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MANAGEMENT DISCUSSION SECTION

Douglas Stuart Harned
Analyst, Sanford C. Bernstein & Co. LLC

It's great to have you all here. I'm very excited to have again with us Boeing's Chairman and CEO, Dennis Muilenburg. We're going to start out, Dennis is going to say a few words, then we're going to go into fireside chat format and if you have questions, then you can put them on cards and send them up. And with that, I'm going to turn it over to Dennis. Okay. We can go ahead.

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

Do you want to get going?

Douglas Stuart Harned
Analyst, Sanford C. Bernstein & Co. LLC

Yeah. Let's go.

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

Okay, good morning, everybody. And I appreciate the opportunity to join you this morning. Thank you for being here. As Doug said, I'll just start off with a couple of opening comments and then jump right into the Q&A.

I'd like to start by re-emphasizing Boeing's commitment to safety, and obviously recent accidents of the MAX have been in the news and something that weighs heavily on all of us, but I wanted to convey upfront the importance that we put on safety as a company. It's always been the case, but I think it's worth reiterating in this environment. We know that every day more than 5 million people fly on our commercial airplanes and they fly safely. We know that lives depend on what we do and that demands a sense of excellence in how we do it, and that's what our company is about and that's at the very core of who we are and that really sets the frame for everything else we do in our business.

Now, we also know that these couple of accidents have been tough. We continue to express our deepest sympathies for the loved ones and the families of those that were lost in the Lion Air and Ethiopian Airlines flights. We know more broadly that the public's confidence has been hurt by these accidents and that we have work to do to earn and re-earn the trust of the flying public and we will do that, and we are taking all actions necessary to make sure that accidents like those two accidents that have occurred never happen again.

To that point, we've been working hand-in-hand with the investigation authorities on both accidents. We've been able to with them gain a clear insight on what occurred. We know that in both accidents, a common link was the so-called MCAS software on the MAX that you've all read about in the news. We've identified specific improvements to that software. We've completed the engineering testing and flight testing on that software and we are now in the process of applying for final certification. We are finishing that dialogue with the FAA, working through a series of questions and answers with them. Once that's complete, we will schedule the certification flight and that would be the next step to returning the airplane to service. So that is all work that we are doing hourly, daily, very active, number one focus for my company right now, getting the 737 MAX fleet returned to service safely.

We're going to continue to engage with our supply chain in parallel with this to make sure that we're driving stability into the production system as well, so that we have the long-term foundation built for the program. We're also out working with all of our airline customers on return to service preparations. Over the last two weeks, we've conducted a number of return to service regional conferences around the world spanning from Miami to Europe to Dubai, Singapore, Shanghai, Moscow, Tokyo. And so we're covering the globe in terms of return to service preparation, working with our customers, they can bring the airplanes back up safely and as I said, also working with our supply chain to ensure stability.

So I believe we're taking all the right actions. Once we complete the software update on the MAX, I'm very confident that airplane will be one of the safest airplanes ever to fly. And we know getting the MAX back to a healthy state is key to a broader healthy business, which we'll talk about as well and it has only reinforced, reinvigorated everything we're doing on driving quality and safety into everything we do. We expect to see that driving to all of our first time quality efforts across all of our work, our work on our development programs, the innovations that we're preparing for the future. So our focus on excellence in execution is only going to grow stronger as a result.

And from a long-term perspective, we still see a very solid aerospace marketplace. This is \$8 trillion market over the next 10 years. The world needs 43,000 new commercial airplanes over the next 20 years. Our product lines are well positioned. Our backlog continues to be at near record levels, and we expect to see top and bottom line growth for the long-term. We have near-term work to do on getting the MAX back up and flying, but our long-term perspectives have not changed.

And I guess, just final point I'll make really if you put your arms around all of this, we see this as a defining moment for The Boeing Company and it's been a challenging few months. We're doing all the right things. We're staying focused on safety and we're going to stay true to the values that we have as a company, our values around integrity, quality and safety and I'm confident on the back side of this, we're going to come out even stronger, even better as a company for the long run.

