RTX Corporation (NYSE:RTX) Q2 2023 Earnings Conference Call July 25, 2023 8:00 AM ET

Company Participants

Gregory Hayes - Chairman, Chief Executive Officer
Christopher Calio - President, Chief Operating Officer
Neil Mitchill - Chief Financial Officer

Conference Call Participants

Robert Stallard - Vertical Research
Myles Walton - Wolfe Research
Ronald Epstein - Bank of America
Peter Arment - Baird
Sheila Kahyaoglu - Jefferies
Kristine Liwag - Morgan Stanley
Seth Seifman - JP Morgan
Ken Herbert - RBC Capital Markets
Jason Gursky - Citi
Cai Von Rumohr - Cowen
David Strauss - Barclays
Noah Poponak - Goldman Sachs

Operator

Good day ladies and gentlemen and welcome to the RTX second quarter 2023 earnings conference call. My name is Latif and I will be your operator today.

As a reminder, this conference is being recorded for replay purposes.

On the call today are Greg Hayes, Chairman and Chief Executive Officer: Chris Calio, President and Chief Operating Officer; Neil Mitchill, Chief Financial Officer, and Jennifer Reed, Vice President of Investor Relations.

This call is being webcast live on the internet and there is a presentation available for download from RTX's website at www.rtx.com.

Please note except where otherwise noted, the company will speak to results from continuing operations excluding acquisition accounting adjustments and net, non-recurring and/or significant items, often referred to by management as other significant items. The company also reminds listeners that the earnings and cash flow expectations and any other forward-looking statements provided in this call are subject

to risks and uncertainties. RTX's SEC filings, including its Forms 8-K, 10-Q and 10-K, provide details on important factors that could cause actual results to differ materially from those anticipated in the forward-looking statements.

Once the call becomes open for questions, we ask that you limit your first round to one question per caller to give everyone the opportunity to participate. To ask a question, you will need to press star-one-one on your telephone. You may ask further questions by reinserting yourself into the queue as time permits.

With that, I will turn the call over to Mr. Hayes.

Gregory Hayes

Thank you and good morning everyone. It was another strong quarter for RTX with continued strength across all of our end markets. On the commercial aerospace side industry-wide, we saw 1,200 new orders announced around the Paris Air Show. This is the largest number of orders in the history of the air show as airlines look to secure production slots well into the next decade.

Global commercial air traffic remains on track with our projections with a very robust summer travel season, driven by incredibly strong consumer demand. This dynamic is supporting strength in the aftermarket and growth across the globe with revenue passenger kilometers now tracking at about 95% of 2019 levels, and long haul international, which has lagged in the recovery is showing strong growth with passenger flight hours up 18 points year-over-year, a good indicator for increasing demand for wide body travel.

Turning to defense, we're pleased that the House defense appropriation bill fully funds many of our programs, including importantly the F-135 engine core upgrade, which is the only engine funded for the F-35 joint strike fighter. Additionally, the bill also recommends the full budget request for other key RTX programs such as LTAMDS, LRSO, hypersonics, and Standard Missile-3.

Internationally, we saw the State Department approve a large sale of advanced air defense systems for Poland as it bolsters its security amid the ongoing conflict in Ukraine. This would expand our existing partnership with Poland and make Poland the first international customer for our LTAMDS system, representing a key transition for this next-generation Raytheon franchise.

Before we get into details of the quarter, as you saw in our press release this morning, we are working through an issue resulting from a rare condition in powdered metal that will require Pratt & Whitney to remove some engines from service for inspection earlier than expected. I want to make just a couple of comments here at the outset.

First of all, it's important to know that we understand the issue and we have begun to address it through an inspection protocol that we already have in place. That said, clearly this will have an impact on Pratt & Whitney and our customers. Chris and Neil will provide additional color later in the call on how we're going to address the issue as well as the operational and financial impacts. As you'd expect, we'll dedicate all the necessary resources to manage this.

Now let's turn to Slide 2 to go through some key highlights from the quarter.

Q2 was another strong quarter of strong demand in both the commercial and defense segments of our business with $25 billion of new orders. This brings our total backlog to a record $185 billion. On the commercial side, Collins continues to convert its industry-leading portfolio into solid order strength. As I mentioned, industry-wide there were about 1,200 new aircraft orders announced in Paris. The aggregate amount of Collins and Pratt content on those aircraft will be about $20 billion through the life of the programs.

On the defense side across the RTX businesses, we captured $13 billion in net bookings in the quarter, driving a strong book-to-bill of 1.22, and this takes our defense backlog to $73 billion. Contributing to the backlog in the second quarter were a number of significant awards, including $2 billion at Pratt & Whitney for Lot 17 of the F-135 engines and $1.5 billion for 117 sustainment. The Raytheon segment was awarded its largest ever AMRAAM contract for $1.2 billion from the U.S. Air Force and international partners, including Ukraine. The AMRAAMs will work in concert with their existing NASAM batteries to help protect the Ukrainian people.

Earlier this month, we executed the business realignment. We are now officially operating as three business units. Our team has done a tremendous job in a relatively short period of time, shifting roughly $3 billion of sales and thousands of employees across our portfolio to better meet the evolving needs of our customers. Of course, our transformation isn't done. We will continue to develop initiatives to better leverage our scale and breadth and to enable operational excellence and a best-in-class cost structure.

Finally, as many of you saw last week, we agreed to divest Collins' actuation business to Safran. We expect this deal to close in the second half of 2024 with proceeds from the transaction about $1.8 billion.

