OVERVIEW:
Co. reported 1Q23 sales of $9.3b and diluted EPS of $5.50.
CORPORATE PARTICIPANTS

David F. Keffer  Northrop Grumman Corporation - Corporate VP & CFO
Kathy J. Warden  Northrop Grumman Corporation - Chair, CEO & President
Todd B. Ernst  Northrop Grumman Corporation - VP of IR

CONFERENCE CALL PARTICIPANTS

Cai von Rumohr  TD Cowen, Research Division - MD & Senior Research Analyst
David Egon Strauss  Barclays Bank PLC, Research Division - Research Analyst
Douglas Stuart Harned  Sanford C. Bernstein & Co., LLC., Research Division - SVP and Senior Analyst
Jason Michael Gursky  Citigroup Inc., Research Division - Research Analyst
Kenneth George Herbert  RBC Capital Markets, Research Division - Analyst
Kristine Tan Liwag  Morgan Stanley, Research Division - Equity Analyst
Myles Alexander Walton  Wolfe Research, LLC - MD & Senior Analyst
Peter J. Arment  Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst
Robert Alan Stallard  Vertical Research Partners, LLC - Partner
Robert Michael Spingarn  Melius Research LLC - MD
Ronald Jay Epstein  BofA Securities, Research Division - MD in Equity Research & Industry Analyst
Seth Michael Seifman  JPMorgan Chase & Co, Research Division - Senior Equity Research Analyst
Sheila Karin Kahyaoglu  Jefferies LLC, Research Division - Equity Analyst

PRESENTATION

Operator

Good day, ladies and gentlemen, and welcome to Northrop Grumman’s First Quarter Conference Call. Today’s call is being recorded. My name is Lisa, and I will be your operator today. (Operator Instructions) I would now like to turn the call over to your host, Mr. Todd Ernst, Vice President, Investor Relations. Mr. Ernst, please proceed.

Todd B. Ernst  - Northrop Grumman Corporation - VP of IR

Thanks, Lisa. Good morning, everyone, and welcome to Northrop Grumman’s First Quarter 2023 Conference Call. We’ll refer to a PowerPoint presentation that is posted on our IR web page, this morning. Before we start, matters discussed on today’s call, including guidance and outlooks for 2023 and beyond, reflect the company’s judgment based on information available at the time of this call. They constitute forward-looking statements pursuant to safe harbor provisions of federal securities laws.

Forward-looking statements involve risks and uncertainties, including those noted in today’s press release and our SEC filings. These risks and uncertainties may cause actual company results to differ materially. Today’s call will include non-GAAP financial measures that are reconciled to our GAAP results in our earnings release.

On the call today are Kathy Warden, our Chair, CEO and President; and Dave Keffer, our CFO. At this time, I’d like to turn the call over to Kathy. Kathy?
Thanks, Todd. Good morning, everyone, and thank you for joining us. Northrop Grumman is off to a solid start to the year. Our team is driving industry-leading growth by executing our strategy, meeting the growing global demand from our customers and performing on our programs. As a result, we increased sales by 6% and delivered strong earnings per share in the quarter.

Additionally, we’re delivering on our capital deployment strategy, which prioritizes investing in our business and returning cash to shareholders. In the first quarter, we continued thoughtful investments in the capability and capacity needed to support our customers’ operational initiatives, and we initiated a $500 million accelerated share repurchase plan, returning a total of nearly $1 billion to shareholders through dividends and share repurchases.

Based on first quarter results and our continued expectations for growth and strong operational performance, we’re reaffirming our 2023 segment guidance. We’re increasing our EPS guidance based on our continued confidence in our business outlook and to account for the divestiture of a small minority investment, signed this week, and expected to close this year. As we look to the long term, increasing threats to freedom and security persist around the world. Given this, we expect continued support in Congress and the administration for the priorities outlined in the National Defense strategy, which align well with the Northrop Grumman portfolio solution.

This support was reaffirmed in the administration’s budget request, which was released in March. DoD investment accounts are up by nearly 4% for fiscal year 2024. Northrop Grumman programs continue to be well supported in the budget request, particularly in the areas of strategic deterrence, space, missile defense and advanced computing and communication technologies. The 2024 budget request also reflects the growing need for weapons capability and capacity, with overall funding increasing more than 20% compared to fiscal year 2023 and significant funding increases to major weapon programs, including many of which we provide key components.

Two of our franchise programs, GBSD and B-21, each saw total investment account funding increased by approximately 10%. The Future Years Defense Plan, or FYDP, also prioritizes these programs, with funding projected to nearly double from about $8 billion in fiscal year 2023 to $15 billion in 2028.

Outside the U.S., the geopolitical landscape remains dynamic. Global defense budgets are increasing as many U.S. allies modernize and expand their defense capabilities. An important part of our long-term growth strategy is focused on leveraging our portfolio to meet these growing global needs, and we continue to make progress in this area.

