Spire Global
First Quarter 2023 Call
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Presenters
Peter Platzer, CEO
Tom Krywe, CFO
Ben Hackman, Head of IR

Q&A Participants
Austin Moeller – Canaccord Genuity
Erik Rasmussen – Stifel
Ric Prentiss – Raymond James
Jeff Meuler – Baird
Caleb Henry – Quilty Analytics
Andre Madrid – Bank of America

Operator
Greetings. Welcome to the Spire Global First Quarter 2023 Call. At this time, all participants are in a listen-only mode. A question and answer session will follow the formal presentation. If anyone should require operator assistance during this conference, please press star, zero, on your telephone keypad. Please note, this conference is being recorded.

I will now turn the conference over to your host, Ben Hackman, Head of Investor Relations. You may begin.

Ben Hackman
Thank you. Hello, everyone, and thank you for joining us for our first 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 on the call today is Peter Platzer, CEO; and Tom Krywe, 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. Some of our comments today may contain forward-looking statements that are subject to risks, uncertainties, and assumptions.

In particular, our expectations around our results of operations and financial conditions 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
The first quarter was yet another quarter of growth and progress towards profitability. Spire added another quarter to our unbroken record of quarter-over-quarter revenue growth since becoming public. Additionally, margins took another step forward, as we continue on our journey to profitability.

In spite of the continuing macro headwinds, our diverse solutions are resonating with customers. We see broad-based demand for our solutions, which is reflected in our ARR, which has now increased to over $100 million. Even in a challenging business environment, the margin progression we are seeing is a direct result of the cost structure we put in place, prudently sharing infrastructure and resources across our four solutions.

Demand for our solutions remains strong across a wide and varied customer base. We added 48 new ARR solution customers in the first quarter, which is yet another proof point demonstrating how we are solving critical and challenging use cases for global, commercial and government customers. This growth showcases the potential business opportunities in the large untapped markets that remain in front of us.

We continue to see diversity in the use cases for our data and analytics. For example, as the world is looking for ways to combat climate change and governments are seeking energy security, offshore wind energy is being looked to as one of the main energy sources for a better future. According to the U.S. Department of Energy, installed capacity for offshore wind energy is expected to grow significantly to 260 gigawatts or more by 2030. This is up from the current installed capacity of 50 gigawatts, and the number of countries generating energy from offshore wind is expected to double over the next decade. This growth provides opportunities for Spire’s global weather forecast, which provides accurate ocean and wind conditions and is crucial for operational efficiency, and crew safety when planning, constructing and operating offshore wind farms.

Just yesterday, we announced the Canadian space agency has awarded a contract to Spire and OroraTech to deliver preparatory work for a wildfire monitoring satellite. The contract is the initial step towards CSA’s planned WildFireSat mission, which aims to monitor all active wildfires in Canada from space on a daily basis. This is yet another example of a developing market where our more than 500 years of space heritage can have an impact on human life.

According to Munich Re, global wildfire losses from 2018 to 2022 totaled $69 billion. Canada spends around $1 billion every year fighting wildfires, with indirect cost estimated to be several times higher due to resulting property destruction, infrastructure damage, evacuations and wider economic losses across business sectors such as forestry, energy and tourism. As companies like Spire have brought new data and analytics to market, organizations that are entrusted with providing intelligence to keep the world a safer place are evaluating and purchasing our data.

We recently announced that the NRO will continue to use Spire's data to evaluate how commercial radio frequency data will be integrated into its overhead architecture. The agency, a member of the U.S. Intelligence Community, which has requested a budget increase of over 8% for FY '24, is looking at Spire's data as it is expanding the acquisition and integration of commercial space-based data for situational awareness. With this announcement, the NRO exercised two options and extended the contract's period of performance through February of 2025.

Spire's fully deployed constellation of over 100 satellites monitors radio frequency signals to provide data and analytics on global weather intelligence, ship and plane movements, and spoofing and jamming detection. Of those satellites, Spire operates over 40 that help detect and geolocate signal interference, jamming, and spoofing. These satellites can identify the power, location and directionality of such events in multiple frequency bands.

Beyond applications for intelligence communities, knowledge of signal interference jamming and spoofing have applications within the commercial ecosystem. For instance, inaccurate or spoof GNS signals can cause significant disruptions to transportation and logistics industries that utilize the signals to track and monitor vehicles, ships and airplanes. Many businesses rely on GNSS for critical operations such as precision agriculture surveying and mining. And those responsible for managing our ocean fisheries, seek to have critical insights on vessels operating within protected areas. By collecting data that is unseen, Spire can help to predict how patterns impact global securities, economies and human life.