With respect to our full year outlook, we're going to raise the top line to reflect the strength we're seeing in our end markets. The new range will be $73 billion to $74 billion. We're also going to bring up the bottom end of our adjusted EPS range by a nickel to $4.95 to $5.05; however, we are going to reduce our 2023 cash flow

expectations by $500 million to $4.3 billion, and this is primarily to reflect the developments at Pratt & Whitney that I discussed earlier.

With that, let me turn it over to Neil to walk you through our financial results in more detail. Neil?

Neil Mitchill

Thanks Greg. Let's look at Q2 results on Slide 3.

As Greg noted, we had another solid quarter with sales of $18.3 billion, up a strong 13% organically versus the prior year with growth across all four of our segments. Adjusted earnings per share of $1.29 was up 11% year-over-year with strong adjusted segment operating profit growth of 26%, partially offset by lower pension income and a higher effective tax rate. On a GAAP basis, earnings per share from continuing operations was $0.90 per share and included $0.26 of acquisition accounting adjustments, an $0.08 charge related to an airline customer insolvency, and $0.05 of restructuring and segment and portfolio transformation costs.

Free cash flow of $193 million was generally in line with what we discussed when we were together in Paris last month, and finally on the capital allocation front, we repurchased $596 million in shares, putting us at about $1.2 billion year-to-date, on track for $3 billion in share repurchases for the full year.

Let's turn to Slide 4 to get into the Q2 segment results.

Beginning with RMD, sales were $4 billion in the quarter, up 12% on an adjusted basis and 13% organically primarily driven by higher volume from air power, advanced technology and land warfare and air defense programs. Adjusted operating profit of $427 million was up $79 million versus the prior year, driven by favorable net program efficiencies and drop-through on higher volume, partially offset by unfavorable mix resulting from early stage production programs. RMD had $3.6 billion of bookings in the quarter, resulting in a book-to-bill of 0.92 and a backlog of $35 billion. In addition the AMRAAM award that Greg mentioned earlier, RMD also received a $265 million award for Javelin and a $251 million award for AIM-9X missiles. Year-to-date, RMD has a book-to-bill of 1.17.

Shifting to RINS on Slide 5, sales of $3.7 billion were up 2% versus the prior year on an adjusted and organic basis. This was driven by higher revenue from sensing and effects as well as cyber and services programs, which was partially offset by lower sales from command, control and communications programs. Adjusted operating profit in the quarter of $297 million was down $18 million versus prior year, primarily due to unfavorable mix and higher operating expenses which more than offset improved

productivity and drop-through on higher volume; however, as I mentioned in June, we still saw unfavorable productivity in the quarter due to a handful of fixed price development programs.

In the quarter, RINS had $3.1 billion of bookings, resulting in a book-to-bill of 0.96 and a backlog of $17 billion. Bookings at Q2 in RINS included about $1.1 billion in classified award and $322 million for federal and civil cyber defense services. On a year-to-date basis, RINS has a book-to-bill of 1.15.

Turning to Collins on Slide 6, sales were $5.9 billion in the quarter, up 17% on an adjusted and organic basis, driven primarily by strong demand across commercial aerospace end markets which resulted in higher flight hours and higher OE production rates. By channel, commercial aftermarket sales were up 29% driven by a 68% increase in provisioning and a 28% increase in parts and repair, while modifications and upgrades were up 9% organically in the quarter. Sequentially, commercial aftermarket sales were up 7%.

On the commercial OE side, commercial OE sales were up 14% versus the prior year, which included growth in wide body, narrow body and business jets, and military sales were up 5% due to higher development volume. Adjusted operating profit of $837 million was up $220 million or 36% from the prior year with drop-through on higher sales volume and favorable mix which more than offset higher production costs, as well as higher R&D and SG&A expenses.

Turning to Pratt & Whitney on Slide 7, sales of $5.7 billion were up 15% on an adjusted and organic basis with sales growth across the commercial segments partially offset by lower military volume. Commercial aftermarket sales were up 26% in the quarter due to higher shop visit volume and content in both large commercial engine and Pratt & Whitney Canada businesses. Commercial OE sales were up 22% in the quarter on higher engine deliveries and favorable mix.

In the military business, sales were down 3%. The decline in sales was driven by the timing of the F-135 production contract award in the prior year, which was partially offset by higher F-135 sustainment volume this year. Adjusted operating profit of $436 million was up $133 million from prior year, with drop-through on higher commercial aftermarket sales and favorable large commercial OE mix partially offset by higher production costs and higher R&D expenses. Note that both this quarter and the prior year quarter had a similar sized contract benefit of roughly $60 million.

With that, before we get into the updated outlook for 2023, let me turn it over to Chris to give some additional color on the Pratt fleet.

Christopher Calio

Okay, thanks Neil. Let me share with you what I can at this point about the Pratt matter.

As you heard from Greg, Pratt previously determined that a rare condition in powdered metal used to manufacture certain engine parts may reduce the life of those parts. It's important to note upfront that the current production of powdered metal parts is not impacted and Pratt will continue to deliver both new engines and new spare parts across all product lines. I'll come back to that in a minute.

As a result of this rare condition in powdered metal, Pratt instituted enhanced inspections to be performed at scheduled shop visits; however, based on very recent learnings from these inspections, Pratt has now determined that the timing of these shop visits needs to be accelerated. While powdered metal parts have been widely used throughout Pratt's product lines for decades, Pratt has bounded the potentially impacted material. It has concluded that this condition was present in rare instances in powdered metal produced from approximately Q4 2015 into Q3 2021.

