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MANAGEMENT DISCUSSION SECTION

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Good morning, everyone. Again, I'm Rajeev Lalwani. I cover aerospace and defense and airlines here at Morgan Stanley. I'll also echo my leaders' comments. Thank you all for coming to the conference and making it special. We've got our keynote address up next, and I couldn't think of a better company and a better executive to do it in terms of Dennis Muilenburg and Boeing overall. So, Dennis, thank you so much for taking the time to come out here.

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

Thank you. Thank you.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

It'd be great if maybe we can kick off with an update on the outlook at Boeing.

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

You bet. Well, Rajeev, thank you, and I appreciate the chance to be here. Thank you all for joining in this morning. I'd like to start off with just a couple of quick comments and happy to jump into any questions you might have. But as we look at the overall aerospace and defense market, we continue to see a robust, healthy marketplace, growing marketplace, about \$1 trillion market over the next 10 years.

We recently updated our current market outlook, our annual assessment of the future. We look out over the next 20 years, we see a world that needs about 43,000 new commercial airplanes. That's up about 1,700 airplanes from our last year's estimate. We're continuing to see strong passenger growth trends around the world, passenger traffic growing about 6% to 7% a year. We have about 100 million new passengers, people who fly for the first time every year in Asia now, and we still see a world where less than 20% of the world's population has yet to take a single flight. So, the opportunity for growth is tremendous.

We're also seeing strengthening defense budgets here in the U.S. and amongst some of our key allies, as well as growth in the services market. So, fundamental marketplace is healthy and growing. And within that, our business is in a strong position, backlog of about 5,800 commercial airplanes. We're continuing to ramp up production.

We've guided to 810 to 815 airplane deliveries this year, and we remain very firm on that guidance. That will be a new all-time record. And over the next year or two, that will go north of 900 airplanes per year.

We're also seeing growth in our services business, year-to-date growing 11% compared to a 3.5% growth in the marketplace. So, good top line growth in our businesses, and we're using that to fuel our bottom line growth. And you heard me talk before about driving our business to be a mid-teens margin business and beyond. We're making great progress on that path, and we're continuing to drive that forward, and also seeing great cash performance and delivery.

We see this as a year-over-year cash growth business, and we're delivering on that commitment. And our expectation is we're going to return about 100% of free cash flow to our investors in the form of dividends and share repurchase. That's a commitment we've made, and we're delivering on that commitment.

And I think, lastly, what we're seeing in the marketplace is less cyclical behavior. Historically, commercial aerospace has been a rather high-cycle business, but the nature of that business is changing. The market has changed. Global traffic has changed. I mentioned to you the population statistics, the traveling public, more people with access to flight, a globally connected world. So, we're seeing the market change. We're also changing how we run our business in terms of production rate discipline, long-term labor agreements, how we run our development programs, growing our services business which is non-cyclical. So, we see a significant transformation to this being a long-term sustained growth business rather than a cyclical business. So, those are few perspectives on what's going on.

QUESTION AND ANSWER SECTION

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Yes. That's great. I actually want to start at a very high level, Dennis.

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

You've been at Boeing as the CEO at least for just a couple of years. I'd love to just get some perspective on how the organization has changed in that short period of time.

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. Well, it's been a real honor to take over the leadership of the company about three years ago now, got a great handoff from Jim McNerney and had the opportunity to take the reins just as we moved into our second century as a company. So, it allowed us to really reset, reframe our strategy going forward. And a few things we've really emphasized that have, I think, changed and begun to transform our company for our second century, a real emphasis on what I like to call our One Boeing strategy, and that's integrating across commercial, defense,

and services. It's about investing in our people and leveraging the synergies that are unique to our company, and I think that's helping us win in the marketplace.

We've also accelerated our overall framework for growth and productivity and what we call Project AcceleRATE!, and that includes some of our key long-term initiatives around lean implementation, our affordability work, things we're doing like partnering for success with our supply chain, as well as new areas in our second century design and manufacturing where things like additive manufacturing, automation, some of the new technologies we're bringing to drive productivity and growth. And you really see that driving bottom line performance and I think you've seen us significantly improve margin and cash performance as a result.