Also within the quarter, Spire announced that we have been awarded an Indefinite Delivery Indefinite Quantity contract by the National Oceanic and Atmospheric Administration for orders under a $59 million ceiling through March 2028. Spire can provide NOAA with near real time RO data that consists of vertical profiles of atmospheric measurements including pressure, humidity and temperature across all points of the globe as well as ionospheric measurements. This data has been used successfully for NOAA's operational weather forecast, space weather models and climate research, among other applications.

Spire is the largest producer of radio occultations, a powerful form of weather data, gathered by our fully deployed constellation of more than 100 satellites and offers a vast portfolio of current weather, historical weather data and weather forecast solutions. We are currently capable of providing 20,000 radio occultation profiles per day and could achieve up to 100,000 profiles per day in as little as 18 to 24 months.

Additionally, we recently announced a deal with Enqlare. Enqlare is using Spire satellite data to offer up to date vessel information and AIS positions to support freight buyers, port agents, ship owners and charterers with business planning and faster document creation. This enables clients to unlock time savings using automated document generation and reduce laytime processing by up to 40 minutes. Enqlare is part of over 1,000 small and medium enterprises in the maritime space, a number that has been growing steadily in the double-digits as the maritime industry is embarking on a digital transformation journey.

Turning to our aviation data analytics business, Spire announced a long-term agreement with ch-aviation to supply global flight analytics and insights that will enhance its airline intelligence database. The agreement includes access to Spire's daily flight report, which aggregates hundreds of millions of satellite and terrestrial ADS-B positions to provide actionable flight, aircraft, and airline data. Spire's flight report detects both scheduled and unscheduled flights occurring in near real-time across the globe, including in remote regions where it is not possible to track flights with terrestrial data services and traditional radar and radio systems.

ch-aviation is integrating Spire satellite data with its own data to derive insights on aircraft utilization, provide post-departure passenger capacity based on actual seat configurations flown, track wet-lease contracts and aircraft at maintenance, repair, and overhaul, or MRO providers, automatically update an aircraft status and location and allow users to create flight reports using fleet data criteria. It will allow MRO providers to track aircraft maintained by competitors, lessors to monitor their assets, airlines to benchmark their operational performance relative to competitors, and charter brokers to see which contracts they missed out on. The aviation MRO market is roughly an $80 billion market and is expected to grow another $50 billion by 2030.

To share a handful of examples of the use cases represented by the new logos signed this quarter, multiple customers are using our data for marine domain awareness. Marine domain awareness is a term for monitoring sea related activities, and it is a fast growing market. The global maritime surveillance market size is valued at around $20 billion and is expected to grow nearly double digits and reach approximately $40 billion by 2026. This data is being utilized to support both, defense and commercial agencies, such as intelligence agencies and agencies monitoring illegal fishing and dark shipping.

Marine industry experts have noted that they see a future where all points on the planet are connected at all time. Low-cost tracking devices and continuous coverage is possible, where compliant vessels will be increasingly visible in maritime monitoring systems, causing non-compliant vessels to stand out. As the world becomes a more interconnected place, there is additional interest in monitoring and securing ocean borders and exclusive economic zones, which span approximately 137 million square kilometers across the world and require satellite data to effectively monitor.

Beyond marine domain awareness, we are seeing our maritime data being utilized by the broader ecosystem, with new customers and industries like trading firms, utility firms, and data intelligence firms with clients that include investors, operators, and government agencies. As we land these new customers and look to expand our business with them, we are encouraged by the continued broad-based demand spanning younger growing companies taking advantage of the maritime digitalization trend, as well as established Fortune 100 companies.

While we are pleased with our continued growth during the first quarter, we are even more proud of our progression towards profitability in this very difficult macro environment. We exceeded our expectations on operating loss, adjusted EBITDA and loss per share as we continued our pursuit of profitability. This strong execution came against the backdrop of challenging macro headwinds on multiple fronts.

We saw near-term disruptions in the launch market with the bankruptcy of a launch provider. We are seeing multiple high profile bank failures, increasing interest rates, risk appetites sliding to 12 month lows and tightening lending standards across financial institutions to name just a few. Banking concerns are having an impact and slowing the economic pace. Initial jobless claims have been above expectations. Layoffs in the tech industry are beginning to spread to other industries, and uncertainty over recession continues to be a topic of conversation.

According to the Conference Board measure of CEO confidence, CEOs remain cautious at the start of 2023 and 93% of the CEOs surveyed are preparing for a U.S. recession over the next 12 to 18 months. Spire has not been completely immune from this uncertainty. This macro environment has hampered our ability to upsell and raise prices and as elongated, the sales cycle. As a result, we could not raise net retention rate during the quarter, but it still came in at a very healthy 108%, which is higher than the net retention rate in the first quarter of 2022.

