result of this contract not being formally awarded by December 31, we prepaid \$2 million of principal on our Blue Torch debt to remain in compliance with the ARR covenant through the end of 2023, including this RO contract awarded in early 2024, which represents \$14.1 million ARR. We are currently at over \$120 million in ARR, a level over the highest ARR required by our debt covenants.

With this achievement, we will no longer be providing guidance on this metric, but we'll continue to report our ARR results in our quarterly and annual financials. Consistent with the maturing of the company, our covenants will shift to adjusted EBITDA. We will provide guidance on adjusted EBITDA as we have done thus far. We will also start to provide insights on other SaaS metrics, with the intention of giving additional transparency around our superior business model.

Another metric that we feel provides insight into our future revenues is our remaining performance obligation. As of the end of the fourth quarter, we had almost \$200 million of remaining performance obligations that have not yet been recognized as revenue, and 40 percent of that revenue is scheduled to materialize in the next 12 months. This creates a good line of sight regarding a meaningful amount of contractually committed future revenues.

For full-year 2023, gross margins expanded to 60 percent on a GAAP basis and 64 percent on a non-GAAP basis. This reflects a 10 percentage-point improvement over 2022 on a GAAP basis and a 9 percentage-point improvement on a non-GAAP basis. As we look forward to the end of 2024, we expect further improvement in our full-year gross margins compared to 2023.

Next, I'll discuss non-GAAP financial measures unless otherwise stated. We have provided a reconciliation of GAAP to non-GAAP financials in our earnings release and investor presentation, both of which are available in our Investor Relations website and should be reviewed in conjunction with this earnings call. Our Q4 operating loss was better than the high end of our guidance range at negative \$3.6 million. This reflects a 65 percent year-over-year improvement and a 43 percent improvement sequentially quarter-over-quarter. Operating margin was negative 13 percent for the quarter and represents a 33 percentage-point operating margin improvement year-over-year.

The over performance can be attributed to diligent management on the discretionary spend and a tight control of headcount, which resulted in lower compensation and benefit payouts. Adjusted EBITDA turned positive for the fourth quarter, a result that was not expected until the first half of 2024. At positive \$2.1 million, or 8 percent of revenue, adjusted EBITDA was over \$1 million above the high end of our range. For the full year, adjusted EBITDA was negative \$11 million, a 66 percent improvement from full-year 2022 results. This full-year result reflects the operational leverage we were able to generate from our deployed assets.

Let's now move on to the balance sheet, and specifically our cash position. We ended the quarter with cash, cash equivalents, and short-term marketable securities of almost \$41 million, which was in line with our expectations. We successfully generated positive cash flow from operations, as committed. With a \$9.2 million sequential improvement, we achieved positive cash flow from operations of \$4.1 million.

Turning to free cash flow, we saw an 86 percent sequential improvement to negative \$2.2 million in the fourth quarter. This includes a \$4.5 million prepayment of debt. We feel confident in our journey to deliver positive free cash flow in the summer of 2024. We usually receive this question from investors regarding what we will do with the cash we expect to generate as we become free cash flow positive.

As you know, there are mainly three uses of cash: debt repayment, share repurchases, and investment in growth. I would like to expand a bit on the last one because this is where we will most likely allocate most of the cash flow we generate going forward. As Peter mentioned in his opening remarks, we benchmark Spire against SaaS businesses, and we have some of the strongest SaaS metrics in the industry. Not only have we grown revenues at over 30 percent year-over-year, our LTV to CAC is over 12 times un-discounted and over 8 times discounted.

We plan on providing additional SaaS metrics in the future. And what you should take away from this is that Spire provides superior value to our customers with our proprietary data assets and solutions, and that, given our high ARR net retention rates of over 102 percent for 2023, strong gross retention rates, and efficient direct sales approach, we believe the company valuation can benefit significantly over the long run from reinvestment in growth areas, particularly sales, products, and marketing.

Going back to the second use of cash, debt repayment. The existing loan terms resulted in Spire paying roughly \$16.7 million of net interest payment or about \$0.85 a share in 2023. We continue to foster a good relationship with our current lenders, and, as we discussed last quarter, we believe our credit profile and rating is better than what we are currently paying for.