And then we've also made some structural changes that are pretty significant, and we stood up our new services business. We've launched some of our key vertical capabilities to rebuild some of those capacities. And we've also re-strengthened some of our functional areas, and all of that has been wrapped with this idea of resetting the bar for the second century. We've always aspired to be the best in aerospace which is a high bar, but we've seen more and more that we're competing with sectors for talent and influence and capital outside of aerospace. So we set a new bar for what we call global industrial champion, and that has been proliferated throughout our enterprise and really raises our expectations for growth and productivity going forward.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Let's talk a bit more about some of the topical items that are out there. Obviously, one thing that's been hitting headlines and so on is supply chain disruption.

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Where are we there? Is it closer to the beginning, closer to the end? Just some color there, as well as just the programs that you're seeing most pressure on.

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. Well, I think what I'll do is kind of focus in on especially what we're doing on commercial airplane ramp-up and specifically, 737, as I know that's been in the news recently. You see some pressure points in our supply chain as we've been ramping up. So, we said we're going to build the 810 to 815 commercial airplanes this year, an all-time record.

And each time we make great changes in our production system, bringing our whole supply chain along is a key part of doing that. This year we transitioned from 47 aircraft a month to 52 a month on our 737 line, and that's been a bit of a challenge with some of our supply chain. We've seen some of the public – the challenges around Spirit, delivery of fuselages, CFM with delivery of engines. And as we've been going through that rate up, we've also been transitioning our 737 line from the NG model to the new MAX model.

So, all of those challenges have come together in the middle of the year and we've had to take some particular actions to beef up our supply chain, improve some of our processes and work through some recovery actions.

And you saw that in July we delivered a 29 737s which was below our 52 a month production rate. As you saw this week, we announced that in August, we delivered 48 737s. So, you can see our recovery actions are taking hold and being effective and we still expect to fully recover that line and deliver on our year-end performance guidance. You'll probably see September deliveries will be roughly where August was, maybe a little bit better in terms of our recovery. And then as we get into the fourth quarter, you'll see deliveries getting above the 52-a-month production rate.

The great thing is we have a production machine now that's cranking out 52-a-month 737s. And as we deliver those airplanes, we're now looking ahead to 57 a month and ramping up to that in 2019. And every step of the way here, we're going to be bringing our supply chain along. We've deployed additional resources to be embedded with our supply chain. We're taking actions to connect our electronic systems more tightly. So, always work to do on the supply chain side. It's something that requires daily attention, but I'm very confident that we've got our arms around it, and we're going to continue to ramp up in a way that's going to be good for Boeing, good for our customers and good for our supply chain.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Now, Dennis, you mentioned the transition from NG to MAX. Is that creating more of the issue, or is it just the fact that rates moving up, you mentioned 47 to 52?

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

I think it's a unique combination of the two. We've done 20 production rate ramp-ups in our commercial lines since 2010. So, this is a science that we know how to execute. But if you look back to last year when we stepped from 42 to 47 a month, at that point, about 10% to 15% of the 737s were the new MAX model.

Next year, when we transition from 52 to 57, the large majority of the airplanes will be MAXs, so not a lot of model mix. This year, about 40% to 45% of the airplanes are MAXs. So, we're mid-stride on the model transition while we're doing rate ramp-up, and that adds a degree of complexity for all of our supply chain. So, I think that's made this rate step a little more difficult than some of the others, but we understand that. And again, confident we've got our arms around it. And you're seeing the outcomes of our recovery actions showing up in the deliveries, and I think the August delivery data is a good signpost.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

It certainly is. I was surprised by the number that came out yesterday – pleasantly surprised, obviously, but it's certainly a good number. You talked to us about the 737. What about the 787? There have been some...

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

...headlines there around seats and the availability of that to make deliveries

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Nothing unusual there. Seats have been a supply chain challenge for us for some time period, and that's been quite visible. Frankly, that's one of the reasons we recently launched our new seat joint venture with Adient, is to create some more supply chain flexibility and continue to drive quality and repeatability into our seat supply.