In February, Australia issued a request for AARGM-ER, a high-speed, long-range, air-to-ground missile that provides counter-air defense capability. Northrop Grumman is the prime contractor for AARGM-ER and this recent FMS request has a potential value of over $500 million. Australia is one of over a half dozen additional countries expressing interest in this capability.

In addition, last month, the Defense Security Cooperation Agency approved the sale of five additional E-2D Hawkeye aircraft to Japan. These aircraft, along with the existing backlog, are expected to extend E-2D production well past mid-decade. These international opportunities, together with a broad set of others in IBCS, munitions and sensors, form a strong foundation to grow our international revenue at a double-digit rate over the next several years.

With this global demand signal as a backdrop, we’ve been executing a strategy over the past few years to significantly enhance capabilities and capacity in our weapons portfolio. This portfolio includes components such as electronics, propulsion systems, warheads, and fuzes; as well as missiles, armaments and interceptors. And as a result, we have multiple positions on key programs as both a supplier and a prime contractor.

Let me share a few examples of progress we’ve made on this strategy. In the first quarter, we received awards for nearly $350 million for medium- and large-caliber ammunition, Bushmaster cannon and propulsion products for the Guided Multiple Launch Rocket System, or GMLRS. In addition, we’re developing smarter, more advanced weapons required for future high-end fight with innovations in next-generation strike weapons, high-speed propulsion and smart ammunition.
One example of this advancement is the Air Force’s Stand-in Attack Weapon, also known as SiAW, a high-speed, longer-range, air-to-ground missile. During the first quarter, we received an award that takes us to the next phase of this competitive program. To meet our customers’ growing demand in this area, we have invested nearly $1 billion since acquiring Orbital ATK, building our capacity for weapons and missile components.

Our investments significantly increased capacity to produce solid rocket motors, supporting our expectation for continued demand for this capability as well as increased capacity for GEM 63 boosters, which supports the growing launch needs of our civil and commercial customers. We’re also investing to increase capacity in our missile integration facility located at the Allegheny Ballistics Laboratory in West Virginia. Our newest 113,000 square foot facility is a factory of the future. It is designed to support production of up to 600 strike missiles per year.

Production operations will commence with the second lot of low-rate initial production for AARGM-ER, adding to other programs that we currently support at this complex, including GMLRS, TOW, Hellfire and Precision Strike Missile, among several others. In addition, we’re building a new hypersonic center of excellence in Elkton, Maryland. Slated to open this summer, this new production facility is designed to provide full life cycle production for hypersonic weapons from design and development to production and integration using the latest digital engineering and smart manufacturing technologies.

The Elkton facility supports programs like Hypersonic Attack Cruise Missile, known as HACM, an air-launched, scramjet-powered, hypersonic weapon that we’re producing in partnership with Raytheon Technologies. We’re not only a provider of missile systems, we also are a leading provider of missile defense systems. This is a rapidly growing area within our business and includes a diverse set of franchise programs.

Production operations will commence with the second lot of low-rate initial production for AARGM-ER, adding to other programs that we currently support at this complex, including GMLRS, TOW, Hellfire and Precision Strike Missile, among several others. In addition, we’re building a new hypersonic center of excellence in Elkton, Maryland. Slated to open this summer, this new production facility is designed to provide full life cycle production for hypersonic weapons from design and development to production and integration using the latest digital engineering and smart manufacturing technologies.

Our work in missile defense is now approaching 10% of company revenue, and we see an opportunity to expand that in the years ahead. Our broad end-to-end missile defense portfolio includes sensors, interceptors and command and control systems. One example is our prime contractor role on the Next-Generation Overhead Persistent Infrared, or OPIR Polar segment. This OPIR satellite constellation will operate at a highly elliptical orbit and provide critical strategic missile defense warning capabilities.

Importantly, we also provide proliferated low earth orbit missile defense capabilities on programs like HBTSS and recent awards for SDA Tracking Tranche 1. In addition, we’re a prime integrator on next-generation intercept capabilities, including NGI and Glide Phase Interceptor. They protect against advanced ballistic and hypersonic missile threats. Shortly after the close of the quarter, we received approval for full rate production for IBCS, an integrated air and missile defense system.

This key milestone allows the U.S. Army to set the fielding schedule for IBCS to its air defense units, which will significantly bolster regional defense capabilities. Over the FYDP period, domestic deliveries of IBCS units are expected to increase by 40%. And as a reminder, Poland selected IBCS to serve as the centerpiece of its air and missile defense modernization and a number of other allies are also evaluating the system.

Before turning the call over to Dave, I’d like to touch on a couple of key program updates, starting with B-21. The program remains on the government’s baseline for cost and schedule, and we’re continuing to work towards first flight, which will be informed by events and data and remains on track for this year. There are no material changes in our EACs this quarter for the EMD nor the LRIP phases of the program, and we continue to expect to receive the first LRIP award later this year.