Even with these macro challenges, we were able to deliver better than expected revenue and bottom line results due to our portfolio of diversified solutions to sell and our operational leverage. Our constellation to support our maritime, aviation and weather solutions has been fully deployed for a number of years and since then, only requires relatively small annual maintenance and replenishment CapEx.

We utilize our manufacturing and operations team and all of our ground station assets across all four of our solutions, but beyond this built-in operational leverage, we are continuing to find ways to drive further efficiencies into the business. One area where you can see those results is the improvement in our gross margins, which improved 11 percentage points year-over-year and five percentage points quarter-over-quarter. For example, we've seen significant improvements in our satellite checkout and commissioning, or C&C activities. These are processes we utilize each time we put a satellite in orbit.

Once launched to space, the satellite separates from the launch vehicle, and we make contact with the satellite. We then proceed through a checkout procedure to ensure the capabilities tested on earth survived the physical forces of the launch process. By analyzing the behavior of our systems over the past 100 plus satellites, identifying bottlenecks in the C&C process, and being deliberate about execution efficiency, we have been able to take advantage of learnings which resulted in process streamlining.

Earlier this year, we successfully reduced a C&C time by 50% over the previous deployment. And with our most recent deployment, we have demonstrated the ability to move a satellite through the process five times faster than the previous deployment, and we have plans to accelerate this process even more. This is a particularly timely improvement, as we will be deploying more space services satellites later this year.

Similarly, we improved our supply chain. While external market forces are providing an uncertain outlook across all sectors, there are many adaptations that Spire has undertaken to best mitigate the associated risks, while simultaneously improving efficiency in our supply chain. To mitigate the tight capacity everyone is seeing in the market, we have sought out new suppliers and secured capacity with some key suppliers ahead of our manufacturing lead time to ensure that we can flex the supply chain to meet the needs of our customers.

We have secured stocks of raw materials and electrical components, where we saw a risk in shortages, simultaneously reducing our lead times for these items in the future. We have collaborated extensively with our key suppliers to improve the process time for turning around quotes and orders, as well as using the expertise in the supply base to help us better design our products for more streamlined manufacturing. This helps us get our products into and through the manufacturing process in a faster timeframe, allowing us to deliver products faster, while maintaining reliable satellite build performance.

Like the improvements we are seeing with leveraging our manufacturing and satellite operation process, we also see improvements in lowering our operating expenses as a percentage of revenue. As we continue to scale the business, we are investing in our employees and up-skilling our in house capabilities. We are leveraging our internal resources and systems and lowered our use of outside consultants. We are seeing lower audit and legal fees, and with our improving business results, we are obtaining lower insurance costs. Again, you can see this in our results as the first quarter 2023 non-GAAP G&A expenses were basically flat year-over-year, while the revenue grew 34% year-over-year.

Continued improvements across the business like these give us confidence in our ability to reach and sustain profitability and become free cash flow positive. While a substantial achievement, becoming profitable is just the first step for us. As we look beyond the point in time Spire begins to generate a profit, we have objectives based on our SaaS business model and unique data analytics offerings. It is our objective to achieve average SaaS gross margins above 70% in the next two years. And given continued demand for our unique data and analytics, we expect to be able to achieve these margins with substantially less sales and marketing costs, as compared with average ratios seen from SaaS companies. We expect our operational leverage to continue fueling margin expansion across the board as we pass through breakeven and continue into profitability.

Turning now to our technology. We continue to see rapid technology improvements along the curve that has now been in place for decades, and Spire continues to benefit from and deliver those improvements. We have been able to demonstrate the geolocation of global navigation satellite system jammers, or GNSS jammers, with a single satellite, by devising a detection solution, utilizing our constellation scale and high revisit rate. Traditionally, these geolocation activities have been accomplished with a cluster of satellites at a higher cost. We are one of the only companies that can offer our GNSS detection solutions at scale for commercial entities like airports, civil agencies responsible for weather data or the U.S. government or other sovereign defense entities truly benefiting global security.

Additionally, we have successfully completed a demonstration to detect and geolocate L-Band emitters, utilizing adapted existing 3U satellites. These L-Band frequencies are typically associated with handheld satellite phones, well known for the use in nefarious activities such as piracy. This demonstration is notable for the use of existing satellites, along with minimal non-recurring engineering activities that spanned only a few months, in addition to the utilization of only two satellites to geolocate, which makes it a very-cost effective method. The demonstration validates the ability to geolocate these objects without the need for much costlier clusters of satellites.

Finally, we have been able to demonstrate that we can run ground-based geolocation algorithms in space on spire hardware and get equivalent results for single satellite AIS geolocation. This is another step in our continuing journey to process the data on the satellites, which allows us to transmit less data to our ground station, in turn, providing faster insight.