So, we've seen a few normal supply chain pressures in 787, but we're delivering those airplanes. We're very firm on our year-end guidance on 787s and very confident we'll deliver. Both our production lines in Everett and in Charleston are running well, and 787 is performing exceptionally well for our customers.

So, you see how it's winning in the marketplace, and we're continuing to gain orders for the 787. You see the value it's producing for our customers. And it's one of the biggest cash levers we have going forward, both in terms of rate as we'll be taking the 787 line from 12 a month currently to 14 a month next year. We're also seeing tremendous productivity gains in 787. Those two dimensions create a tremendous cash lever for the future, one of the big reasons we expect to see continuing year-over-year cash growth.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Maybe taking a step back on some of the supply chain dynamics, we talked about seats. You mentioned Spirit and CFM in particular on the 737. What about elsewhere, right? Again coming back to some of the media headlines, APUs, PSUs and so on and maybe how's that part looking? I think we all – and we saw today with Spirit understand that there are pressures there...

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

...but what about elsewhere?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. Well, I think it's a general theme that we see, right. There are known supply chain pressures but these are not unusual, these are things that we've always seen. The good news is aerospace is a growth business, right, and these are challenges as we ramp up, the challenges that we know how to handle and things that we pay attention to on a daily basis.

So, you mentioned areas like APUs and PSUs and various components, those are normal things. We have thousands of suppliers in our supply chain. We have a team that's deployed that they spend all of their time looking at supply chain health, what do we need to do to buttress it? In some cases, creating new sources of supply; in some cases, bringing resources to bear putting them into our supplier plants to help them be successful. So, I don't see anything here that's out of the ordinary.

What I do see is general supply chain pressure as we raise up rates. And to me, that's a great problem to have, right? That's a sign of a growing industry and we're going to invest to make sure that our supply chain is healthy.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

When we were out in the Seattle area last week, you got lots of questions about the financial implications of a lot of these headwinds and you guys reiterated your targets. Can you just talk maybe a little bit about how you are able to do that and just continue to reiterate it in your numbers?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. Well, the key is we're continuing to take those actions to drive underlying productivity in our performance machine. And we are relentless on our lean initiatives, the work we're doing on Partnering for Success, our working capital initiatives all focused on driving bottom line performance. We know that that's our fuel for the future. And so, while we see some of these pressure points in our supply chain, it's being more than offset by the work we're doing on our productivity initiatives.

Some of the Partnering for Success efforts we've done with our supply chain have produced some great results and we still expect this company to be a growing margin company mid-teen margins for our business. I think when we announced that a couple of years ago as a target, there was some skepticism on whether we could achieve it. I think now there's largely an expectation that we can achieve it. And we're on track to get to be a mid-teen margin business by the end of the decade, but we're not going to stop there. And you could see it in our in our productivity machine in Seattle. We expect to go beyond that and drive year-over-year cash performance as well. And some of this is the new technology we're putting into our production lines, implementation of automation, some of the new work we're doing on data analytics, all of that is driving productivity.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Let's switch gears a bit and talk about trade dynamics...

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

...obviously something else that's been topical of late. How has it impacted Boeing, if at all, in terms of your deliveries, your ability to procure raw materials here, your orders? I mean, what sort of impact have you seen?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. We haven't seen a material impact, but certainly an area that we're keeping a very close eye on. It's important to us, and I see that work in sort of two areas. We've seen some of the broad tariffs and trade implications on material supply in particular aluminum and steel. And while that's affected some industries, and our industry it's primarily about aluminum, we source about 90% of our aluminum from the U.S. So, we're not significantly exposed there. And the tariffs in that area have had some impact on us, but not a material impact.

The broader trade discussions where we're very much engaged in particular on the U.S.-China trade relationship, that one is exceptionally important to us. I think the key is we've got a voice at the table. We've been engaged.

We've been invited in as part of the dialogue. We've had strong discussions with both U.S. leadership and China leadership. And both countries are motivated to have a healthy aerospace industry.

China needs to lift. As I mentioned earlier, 43,000 new airplanes in the world over the next 20 years, about 7,600 of those are in China. And there's a key link between growth in the aerospace industry in China and broader economic growth, and the population that's moving in to be the air traveling public in China is creating a demand there that's very clear.