The B-21 program is expected to be the centerpiece of the Air Force’s long-range strike portfolio for decades to come. With steady growth in the projected funding across the FYDP, as I outlined, and strong customer demand for its unmatched range, stealth and survivability, the long-term outlook for the B-21 program remains robust.

On GBSD, we achieved two key milestones in the quarter. This includes its first full-scale static test fire of the stage-one solid rocket motor and the successful completion of a series of wind tunnel tests, which tested the system in both subsonic and hypersonic environments. The comprehensive test campaign validated our digital modeling and simulations and proved design maturity of the missile.

And earlier this month, the James Webb Space Telescope industry team, led by Northrop Grumman, won the prestigious Collier Trophy for revolutionizing the field of astrophysics. I want to congratulate the team for a pioneering design and unwavering commitment, which were instrumental in winning our industry’s highest honor.
Overall, our strong start to the year is a clear indicator of this team’s performance. We see continued robust demand for our solutions in the U.S. and abroad, and we believe we’re well positioned to maintain our industry-leading profitable growth and deliver value creation for shareholders and customers alike. With that said, I’ll hand the call over to Dave to cover the details of our financial results and our outlook. Dave?

David F. Keffer - Northrop Grumman Corporation - Corporate VP & CFO

Okay. Thanks, Kathy, and good morning, everyone. As Kathy noted, our first quarter results provide further evidence that our strategy is working. The strategic investments that we're making in franchise programs and key customer priority areas have positioned us to deliver differentiated growth. And our team continues to do an outstanding job of managing through challenges in the macroeconomic environment. We added substantially to our headcount again this quarter. With respect to the supply chain, we saw signs of modest progress in Q1, but continue to believe that our supply base will experience areas of pressure for some time. And inflation levels have begun to moderate but continue to have a higher base effect on our costs over time, especially on longer-term programs.

As we've discussed on prior earnings calls, we've been experiencing impacts from inflation-related cost increases over the past year. We continue to drive efficiencies in our business and partner with our customers in an effort to reduce those impacts going forward.

Now turning to Q1 results, bookings of roughly $8 billion were in line with our expectations, including $3.2 billion in restricted awards. Our backlog remains solid at more than 2x our annual sales, including nearly $24 billion in restricted backlog. At the segment level, our Q1 sales were particularly strong at Space Systems, which grew 17% year-over-year. Aeronautics sales were slightly below the projected full year run rate, primarily due to timing of volume on a few of our large programs.

MS was up 3% in the quarter, driven by expansion in restricted sales in the Networked Information Solutions business. And Defense Systems sales were up 7%. Its Battle Management and Missile Systems business, several components of which Kathy described earlier, is experiencing particularly strong customer demand given the global threat environment.

Segment margins were 10.8% in Q1, in line with our expectations, and included roughly 50 basis points of unfavorable impact associated with higher CAS pension costs that were incorporated into our rates in Q1. Those impacts were spread relatively evenly across the four segments. AS margins were down from the first quarter of 2022, primarily because of the $67 million favorable EAC change on the B-21 EMD phase last year. DS margins were about in line with our full year outlook, adjusting for the CAS pension impacts.

MS was slightly under its 2023 projection, due in part to a loss recognized on an unconsolidated joint venture. And Space margins were solid in the quarter with lower EAC adjustments partially offset by the sale of a license to a customer. At the enterprise level, we generated sales volume of $9.3 billion, representing growth of 6% compared to the first quarter of 2022.

Consistent with what we communicated last quarter, our Q1 sales were just over 24% of the midpoint of our full year estimate and were driven by both our hiring trends and supplier deliveries. Our first quarter operating income also grew 6%, due to lower corporate unallocated expense and intangible asset amortization. Our diluted earnings per share were $5.50 and included a headwind of over $1 per share compared to the first quarter of 2022.

This noncash pension headwind will continue to be a factor in our year-over-year EPS comparisons throughout 2023. And based on current estimates, we expect pension income to begin to increase next year. We also had a few Q1 benefits below the segment line that contributed to our earnings per share.

First, our other corporate unallocated expenses were only $4 million. And while our forecast for corporate unallocated was already weighted toward the second half of the year, this created a timing benefit of roughly $0.10 per share in the quarter. Our marketable securities were favorable in the period and contributed roughly $0.10 to earnings.
And our Q1 estimated tax rate of 15.6% was lower than our full year forecast, contributing another $0.10 of upside. This was due in part to the benefits of various tax credits recognized in the quarter. Altogether, these items contributed approximately $0.30 of benefit to our Q1 EPS, but they are primarily timing related in nature.

Turning to cash, as is our typical pattern, we experienced an outflow of cash in the first quarter, due primarily to working capital timing. Capital expenditures totaled $309 million, and our first quarter operating cash flow was a usage of approximately $700 million, consistent with historical trends.

Q2 last year was a period of cash outflow also, but we're currently forecasting a modest inflow in Q2 this year. In April, we made our first cash tax payment of the year, including the R&D taxes owed associated with Section 174. For the full year, we're projecting over $700 million in cash taxes associated with Section 174, and we continue to be hopeful that Congress will find a way to amend or repeal the law.