Before I hand it over to Tom, I want to recap a few of the metrics from the first quarter. This is our seventh quarter in a row reporting steady revenue growth as a public company. During those seven quarters, we demonstrated a strong trend towards profitability. The first quarter of 2023 was no exception and furthers those trends.

With an outstanding and reliable team in place, Spire exceeded expectations and reported record revenue in the first quarter. We also exceeded expectations and reported our lowest loss from operations in those seven quarters. We reported the best operating margin of those seven quarters, and we exceeded expectations and reported our best adjusted EBITDA and EBITDA margin in the timeframe.

The first quarter was yet another quarter of relentless execution. I could not be more excited about Spire's future as we continue penetrating our growing and global markets and convert our top line growth into bottom line profitability and our growing impact on making the world a more safe, sustainable, and prosperous place for all.

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

Tom Krywe

Thanks Peter. We had a strong first quarter of execution with revenue, non-GAAP operating loss, adjusted EBITDA, non-GAAP loss per share, and ARR solution customers all coming in above the high end of our guidance. Our results also provided another successful quarter of methodically progressing on our trajectory towards profitability. Q1 revenue increased 34% year-over-year to $24.2 million, once again hitting a quarterly record and exceeding the high end of our guidance. ARR at quarter-end was $104.8 million, up 28% year-over-year and within our guidance range.

We finished the quarter above guidance with 781 ARR solution customers, a 25% increase year-over- year and a net add of 48 customers quarter-over-quarter. Our Q1 ARR net retention rate was 108%, up from 106% in the year ago quarter. The rolling 12 month organic ARR net retention rate was 116%, essentially flat from last quarter's rolling 12 month organic ARR net retention rate of 117%. These trends continue to represent a healthy mix of landing a large amount of new customers while expanding with our existing customer base.

Now, I'll be discussing non-GAAP financial measures, unless otherwise stated. We provided a reconciliation of GAAP to non-GAAP financials in our earnings release that should be reviewed in conjunction with this earnings call. Driven by exceeding our Q1 revenue expectations, our leverage business model across four solutions and high asset utilization, our Q1 operating loss came in better than guidance at $9.8 million, an improvement of $3 million year-over-year and an improvement of over $400,000 quarter-over-quarter.

Total adjusted EBITDA for the first quarter came in better than guidance, at negative $6.7 million, a $3 million or 31% improvement from negative $9.7 million in the same period a year ago. We ended the quarter with cash, cash equivalents, restricted cash and short-term marketable securities of $73 million, up $2.3 million quarter-over-quarter. We utilized $15.9 million of free cash flow in the quarter, which was a $3.3 million reduction year-over-year. As expected, this recent increase in cash usage was due to timing of paying our annual compensation and a one-time transaction.

Given the significant improvement in cash utilization over the past few quarters, along with receiving nearly $20 million of cash from the existing credit facility in February, we were feeling comfortable with our balance sheet. We remain on track with our objective of generating positive free cash flow in 10 to 16 months and achieving adjusted EBITDA profitability right before that.

Now, turning to our outlook for the second quarter and the full fiscal year 2023. For the second quarter, we expect revenue to range between $24 million and $25 million. We expect to finish Q2 with ARR ranging between $112.5 million and $113.5 million, which represents a 32% year-over-year growth rate at the midpoint, and our ARR solution customers to finish between 800 and 810.

We anticipate Q2 non-GAAP operating loss to range between $9.8 million and $8.8 million, which is roughly an $800,000 improvement year-over-year at the midpoint and roughly a $500,000 improvement quarter-over-quarter at the midpoint. The improvement in projected non-GAAP operating loss reflects further leverage of our headcount and infrastructure across our four solutions on our path to profitability. Adjusted EBITDA for Q2 is expected to range from negative $6.4 million to negative $5.4 million. And we expect our non-GAAP loss per share for Q2 to range from negative $0.10 to negative $0.09, which assumes a basic weighted average share count of approximately 146.7 million shares.

Our full-year guidance remains unchanged from what we previously provided on March 8th, 2023. As a reminder, we expect full fiscal year revenue to range from $104 million to $109 million, which represents a year-over-year growth of 33% at the midpoint. We expect to finish the year with ARR ranging from $129 million to $135 million, which also represents a year-over-year growth of 33% at the midpoint. We anticipate full year ARR solution customers to end at 835 to 885.