On the U.S. side, we're the biggest U.S. exporter. And if trade deficits are your concern, well, the biggest trade surplus we have in the U.S. is aerospace. And by far, the biggest portion of that surplus is in our business, in Boeing's business. So, we export about 80% of what we build, and we build 90% of it here in the U.S. So, there's a strong case to be made for a healthy aerospace industry in both countries, and there's a certain codependency that I think is well-understood.

And so, while the trade rhetoric continues, the tariff rhetoric continues, we're going to stay engaged. I think it's important to note that it's a long ways from trade and tariff discussions to actual implementation. And nothing here is going to create a sudden change in profile or deliveries or orders volume. So, it's more of a long term issue that we need to work. And I'm confident that our voice is being heard and we're at the table.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Actually, one thing you mentioned there was changing orders and deliveries, can you talk a little bit more about that in regard to what you are seeing? I mean, it seems like China is sticking with all of its commitments and taking aircraft and so on, but I'd love to hear more about it.

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. Certainly, China is an important part of our backlog and our delivery profile. As we've said before, roughly a third of our 737s are being delivered to China, and so a key customer for us. We continue to have very healthy relationships with our Chinese customers. We're very engaged with the airline customers there and are mutually growing together. We're building a 737 finishing center in China. That's part of that equation, too. It's really a win-win as it adds jobs and capacity in China, and it's also helping us ramp up our U.S. production manufacturing in Renton. And if you look to the future, China is currently working on its next five-year plan, which is typically the way that they develop their orders booked for the future. And we have an expectation that we'll be able to compete and win and serve our Chinese customers, part of that next five-year plan.

So, we have to do all of that in this context to the trade discussions between the countries, and it's something we're going to continue to pay very close attention to. It is very important to us. It's an important part of creating U.S. manufacturing jobs, and we're going to continue to hammer on that message. But we expect that in the end, we're going to find a solution in both countries that's good for their economies and for the aerospace industry.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Sticking on global dynamics, if you look year-to-date, the order flow of Boeing has been incredibly strong, 1.2 times or so, and it's interesting that you're seeing those sorts of orders at a time where you're seeing headlines around the U.S. dollar and emerging markets, et cetera. It doesn't seem like it's having a meaningful impact, but is that a fair or an unfair assessment?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

In terms of?

A

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Just the impact associated with the stronger U.S. dollar, concerns around emerging markets, Turkey and places like that.

Q

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

Yes. We don't really see a direct correlation between, say, currency fluctuations and the strength of our business. We do our business in dollars around the world and the way our supply chain is structured, the way our customers do business, generally, we don't see a strong correlation between strength of the dollar and currency fluctuations in our business prospects. So, it's something we keep a close eye on, things like making sure that our customers who need funding sources have available funding. Those markets are healthy right now. Just generally, we're in a very healthy financial condition. So, we keep an eye on things like oil prices, currency fluctuation but haven't really seen a direct correlation between the movement there and how our business is doing.

A

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Switching gears again, something you mentioned in your comments about the outlook is technology and the opportunities there. Where do you see the biggest opportunity within Boeing? Is it in development of an aircraft, is it in manufacturing? Where is it? What gets you most excited?

Q

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

Well, I'll tell you. It's throughout the lifecycle of our airplanes, but it's through development, production and support. But we're seeing tremendous new technology come to the table, not only in terms of what we put into our airplanes and how we support them in the field but also how we design and build and I think that transformation is equally important.

A

Some of the work we're doing on things like additive manufacturing, the manufacturing transformation that's happening around us, the ability to create on-demand customization in our factories, what it's doing to lean out our factories and improve quality, automation in our production lines. I think when you were recently in Seattle, you saw some of the automation that we're implementing on the 777X wing line and on the 737 wing line. These are transformations that are driving additional quality and safety into our production systems to the benefit of our people and to the benefit of the bottom line. So, those are exciting developments.