Moving to guidance -- given that the first quarter was roughly in line with our expectations, we have not changed any of our full year segment guidance ranges. We continue to project a book-to-bill ratio just under 1.0x for the year. We expect our second quarter sales to be in line with or slightly higher than Q1 and less than 25% of our full year estimate. We expect many of the timing items I mentioned previously to normalize over the course of the year, including interest expense.

With respect to capital deployment, we remain committed to returning more than 100% of our free cash flow to shareholders this year via dividends and share repurchases. As Kathy mentioned, we initiated a $500 million accelerated share repurchase in the first quarter. And including our open market repurchases, we'll repurchase roughly $720 million of stock in the period. We also raised $2 billion in new notes in the first quarter at attractive rates, which we anticipate using in part to retire the $1 billion of notes that are maturing in Q3.

Over the long term, we've demonstrated our ability to generate strong and stable cash flows in our underlying business. And based on the durable growth in several areas of our business that Kathy highlighted, we continue to expect our free cash flow to expand at a robust rate, not just through 2025, but through the second half of the decade as well, providing flexibility for our long-term capital deployment plans.

And as we noted in our 10-Q this morning, we just signed an agreement to sell our minority equity investment in a small international business. Closing is expected to occur later this year, most likely in Q3, subject to government approvals and closing conditions. We have increased our EPS guidance by $0.40, consistent with our estimated gain from the transaction and additive to our strong business outlook.

In conclusion, we're pleased with our start to the year, certain improvements in the macro environment and robust demand signals from our customers domestically and abroad. And with that, let's open up the call for questions.

**Questions and Answers**

**Operator**

(Operator Instructions) The first question will come from Doug Harned of Bernstein.

**Douglas Stuart Harned - Sanford C. Bernstein & Co., LLC, Research Division - SVP and Senior Analyst**

I'd like to go back kind of to last quarter on the B-21. And the reason is, in the last quarter, you all raised the possibility that you could see the first five LRIPs not be profitable in a sense because of inflation. And what my question is that presumably, when you originally won the contract back in 2015, you made inflation assumptions in the pricing that I would assume made the LRIPs profitable.

And since that time, we've seen mostly low inflation years with a couple of recent high inflation years, just recently here. And first, how has inflation progressed relative to your original assumptions over that 8-year period? And is there an inflation level we should watch for going forward, where
those costs become the issue that you were concerned about? Just trying to really see what the assumptions you're making are and how we should think about ultimate profitability here?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes, Doug, thanks for the question. So, to talk about the assumptions that we made then on inflation and even that we're making now, I would look to publicly available information. We tend to use indices to think about long-term projections on macroeconomic condition. So, if you roll the clock back to 2015 and look at what the Fed was doing, they were managing inflation to a 2% target and doing that pretty effectively.

So, you can imagine that that's the set of assumptions that we would have been relying on as we looked out into the future. I'm not saying that's exactly what we bid, we're not going to disclose that, but those indices give you a good sense of what we would have been thinking. Of course, the last couple of years, inflation has been higher than that. And the thing about inflation, particularly as it relates to labor, is it doesn't tend to come back down on labor once salaries are elevated, they tend to set a new labor benchmark.

And so, as we think about the future, we're expecting those costs at least to remain elevated over the remainder of the execution of the contract. In areas like materials and other supplies, we do believe those will follow the indices associated with those commodities. And so there will be some variation of what we can buy those materials out into the future and the indices are a good way to think about that as well.

Douglas Stuart Harned - Sanford C. Bernstein & Co., LLC., Research Division - SVP and Senior Analyst

And so when you go forward to finalize each of these LRIPs, which is coming soon, I guess two things: I mean, is there -- is it possible to think -- for us to think of inflation levels that could be of a concern? But then also shouldn't you have the opportunity, at least on labor and materials, to get some sort of an equitable adjustment on cost?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Well, we certainly believe so. And as I noted in our last call, that is what we're working toward. And so, we continue to have discussions with the government, both congressionally with the dollars that they have appropriated for inflation relief for contracts just like this and the Department of Defense as they think about how to allocate those funds, and we'll continue to work that very actively.

And of course, wouldn't expect that relief to come all at once, but in the annual appropriations associated with the program or a separate fund like we saw in 2023 for inflation relief. Now with that said, we also are working to offset these increases with other elements inside of our control, our overhead rates, the other costs that flow into segment operating margin that can have a beneficial effect as well.

We're not relying fully on actions the government will take, although we do believe that both the government and Northrop Grumman should be working to mitigate these impacts and share this risk together.

Operator

Our next question will be coming from Seth Seifman of JPMorgan.