The PW1100 engine fleet which powers the A320 Neo will experience the most significant impact due to production volumes during this period. Based on the current assessment, Pratt anticipates by mid-September that approximately 200 PW1100 engines will be removed for enhanced inspection. Beyond the initial 200 engines, Pratt also anticipates that approximately 1,000 additional PW1100 engines will need to be removed from the operating fleet for this inspection within the next 9 to 12 months, though the exact number of engines and the timing of those removals is not yet finalized.

It's important to note that some of the engines that must be removed for inspection in 2023 and 2024 are already forecasted for a regular shop visit during this time period, and so the incremental impact to the fleet is still under evaluation. Capability to perform the accelerated inspections, which are focused on the high pressure turbine discs, is already in place and Pratt is developing plans to optimize shop visit capacity within its network to complete these inspections as quickly and efficiently as possible.

As I said earlier, current production of powdered metal parts is not impacted and Pratt will continue to deliver both new engines and new spare parts across all product lines. This is a result of the combination of extensive improvements that were made to our powder processing to remove possible contamination sources and the deployment of enhanced inspections for improved detection. Pratt is also analyzing any potential impact to other parts of its fleet, but the current expectation is that they will less impacted based upon existing inspections, utilization profiles and maintenance intervals.

Let me take a moment to explain the timing of these developments. We proactively monitor the performance of our engines throughout their life cycle. It's foundational to how we maintain and manage the safe operation of our fleet. We do this in a number of ways: analyzing large amounts of data generated during operation, inspection parts in MRO, destructively testing certain parts to analyze their material properties, and characterizing what we observe. We use learnings from this proactive monitoring to inform our predictive models so we can address any issues before they appear in our fleet.

In this case, as Pratt analyzed some recent inspection findings, it determined the need for an accelerated inspection plan even though the fall-out rate from these inspections is expected to be very low. The next step is for Pratt to publish a service bulletin describing the inspections, and the FAA will likely follow up with an air worthiness directive.

The financial impact associated with these renewals is still being analyzed and will depend on a number of factors, including the result of the inspections, the amount of work needed to be done in our network shops, and of course the impact on our customers. This is obviously a difficult situation for our customers, especially given the strong demand for travel. We are truly sorry for the impact of this disruption and we will do all we can to support our customers.

Safety always has been and always will be our number one priority, and we will never compromise in ensuring the safe operation of our fleet. We will of course continue to keep you apprised as our analysis progresses on both the operational and financial impacts of these accelerated shop visits.

With that, let me turn it over to Neil to talk about how this impacts our 2023 outlook.

Neil Mitchill

Thanks Chris. Let's start with the segment outlook.

As Chris mentioned, there continue to be a number of evolving assumptions around the financials at Pratt. Let me try to put some additional color around that, starting with the top line.

Commercial aftermarket demand remains strong and we are continuing to ramp production. Because of this, we are confident in our prior sales range of up low to mid teens. On the profit side, given the strong first half results and continued top line growth, we still expect between $200 million and $275 million of operating profit growth for the year.

Within that outlook for Pratt, here's what we are assuming as it relates to the increased engine removals and inspections. Given Pratt's results to date and aftermarket strength, the impact of the first 200 engines is contemplated within the range we just provided. Keep in mind, given the percentage of completion accounting for the aftermarket contracts and the relatively early life of the programs, the P&O impact will be less significant today. However, for the reasons Chris described, the impact of any further engine removals from service for inspection is not currently assumed in our outlook.

Moving to Collins, given the strong results in the first half and the continued strength we are seeing in commercial aftermarket, we are increasing the full year sales range from up low double digits to a new range of up low double digits to low teens, and as a result of this increased demand and continued execution, we now expect Collins adjusted operating profit to be up between $825 million and $875 million compared to the prior range of $750 million to $825 million.

Turning to the new Raytheon segment, given the strength of the backlog and the accelerating top line, we expect sales for the combined segment to grow low to mid single digits versus 2022. While we have begun to see increased material flow and improved efficiencies, we had lower productivity than we expected in the first half of the year, including costs associated with fixed price development programs, and similar to Q1, we anticipate another contract option exercise that will lead to a headwind in third quarter. With all that said, we're expecting continued volume growth and second half productivity improvements, and altogether we see adjusted operating profit up between $125 million and $175 million versus prior year.

Now let me summarize all this at the RTX level. As Greg mentioned, we're increasing our full year RTX sales outlook to $73 billion to $74 billion, which translates to organic growth of between 9% and 10%. This is up from our prior outlook of $72 billion to $73 billion.

With respect to earnings, we are tightening our adjusted earnings per share range by $0.05 on the bottom end and now expect adjusted EPS of between $4.95 and $5.05, given the first half results and some improvement in below-the-line items. We've provided an update on those below-the-line items in the appendices.

Turning to free cash flow, the impact of the Pratt matter will be more meaningful on cash flow as we begin to ramp up inspections and MRO activity this year. As a result, we now see free cash flow up approximately $4.3 billion for the year, about $500 million below our prior outlook. Finally, we'll transition to the new segment reporting here in the third quarter and we've provided the re-cast 2022 and 2023 quarterly financials in the appendices.

With that, let me turn it over to Greg for some closing remarks.

Gregory Hayes

Okay, thanks Neil. Just some closing thoughts before we get to the Q&A.

We obviously had a very strong second quarter with $25 billion in new orders, which brings our backlog to a record $185 billion. Sales were also very strong with 13% organic revenue growth. This strength in sales and orders reflects the strength in both our commercial aero and defense markets. RPMs are on track to return to pre-COVID levels as we exit 2023, and military spending globally continues to increase in response to Russia's aggression in Ukraine and the emerging threats in the INDOPACOM theater.

Based on the continued strength in our markets, we are well positioned to deliver on our commitments for 2023 and beyond.