We're also seeing developments in autonomous aircraft. I think our big win last week in MQ-25 in the Defense business was a great signpost there. And then the amount of innovation that we're bringing to our new products has never been greater. You look at the new products we're bringing to the market in terms of 737 MAX, the 787 Dreamliner family, the new 777X, we're really in a new golden age of aerospace here in terms of the innovation that we're bringing to the marketplace.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

You talked a bit about automation and robotics, and you're right, certainly saw that when we were touring the facilities there. When you look at something, say, like a 737, what's been the experience with implementing some of those technologies? Has it just been nice and smooth and easy and sort of layered and you reduce costs and so on, or is it a little tougher than that?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

It's challenging, but we've developed a process where we're de-risking those technologies by pulling them to the left. So, I think a great example is what we're doing in the 737 line on wing panel automation. And they're tremendous advancements. These are 5% to 10% incremental improvements in quality and cost reduction. We're seeing things like 40% to 50% improvements in first-time quality, right?

So, these are big transformational steps, and what we're doing is taking some of that automation and pulling it ahead in our production system to de-risk it. So, now it's being applied on the MAX. It's already up and running at scale. Same thing on the 777 line where things like our fuselage assembly center which I think you had the opportunity to see. This is automation on how we assemble our large-scale, wide-body fuselages with about 50,000 fasteners that are now being put in by robots in line, along with – in combination with our people that are working on the factory line. So, think about robots and humans working together, tremendous first-time quality and safety advantages, and we use that system, pulled it ahead under our current 777 line to de-risk it. So, as 777X moves into the production system, we already have a mature automation system. I think that's a key way to implement the technology and do it in a smooth way.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

In terms of penetration levels or maybe where we are with the opportunity within Boeing, is it early stages, mid stages? How embedded within the manufacturing of an aircraft is technology and automation and robotics?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

I think we're very much in the early stages. And that's why my expectation for us being able to continue to grow the bottom line, grow margin, year-over-year cash growth regardless of some of the externals is because of this incredible capacity we have to drive first-time quality into our production systems because of the new technologies. I think we're just beginning to see the possibilities.

I think the next big step will be as we fully digitize our systems, we're moving to what we call model-based engineering. This is digitizing our entire engineering and development system upfront including down into our supply chain, and then connecting that with the production system and how we service and support to create value for our customers. That digital lifecycle, think of it as a digital twin of our airplanes, will unleash incredible value in the future. And I think we're just very much at the beginning of that journey and we're certainly on the leading edge of that technology implementation, and that's something that's going to drive both top and bottom line growth going forward.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Actually, that's a good segue into what I was going to ask you next in terms of the implications for a lot of this as far as mid-teens margins. It seems like you're on your path to get there, without it to some extent. But does this create an opportunity to keep that going post-decade end?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Well, it does. It does. And you've heard me talking for a couple of years about that expectation for where we wanted to be by the end of the decade. Well, we're almost to the end of the decade. So, now we're extending beyond and we're seeing year-over-year margin accretion via all of these productivity initiatives and all the great work our people are doing, and we expect to be able to continue to grow margins beyond that in the coming decade.

Same thing on cash performance. We see this clearly as a year-over-year cash growth business. And you've seen our track record on that the last few years. We have very clear line of sight to how we're going to accomplish that over the next few years through the end of this decade. But then going into the next decade, very clear that that opportunity remains there. It's tied to our production rate ramp-ups. We see big cash levers on the 737 rate, 787 rate is a big cash lever for us, 787 productivity. Those are probably the three biggest levers we have. But then more broadly, this technology implementation, productivity surge, if you will, is really going to drive cash performance throughout the enterprise. And then we're using that to continue to fuel our future innovation and create value for our shareholders. So, we're in a very strong position and this is a long-term growth trend.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

And we talked about technology as it relates to manufacturing side. What about technology or maybe next-generation sort of products, flying cars, things like that? I mean, Boeing has had some investments there. Just thinking outside of the box...

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Well, there are a lot of interesting developments going on, and what you see is a convergence of technologies around artificial intelligence and automation, as I mentioned, autonomous vehicles, and then new modes of travel and connected travel between the ground systems, traffic systems in the air and ultimately into space. And so, we're making some targeted investments for the future there so that we have some additional growth opportunities beyond today's business.