Seth Michael Seifman - JPMorgan Chase & Co, Research Division - Senior Equity Research Analyst

I wonder if you could talk a little bit about Aeronautics and kind of other than restricted programs -- I assume B-21, we saw a number of declines in the quarter, and that's not very surprising -- those are kind of mature programs. But where do you see, excluding B-21, where we have the budget documents, when do you see the rest of the Aeronautics portfolio sort of stabilizing?
And then if you could talk about the potential for any other growth drivers in the portfolio, especially potentially in the Autonomous area over time and how you're thinking about aligning with the Air Force's strategy there?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Well, thanks, Seth. We have talked about the long-term view of Aero top line. And so, while not guiding for 2024, we have said that we do expect revenue to be flatish this year and then begin to grow again next. And that's driven by a few factors. The first is those programs you noted and that we noted in the [10]Q, like Joint Stars, Global Hawk, that have been putting pressure on our year-over-year comparison in Aero, [those programs] do become minimal from this point forward in terms of year-over-year sales decline.

We also have programs that are fairly stable, like F-35, that will continue. And then we have growth drivers like B-21. And in addition to that, I would add the Air Force's operational imperatives as well as some new program activity that's happening for the Navy and Aviation as well. So, all of those create modest but some upside for us as we look in the compares '24 to '23.

Seth Michael Seifman - JPMorgan Chase & Co, Research Division - Senior Equity Research Analyst

Great. I guess if I could sneak in one more. You talked a lot about the investments that you're making in your prepared remarks, and I thought that was very helpful. And I kind of plays into this idea that we're in sort of a different world where the customer needs kind of more spare capacity. How do you think about return on investment in that world where maybe there's a need for more spare capacity? And is there a willingness on the customer side to kind of recognize that and provide some value for it as well?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes. Excellent question as well. So as we're thinking about the investments we're making, we look at what we believe a stable long-term capacity level is that will be supported by government expenditures. And we've made those investments. We got ahead of that curve because we believe that we can gain share by being ready for that demand signal as it comes. But then we look out and say there is likely to be a period of surge that the government would like industry to respond to.

And there, we've put proposals forward to the government to get their funding to support what would be that additional capacity. So in the example that I gave today, I talked about us investing nearly $1 billion of our own dollars in expanding solid rocket motors, both for tactical missiles, which was really the focus of my commentary today, but all the way to strategic missiles as well. We're expanding capacity in those areas.

We have more than doubled the capacity with the investments we've laid in or plan to make. For the government to go even further than that, we are suggesting that we can support that, but would look for government funding to complement it.

Operator

Our next question will come from Sheila Kahyaoglu of Jefferies.

Sheila Karin Kahyaoglu - Jefferies LLC, Research Division - Equity Analyst

Kathy, you mentioned GBSD and B-21 funding nearly doubling through the FYDP. How do we think about this relative to your plan as it relates to Northrop's revenues versus some of the money, obviously, going to suppliers or the government? And you also mentioned free cash flow growth beyond the current target. How do we think these programs contribute to that growth?
Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

So as we look at the profile on large programs like B-21 and Sentinel, you are right to point out that all of that doesn’t come to Northrop Grumman and our suppliers. Some of that is government funding. And that’s particularly true with the Sentinel program because there is a significant set of government activities associated with the work that will go on in the missile field and the coordination and collaboration across government to enable the construction scope.

So, when we look at our profile on these programs, it is a subset of the overall budget growth, but it tends to follow in terms of relative year-over-year growth. What we will experience, not necessarily in that year because those appropriated funds are for what will be expended, it then takes us time to expend those funds, sometimes 18 to 24 months depending on the scope of work on a program like B-21 and Sentinel.

So, when you net all of what I just said, the signal from the budget tells you there is continued and sustained growth in both of those programs through the FYDP. That growth will come and be sustained not just through that 2028 period, but you could expect it to continue, both when you look at what the government has said about quantities on B-21 and how they ramp as well as Sentinel moving into production in that time frame and still be ramping.

So it’s not just about ’24 to ’28 projections that you see in the FYDP, but looking beyond that into the next decade.

David F. Keffer - Northrop Grumman Corporation - Corporate VP & CFO

Sheila, one thing I’d add to the second point you raised around free cash flow growth, what we were touching on there is really beyond the 3-year outlook period that we’ve provided with specifics. The second half of the decade provides an opportunity for continued free cash flow growth, and that’s driven by returns on some of the investments Kathy has been describing throughout this call. It will be a period of less heavy capital intensity and more in the way of opportunity for returns on those investments we have been and are currently making.

And then, of course, some of the less operational items like cash taxes will be lower in the second half of the decade as we get through the Section 174 amortization period. And the opportunity exists for CAS pension recoveries to continue to be higher in that second half of the decade. So all told, that’s what gives us optimism about that period from a free cash flow expansion perspective also.

Operator

The next question will be coming from Ronald Epstein of Bank of America.