With that, let's open up the call for questions.

Question-and-Answer Session

Operator

[Operator instructions]

Our first question comes from the line of Robert Stallard of Vertical Research.

Robert Stallard

Thanks very much, good morning.

Gregory Hayes

Morning Rob.

Robert Stallard

Let's start with the GTF, shall we? By my count, this is the third issue you're dealing with at the moment - you have that quality escape noted at Paris, the ongoing time-only issues in these challenging environments, and now the metal problem. Is there a root problem or cause that's linking these issues, and are you concerned about the potential impact on Pratt's reputation for reliability? Thank you.

Christopher Calio

Yes, thanks Rob, this is Chris. I'll start. Obviously this is a disappointing development and will impact our customers. Let me just sort of take a step back and kind of walk you

through the processes that are in place across Pratt.

It's got a strong process of fleet surveillance, evaluation, and taking corrective action that is used to support the safety of the fleet. In this particular case, the process worked, but I will tell you that, again, we continue to monitor the situation with the fleet, we continue to find learnings in fleet, and then we take those actions and update our models and correct them. But if you step back, this is not a GTF design issue, this is a manufacturing process issue on our part with metal. We very quickly went and enhanced those processes to make sure this doesn't happen again and put in place the enhanced inspection techniques to make sure that we can continue to find this and address them promptly.

We're taking prompt action. Right now, we've got work through how we define work scope and the turnaround time that's required, and of course do all the impact to the fleet that's going to be required. Again, we talked about the comments upfront, GTF is going to have a lot of shop visits here in the back half of '23 and into '24. We need to figure out how many of those are incremental and what the true impact to the fleet is, but that's ongoing.

But again, we're going to continue to invest in the GTF in the durability improvements that Shane talked about at investor day in June, and of course the GTF advantage. We will work through this difficult time, but again we continue to believe in the GTF, its architecture and its future.

Robert Stallard

Okay, thanks Chris.

Operator

Thank you. Our next question comes from the line of Myles Walton of Wolfe Research.

Myles Walton

Thanks, good morning. Neil, I'm trying to understand the scaling of the $500 million lower free cash flow to the total population of engines that you're going to be removing and inspecting. I think you said that the first 200 are encompassed in the guidance, but it wasn't clear if that was just the segment profit guidance you were talking about. Also, obviously this is lingering into '24 to get that whole 1,200 population, so should we think about a similar sized cash impact in '24?

Neil Mitchill

Got it. Let me start with what I can tell you now.

First, let me remind you, it's very early in this process. We have begun to investigate what the costs and the work scope and the timing might be, but there will be some learnings over the next 30 to 60 days and we'll certainly come back and talk to you a little bit about that.

As I think about the guidance, the comment I made was with respect to the Pratt guidance. Again, we had a first half that was very strong at Pratt. I think we're well on track for the year, all else equal; but a couple of dynamics that will likely keep the P&L impact associated with the 200 accelerated inspections manageable for the year. First is we've talked about 85% of this fleet is under a long term contract, and we're less than 5% complete on those programs on average, so as Chris just mentioned, we don't know exactly how many but some of those 200 are already scheduled for a visit this year. When we think about those two things, that sort of helps us bound what the impact could be for this year with respect to that population. Given the thousand and the fact that a number of those are also already scheduled for a shop visit, we still need some more time to go think through that.

As it relates to the cash flow, similar train of thought there - we really do need a little bit more time to go through this, but we've put a risk into our outlook because we know that we'll have some calls on cash over the rest of the year. I would say there's two things that are impacting the cash flow. The first is what I'd call the direct impact, and the second is what I'd call the indirect. On the direct side, it's really going to be things like accelerated capital, some inventory to get ready for these inspections, expenses associated with the work that we'll start to perform during the last quarter of the year, and then obviously customer disruption, so more to go there. Indirectly, there's other work that this may disrupt in our business, and so we're contemplating some of that as we look at this year.

I think it's a bit too early to kind of extrapolate that out to '24 and '25. Certainly we'll come back over the next couple of months and provide a better update.

Myles Walton

Can you clarify if the powder metal supplier is internal to you?

Gregory Hayes

Myles, this is Greg. Yes, so we actually manufacture the powder in our facility in New York. That powder is then processed down in our Columbus, Georgia forge into a number of different parts. The parts we're talking about here are turbine discs, but they are all internally manufactured with a proprietary powder.

Myles Walton

Thank you.

Operator

Thank you. Our next question comes from the line of Ronald Epstein of Bank of America.

Ronald Epstein

Yes, hey. Good morning. A question for you, Greg. Kind of getting back to Rob's question, when you look at the litany of issues that have happened here with this engine, everything from hot section issues, manufacturing issues, do you have a cultural issue in your engineering workforce? Are people not talking to each other? I mean, it also begs the question, how could you guys possibly not know about this at Paris when you did this major investor event?

Can you just give us all some insight into how people are communicating and what's going on in your engineering workforce?

Gregory Hayes

Yes, you know Ron, we should differentiate between the durability issues that Shane talked about and that I'd call this a manufacturing quality issue. Let's just take a step back.

This is an issue that we first uncovered back in 2020 when we had an incident with a V2500 turbine disc. As a result of that investigation, we determined at that point that we had some contamination in this powdered metal that we make. It occurred very, very rarely, but it did happen, and it actually resulted in the turbine disc failure on an airline. As a result of that, we went through and did two things. First of all, we went out and inspected the V2500 fleet, but we also went back and we took a look at the powdered metal process to determine how this contamination happened.