So with that, Doug, I'm happy to take any questions.

QUESTION AND ANSWER SECTION

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

I'd like to just stay on this for a little bit. When you look at the MAX and you look at sort of all aspects of getting this airplane back into the air, last week, there was a May 23 FAA meeting. So has there been anything – I mean, can you update us on has anything changed just recently and how you're viewing this and how you see the potential to be back in service?

Dennis A. Muilenburg

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

A

I would characterize this as we're making clear and steady progress and that includes the work that we're doing on the airplane update, the software update, working through the certification process with the FAA, heading towards our certification flight. We're also working on updates to training and education materials, and we've had a number of sessions with pilots to get their inputs on those training materials and working that with our customers and regulatory authorities. And the FAA as well as the other international regulators have been leaning forward, asking deep penetrating questions as they should as we head towards certification.

I think the FAA convening that group of international regulators last week at the May 23 meeting was another good sign of progress, the fact that we had more than 30 international regulatory bodies participating with the FAA in that session in Dallas. And I think as you heard, the feedback coming out of the back side of that conference, I say generally a positive tone. And clearly, we still have work to do, but I think it was a key point in terms of driving alignment between the international regulators, gaining an understanding of what it would be required to get to certification and return to service, as well as a good discussion around training requirements and capabilities like computer-based training and simulator training.

So I saw that as another waypoint of progress. Still to me clearly work to do, but work that is progressing and has a real daily, hourly focus to it. First priority is on safety, but also working with the appropriate pace and focus.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now, once you restart deliveries on the MAX, how soon would you expect to be returning up to 52 a month? How do you think about that trajectory, you were going 52, the plan was to go to 57 later this year, how do you think about it now?

Dennis A. Muilenburg

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

A

Yeah. I see a sequence of things. First of all, first priority is get the MAX back up and flying safely. Secondly, we have a grounded fleet of aircraft, 360, 370 aircraft on the ground, plus those that we've been continuing to produce. We need to bring those airplanes back up and get them flying safely for our customers. Third step is to ensure that at the current 42 a month production rate that we've achieved stability throughout our supply chain and frankly, we've used this window over the last couple of months to make significant improvements there.

We've had some challenging spots in the supply chain previously in places like fuselages with Spirit and engines from CFM and we've made good solid progress with both of them over the last couple of months, so production system stability.

We've had some elements of our supply chain that have continued to run at 52 a month because it makes the most economical sense for the long run. So we really have tailored plans in place for every element of the supply chain. As we contemplate rates for the future, right, the first thing is to get production system stability and then in a very disciplined way, we would ramp back up to our long-term rate expectations. Our backlog position is still roughly 4,400 aircraft. Our long-term prospects and production demand for the 737 MAX has not changed, but we want to be very disciplined here coming out of this window where we've been able to achieve greater supply chain stability and make sure that when we ramp back up that we ramp up at a healthier state than what we were at earlier in the year. So that's how I think about it in terms of strategy and a very disciplined incremental approach as we bring rate back up.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And can you give us a sense of where you are on that now? There's been a lot, we know that CFM has had challenges meeting the engine schedule. And so where do you stand now in terms of having been able to stabilize that [indiscernible] (00:09:51)?

Dennis A. Muilenburg

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

A

We've had CFM continuing to produce at our 52 a month rate to try to catch up back up to our purchase order. They made a lot of progress on that over the last month. So we're now getting to a point where they're recovering to our production schedule, but we've also asked them to ensure that we're beating the engine spare pool as well so that when we bring the grounded fleet back up and our airline customers perhaps have needs for additional spare engines that that capacity is available as well. So we're continuing to work with them to ensure that we're supporting not only the production system, but also the spare engine profile.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now, when you take deliveries down, you end up in a situation where you've got a lot of customers that need the airplane. It creates I think a complex scheduling situation. How do you think about the timing? When you bring airplanes back to specific customers versus other ones, how do you manage this process?