Non-GAAP operating loss for the fiscal year is projected to range between $34 million and $29 million, a $13 million year-over-year improvement at the midpoint. For the full fiscal year, we expect adjusted EBITDA to range from negative $19 million to negative $14 million and we expect our non-GAAP loss per share to range from negative $0.36 to negative $0.33, which assumes a basic weighted average share count of approximately 148 million shares. First quarter results exceeded our expectations and leave Spire well positioned to deliver on our full year financial projections. We remain focused on execution, delivering customer success and improving margins with scale and leverage.

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

Operator
Thank you. At this time, we will be conducting a question and answer session. If you would like to ask a question, 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. For participants using speaker equipment, it may be necessary to pick up your handset before pressing the star keys.

Our first question comes from the line of Austin Moeller with Canaccord Genuity. Please proceed with your question.

Austin Moeller
Hi, Peter. Good afternoon.

Peter Platzer
Nice to see you.

Austin Moeller
Nice to see you, too. My first question is just around the RF geolocation business. As you stated earlier, the company currently has 40 LEMUR satellites that are capable of RF (inaudible) capability. Are you planning to add more satellites as you replenish the constellation over time that have that capability to get beyond the 40, or is 40 sufficient to provide global coverage?

Peter Platzer
So yes, and yes. We have at least 40 satellites, I think is exactly what I said, that are providing this capability. We are collecting data that based on some pricing information we have from customers is potentially worth hundreds of millions of dollars a year, just with the existing capability that we have on orbit. Nonetheless, we continue to develop software capabilities to augment what existing satellites are capable of doing. I think we talked about the sat phone detection and geolocation that could be relevant for piracy and other things through software (inaudible), but we do launch new assets as well that have the existing but also further capabilities adding bands to their five or six bands that we currently collect over time and expanding it to other frequency ranges as well.

Austin Moeller
Okay. Great. That's interesting. And then, just on the NOAA contract, under the terms of that contract being in IDIQ, if you do in the next 18 to 24 months get to the point where you can collect 100,000 RO vertical profiles per day, does that enable you to increase the amount that NOAA is paying you through that contract vehicle over the next several years?

Peter Platzer
That is correct. So, there are abilities for NOAA as a customer to increase the ceiling off that IDIQ. They also have actually quite a bit more money appropriated from Congress for commercial data buys. So there is also additional avenues for additional contract vehicles or additional IDIQs for them to keep on procuring more data.

I mean, they have stated publicly, especially from the weather service and the head of the weather service, Dr. Morgan, that they need at least 20,000. The IROWG, the international community of RO weather forecast says that they need at least 25,000. And then the scientists of The Global Weather Enterprise have stated that at least 100,000, you don't see a decrease in the benefits, and it still makes a forecast more accurate, especially when it comes to extreme weather events.

So, there certainly is a clearly expressed need from the customers, in our case, the National Weather Service and NOAA, as well as the strong support bipartisan from Congress to enable NOAA to purchase this data. I mean, Austin, you are familiar with that. The U.S. government has walked the very well-trodden path of leveraging commercial capabilities in satellite communication, satellite launch, satellite imagery, where some people say that over 60% of the government's needs on average is purchased commercially as a service. NOAA's annual budget for satellite data is somewhere between $1 billion and $2 billion.

So satellite weather data is just like the latest one on that path. It is well understood by the government. It is well supported by Congress, and we are confident that we can continue to partner with them and deliver those capability and enhance the capability of the United States government as other companies have done it in satellite communication, satellite launch, and satellite imagery.

Austin Moeller
Awesome. Great to hear they can throttle up the utilization there. Thanks for all the great details.

Peter Platzer
Of course.

Operator
Our next question comes from the line of Erik Rasmussen with Stifel. Please proceed with your question.

Erik Rasmussen
Yeah. Thanks. Congratulations on the results and great job on the margin improvement. Maybe just starting there, on margins and the outperformance. You mentioned leveraging headcounts and infrastructure costs and other things. As the year progresses, are there still levers you can pull from to eke out more leverage? And how should we think about further improvements and where it may come from?

Tom Krywe
Yeah. Thanks, Erik. Yeah, we definitely have room to continually improve there. We're not where we want to be on the gross profits for the future and the margins, right? You can see the continual progression we're making there and there's a lot more room to do that, through a mix of things. Some of it's with the top line growth as we're doing, right? We exceeded our top end of the guidance on revenue with the 34% growth. It was over the top end about $500K. So we got four solutions to sell. We have a huge TAM to go after in all the different areas, so a lot of room to just grow on the top line.

But then on the expense side, we continually just get the leverage, as you mentioned, across the four solutions that we're selling, whether that's in the satellites themselves, whether that's reducing our BOM costs over the course of time, whether that's leveraging our ground stations across the four solutions or whether it's continual leverage of our head count within those operation areas. So we have a lot more room to grow in that front, just like we've seen, right? We had a 10% to 11% increase year-over-year in gross margins, whether you're looking at GAAP or non-GAAP, and there was a 5% increase quarter-over-quarter.