Through a lot of work, through a lot of discovery, we figured out what the contaminants were and by the end of 2021, about a year after that, we were able to manufacture powder that was, I would say, contaminant-free to the best of our ability. At the same time, we knew that this contamination had occurred between late 2015 and late 2020, early 2021, so we knew we had a suspect population in the fleet. We went out and so we started inspecting. We inspected the turbine discs as they were manufactured, we inspected turbine discs as they came back in, not just for the V but for the whole GTF fleet, in fact the entire fleet of Pratt products that were manufactured during this time frame. Those inspections, and there were over 3,000 of those inspections, yielded a very, very small fall-out rate, less than 1%.

As Chris said, all of this data goes into our lifing model for the turbine disc, and based upon everything that we knew until very recently, we believe that the life of the turbine disc was such that we would see these discs in the shop and be able to inspect them before we ever had an issue. Now as we looked at the data again over the last couple of months, our safety risk assessment, our safety board went through their process of updating the data based on all the recent findings, and they said, you know what? We're not absolutely positive that the lifing model is accurate, and so we want to take a look at these discs on a much accelerated basis.

I would tell you, that is exactly the way the process is supposed to work, and so we're going to pull back 200 discs, or 200 engines and look at the discs here in the next 90 days or so. In the next year, based upon those findings from the first 200, we think there's probably another 1,000 out there, so 1,200 out of a little over 3,000 engines out there have to be inspected.

But this is not a manufacture--sorry, it's not a design issue. In fact, the engineers have been working on this issue hand-in-glove with the safety board and everybody else in manufacturing for the last three years, so I don't believe that we have an engineering issue. Obviously this was a quality escape back from--you know, sometime between 2015 and 2020, and we are doing, I think, exactly the right thing, which is to bring these engines back, inspect them and ensure the safety of the fleet going forward.

I think again, it's--look, this engine, Ron as you know, has been a challenge since we launched it back in 2015. You guys can remember talking about bode rotors and all the other issues that we had, but if you think about this engine operating at the temperatures that we do, it has been a continuous discovery. This is not one of them. This is simply a quality issue from a manufacturing problem, so I would say, look, we're on top of it, we've got this. It's going to be expensive. We're going to make the airlines whole as a result of the disruption we're going to cause them, and I think we're going to work ourselves through it.

It's not an existential threat to RTX; it's not even an existential threat to Pratt. It is a problem, and we have them every day. We'll solve it.

Ronald Epstein

All right, got it.

Gregory Hayes

Thanks Ron.

Operator

Thank you. Our next question comes from the line of Peter Arment of Baird.

Peter Arment

Yes, thanks. Good morning. Greg, thanks for that color there, I appreciate that.

On the powdered metal just specifically, when did you make the change? Was it back in 2020 or '21, just so we can have better clarity on the engines that are being delivered today?

Gregory Hayes

Yes, so it was mid to late 2021 where we changed all the processes in terms of the screening of the powdered metal to identify the contaminant, to eliminate the contaminant. Let's be clear - this is a--these contaminants are microscopic, and unfortunately the original process, as we scaled up production for GTF, it got away from us a little bit. We fixed it, but I would tell you everything that we have shipped, or almost everything we have shipped, I should say, in the last three years, we believe is going to be just fine. That's why we're confident we can continue to support Airbus, continue to support customers with new deliveries, as well as with spares this year and next.

Peter Arment

Appreciate it, thanks Greg.

Gregory Hayes

Thanks Peter.

Operator

Thank you. Our next question comes from the line of Sheila Kahyaoglu of Jefferies.

Sheila Kahyaoglu

Good morning guys, thank you very much.

Just on free cash flow, can we walk through the bridge, $1.2 billion of free cash flow usage in the first half, $4.3 billion expectation for the year? How do you think about the biggest drivers on a segment level basis in working capital? What are you expectations for factoring for the year, whether it's a benefit or a headwind, and do we think about $500 million of Pratt impact for 200 engines, is that the rate we should assume going forward in future years or is that something you guys are working through?

Neil Mitchill

Thanks Sheila. This is Neil, and good morning. I will take that one.

First of all on the half a billion dollars, I wouldn't extrapolate that. We need some more time, as I said earlier in the call, so let's just focus on '23. As I look at the walk from the first half to the second half, I'll also say that we ended the quarter with positive cash flow, pretty much as expected, so the back half of the year is as we expected it to be. Obviously there's some work to do there to generate the cash consistent with the profile we had last year.

The major piece is really our--I'd put it in four major buckets. Obviously we have the rest of the year segment operating profit - it's a little less than $4 billion or so. We feel pretty good about that, consistent with the guides that we just provided and updated. We've got capital, second half capital which is going to be a headwind of about $1.4 billion, and then we've got a working capital item that we have to kind of burn down - it's about $3.5 billion, about $2 billion of that is inventory, I'd say split pretty evenly between Pratt and Collins, and then a billion dollars of the net contract asset liabilities, which is principally in the Raytheon segment, and that lines up to milestone payments we expect to receive in the back half of the year, as well as some international advances similar to what we had last year, that would occur late in the fourth quarter.

The rest of the puts and takes are really the things we've talked about - pension, taxes, interest and other. The net of that is about half a billion dollars of an outflow in the second half.

Again, same profile we were staring at 35, 45 days ago. We've layered in the Pratt impact - I think that mostly will impact working capital, it may have some capex as well.

Sheila Kahyaoglu

Thank you.

Neil Mitchill

You're welcome.

Operator

Thank you. Our next question comes from the line of Kristine Liwag of Morgan Stanley.

Kristine Liwag

Hey, good morning guys.

Gregory Hayes

Good morning Kristine.

Neil Mitchill

Good morning.