Dennis A. Muilenburg

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

A

Yeah, yeah. It's a really individual customer-by-customer and individual airplane-by-airplane. So today, we have field service teams that are out deployed with every single one of the airplanes that are out in the field. We're going to treat the return to service as an entry into service event. So each airplane by tail number will get individual attention with individual customers tailored to the condition of that particular airplane, how it's been stored, where it's been stored, the condition of operation. So we have at that very specific level of detail. So one is, is a clear understanding – attention to detail at the airplane level.

Secondly, this will be governed by the regulatory authorities when we get approval to get back up to flight. Our hope is that we'll have a broad international alignment with the FAA, but there may be some international authorities that will operate on a different schedule. So we'll have to tailor our plans depending on regulatory approval to get the airplane back up and flying.

And then our customers are also working through their flight schedules. Obviously, we've affected summer flight schedules for many, and we regret that. It's something that we're discussing with a number of our airline customers. We know that's painful for them. Some of them, as a result, will want to move airplane deliveries out. We've had other customers who said they'd like the airplanes earlier, they need lift sooner, so they'd like to accelerate in the skyline.

So we're looking at it through all of those dimensions. It's really health of each airplane, regulatory approvals, and individual customer fleet planning and squaring off that equation, so that we manage our skyline to the benefit of our customers. So that is a very active daily discussion. I would expect to see skyline movement, both some airplanes moving out, other airplanes moving forward as we accommodate different customer needs.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And are you able to store these large numbers of airplanes? How do you think about that from a practical standpoint?

Dennis A. Muilenburg

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

A

We've built additional storage capacity to accommodate that. So as we think through contingency planning, obviously we've been looking at production rate, supply chain health. We've been looking at regulatory timelines, when could we anticipate certification and getting return to service approval, and while we're continuing to build airplanes but not able to deliver them, having enough storage capacity on the ground. We've opened up multiple facilities in the Puget Sound region, both our Everett plant, our Renton plant, and at Boeing Field to accommodate storage. We've also opened up additional commercial storage at our San Antonio facility, which you've probably seen in the news over the last couple of weeks. So we're now beginning to park airplanes in our San Antonio facility. We've got two other – a couple of other commercially viable options for additional storage capacity that we're preparing as well if we need them. So I don't anticipate storage capacity as being a limiting factor in all of our contingency planning, but it is something we're actively working on.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now there's been quite a lot of media attention over the last few months. There have been a couple areas that have come up. One is concern about the design and certification processes and the relationship that Boeing has with the FAA. The second one has been about management of quality issues with some reporting related to Charleston. Can you comment on these? What's your perspective?

Dennis A. Muilenburg

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

A

Let me comment on the first one. I think the question there on the relationship with the FAA has centered on the delegated authority approval and how that process works. And I will tell you that I have a great deal of confidence in that process and how it works. It's a high integrity process and I think it's proven. It's demonstrated results. It's a way for the FAA to exercise its independent role, its regulatory role as it should, but also tap into the deep technical expertise in our company. And by the way, this is not a model that's unique to Boeing. This is something that is used across our aerospace industry, and I think you just need to look at the results. Over the last 20 years with implementation of this approach, we've seen a 95% reduction in fatal accidents in the aviation sector. That's across 90 million flights in the U.S. over the last 20 years. It is the safest form of transportation in the world. And I

give a lot of credit for that to the regulatory structure that the FAA has put in place, which includes delegated authority. So I think that process is strong, the results speak for themselves.

That said, Doug, we're participating with the FAA on some independent reviews, looking at certification process. I've set up a separate board committee as well inside of Boeing to take a look at the certification processes. So if we see some improvement opportunities there, we'll make them, but that process today I think is a solid process.

Regarding the comments that you've seen in the press about quality at our Charleston facility, I think it's unfortunate the way those were characterized. In many cases, those were data points taken from, on the order of 10 years ago, largely issues that we've already addressed and put behind us, issues that are not uncommon to standing up a new aerospace factory and capability.