So seeing that there, but we're also seeing efficiencies in the operating expenses too, right? If you look at our GAAP expenses on a year-over-year base, and the operating expenses, we were flat year-over-year. So we did not grow our expenses at all in that front, but yet we grew 34%. So not only are we seeing efficiencies in the gross margin area, we're also seeing it down below there, and that's why we exceeded our top end of the guidance by about $1 million, whether you look at lowering our operating loss or exceeding the adjusted EBITDA targets.

Erik Rasmussen
Great. And then maybe just your guidance. Revenue Q1's outperformance and the commentary suggesting that the company is on a good trajectory to achieve its 2023 guidance. What could get you to the higher end, or even above the higher end of that range? And then maybe just where are the limitations at this point? I know you talked about macro and Peter sort of laid out a number of areas there, but if you could just talk a little bit more? Thanks.

Tom Krywe
Yeah. No, I think the one area, like we did this quarter with the customer count, right? We added 48 net new customers. If we keep going at that pace throughout the year, of adding large quantities of customers, clearly, that's going to help us drive up that revenue target. Obviously, as you get later in the year, the revenue gets a little bit harder, right, because you have less runway to turn it into revenue from when you land them. But just like we did in the first quarter, landing that many customers and then getting the net retention rate still well above 100, those two things are really going to help ourselves get to the higher ends of the revenue front.

Erik Rasmussen
Great. Maybe just one quick clarification. I think Peter mentioned talking about SaaS type gross margins 70% in the next two years. Is that within two years, and then is that GAAP or non-GAAP?

Peter Platzer
It's within and it is GAAP.

Erik Rasmussen
Great. Thank you.

Operator
Our next question comes from the line of Ric Prentiss with Raymond James. Please proceed with your question.

Ric Prentiss
Thanks. Good afternoon, everybody.

Peter Platzer

Good afternoon.

Ric Prentiss
Hey. Peter, you laid out, obviously a picture of the conference Board, having a lot of CEOs concerned and prepping for recession, next 12 to 18 months. Walk us through the visibility you have in your guidance for ‘23, but also then the comfort in the gross margins up, individual conversations with customers. Just how are your businesses, you think, going to be affected by potential recessionary plans at the overall global economy (inaudible)?

Peter Platzer
So I think I understand you, Ric. And so I’m going to start and maybe Tom can do some further deciphering, because there’s a little bit of background noise. I apologize. It’s probably on our side.

Ric Prentiss
I’m sorry. No, it’s me. I’m at an airport traveling right now and it’s New Orleans jazz. Sorry.

Peter Platzer
Okay. So, I think the first thing that I want to say is, we talk about ARR, we talk about SaaS, because we are a subscription business. And by the very nature of that, we have a lot of visibility between now and the end of the year. So I think that is a very positive element. And our solutions are so crucially embedded into our customers that they’re really often absolutely inextricable from them running their business.

Quite the opposite, what we see that customers use more and more from our solutions, the more they use us. And that’s reflected, of course, in our NRR. So I would say, that is kind of from the visibility perspective. It’s also the flexibility that we have in our infrastructure. I just talked about using software to change what satellites do to create a new product, a new service. That gives us a lot of flexibility to find the greatest use off the assets that we have deployed, be that selling a service going forward, which gets trickier towards the second half of the year, of course, to add revenue, as well as selling historical data, as we continue to collect hundreds and hundreds and hundreds of millions of data points every single day, store them in our data vault. And with AI and machine learning being this massive growth area that is generally bottlenecked by having access to data to train those models, those historical data vaults of Spire are getting more and more valuable by the day.

Tom Krywe
And Ric, I think I’ll just add, also getting into areas that there is really just no competition or very limited competition, right? We come up with new solutions, solves new use cases and those things could still sell during tough times, because we're selling things that people really need, is really valuable for them, but yet they can’t get their hands on it from any other means, so that’s another area.

And then, obviously on the other side of the fence, no matter what, we're making sure we've got all kinds of levers that we can take care of on the expense side. As you can see in our results on the margin improvements, we are always looking for efficiencies and scale. And if there is any issues that come up on the top-line along the way throughout the year, we're always ready to go on the expense side so that we make sure we can guarantee to get to those margin targets that we put out there.

Peter Platzer
I think the best way to think about Spire is to channel Steve Ballmer and replace developers with profitability. I have the same hairstyle.

Ric Prentiss
There you go. Second question is, and you kind of touched on it there a little bit. AI obviously is becoming a hot topic. Some revenue opportunities for you, maybe flush that out a little bit more. Are there cost potentials with AI into the model as well for you?