As a comparison, in the quarters prior to taking out our current loan, Spire was burning over \$16 million of operating cash flow each quarter. Last quarter, Spire generated over \$4 million of positive operating cash flow, and we expect to continue generating positive operating cash flow going forward. Additionally, we achieved positive adjusted EBITDA in Q4, and we added \$10 million to our balance sheet in February through a strategic investment that valued our share at \$12 per share or roughly a 50 percent premium on our market price at the time of the announcement.

These achievements set us up for continued dialogue with more traditional lenders to explore opportunities for interest rates more in line with our current credit risk profile. It remains our objective to refinance our current loan in the second half of 2024 or very early 2025 at the latest.

Now, turning to our outlook for the first quarter and full-year of 2024. We believe 2024 will be a marquee year for Spire, one where we sustain positive adjusted EBITDA for the year and start seeing positive free cash flow in the summer. Quarterly results can still fluctuate, given the quarterly timing of various metrics, but we're confident in our annual commitment, supported by our strong track record. As a reminder, we met or exceeded all six of our bottom line guidance metrics for 2022 and 2023 that were set in March of each respective year.

For the first quarter, we expect revenue to range between \$27 million and \$29 million before stepping up in the second, third, and fourth quarter as new Space Service assets begin to deliver data. For the full year, we expect a revenue range from \$138 million to \$148 million. The 2024 midpoint reflects yet another high double-digit growth year at 35 percent year-over-year growth.

Given the operational leverage we are continuing to see across our business, we anticipate full-year 2024 non-GAAP operating earnings to range from negative \$5.5 million to positive \$2.5 million, which is a \$24.3 million improvement year-over-year at the midpoint. For the first quarter, we expect non-GAAP operating loss to range between \$8 million and \$6 million and then turn positive after the second quarter, driven by higher revenues as Space Service assets begin to deliver data.

Adjusted EBITDA for the full year is expected to range from positive \$13 million to positive \$19 million, which represents an improvement of \$27 million year-over-year at the midpoint. For the first quarter, we're expecting a range from negative \$2 million to zero and then for adjusted EBITDA to remain positive starting in Q2 2024.

We expect our non-GAAP loss per share for the first quarter to range from negative \$0.36 to negative \$0.27, which assumes a basic weighted average share count of approximately 22 million shares. For the full year, we expect our non-GAAP loss per share to range from negative \$0.24 to positive \$0.11, which assumes a basic weighted average share count of approximately 22.5 million shares.

Turning to our replenishment CapEx needs for 2024, we expect to spend between \$5 million and \$7 million to replenish our constellation that supports our Data and Analytics business. This is in line with our replenishment CapEx in 2022 and 2023, data that we are now providing in our 10-K, as we are continuing to provide additional transparency around our business.

Spire has a strong track record of delivering on our commitments. At Spire, we call it being reliable, which is at the core of our values, alongside with faster and relentless. That's the kind of team we have at Spire, and that's what motivates me every day.

Thanks for joining us today. Now, I would like to open up the call for questions.

Operator

Thank you. We will now be conducting a question-and-answer session. If you would like to be placed in the question queue, please press star, one on your telephone keypad. A confirmation tone will indicate your line is in the question queue. You may press star, two if you would like to remove your question from the queue.

One moment, please, while we poll for questions. Our first question is coming from Austin Moeller from Canaccord Genuity. Your line is now live.

Austin Moeller

Hi. Good afternoon. Great quarter. My first question here, probably for Leo, since free cash flow use was so low in Q4, can you detail what working capital or other CapEx items are leading you to maintain positive free cash flow guidance in Q3 to Q4, or does summer technically indicate that it's moved to the left a little bit?

Leo Basola

Austin, thank you. And, listen, the free cash flow for summer is what we said before. Around Q2, Q3 is the timeline where we expect that to be the case. Free cash flow includes CapEx, and our CapEx in total is also subject to the Space Services launch and the Space Services activities.

So, when you think about our free cash flow becoming positive, it's a combination of the timing of the Space Services activities that we do, the build and the launch, and also our ability to turn on some of those data provision contracts that, as I described and you can see in our presentation, are an extremely positive cash flow generator after they go effectively in service. So, we have a bunch of those that launched late in 2024 and early in Q1. As those become operational, they will become a significant contributor to our cash flow position.