Again, I think you just have to look at the results and let those speak for themselves. Our 787 has been our strongest wide-body product line ever. We've now ramped up successfully to 14 a month. We made a rate change from 12 a month to 14 a month earlier this year that got very little fanfare because it was done smoothly. I think that speaks to the quality of the process. And in the end, quality of these airplanes is really in the eyes of customers. And so when you take a look at 787, more than 1,400 orders from 70-some-odd customers, and more than 600 of those orders are return customers. And in the wide-body airplane world, return customers on wide-body orders speaks to the quality and capability of the product. So we're confident again in the quality of what we do at Charleston and more broadly across the 787 program. That said, we're never satisfied. Continuous quality improvement is part of who we are.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now, on the 787, you've clearly with respect to margin, there's a mix shift advantage as you go 787-9s to 787-10s, but you've been getting margin expansion, we would think beyond that, as you've gone to 14 a month. What things are happening in the program that are enabling you to get this margin expansion, and can we expect it to continue?

Dennis A. Muilenburg

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

A

What you're seeing now is all of the investment we've made in productivity and quality over the last many years beginning to take hold. So part of the profitability progress that you're seeing, the margin expansion is related to mix improvements with the 787-9 and 787-10. That will continue, that favorable mix is continuing to move in that direction. You also see there the productivity investments that we've made beginning to take hold, so this is selective use of automation, some of the first time quality investments that we've made, digitization in our product line in some of our manufacturing processes which have enhanced quality and safety. You'll see supplier step down pricing as part of our Partnering for Success effort. You've seen some of that beginning to take hold, and there is more supply chain step down pricing that will occur in future blocks.

So it's really a combination of those efforts and a relentless focus on driving productivity and efficiency in how we do our work. And I think it's also important to note that when we do that, that safety, quality and productivity all go together. Those are not opposing objectives or metrics that point us in different directions. When we invest in safety and quality, it also drives productivity. So those are mutually reinforcing objectives. You see that showing up in all of our factories, not just 787, but across all of our defense and commercial factories.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

But does the 787 present more of an opportunity here given the newness of the manufacturing processes? When you compare that to a more traditional metal airplane, is there something here that's enabling you to do much more?

Dennis A. Muilenburg

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

A

I think what you see is we're still at the relatively early stages of that production program. The backlog is strong, the orders volume continues to be strong. We see another significant wide-body replacement wave coming early in the next decade, 787 and 777X are both well positioned for that. So we see significant extension opportunities for this production program still ahead of us and the fact is these investments that we're making in productivity and efficiency, we're finding more and more opportunities.

So I would suggest that we're still in the relatively early stages of finding what's possible and I know that in each of our major segments of the program, every week I'm seeing teams that are setting new champion times and new safety champions and the fact that we're able week after week after week continuing to set new champion performance levels gives you a sense of the momentum and the capacity that's still left to go. I think we look at digitizing our engineering and manufacturing systems, adding additional targeted automation into our factory systems and taking advantage of being at a 14 a month volume, those create additional opportunities for the future. I expect 787 to be a significant margin and cash tailwind for us as a company.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now, moving to the 777X, can you give us a sense of where that stands? We, at one point, have been expecting a rollout celebration. Obviously, the issues with the MAX made that difficult.

Dennis A. Muilenburg

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

A

It was a challenge, yes.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

So can you give us some insight into where that program stands right now?

Dennis A. Muilenburg

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

A

We're continuing to make good steady progress on 777X development program. Really two primary thrusts right now, one is preparing for flight tests and getting the airplanes ready. So the first two flight test aircraft have now left the factory, they're completed, they're in the integrated system test on the ground. Think of this as simulated flight with weight on wheels on the ground. We're marching through that set of integrated tests and the airplane is performing very well. It's a very clean airplane. In terms of new airplanes coming out of the factory, some of the best performance I've seen in terms of integrated system lab capabilities. The next two flight test airplanes, numbers three and four are in final assembly right now, be a static test airplane, structural test airplane is in static test right now, we're marching through that. So that effort on the airplane side is proceeding.