Peter Platzer
Well, from a revenue perspective, it's twofold, is, A, that the value of our historical data increases as a product to sell to companies that need to train their models, number one. But number two, it also becomes something that is more valuable for us as our own AI and machine learning algorithms have more and more data to work with to develop products that are relevant for our customers. And that of course then translate into new business opportunities for us to generate products that are more relevant solving more unique use cases in a more scalable fashion.

Ric Prentiss
And anything on the cost side that AI could benefit you all?

Peter Platzer
So, I would say that, and I think I talked about it last call, is that we are using AI, not just on the product side but on the operational side. So for example in marketing, we are using it and it certainly has scalability benefits for us, serving long tail, using AI and in particular NLP type of capabilities allows you to be far more targeted to a much wider range of customers. And so, from that perspective, it creates operational leverage in the company, which we see less so from the leverage perspective in the technology and product side but more so in running the business, marketing, sales and some other areas.

Ric Prentiss
Okay. Last one for me is more of a technicality. Obviously, you got the notice from the exchange, stock price. I think it's tied to probably your shareholder vote, but update us a little bit on the timing and thoughts on getting back into compliance and the potential and most likely a reverse split and (inaudible) zero targets on?

Tom Krywe
Yeah. If you've seen in some of the filings we've done recently, now that we've got the annual shareholder meeting scheduled, that was on the docket there for the vote. So we've got a reverse split. Obviously, it's a range in there because the price is changing at different times, but there is a range in there of what the exchange would be, so we've got that built into the shareholder meeting. So obviously, it's got to get past the vote, but that's in the docket for the approval.

Ric Prentiss
Remind me of the shareholder vote date.

Tom Krywe
It's June the 13th.

Ric Prentiss
Great. Thanks a lot. Stay well.

Peter Platzer
Thanks a lot. Safe travels.

Ric Prentiss
Thanks.

Operator
Our next question comes from the line of Jeff Meuler with Baird. Please proceed with your question.

Jeff Meuler
Yeah, thanks. And Peter, breaking new ground using SaaS and GAAP in the same sentence, but I like it. So on the ARR guidance, so you had a good quarter relative to your expectations, great to see. But the guidance implies a step-up in the pace of sequential ARR growth over the balance of the year, and based on the Q2 guidance, it looks like it's starting in Q2, and I guess I'm just comparing it to what it was the last couple of quarters. So just help us understand the visibility into starting to see the bigger ARR growth in an uncertain macro including the line of site to Q2, given that we're almost halfway through the quarter.

Tom Krywe
Yeah. Last year we were in that $7 million per quarter range. We knew Q1 was going to be a little bit harder. It usually is for us because most companies are going through their budgeting processes, and by the time they get out of it, we usually can't then close those deals right in that first quarter. Q2 is when that starts to pick up though, right? Everybody's got their budgets. Our teams are out there selling away.

So we had better visibility in the second quarter from some higher sequential growth quarter-over-quarter. So that's why we got that in the guidance. So yes, there is that step up. And then it's similar type of numbers that we would need to do quarter-over-quarter from two to three and three to four to get to the annual guidance. So doing that and getting those sequential in the second, third and fourth. But yeah, it's just based on our pipeline, where we're at with our customer arrangements, whether it's existing customers or new logos, we've factored that all into the guidance.

Jeff Meuler
Got it. And then maybe a different take on the AI question. Can you just maybe update us on, I guess two years ago when you were doing the De-SPAC investor day, you were talking about AI at that point in time and kind of the journey from clean data, smart data to more predictive solutions. So I know it's become much more topical lately, societally and among investors, but it's something you've been working on for a while. So just help us from a solution perspective on where you are in developing the more predictive solutions or where customers are in adopting them. Thank you.

Peter Platzer
Yeah, absolutely. As the individual solutions grow closer to them individually being a $100 million, now that the company is $100 million ARR, the next goal is of course to have the individual solutions delivering a $100 million each. And they do that by moving from the clean data sales to the right, right? So the next step is the smart data, adding in other data sources, fusing it and adding simple analytics to it. And then, you move to the right, you have predictions or what's going to happen, and then you move to the right as you have solutions.

If you think about it, whenever you move from one, say, clean data to smart data, you have a 3x to 5x TAM expansion and you move from smart to predictive, 3x to 5x, from predictive to solutions, 3x to 5x. And that's a pretty classic TAM expansion that you can see in all sorts of data market. And that's exactly what we see. And we make our way from the left to the right, I would say in a deliberate pace of land and expand. We like to be a very strong player in an area, rather than being a weak player in a whole bunch of areas.