Austin Moeller

Great. And just to follow up, this question might be for Peter, but when do you expect that ESA might award a follow-on contract for the EURIALO constellation after you finish the first demo satellite?

Peter Platzer

So, the timeline--thanks, Austin, for the question, is that towards the end of the EURIALO project, which was always targeted to be a two- to three-year project, the European Commission has come out and said like that's roughly when we want to get going and have a massive constellation of probably a few hundred spacecraft that provide a few second latency of civilian aircraft tracking over the European area without the need for the GPS signal that is embedded in the ADS-B information.

So, I would expect, given the timeline of European institutions, that those discussions will start to get underway as the EURIALO project reaches kind of like its midpoint, maybe a little bit further. But, I do not expect them to be actually awarded much before, if at all, the end of the EURIALO project.

Austin Moeller

Great. That's very helpful. Thanks for the details.

Peter Platzer

Of course.

Operator

Thank you. The next question is coming from Ric Prentiss from Raymond James. Your line is now live.

Ric Prentiss

Hi. Good evening, everybody. I have a couple questions.

Peter Platzer

Good evening.

Ric Prentiss

Yeah. Hey, a couple questions. First, appreciate the calendar year, calendar quarter guidance to say, okay, here's what we're going to do, revenue in the year. That's much appreciated. The--a couple of questions I had is obviously you've got the new space assets. Did that hit cost of service depreciation in 4Q? And is that kind of the levels we should expect, or was there something unusual in that going from kind of below \$10 million down to \$13 million in the quarter?

Leo Basola

Yeah. So, I think one thing that you need to consider is every year we do an assessment of our asset lives, and this is not different from any other year, where we basically assess the asset lives that we have. One of the things that came out in Q4 was a new study on the solar cycle that NOAA and NASA gave us. We were able to reassess the extent of the impact of that solar cycle in the useful life of our satellites. Some of the older satellites basically will deorbit a little bit earlier than we had anticipated and we had to reset the useful lives for some of the satellites. That's really all you're seeing in that reset.

Ric Prentiss

And what are the useful--.

Peter Platzer

--Let me speak a little bit for a second here. As you know, the sun has a cycle of roughly 11 years where its activity increases and then decreases. And when the activity of the sun increases, it kind of like expands the earth atmosphere a little bit, and that is impacting all activities in space. If you go to higher orbits, you also have certain events. They're called single event upsets and total ionizing dose that are above the Van Allen belts where things get a little bit more rough. In the lower orbits, you have a certain spacecraft that just deorbits a little bit quicker.

I think what's very, very beneficial for Spire is the great resilience of our constellation that is deployed as well as the constant increase in capabilities. A spacecraft today might do something that three years ago took 10 spacecraft. So, I would expect that over time, the total number of spacecraft that deliver the data that we deliver today to customers and beyond is actually going to come down rather than go up, simply because more and more assets that we launch are more and more effective compared to the assets that are currently in orbit as the 10x performance improvement every five year principle is so deeply embedded, not just in the industry, but in particular in Spire, given the whole vertical integration of the company.

Ric Prentiss

And what kind of useful life are you seeing across the different types of your satellites?

Leo Basola

It--.

Peter Platzer

--So, it--sorry, go ahead, Leo.

Leo Basola

I think it depends significantly on the timing of when you launch them and the size of the asset and then whether they do or don't have propulsion and the type of mission that we have. So on average, our own constellation still has a four-year average useful life, which is kind of what

we expect. And we said four to five years is usually what we would have expected to see. Some of the larger assets tend to have propulsion, and they tend to last a bit longer. So, for Space Services, we have some assets that could be in the air longer than the five-year average--four to five year that we have on our assets.

Ric Prentiss

And you mentioned that some of your--as you produce free cash flow, glad to see that's still on track for summer, positive free cash flow, invest back in growth with likely sales products and marketing. If we look at fourth quarter, the sales and marketing was a little lighter, and G&A was a little lighter. Is that what we should expect going forward, unless you're ready to start investing some of that free cash flow? Or how should we think about investing in sales and marketing versus what we've seen kind of as the year ended out?