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

Maybe changing gears just a little bit, Kathy, can you talk a bit about — and you mentioned it a little bit in your opening remarks about Northrop’s strategy in the space market. One of the big things that we learned out at the Space Symposium, the whole architecture of space is changing. You guys had a huge presence there, and there’s some pretty interesting stuff going on with your partnership with Firefly and so on and so forth. But if you could just kind of walk us through your vision on Northrop in space, defense and commercial?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes, certainly. So, you’re right to point out that our strategy in space is broad-based. The cornerstone of it is as the cornerstone of our business tied to national security and supporting the U.S. and our allies to operate effectively and freely in space. But we also have a significant strategic pillar in space exploration as evidenced in our work in James Webb and more scientific missions, but also our work in the Artemis program in space exploration.
And our commercial ventures are largely tied to enabling those two strategic pillars within our Space business. So, when we are looking at the technologies that we need in space, we are well integrated across all elements of a solution, meaning we think about launch, even if we’re not the launch provider, having partnerships with companies that can provide us the ability to launch.

And that’s the relationship we have with Firefly, being able to build the satellites that provide value and that’s both being a bus provider as well as the payload, then being able to operate, command and control those assets in space. So that’s more of a JADC2 contribution with the space domain in mind. And then, of course, that means being able to operate on the ground as well as be able to have these satellites able to communicate and share data.

So, this ties to the core competencies we have across this company in other domains, and we are working to bring all of that to the space domain. And the space domain is the fastest growing area, not only of our business, but our customers’ budget, both NASA and the Department of Defense have been very well supported in recent budgets, and we expect that to continue. So, our objective is to use this opportunity to continue to grow our share and our relevance in those markets.

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

And then if I may ask just a quick follow-on to that. When you think about the growth in that business, it’s been a huge growth driver for you. Do you foresee that continuing into the next couple of years? I mean, how should we think about the growth of that business?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

I do. And I’ve said that we shouldn’t get wedded to double-digit growth that we’ve been experiencing consistently for the last several years because we have been in a position of winning significant new programs and seeing those programs ramp. And the business itself has nearly doubled. It’s pretty amazing to see what’s happened in the last few years. So, I don’t expect that to be the growth profile for the next several years, but I do expect it to continue to be a growth engine in our company.

And as we just talked about programs like Sentinel, the most significant growth on some of these is yet to come because many of the programs are in the development phase, where we are just building the first of. The opportunity is when those transition into production for both higher volumes and higher margins. And that’s still very much ahead of us.

Operator

The next question will be coming from Robert Spingarn of Melius.

Robert Michael Spingarn - Melius Research LLC - MD

So Kathy, just a follow-up on Ron’s question on space. SpaceX announced a separate division called Starshield that’s going to be focused on defense work. How do you think about their push into national security? And is there an opportunity actually to partner with them? So, is it more of a positive potentially or negative?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

I don’t see it as a significant change. We have been partnering with SpaceX. We expect to continue to do so. And my sense is that standing up this entity within SpaceX, it’s more to help them with the structural differences in dealing with the government work and customers versus their commercial aspirations. But in terms of our ability to work together, they’ve been a good partner to us.
Of course, they’re also a competitor, but that’s normal in our space, and so we expect that to continue. And we embrace competition at Northrop Grumman. We think it hones our skills -- makes us stronger. And so, we see this as a positive for the industry overall.

Operator

The next question will be coming from Jason Gursky of Citi.

Jason Michael Gursky - Citigroup Inc., Research Division - Research Analyst

Kathy, you did a nice job of outlining some of the recent wins and developments and investments that you’re making. You touched a little bit about Aeronautics and Space growth in the out years. So, I wonder if you might do the same for Defense and the Mission Systems kind of focusing in not just on the positives but any potential headwinds that you see there, so we can all kind of get a good sense of what out year growth rates in ’24 and ’25 might look like?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes. So why don’t I start with Mission Systems. It’s been a steady grower. We anticipate that it will continue to be. It hasn’t been our fastest grower, but it’s just really consistent. And I expect that to be the position Mission Systems finds itself in going forward. And that’s not to say there aren’t a lot of changes happening within that business. It is a highly competitive business and one where technical differentiation is critical, but they are staying at the forefront of technology to remain competitive.

So, some examples of that are as aircraft of the fourth gen are retired eventually, they have roles -- significant roles on some of those. And so that work starts to dissipate. But at the same time, they are competing for next-generation technologies. And you see this even playing out on the F-35, where we talked about the new radar development award that we got as that platform is being modernized with Block IV upgrades.

And so, I’m really pleased with that team’s competitive position to stay at the forefront of technology and continue to win new work, but that will be necessary for them to continue this mid-single-digit growth rate that we’ve got as that platform is being modernized with Block IV upgrades.

What I expect to see going forward is that our weapons portfolio growth more than offsets the declines in the other part of the portfolio, and it will be a net grower for us. How much is dependent on how quickly that global demand that I talked about in today’s call matures and also how successful we are in winning work on both new weapons development programs as well as second source on some existing programs.

And I’m optimistic there. But this year will be really pivotal in indicating what we think the growth for that business will be. But we do see it being a growth business next year.

Operator

The next question will be coming from Kristine Liwag Morgan Stanley.