We're going to continue to invest in innovation in our current product lines, but these new areas are interesting. We're making investments in areas like urban mobility and flying taxis, if you want to call them that. We've made a number of investments through our new HorizonX innovation arm, some targeted capital investment in areas like electric propulsion systems, additive manufacturing, new material systems, enablers for these future vehicles. And as you think about future urban congestion and ways to relieve that congestion, three-dimensional highways and cities are not all that farfetched. And frankly, the technology is doable and we're working on prototype vehicles today. And we're also working on the enabling infrastructure. I think the key will be around things like certification, regulation, how do we ensure that it's safe. That's really – the ultimate requirement is that it's absolutely safe for the traveling public. That's work that we know how to do.

So, I would expect to see that evolve over the next decade. We're also working on things like high-speed flight, supersonic, hypersonic aircraft, connect any two parts in the world, two cities in a couple of hours. We're working

on new space vehicles. Eventually, we're going to see low-Earth orbit space travel as commonplace, and we'll be launching first flight of our new Starliner next year which will be our entry into low-Earth orbit space travel.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Let's come back to the 737. In terms of the potential for production hikes beyond 2019, you've talked a lot about the upward pressure there. I mean, are we getting to a point where a hike isn't in the cards for, say, 2020 on the 737? Just some thoughts there.

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. We're still very much within the decision window for 2020. So, right now, we're very, very focused on getting through the current 52-a-month rate up. We've got some recovery actions. I mentioned that we have to complete successfully and we will and get the production system into a healthy position, make sure that we're making the investments ahead as we go to 57-a-month next year. I think some of the additional resources we brought to bear this summer, we brought about 600 additional people into our 737 line to help with the recovery actions. They're going to stay and they'll be well-trained so we're ready for 57 a month next year.

Now beyond that, the market signals are clearly capacity to continue to increase. I mentioned the numbers about traffic growth, passenger traffic growth, the need for 40,000 new – 43,000 new airplanes over the next 20 years. All of the market signals are telling us they could support a production rate higher than 57 a month. So, we're taking a close look at that. We're well within our decision windows and we'll make a good decision regarding 2020 at the right time here.

But it's pretty clear to me that the opportunity is there, we just want to make sure that every one of these steps, we're very disciplined about it. Production rate discipline and successfully implementing production rate ramp-up so that we can drive bottom line performance while we're doing it is crucial to us. So, we're going to continue with that very disciplined, well-tuned process. And I'll just say that the market signals are strong.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Yes. Absolutely. MAX 10, you introduced that last year at the Paris Air Show.

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

How's that's program coming along?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

MAX 10 is going well, so we're moving through the implementation into our production system, finishing up the design certification work. So, on the design and production side, the work is moving along very smoothly.

And in the marketplace, it's winning. More than 500 orders since we've announced, that airplane's doing well. It's going to bring the best value proposition in the narrow-body marketplace to the market. It's got about a 5% to 10% operating seat cost advantage over our competition. It's got a 5% trip cost advantage over our competition. So, it's winning in the marketplace and as part of the broader 737 MAX family, it's a great solution. So, we remain very confident in that product.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Sticking on the programs, 777X, how's the development progressing there?

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes, it's going well. This is, again, I think is the advantage of our revised approach to how we do development programs, feathering them in, in succession rather than doing them all concurrently so that we can learn program to program. And I think some of the challenges we had on the 787 development are well known. We learned some tough lessons there.

Those were applied to the MAX development program which has gone exceptionally well, and those same lessons have now been applied to the 777X program. It's one of the reasons we decided to bring the composite wing manufacturing in-house and bring more of the engineering in-house. That's been successful.

As you saw when you were in Seattle, we just rolled out the first 777X, the static test article, so this is the first pull-up airplane that will go into a structural test. The first two flight test aircraft are in final assembly now, so hitting the marks on our schedule. We're going to go into flight test in the coming year, and we're on track to deliver on schedule entry into service in 2020.

So, I'm feeling strong about that development program. It's running very well right now. We have normal small technical issues we work as we go, but we're hitting the marks on cost and schedule for the developing program. So, it's exciting to see.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Is there a particular risk item that you and Greg are paying close attention to and saying, hey, look, we've got to make sure we get this sort of nip in the bud and taken care of to make sure that the program moves forward as planned?