Kristine Liwag

For the Pratt issue, it seems like the free cash flow impact in 2024, 2025 is still a little bit unclear. How should we think about how this affects your 2025 free cash flow outlook of $9 billion, and is that still the number you're reiterating or should we think about potential downside risk?

Neil Mitchill

Hey, good morning Kristine. I'll take that to start.

Clearly all things equal, the issue we just talked about is going to put some pressure on Pratt margins and would put pressure on cash. I think it's too early to put a number on that. We're going to need some time to go through and understand what's the work scope, how does that intersect with already planned work scope and the profile of those shop visits, and of course we're always focused on trying to drive more out of our businesses and we would do the same here.

I think I'll leave it at that. We will come back to you over the next couple of months with more detail.

Greg?

Gregory Hayes

Yes, just maybe the way to think about this is we're going to pull 200 engines back this year, a bunch of those were going to come back anyways, and then next year it's another 1,000 and a bunch of those were already planned. Having said that, though, we know right now we've got 13 MRO facilities, we're going to have to--our plan was to go to 19, we're going to have to accelerate some of the tooling - that's contemplated in this cash. We're going to have to dedicate some spares to a rotable pool of engines to support some customers. Those things, again, will be behind us, I would say probably by the middle of next year in terms of the cash outflows associated with that.

The big question in everybody's mind will be, what are we going to have to do in terms of compensation to the airlines. We have contracts and special support agreements that are out there, so we'll work through that but it's going to take time.

I guess the main point, though, is by the end of next year, this inspection program will be almost all complete and the 2025 outlook really shouldn't be impacted, other than as Neil said, potential margin impact as some of these costs roll through the GTF support contracts. But again, we've got two years to work through that and we will figure that out, but in terms of the cash, really probably not a big difference as you get out to 2025.

Kristine Liwag

Great, thank you.

Operator

Thank you. Our next question comes from the line of Seth Seifman of JP Morgan.

Seth Seifman

Thanks very much, and good morning. I wanted to ask a question about the Raytheon business. It looks like, and I want to make sure I've got the right recapped numbers here, but it looks like first half to second half, only kind of a modest sales increase expected but fairly healthy profit increase to get to the 150 of profit growth at midpoint. I guess if you could talk a little bit about what gives you confidence in that, especially in light of the option exercise you mentioned, and then also, I thought there was pretty good top line momentum at RND in the quarter, and the degree to which you do or don't expect that to continue in the second half.

Christopher Calio

Hey Seth, this is Chris. When you look at RND--we'll break it down into the pieces of the new Raytheon segment. When you look at RND, we started to see some positive momentum in particular around material growth, right - about 14% year-over-year material growth. The kit fill rates that we've talked about for some time that were hovering in those mid to low 50s, were up into the mid 70s, so we're starting to see material flow which is a big part of the continued productivity story at RND.

At RIS, I would say, again, less material intensive but very good material flow and kit fill rates. The issues that we're continuing to grapple with are the fixed price development contracts that we've got. We've mentioned before, we've got a handful of fixed price development contracts that are technologically very complex, that we continue to work our way through. We believe we'll make significant progress on those here in 2023 and into early 2024, but overall again seeing positive momentum on the productivity front at Raytheon.

Neil Mitchill

Thanks Chris. Let me add a couple comments here too regarding productivity.

I think the first half of the year was encouraging in some regards - we turned the corner a bit. I think on a year-over-year basis for the first half of the new combined business, we're essentially flat year-over-year. We are expecting about $100 million of productivity step-up in the second half of the year - think about that as--I'm sorry, on a full year basis, so about $75 million or so in the second half of the year. The material receipts is what makes us have the confidence around that path to the second half of the year.

The other encouraging point I would say is particularly at the missile business, we saw the sales tick up on that material receipt and the mix of that material had good drop-through on it, so we're starting to see the transition of the mix of production from development. We talked about 2023 being the low point.

That's how we've calibrated this into this revised outlook. We've also taken into account the first half performance as we've readjusted this realignment in the second half of the year.

Seth Seifman

Thanks.

Neil Mitchill

You're welcome.

Operator

Thank you. Our next question comes from the line of Ken Herbert with RBC Capital Markets.

Ken Herbert

Yes, hi. Good morning.

Neil Mitchill

Morning Ken.

Ken Herbert

Maybe Chris or Neil, if you could dig a little bit further into what you bucketed as the other disruptions as we think about maybe an incremental diversion of engines into the spare pool and how we think about stresses on the capacity of the network as you deal with not only the 200 this year but the 1,000 next year. Within that other bucket, where

do you see the primary risks or maybe the greatest unknowns as you think about the potential eventual impact on cash?

Christopher Calio

Hey Ken, thanks. This is Chris. I'll start.

As we kind of noted upfront, there are a number of variables that are going into the fleet impact, both this year and next: work scope, making sure we define the work scope for these inspections, the turnaround time, trying to get the turnaround time and do this work as quickly and efficiently as possible, making it into a project visit to the extent that we can, and then optimizing the network capacity. You just heard Greg say we've got 13 shops across our network today - we're adding more shops, but how do we go and optimize that network, because obviously we've got with today, as you know, as we're trying to increase output on the GTF MRO, we've got to make sure that we're inducting the right engines at the right time and making sure that we can do this, I'll call it new work, new inspection work separate and apart to the extent that we can from the ongoing MRO work. All of that, I'll call it optimization formula, is still being developed and we're going to need a little bit more time on that.

In terms of the other disruptions, Greg mentioned some of them; but again, we're going to be looking at our network where all of our work is done to try to minimize any disruption on other programs, more mature programs perhaps that are going through the MRO cycle. Again, how do we make sure that those continue to flow uninterrupted while we do this work, those are the types of things we're continuing to work through.