Leo Basola

Yeah. So, I would say that that is exactly what you should expect. I mean, there are a couple of things that we certainly would want to invest in. Our offering is heavily skewed towards the data provision, and we want to invest a bit more in analytics and predictive analytics. We also will expand kind of our product offerings and launch new products, and you will see a bit more spend in marketing and sales, feet on the street activities, as we start to generate that free cash flow.

We described also the lifetime value to cost of acquiring a customer, and that's effectively where we think the biggest return would be for the shareholders at this point because we have very, very strong returns on those investments on the acquisition side, yeah.

Ric Prentiss

And then, obviously, the replenished CapEx, appreciate you breaking that out, \$5 million to \$7 million somewhere between 2022 and 2023. But obviously, the Space Services can be kind of lumpy and chunky. For the guidance of positive free cash flow by summertime, does that assume that some of those Space Services projects are more latter in the year, or is it--.

Leo Basola

--So, they are basically--so the launch happens at one particular time. There is a significant amount of cost associated to the launch. If you go to the page where we try to illustrate how the Space Services deal works from a cash inflow and outflow standpoint, you will see that all of that CapEx is prefunded by the customer. There are fees that basically support that. But, it's lumpy because you can see money that comes at design, manufacturing, and a big bar that goes to help when we pay for the launch, prepay for the launch, and the launch happens.

And then from there on, the cash inflows are very material. So, of course, from a P&L standpoint, the GAAP profit is fairly leveled because we start depreciating those assets that we own. But from a cash standpoint, it can be somewhat lumpy, depending on when the assets

get launched effectively. But generally speaking, you should expect us to have, as we said, \$5 million to \$7 million of replenishment CapEx of our own that will go through the year, right?

And it's, as we said--that we just said, we replenish satellites. They last for five years--four to five years. And as we put new satellites in orbit, they do way more than what the older ones did, so we don't need to replenish one for one. And then, we continue to invest in our capabilities on the type of antennas that we have in our ground stations and the bands and the speed of the downlink and all of that jazz. I would say that for Space Services, it can be a bit lumpy, but generally speaking, you should think about this as when you see more CapEx, that's actually good. It means more growth, it means more revenue, it means more cash in the future.

Ric Prentiss

Very good. Thanks, everyone.

Operator

Thank you. Next question is coming from Jeff Meuler from Baird. Your line is now live.

Jeff Meuler

Yeah. Thank you. Good afternoon. So, it was helpful commentary on the impact from the timing of, I think, the NOAA contract as it relates to ARR. And I get that normalized for that, there's good progression. But, I think it would have still been below your guidance normalized for that contract timing. Can you just comment on that dynamic as well as on the ARR solution customer trend? I know you're de-emphasizing smaller customers. It just looks like a step down more sequentially than I would have expected.

Leo Basola

Yeah. So, you're right. And, Jeff, thanks for your question. The ARR guidance was around \$130 million, and we would have been at \$120 million with the NOAA contract. And the issue is really, you can see it in the news, some of our orders on the federal side were actually delayed because we had the continuing resolution giving some of the agencies a bit of pause on when to place those orders.

And then, on top of that, we saw--we delayed the launch from our constellation for NorthStar, and, of course, when that moves from December to January, there are domino effects on their side and the customer's side on proving that these assets work and that they get additional funding for a subsequent order. So, those are the kind of things that impacted our estimate. And you can go line by line, and the reconciliation is actually a little bit of push out into Q1 or first half of 2024 on those orders.

Jeff Meuler

Got it.

Peter Platzer

I would say generally, Austin, that's the nature of ARR, that a small move in timing can like make a very different change in what you report. We have not seen any change in the demand and interest from the customer for our products. It's quite the opposite. We are scrambling everywhere so we can to have enough capacity inside the system to fulfill the demands that customers are throwing our way.

Jeff Meuler

Got it. Yeah, that makes sense. And I guess this is related to that, but as you hit free cash flow positive and start to invest more in sales, marketing, et cetera, just given that that's through the income statement period, can you give us any sort of like framework around multiyear margin expansion? Like should we expect margins to be more flattish for a few years, or are you just signaling that we should expect a more moderated pace of margin expansion? Just anything you can say to help us better model what you're trying to signal?