The other pacing item for us is with GE on the engine and we're continuing to work through engine testing and those two timelines will come together for flight testing later this year and then we still expect to achieve entry into service in 2020. So programs are executing to plan. As usual, we have a few challenges here and there, but we're working our way through them. The product itself looks very good, the performance of the airplane looks solid, it's going to be well positioned in the marketplace. And I think we're continuing to see energy amongst our customers. I think British Airways' recent order for 18 plus 24 options is just another good sign of the value that airplane brings to the marketplace.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And has the FAA's work on the MAX, has that impacted your certification process on the 777X?

Dennis A. Muilenburg

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

A

It has not, but it's something we're going to be taking a look at. And again, as I said, it's part of the MAX effort not only getting the airplane back up and flying, we're supporting a number of independent reviews to take a look at the certification process itself as well as training materials and that includes a government-led review board as well as the internal Boeing committee that I set up under our board purview. Any learnings from those, we intend to roll into the certification process not only for the MAX but more broadly. And so if there are some learnings from that that affected the 777X, certification process will capture those. I don't see anything there right now that would significantly alter the timeline for the 777X, but it's possible we could see something that would alter the content of the test program or how we go about certification.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now, the NMA, New Midsize Airplane, can you talk about how you're thinking about that now, also does the MAX – do the MAX issues at all affect your timeline for that? And I'm just going to grab these...

Dennis A. Muilenburg

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

A

Pardon.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

I'm just going to grab these cards that just came up.

Dennis A. Muilenburg

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

A

Well, first of all, very clear to us that the top priority is the MAX. So when it comes to resources, talent, people, we're assigning people to MAX to make sure we achieve our return to flight. That said in parallel, we're continuing to make progress on NMA. Our overall timeline – broad timeline for that program has not changed. We still see it as a 2025 entry into service kind of airplane. We're continuing to work through our business case analysis and continuing along a path of a two-step decision process that we've talked about before, which is authority to offer decision this year and an authority to launch decision next year. So I'd say the broad timeline has not changed, but it's very clear to us that our top priority right now is getting the MAX back up and flying safely and NMA is second to that.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now I'm just going to turn to a couple of questions just on things that relate to what we were talking about before.

Dennis A. Muilenburg

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

A

Yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

So do you see – when you go forward with the 737 and the MAX, are you still thinking of longer-term possible higher rates beyond the 57 a month?

Dennis A. Muilenburg

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

A

I won't spend a lot of time today talking about rate increases on that line. I can tell you that the clear focus right now is on safely returning the MAX to flight and having stability at our 42 a month production rate. Once we get the airplane back up and flying, we get the grounded fleet back up and flying for our customers, then we will in a very disciplined way get back into our rate increase plan. I'm not going to put a specific timeline on that because we want to very much focus on getting the MAX back up and flying safely first. But we do from a long-term standpoint still expect it to ramp back up to our 57 a month rate, and our long-term demand profile still says that rates above 57 a month could make sense.

So I don't think our long-term perspective has changed. If you look at the total skyline with about 4,400 aircraft in backlog, you look at the current market outlook, the need for 43,000 new airplanes over the next 20 years, all of that from a demand signal standpoint tells us that there is a production rate opportunity for us downstream. But I want to be very mindful right now about staying focused on safely returning the MAX to flight.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Going back to the NMA here as well, if you don't do the NMA, what would be your next likely target for investment? How would you think about that?