Kristine Tan Liwag - Morgan Stanley, Research Division - Equity Analyst

With the debt ceiling standoff, there’s been a lot of discussion of an extended CR in fiscal year ’24, which tend to have more of a disruptive impact on programs that are ramping or transitioning. You’ve previously mentioned that you expect the first B-21 LRIP contract later this year as it transitions from development. But if the program award date slips past the end of September and into fiscal year ’24, what could that mean for the program?
Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

For the B-21, because those funds were appropriated as part of FY ’23, we don’t believe that there will be an issue with them awarding that production lot. And as you look across our portfolio, we are used to navigating CRs. And so, there aren’t any major issues that I would point out to you if this is a short-term CR. But as the industry always points out, the longer a CR goes, the more those risks become material.

I’m hopeful that, given the threat environment that Congress recognizes the importance of timely appropriations, I’m not saying we won’t have a CR, but I am hopeful that it won’t be an extended period CR. But if indeed that’s the case, we’ll work with the government to address any issues that we see on individual and material program.

Operator

The next question comes from Myles Walton of Wolfe.

Myles Alexander Walton - Wolfe Research, LLC - MD & Senior Analyst

Dave, I wonder if you could first size the loss of the JV and the favorable license in relative terms or absolute terms -- whichever you like -- and then maybe, Kathy, at a high level, I think this is the high watermark thus far for cost-plus mix, 54% in the quarter since the Orbital acquisition was done? And I’m curious if it keeps going higher from here or this truly is the high watermark?

David F. Keffer - Northrop Grumman Corporation - Corporate VP & CFO

Myles, why don’t I start on the first, and then I’ll hand it over to Kathy. On your first question, we talked on the call about last year’s $67 million EAC benefit on the B-21 EMD program in this quarter. When things get to that level of magnitude, well into the tens of millions, we tend to disclose and describe and quantify those in more detail. When we have things in the $10 millions and $20 millions, as we do every quarter, as you’d imagine in a business of our size, we tend to group those together and describe them as we have in this case, the benefit of the license sale and the downside from the JV.

So, you can expect things like that to have been in that much lower range, but still meaningful in terms of thinking through run rates and full year impacts.

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

And Myles, I’ll just add on to that before I answer your second question that if you look at our margins coming out of the gate for the year, we’re right where we wanted to be in segment operating margin adjusted for the pension impact, which we’ve been talking about, hitting the programs in the first quarter. So, we’re not breaking that down by segment. If you took each of our four businesses and then accounted for those two minor exceptions, which you just outlined and adjusted for pension, they be right in line with our guidance for the year.

So we’re not going to walk you through the exact math of each item that goes into that, but we can tell you that those segments, all four, are in the first quarter with those impacts we’ve outlined adjusted for, we’re right in line with where they need to be to deliver on their guidance.

In answer to your second question, I do believe the quarter is a bit of a high watermark on our mix because we had some fluctuations just in production quantities within particularly MS that drove their mix balance higher on cost plus. We don’t even expect that to sustain for the full year within MS. So we’re going to probably end the year a little over the 50% cost plus, which is where we had signaled we would likely be, and that’s still where we think we are.
And we don't see a major shift in that for the next couple of years until, as we've said, these programs that are in development start to move into production, especially the bigger ones like B-21, Sentinel and some of the Space programs, then you'll see a more material mix shift for us, but it will be towards fixed price.

Operator

The next question will be coming from Cai von Rumohr of Cowen.

Cai von Rumohr - TD Cowen, Research Division - MD & Senior Research Analyst

Terrific. So Kathy, you mentioned that book-to-bill expected to be a little bit under 1x this year. But lots of times, key wins have small bookings to start off. So could you give us some color in terms of what are the key competitions or booking opportunities you see over the rest of the year? And what are the milestones we should look for?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes. So it's a very intuitive question. As we look at 2023, there are not many competitive new awards or even down-selects. As I've talked about, we have a good bit of work in our portfolio where we are in a -- usually two horse race -- programs like NGI is a good example of that. But we don't see many of those this year. They become more substantive in '24 and even '25. And -- so we'll provide more color on those as we guide for '24 later this year.

What I'll tell you about 2023 is that the majority of our sales this year are already in backlog, and we don't see much in the way of competitive new awards. It's really immaterial for us this year.

Operator

The next question is from Robert Stallard of Vertical.

Robert Alan Stallard - Vertical Research Partners, LLC - Partner

Kathy, one for you. The Australian government put out a defense strategy report, I think it was earlier this week. And in there, they seem to be contemplated whether they thought they might buy the B-21, which is a bit of a surprise to me at least. I was wondering this might be a sign that the U.S. government is a little bit more open to the U.S. defense industry exporting some of its more sophisticated equipment, including Northrop Grumman?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes, I'm glad you took the question the way you did. I think it was earlier this week. And in there, they seem to be contemplated whether they might buy the B-21, which is a bit of a surprise to me at least. I was wondering this might be a sign that the U.S. government is a little bit more open to the U.S. defense industry exporting some of its more sophisticated equipment, including Northrop Grumman?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes, I'm glad you took the question the way you did. I was obviously expecting someone might ask, why didn't they buy it? And you're right on. It would be premature for the U.S. to be working with another government on the B-21 program. But I think it is important that there were discussions ongoing, ones that if you would have told me a handful of years ago might happen, I would have been surprised to hear.