Peter Platzer

Yeah. The trajectory that we continue to operate against and we have talked about and we feel positive and strong about is about 30 percent growth on the top line, above 70 percent gross margin on the gross margin side, free cash flow positive. I think that is a very, very good framework to think about how this will continue to shake out and move.

Jeff Meuler

Thank you.

Operator

Thank you. Next question is coming from Erik Rasmussen from Stifel. Your line is now live.

Erik Rasmussen

Yeah. Thanks, and congrats on the results and the positive operating cash flow.

Peter Platzer

Thank you.

Erik Rasmussen

So, just wanted to follow on with that gross margin comment. So obviously, margins stepped down a little bit on an adjusted basis from Q3. But, if we're going to think about that 70 percent sort of target, is that something that is more of a second half that you--as you sort of get to that free cash flow and also sort of coincides with the top line sort of picking up as the Space Services piece starts to generate data, and you start to get revenue recognition from that?

Leo Basola

Yeah. I would say that you should expect margins to accrete as our revenue continues to grow, as we have told. And in effect, I would say that you should model margin expansion, like we said. And our expected target is to go to 70 percent gross profit, and that's what you should use in your models. I cannot tell you more than that, I think. There is a lot of leverage on our model. So, every time we get one of those Space Services deals on, right, and they start generating data, they generate very good margins, both on the cash and the gross profit side.

Every time we sell a new contract, like you just saw with basically the maritime contract that we just announced, they come with a significant amount of leverage, right? So, there's not incremental investment on our side, on the gross profit side, to achieve that revenue, value generation. And effectively, that generates expansion.

Erik Rasmussen

Great. And then, just the revenue guidance, Q1, that's essentially flat at the midpoint from Q4. But, it sounds like that's all, again, related to the Space Services. And you expect, then, Q2 to be the step up and then step up throughout the rest of the year? Or is there any--and is Q1 sort of low point for the year? And what could sort of bring Q2 a little bit lighter than expected versus sort of your comments earlier, Q2 being a little bit of a step up?

Leo Basola

Yeah. I think I mentioned one of the things that needs to unlock for us to see that step up is the continuing resolution. So as we do that, some of the agency demand that we have seen since Q4 and hasn't really materialized will materialize in Q1 and then deliver revenue for Q2, Q3, and forward. I would say that after Q2, you should expect things to remain relatively flat, increasing slightly from Q2 to Q3 to Q4. But, there is a material step up between Q1 and Q2 as we deploy some of these Space Services agreements.

Erik Rasmussen

That's helpful. Great. And then, it seems like the Space Services business is picking up. Can you just maybe comment on how revenues have trended? What's the split in relation to your data services business? And then, how do you see that sort of split progressing throughout 2024?

Leo Basola

Yeah, perfect. We talked about the four main business units that we have, right, so Maritime, Weather, Aviation, and Space Services. I would say that the three big ones, and you can consider them kind of in a similar range, are Maritime, Weather, and Space Services. The fourth one, Aviation, is emerging. I would say that's it's a fraction of the other three. So if you do the math, you can come up with--you can do the simple math on 3-3-10, 3-3-3-10, right, something like that.

But, my--you asked how we're going to grow. All of the business units are growing double digit. Aviation starts from a smaller base, and they're going to grow high double digits as the EURIALO

project and the technology that ensues from that project turns into one or two or three or four commercial agreements when we're able to deploy real time ADS-B data sets to our customers, right? So, there's a significant amount of upside potential on the Aviation solutions.

Erik Rasmussen

Great. And then, maybe just the last question. Just maybe can you talk about the transition of the large accounts? You mentioned last quarter or two of the change in strategy. I know it's still sort of early in that process, but any sort of observations you could share in terms of the momentum or potential upside that you've seen from that change?

Leo Basola

Yeah, I think, Erik, you can see it in our numbers, right? So, we have already seen the results of our price actions and our conscious decision not to pursue very, very small accounts. They tend to be the least accretive, and they don't continue to grow. They don't expand. So, our strategy of land and expand is a very important factor of our growth equation, and the smaller accounts tend to be small forever.

So, we want accounts that have an opportunity to really buy more of what we can offer, and we want a larger share of wallet, but we also need a larger wallet. So, our decision to really de-emphasize that and reprice some of the smaller accounts, you can see already in some of the numbers that we have published for our ARR customer solutions that came down significantly. But, that's because of our conscious approach to really not invest time in things that don't have the right payback.