I personally really like the GE philosophy here of, be the number one, be the number two, if you're not, have a very clear definitive plan to be one or number two. And so as we move here to the right, it is less a race to get as quickly from left to right and more a deliberate attack of landing, and then expanding in a market, be that a customer use case, be that a region, be that a solution. That is our approach, and I think that is the approach that leverages existing capabilities to the max before you go out and build a shiny new toy.

Jeff Meuler
Okay. Thank you.

Peter Platzer

Of course.

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

Caleb Henry
Hey, guys. Thanks for taking questions. Some of mine have already been answered, so I think I'll be brief. Can you shed some light on your solutions revenue mix, like the mix between AIS, ADS-B, weather and space services?

Peter Platzer
We do not break them out. We are a pretty balanced company there. I think we talk about balances between commercial and government and between the regions. All of the four solutions that we have are very meaningful contributors to our top and bottom-line. I think as we've said, in the past, the aviation industry was hit the hardest by the COVID situation, and we still see that as a deficiency that has made that solution not quite as contributing to our overall results as the other three. But it's not broken out, because it's shared infrastructure in space. It's shared infrastructure on the ground. So it really doesn't easily lend itself. The very core idea of Spire is shared infrastructure, amortized over multiple solutions, and that creates an incredibly attractive business model of subscriptions with shared infrastructure that drive rapid margin expansion.

Caleb Henry
All right. Thanks. And then last week, Spire announced the new maritime weather service. I was just wondering if you could share, what was the impetus for that and if you kind of see a big gap in the market that that can serve?

Peter Platzer
So our modus operandi is always, we build what we have definitive requests from by the market. So the simple answer to your question is, yes, absolutely. We listen to our customers and what they want us to build. And when enough of them are asking for something, then we build it. And that product the team rolled out is an exact outcome off that very active engagement with our hundreds and hundreds of customers that we have in that space.

Caleb Henry
Okay. And then my last question, just we're continuing to see headlines about software companies laying off staff. I'm wondering if that has created an opportunity for Spire just because the space industry has historically struggled to win software engineers over from kind of bigger names, like Google and Apple. So has that been an opportunity for Spire or are you guys kind of just watching, more of a wait-and-see mode on that?

Peter Platzer

The change in that environment has certainly created tremendous opportunities. And we certainly have seen some fantastic talent reach out to us, and we have already taken advantage of some of those opportunities in bringing incredibly talented and motivated people to enhance and strengthen the already fantastic team that Spire has.

Caleb Henry
All right. That's all for me. Thanks, guys.

Peter Platzer
Of course.

Operator
And our next question comes from the line of Andre Madrid with Bank of America. Please proceed with your question.

Andre Madrid
Hi. How are you guys?

Peter Platzer
Nice to meet you.

Andre Madrid
Yeah. So looking around at the space in general, there is still a lot of sat operators that don't provide maritime surveillance. Have you considered at any point a partnership with a data integrator to maybe provide a more holistic surveillance solution, something, partnering with somebody that has land-based surveillance and providing a more whole solution?

Peter Platzer
So it really would have to be driven by definitive customer demand. The only customers that ask for that would have to come out of the intelligence community. And there are certain types of data fusion requests and there are some customers of ours that do that, but setting up a 5th solution so to speak that goes out and gets SAR data and imagery data and all sorts of other things and combines them, I'm not sure that that is something where Spire in particular would--how was the prior question just asked? Close a dramatic gap and need in the marketplace. And so I'm not sure that I see that in our near-term future right now.

Andre Madrid
Got you. Very helpful. Thank you.

Peter Platzer
Of course.

Operator

And we have reached the end of the question and answer session. I'll now turn the call back over to the CEO, Peter Platzer, for closing remarks.

Peter Platzer
In closing, I would like to thank our customers, employees and numerous suppliers for partnering with us in bringing innovative solutions to solve the challenges people, communities and countries face every day across the globe. As uncertainty and challenges in the world at large increase, we see ever-increasing demand for space-based solutions, be that supply chain, mobility, communication, remote internet, weather, climate change, global security, agriculture, energy, the list of areas which increasingly use and depend on space keeps growing. Just like computers and the internet driven by Moore's Law, became inextricably linked with our lives and the global economy in the 80s, 90s and 2000s. We see the same thing happening today with space. Driven by similar law of constant improvement, tenfold every five years for satellite capabilities, that has been working for a quarter century now, and we see no sign of abating anytime soon.

The mission driven and incredibly motivated team at Spire is proud to be part of an, indeed, shape this transformational wave of change to create a safer, more prosperous and sustainable future on earth. As McKinsey recently said to top Fortune CEOs, if space is not yet part of your strategy, it needs to be.

Operator
And this concludes today's conference, and you may disconnect your lines at this time. Thank you for your participation.