Ken Herbert

Great, thank you.

Operator

Thank you. Our next question comes from Jason Gursky of Citi.

Jason Gursky

Hey, good morning everybody. You talked a little bit about the capacity in MRO. Can you talk a little bit about the capacity for the part itself, the internal manufacturing capabilities that you have there and whether this is another potential constraint for you all on the GTF?

Christopher Calio

Yes, thanks Jason, this is Chris. Greg mentioned upfront that we've had this enhanced inspection technique in place for some time and have been doing these inspections. On the V2500 in particular, we've had, I think Greg, you said almost 3,000 of those inspections. I will tell you that the fall-out rate from that on this part has been very, very low, and so at this particular time, Jason, we don't believe that the HPT will be the limiting factor, if you will, in terms of the turnaround time and our ability to work through this as quickly and efficiently as possible.

Jason Gursky

Mm-hmm. If you were to go and do one of these inspections today, do you have a sense of--are we talking about weeks or days, or months to do this inspection?

Christopher Calio

Yes, so we're talking HPT discs, Jason, and so that particular module, you can't necessarily do that on wing. You've got to take the engine off wing, you've got to disassemble the engine to get to that particular area. Unfortunately, based on the geometry and location of the part, you do have to remove the part to do this enhanced inspection capability, reassemble and then get it back out to the fleet.

I think I mentioned before, we're trying to turn this into, as best we can, what we would call a project visit, not a full interval shop visit, but that work is still underway. Obviously making sure the wing-to-wing turnaround time is as short as possible and doing what we need to do is an important element of understanding the fleet impact and what we need to do from a network perspective.

Jason Gursky

Is there any silver lining to this at all, in the sense that you mentioned optimization on how you're going to deal with these visits and these inspections? Is there an opportunity here to get through some of the durability swap-outs that you need to do anyway, so that you can kill two birds with one stone, so to speak, as you do these inspections?

Christopher Calio

Yes, so when you think about that 2024 shop visit population, we're going to, again, take a look at the utilization on those, the cycle time on those engines, and in working with our customers making a decision, a mutual decision on is this the right candidate for a project visit or should that work scope increase to take on additional work, which will benefit the time on wing and the interval of that engine moving forward several years. That is a decision, that is a conversation that we will have once we better

understand again how many of these visits are truly incremental in 2024, and then the related fleet impacts. As you know, Jason, that is a part of the equation.

Jason Gursky

Then lastly, do you think you're going to learn enough by the time we have the October earnings call to provide us a little bit more clarity on things, or do you think this is going to be a discovery process that takes us out a number of months, into the end of the year?

Gregory Hayes

Jason, we're discovering something new every day here, so I think--all I would tell you is that over the next, I would say six weeks as we finalize the inspection protocols, as we finalize the turn times and work with our customers, keep in mind we're trying to get the first 200 engines back by the middle of September, so I think by the middle of September, we'll have a much better feel for what is involved here. We'll have an opportunity to update everybody around that time. I think by the time we get to October, obviously we'll know even more as we go through some of the initial inspections, so this is a learning process.

We understand what it takes to inspect, we understand what it takes in terms of the inductions and the processes, and unless there is some surprise, I think we can have this pretty well bounded in terms of what the cost impact is, in terms of what the cash flow impact is, and so by the time we get to the third quarter call, obviously we'll have a hell of a lot more knowledge than we do sitting here today.

Jason Gursky

Great, thanks guys.

Operator

Thank you. Our next question comes from the line of Cai Von Rumohr of Cowen.

Cai Von Rumohr

Yes, thank you so much for taking my call. By my calculations, you delivered something like 1,600, 1,700 GTFs by the middle of '21, so how do we get to 1,200 engines? I mean, are we sure that's the number? Could it be a larger number, and is this just related to the PW1000 or does it also impact the Vs?

Christopher Calio

Yes, so let me start maybe with the second part first, Cai. Our current assessment is that we don't expect the same type of impact on the V2500. It has had an enhanced inspection fleet plan and management plan in place for some time, and as I noted and as Greg noted, we've completed a significant number of those inspections thus far and feel comfortable that this can be managed at this point within the existing shop visit forecast. As Greg noted, we're still going through that analysis, it will take us into August to finalize that, but that's our current expectation.

Same on the other Neo applications - there are different characteristics and attributes on those engines, whether it be stress on the part, whether it be thrust, that we believe differentiates it from the 1,100, and such our current assessment is those can be managed within the existing shop visit forecast that we have for 2024.

In terms of the population, Cai, you heard Greg talk about when we bounded the potentially contaminated material, we put in place the enhanced processes for powdered metal at that time and also put in the enhanced inspection techniques that we've talked about. Many of the engines that have come off, all of the engines that come off since that time have gone through this inspection and have been a part of what we would call this better powder processing regime.

Ultimately we will inspect parts when they come in for their normal shop visit on down the line, Cai - as you know, these engines will come back for shop visits and we will inspect this, among other things during that time. What we're talking about right now are those that we need to accelerate the shop visit for. Again, that's based on all the variables that we talked about. We feel confident that as part of the safety management board that Pratt has, that we've got the right population and the right plan in place.

Cai Von Rumohr

Just one quick follow-on, we've hit on all the negatives, but you just got this announcement of this $2.9 billion potential AMRAAM order from Germany. Can you give us some color on your munitions outlook in the out years, is that substantially better?