Dennis A. Muilenburg

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

A

We have a number of areas where we're continuing to invest. As a company, we're bringing more innovation to the marketplace today than we ever have. Some of that is in the form of new products and we are, as I said, taking a look at the NMA, we also have investments that we're making in our Space business and our Defense business. So there are a number of future product options that we're considering. Beyond that, we're also looking at investments we can make in the manufacturing and design systems and in some cases, those create as much value or more value than new products. And so when we think about digitizing our future supply chain, digitizing our design and manufacturing systems, what that does to first time quality, what it does to cycle time, those are significant opportunities for us as well. So we will continue to invest in R&D and innovation as our number one use of cash and that's in the form of both new product lines as well as process enhancements and design and manufacturing for the future.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And how would you think about a next single aisle at some point?

Dennis A. Muilenburg

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

A

Well, again, that's a longer term consideration. We're always looking at the next technology horizon. Right now very much focused on the MAX and getting it back up and flying safely. Feel very confident in the MAX family of aircraft and the value it brings to our customers that 10% to 15% operating cost advantage is very clear, all of the other dimensions, value that it brings to our customers. So we have not changed our expectations on the longevity of that line, but we'll continue to keep an eye on those more distant future product opportunities as well. And are there select investments we can make now that position us for that future, we're always leaning forward on innovation investments.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And how does Embraer fit into that?

Dennis A. Muilenburg

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

A

It's another key part of the equation. Obviously we haven't completed the deal yet but we're making great progress. Earlier this year we got a 97% shareholder approval vote for the new structure with Embraer. So Embraer shareholders are very strongly behind it. We're now working through all the regulatory approvals, integration work. We still anticipate closing on our deal structure with Embraer by the end of the year and we'll have two entities that emerge from that, one is a commercial venture, that is all of today's commercial airplane work of Embraer and their services work. And then a second joint venture around the KC-390 multi-mission transport aircraft. We expect both of those to be significant opportunities for us.

And when I look at the combination with Embraer, not only is it attractive from the standpoint of the combination of product lines and what it does bringing together complementary product lines across our commercial space, they also bring to us additional engineering capacity, manufacturing capacity. They bring in some selective vertical capabilities that are aligned with our strategy, and if you look at our services presence around the world, a very nice complementary footprint of service capacity around the world. So we see multiple synergies from the Embraer deal and I'm looking forward to getting that to closure this year, and then that will be certainly additive to our plan going forward.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

When you talk about services, you've had this plan for over 10 years – or a 10-year plan to go to \$50 billion in services revenue. Is that still the goal? How are you proceeding on that? And I have to say it looks like a big number. How do you get there without doing big acquisitions?

Dennis A. Muilenburg

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

A

As I mentioned when we launched this business, now it's a little over a year and a half ago where we officially launched Boeing Global Services. We did set a big audacious target, a \$50 billion target for the business. That

target has not changed. And admittedly, it's a high bar target. But I also think over time as we've matured the business, we've put in place our growth machine and the value generation for our customers. We do think it's an achievable target. It's a tough but achievable target.

And while the returns are still early, if you look over the last year and a half, that business has grown top line about 17% against a market that's growing at about 3.5%. So we are clearly outperforming the market, and that speaks to the strategy that we put in place. We see significant growth opportunities in things like our parts and distribution businesses. We see opportunities in our digital business, where we're investing in software solutions, additional opportunities in training, high-end mods and maintenance opportunities on airplanes. So those organic investments to grow the services business will continue to be our primary fuel for growth.

We do see some opportunities for targeted acquisitions, but I again see those as bolt-on, complementary acquisitions rather than large-scale acquisitions. I think a good example is the KLX acquisition that we completed last year, a substantial multibillion dollar acquisition but one that was complementary and is really adding momentum to our distribution business. Now that's a good model for us for the future. So we see services as a growth business for us both top line and bottom line.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

I know you have made moves to bring a lot more content in-house in BCA.

Dennis A. Muilenburg

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

A

Broadly across the enterprise, yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Yeah. But there we're looking at some avionics capabilities in terms of actuators. You brought the MAX nacelle inlets in.

Dennis A. Muilenburg

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

A

Yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

What are the criteria that you use to decide what should be brought in-house versus what should be out in the supply chain?