So I think AUKUS in particular, and the opening of a strategic relationship on nuclear-powered submarines between the U.S., the U.K. and Australia is going to change how those three nations at least work together more collaboratively, and I wouldn't take it off the table in the long run that other strategic capabilities become part of that dialogue. But with where the B-21 is today, I think it's appropriate that they did not count on it in their Defence Strategic Review.
Kenneth George Herbert - RBC Capital Markets, Research Division - Analyst

Your acquisition of Orbital ATK, the timing in hindsight now seems to have been very good, just considering growth in Space and now what we're seeing in missiles and munitions. Within the broader sort of capital allocation context, are there other areas perhaps from an inorganic standpoint or acquisition standpoint that you think could fit in well with the portfolio? You obviously outlined a number of organic investments today. But how do you view acquisitions perhaps moving forward relative to the market opportunities? And at what point would you maybe look more favorably on inorganic growth?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

We certainly remain active in looking at opportunities to expand through acquisition. I would say that based on the breadth of our portfolio and the strength of it, there are no gaps that I see an imperative to use acquisitions to fill those gaps, that we are positioned to do so largely through both organic investing and external partnering, which is an important tool in our toolkit. It doesn't require acquiring companies to have those very strategic partnerships with them, one of which we talked about earlier in the call with Firefly, for instance.

But with that said, the regulatory environment is certainly top of mind when I think about execution risk associated with acquisition as well. So we take all of that into consideration and likely wouldn't see a path to do a significant strategic acquisition in the near term.

David Egon Strauss - Barclays Bank PLC, Research Division - Research Analyst

Kathy, you mentioned the updated funding profile for B-21 and Sentinel that were in the budget. Specifically, I wanted to ask about B-21. It looks like there was some shift there where development dollars were added, and production dollars were shifted to the right. So, if you could comment on what that reflects, first of all? And second of all, what that could mean for your margin profile in the program, given your strong performance during the development phase?

Kathy J. Warden - Northrop Grumman Corporation - Chair, CEO & President

Yes, David. So you may recall, we had talked previously about our cost projections for the program were below independent cost estimates upon which the government needed to set their budget. You're starting to see that now reflected in them modifying those production budgets. And you might see more of that in the future as we're hitting those cost targets that we have for the programs that are below their independent cost estimates.

So that's what you see happening in production. The production funding they've requested fully supports the needs of the program as we and the government understand them today. That is allowing them to ask Congress for more in the RDT&E accounts associated with modernization and beginning that modernization now. And I really want to compliment the way the Air Force has manage this program. They are always thinking ahead and working with us on not just the current phases we're executing but how we will execute the next phase of the program.
So, we have largely moved our way through EMD. Now we’re starting production. We -- it’s only natural that we would be looking at the modernization program, and that’s what you see reflected in their budgeting.

And from a margin perspective, I know, which is really where you want to go, yes, we do expect the margins on that work associated with modernization to be better than what we expect to get in LRIP production, so it will be a net positive to the overall B-21 margin picture.

**Todd B. Ernst** - *Northrop Grumman Corporation - VP of IR*

We have time for one more question.

**Operator**

The next question and final question is coming from Peter Arment of Baird.

**Peter J. Arment** - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Kathy, just circling back to kind of how you kicked off the call talking about kind of increased demand signals on munitions and some of the missile defense capabilities like IBCS, just when we think about international, how do you think a lot of this growth starts to layer in? Is it more ’24, ’25 and beyond? Or do you see some of this growth actually showing up more to the left of that?

**Kathy J. Warden** - *Northrop Grumman Corporation - Chair, CEO & President*

Yes. We see some of it starting to show up now. So, I mentioned $350 million of awards that we received in the first quarter associated with weapons. And of course IBCS, part of the missile defense portfolio, we are starting, as that now has gotten full rate production approval to see that demand fill out not just here, but with the Poland deliveries as well. So some of that certainly is going to provide support to the Defense System sector in 2023.

But we do see the majority of those opportunities later, ’24, ’25, as those programs scale. NGI is another good example where we have seen significant growth last year and this [year], We'll see somewhere into 2024, but the real opportunity there is after either a down-select or a carry forward of two parties and moving into production in the later part of the decade.

So thanks, everybody, for joining our call today. I also want to again extend my thanks and congratulations to our team for another solid quarter. We look forward to speaking with you all on our next earnings call in July. So Lisa, with that, we're concluding today’s call.

**Operator**

Thank you. Ladies and gentlemen, thank you for participating in today’s conference. This concludes today’s call, and you all may disconnect.