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. I think the key is maturing the production system and then successfully getting through flight test, right? Over the next year, those will be our two big focus areas. On the production systems side, it's some of the automation de-risking that we've done, but we have major automation in the fuselage assembly and in the wing assembly.

And in particular, the composite wing, it's a fourth-generation composite wing, but it is the biggest composite wing ever made in the world and a heavy amount of automation, so maturing that system will be a key focus for us, and then successfully flight testing the airplane.

All the data that we've seen so far in our wind tunnel testing, our lab testing has been right on our performance numbers. But until we get through flight testing full up, right, that's a risk area to stay focused on.

And then going through the transition bridge from the current 777 to the 777X and making sure that is feathered in neatly with our supply chain, again on track, but it's something we'll be paying close attention to.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Last question for you on the 777. The orders, the skyline there, how are we feeling about that? And are we at a place where maybe in the next 12 months or so we'll start to see that replacement demand start to kick in?

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes, you will. And one thing I've been very pleased with the work our team has done on building the production bridge, if you recall a couple of years ago, one of the big risk areas we're talking about was how do we finish building the bridge from the current 777 to the 777X. We've made a tremendous amount of progress on that.

We still have some work to do on filling the bridge particularly out for 2020 slots. But you've seen the recent progress we've made on 777 orders, and again 26 new orders year-to-date on 777-300ERs. We also have a recent letter of intent from Volga for another 29 777 Freighters. So, I think the returning strength of the cargo market in particular has really helped us with 777 Freighters and filling out that bridge. So, we still have a bit of work to do there. We're going to be mindful of that.

Now, as we look to 777X, we've got a backlog of about 340 airplanes. And we anticipate that early in the next decade there will be a significant replacement wave of wide-bodies just as old airplanes age out. Both our 787 family and the new 777X perfectly timed for that replacement wave. And that's a very significant opportunity for us. And I think you'll start to see that in the orders over the next one to two years.

But when it comes to 777X, I think it's worth a little historical perspective with where we're at today on the program with 340 orders in backlog at a similar point in time on the original 777 program, we had about 70 to 80 orders in backlog. So, relatively speaking, for a wide-body order book, 777X is in a very healthy position, and there's still that wide-body replacement wave ahead of us.

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Let's move on and talk a bit about the services side. You've announced a handful of capabilities. Can you talk about how you landed on those capabilities? What some of the suppliers have said in response to you announcing this?

Dennis A. Muilenburg
Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. I think, in particular, you're talking about some of the vertical...

Rajeev Lalwani
Analyst, Morgan Stanley & Co. LLC

Q

Exactly. Exactly.

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

...capabilities that we've announced. Yes. So, when I take a look at services, our growth opportunity there is probably the biggest growth opportunity of any of our businesses just in terms of market headroom. And on organic investments around growing our parts and parts distribution business margin upgrades, training, digital solutions, we're seeing those growth investments paying off across the board.

We've also announced several vertical areas which are really key to our future in terms of designing our airplanes, protecting intellectual property, creating value for the future and creating lifecycle value for customers. So, each of these vertical areas we've announced has to go through that double screen. It has to produce value for our customers. It has to create lifecycle services opportunity.

Targeted areas include avionics. And this is not all avionics in selected areas. Think of it as the brains of our airplanes for future digital solutions, targeted areas and actuation with some of our manufacturing stand up in Sheffield and Portland, things like interiors where we've announced that joint venture with Adient, things like APUs with our new joint venture with Safran.

So, those are targeted areas that I think are going to create great value for our customers and drive out cost, in some cases, create new supply chain alternatives, and all of them create lifecycle value which will grow our services business.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

You've had some pretty good numbers in terms of revenue growth at BGS, I think 10%-plus or so year-to-date. Is that sustainable?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. We're off to a good start, right. So, that business has been in place since about a year, a little over a year now, and you're right, year-to-date, we've grown at 11% and this is in a market that's growing at 3.5%. So, we are doing well. Our strategy is working. We do expect to sustain organic growth that's above the market. That's clearly the plan we've put in place. We think we have the capacity to do that and we're making the right investments. So, I would expect to see sustained growth in that business that exceeds the rate of growth with the marketplace.