Erik Rasmussen

Great. That's helpful. Appreciate it.

Operator

Thank you. The next question is coming from Suji Desilva from ROTH MKM. Your line is now live.

Suji Desilva

Hi, Peter. Hi, Leo. Congrats on the strong quarter. On the NorthStar win and just the opportunity in National Security, I want to understand in terms of targeting that, the U.S. and global governments, how large is the incremental opportunity from beyond NorthStar? And how soon can that come online? Is it being delayed by some of what's going on in the government? Just curious on thoughts there.

Peter Platzer

Yeah. So, it's cleverly packing two questions into one, so I will try to answer both of them sequentially. NorthStar is really a customer who is--I would say, services humanity, we are particularly proud of supporting. They are generating more Space Situational Awareness information with their assets than I think anyone else definitely commercially has been able to

do. That data is of relevance indeed in the commercial sector but is also, as you rightfully point out, of great relevance on the defense side.

And overall, the conversation that we have on planet Earth is often about wildfire and greenhouse gases. The conversation we have in space is generally equally intense and heated up about Space Situational Awareness. And so, I think we're quite excited for the growth of NorthStar's business. And the powerful thing of the business, as I think Leo had mentioned in some of his remarks, is that something that starts off at 1, 2, 3, 4 spacecraft, can then very, very rapidly grow to 8, 16, 32 spacecraft and beyond.

So, the upsell opportunities to grow with our customers' business is very, very rapid, as Spire has the ability to answer the demand from our customers, which are trying to answer the demand from their customers very, very rapidly. And certainly, as demand for Space Situational Awareness, who is doing what, where, and when, and how, is certainly increasing both on the civil side and the defense side.

But overall, the defense side is definitely a market which for, I guess better or worse, is one where we see a tremendous amount of opportunity for Spire to contribute to a more safe and balanced and transparent world. As the intensity of conflict increases all across the world, the ability to generate activity reports, the ability to geolocate assets that use radio frequency, which is just about any asset on planet Earth, is becoming more and more valuable. And it's certainly that we are excited to be a provider of the transparency in supporting those that are trying to shine a light into those activities and be a contributor to a more safer world, and we certainly see a lot of future possibilities there for Spire as a company.

Suji Desilva

Thanks, Peter. And then, my other question is on the maritime market. You've talked in your materials, your testament materials, about it being lagging other logistics and transportation industries and digitization. I'm curious how the partnership with Signal Ocean and the AI/ML assets they have kind of maybe accelerates maritime into that better. Any color there would be helpful to understand as we go forward.

Peter Platzer

Yeah. We believe that the maritime industry is just on the cusp of a new era of digitalization as more and more companies recognize the value of the data that can enhance the operations, that can enhance what is happening on like on the oceans, which is driving over 90 percent of global trade. It is feeding the planet. It is doing not just the transportation, it's feeding our commodity markets. So, it is an incredibly rich economy that some people say is like \$4 trillion, but it is driving an even much larger portion of the global \$100 trillion economy. And so, the digitalization is really at the cusp.

And Spire really sees itself as wanting to be the premier data provider in this universe, enabling other companies to grow, based on that best-in-class data set. AI and machine learning now is

a technology that really enhances the value of this data if you have the right AI and machine learning technologies and capabilities yourself. Having that is really where Signal Ocean shines in having some exceptional capabilities there. And I believe that this partnership can enable other players to make the most of the combined value of more data that can be generating more insights through AI and machine learning.

And so, we're quite excited of continuing to be a positive force for change towards this digitalization curve with our partnership with Signal Ocean but also a lot of other conversations that we have here in parallel for those partnerships to drive the digitalization of the maritime economy as one of the, if not the largest, provider of clean, valuable, premier data of what is happening on the oceans every single day, every single minute.

Suji Desilva

Okay. Thanks, Peter. Appreciate the color. Thanks, guys.

Peter Platzer

Of course.

Operator

Thank you. We've reached the end of our question-and-answer session. And that does conclude today's teleconference and webcast. You may disconnect your lines at this time, and have a wonderful day. We thank you for your participation today.