Gregory Hayes

Yes Cai, it's nice to talk about something other than GTF. Look - this AMRAAM order is an order that will be for both Germany, really for all of the NATO countries, that will also benefit Ukraine. I would tell you, that is on top of what we expect to see as relatively large order for GEM-T missiles associated with the Patriot air defense system. We have orders there from Saudi Arabia, we have orders coming from NATO. I think in the back half of the year, you're going to see significant--we're planning significant order intake on both AMRAAM and GEM-T, as well as of course Excalibur. Neil mentioned we've got the Javelin order, we had the Stinger order already - those orders will continue to grow.

But I'll tell you right now, we still have only seen $2 billion of orders associated specifically with Ukraine replenishment. We think there's probably another $2.5 billion coming in the next 12 months associated with just the Ukraine replenishment on top of the GEM-Ts, and the GEM-Ts, again they'll go to Germany, they'll go to Poland, they'll go to all 18 of those countries that are currently operating Patriot, so I think that's a very positive sign and that's why we're so bullish on the defense outlook for the next couple of years.

Cai Von Rumohr

Thank you.

Operator

Thank you. Our next question comes from the line of David Strauss of Barclays.

David Strauss

Thanks, good morning. Sorry, back to the GTF.

Gregory Hayes

Come on!

David Strauss

Sorry. I just wanted to ask you about how closely coordinated you are at this point with the regulatory bodies with regard to this, and have they kind of signed off on your plan or is there any risk here of potentially the population or the timeline of these inspections getting accelerated?

Christopher Calio

Yes, thanks David, this is Chris. I would say all of this has been very closely coordinated with the FAA. I think you heard me upfront talk about that this will come in the form of a service bulletin that Pratt will publish, and then likely an AD that the FAA will distribute. But our safety management process, whether it be through events that happen in the field, things that we find through our continuous surveillance process or recommendations and assessment like this, are always very closely coordinated with the FAA, and then of course with the other international regulatory bodies as well.

FAA of course is where we start, but we of course continue to coordinate with the FAA and those other international bodies, but bottom line, very closely coordinated with them.

David Strauss

Okay, and a quick follow-up, you keep mentioning fall-out rate, low fall-out rate. I assume that is where you actually have to replace the high pressure turbine discs. What exactly have you assumed in terms of a fall-out rate, and given it sounds like the inspection here is pretty involved, how much more involved would it be and costly to be to actually replace the high pressure turbine blades versus just the inspection--or discs, sorry?

Christopher Calio

Yes, so you're absolutely right - that's what fall-out rate means, those that we inspect and decide need to be removed and replaced. Our experience has been that's been very, very low. If of course we had to replace the turbine disc, then we'd factor that into the turnaround time and that will of course potentially add some time to the process. But as of now, again David, our assumption--and we're continuing to work through that and through the month of August here, but our assumption based on everything that we've seen thus far is that the fall-out rate will be very low, and that's what's embedded in our assumptions today.

Gregory Hayes

David, keep in mind in order to do the inspection, as Chris said, we literally have to pull the high pressure turbine disc off of the engine and put it through this inspection protocol. Now, whether we put that disc back on or a brand-new one, it's not a significant impact, and again with a very, very low expected fall-out ratio, I wouldn't--of all the things I worry about, that would be low on the list. We have plenty of capacity for turbine disc out of Columbus, especially given what we expect to be a very small number of replacements. That is, I would say, the most manageable portion of this.

David Strauss

Got it, thanks a lot.

Operator

Thank you. Our final question will come from the line of Noah Poponak of Goldman Sachs.

Noah Poponak

Hey, good morning everyone.

Neil Mitchill

Morning Noah.

Noah Poponak

On the powder metal, are you able to bound at this point whether you expect the free cash impact next year to be larger or smaller than this year, and then also following up on the Raytheon defense margins, can you just spend another minute on the fixed price development programs you're citing - which ones are they, when do they move out of the development phase, and how do they play into the multi-year margin expansion you're expecting?

Neil Mitchill

Sure, yes. First of all on the free cash flow, again Noah, I hate to keep saying this, but we really need a little bit more time to put a finer point on our estimates, and we will come back to you on that part as it relates to '24 and beyond. But I think we've talked at length about what the considerations are there and how we'll be thinking about that, and that there is a possibility that some of these shop visits are already planned and there will be effects that counterbalance some of this in the out years, so more to come on that front.

On the defense margins, you'll recall back in Paris, I talked about $40 million to $50 million of headwinds we expected from the RINS business, and that happened just as we expected as we closed out the quarter. It's literally a few contracts - I'd say most of them are classified, so hard to get into the names. The duration, I'd say the most--you know, the period of time that we're looking at, probably 18, 24 months before those programs are fully behind us. We're in the test phase, we're obviously learning through that phase, but I think we have a little bit longer to go here.

I think we've got it calibrated in the second half of our year outlook, but all the right resources are on it and, like I said, absent that, we are seeing productivity turn in the rest of the business, so it really is a focused set of programs that we're dealing with.

Noah Poponak

Okay, thank you.

Neil Mitchill

You're welcome.

Gregory Hayes

Okay, thanks to everybody for listening in.

Just to put all this in perspective, I think you need to keep in mind, we have very strong franchises between Collins, Raytheon and Pratt & Whitney, and the $185 billion of backlog. I know this GTF issue, this quality issue is a bit of a surprise. We have been working it for the last, I would say, 10 days or so. We will know a lot more in the next six weeks, and as that information becomes available, we will of course be sharing it with investors. But again, keep in mind this is a small piece of what is a great franchise across RTX.

Having said that, Jennifer and her team are obviously going to be available the next couple of days to answer any follow-up questions that you have. Thank you all for listening, and take care. Bye bye.