We're going to augment that organic investment with targeted acquisitions. You saw recently our announcement around KLX. That's a big step for us. It creates a lot of synergy in our parts distribution business, creates a one-stop shop for our customers and we're hopeful that we're going to finish that deal and reach full closure coming up here in the fourth quarter. And I think you've seen publicly that KLX's performance continues to look very good. So, the combination of Boeing and KLX will further accelerate our services growth.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Switching gears, maybe the last topic or two to get through pretty quickly here given the time, the NMA, what makes that program most compelling to you?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Yes. Well, there's an opportunity there that provide a value proposition for our customers in between our current narrow-body and wide-body fleets. We do think the market is there. Our assessment has shown us it's about 4,000 to 5,000 aircraft, great customer discussions there on what will create value. A key for us is whether we can close the business case and make it economically viable. That's the work that we're doing right now. We're making good progress on that and encouraging progress, but we'll make the decision at the right time. We're protecting a 2025 entry into the service date for our customers, so we're doing risk reduction work in parallel to protect the schedule. And I expect this as a launch decision that we'll get to next year, and that will put us in good position if we decide to proceed with the program. And if we do, the R&D profile will be on the back side of the 777X. So, it fits very nicely with our overall financial plan.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

And how does services and including services come into play in helping you close that business?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

It's a big part of how we're looking at that future airplane. Not only are we looking at the net present value of the airplane itself and our traditional business case analysis, but also, with the investments we're making in services and verticals, how does that create lifecycle value that could be factored into the business case. And it's a different way of looking at a future system. So, again, we're going to continue to do our work. We'll be very disciplined. We'll make a good business-based decision and one that creates value for customers.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Yes. Switching over to the defense side, what are you most excited about in that business?

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Well, I'll tell you. Last week's win on MQ-25 is a big strategic win. I think a good signpost for us. It shows the convergence again of some of the work we've been doing on productivity and cost and affordability of our products combined with new technology, autonomous solutions, in this case, an autonomous refueler that'll support our Navy customer off the carrier decks. So, it's a big win for us.

Upcoming, we're in the middle of the T-X competition right now. Again, we've put a good solid bid on the table. We're hopeful there. We expect to see the results here in the next coming weeks. And hopefully, we'll have a chance to deliver that for our customers as well.

And I'm also looking forward to getting a tanker into the hands of our customers. And while it's been a challenging development program, hopefully, as you all saw, last week, we received our Supplemental Type Certificate which is big step in terms of completing three years of flight testing, getting a certified airplane.

And now we are marching ahead to first delivery. And also this past week, we received a lot 4 production contract from our Air Force customer for another 18 tankers, which I think is a good message of confidence in the airplane,

and this is going to be ultimately a production line that's producing hundreds of aircraft that's going to have a multi-decade franchise caliber to it. So we're looking forward to getting tanker out into the fleet as well.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Q

Maybe a last question for you and we'll wrap up. You talked about mid-teens targets as an organization overall, but within defense and in particular also, how do you get there? I mean, a number like that would actually put you maybe well above some of your biggest peers.

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

A

Well, I think you've seen some good solid progress on that front over the last couple of years. We've picked up that business and have added a couple of points of margin over the last two years. I think you're also seeing the fact that it's a combined domestic and international mix. So on domestic defense business, there are some constraints, regulatory constraints on profit margins that, to a degree, control the top side, but we still have room to grow domestically.

The international defense business is another area that creates additional margin opportunities, and then we also have commercial segments within that business. Think about things like commercial space, commercial satellites which give us additional margin opportunities. So, just as we are in all of our businesses, we're going to drive bottom line performance, and our defense business is equally engaged along with our commercial services.

Rajeev Lalwani

Analyst, Morgan Stanley & Co. LLC

Okay. Dennis, let's wrap it up there. Thank you so much for taking time.

Dennis A. Muilenburg

Chairman, President, Chief Executive Officer & Director, The Boeing Co.

You're welcome. Thank you. I appreciate it.

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