Dennis A. Muilenburg

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

A

The criteria, it's the same criteria that we apply to our services investments. It's look at it through a customer value lens, where can we add value for customers. And that is what we are using to target our services growth and is where we're targeting our vertical growth and where we can add unique value because of our intellectual property or our OEM knowledge, or we can get cleaner, tighter integration or create verticals that can now play across multiple platforms and add value for customers in terms of cost or capability, those are the areas we're targeting.

That is a select area of verticals. We don't want to be vertical everywhere. We still want and need a world-class global supply chain and partners in that supply chain, so we're doing this together. But in those areas where we do see targeted vertical opportunities, we'll be very serious. So these are things like complex composites manufacturing, 777X wing, you mentioned the cell integration capabilities, targeted avionics, especially things that apply to the brains of our airplanes for future digital solutions. That's an organic investment we're making. Targeted actuation with the standup of our Sheffield factory is another good example. In some cases, it's new joint ventures. Our APU joint venture with Safran we think is a good example. Our interiors joint venture with Adient is another example. So in some cases, there will be new partnerships where we think we can create unique value, all of this through a customer value lens.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And when you think about that and you put it into the context of your services business and I think a desire to capture more aftermarket revenues.

Dennis A. Muilenburg

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

A

Yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Capturing more aftermarket revenues, I've been around Boeing a long time, and that's always been a goal. What's different today? How do you think about this as an ability to really bring more aftermarket stream and how?

Dennis A. Muilenburg

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

A

We just touched two of the targeted capabilities. One is to have a dedicated services business that has the right cost structure and agility to compete and win in the services business. And for a couple of decades, that services business capability was integrated with our big platform businesses. And we finally came to the conclusion that we needed a standalone, dedicated Boeing Global Services business. That was a big framework change for us, and that has been a big enabler.

Now intersect that with the vertical investment, because those vertical investments again we can create targeted customer value through lifecycle value. So each one of those verticals that I mentioned has the capacity to create additional services lifecycle value for our customers. So where we see an intersection of platform integration and lifecycle value, those are the verticals that we're focused on. And the fact that we're now investing in those, both organic and inorganic, I think is a pretty big change from what you've seen in the past, and you're starting to see the results. We have a lot of work to do yet, but those targeted investments in services and verticals we do think will create this aftermarket capacity in a way again that's creating value for customers.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And do you see if you go to an NMA or if there's another type of aircraft that is not the NMA that you do, do you look at that model differently now for the next airplane in terms of sort of what you wrap around that, what you can do with that?

Dennis A. Muilenburg

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

A

We do think of it differently and we've started to think of it differently in terms of the 777X and how we've designed that architecture and the electronic systems and the avionics. The fact that the composite wing as I said is an inside manufacturing element instead of outside. So you've – you're starting to see that strategy affect the architecture of our airplanes and for the future you'll see more of that. And we're thinking through the lens again of how can you design the architecture of an airplane so that it creates not only value in terms of the first item delivery, but it creates lifecycle value for our company and for our customers. And that means you're going to design the airplane differently. You're also going to think about how you manufacture, how you digitally enable the airplane and have you digitally enabled it for services downstream and again in a way that adds value to customers. So yeah, all of that, the services strategy and our new manufacturing strategy is also changing how we fundamentally design airplanes.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

If we switch over to defense...

Dennis A. Muilenburg

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

A

Yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

...BDS has grown, I would describe at a fairly modest top line rate. What should we expect in terms of top line growth at BDS going forward?

Dennis A. Muilenburg

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

A

I think you'll see we're gaining momentum there. It's still a modest top line growth business. That market is a strong market but flatter market than our commercial market. So that's one of the drivers, but we are winning in the marketplace and I think you're going to see continued growing momentum both top and bottom line. I think our recent success on programs like T-X and MQ-25 in terms of new long-term franchises will add momentum. The tanker program, as challenging as the development program has been, now moving into the full-up production program. That will be hundreds of airplanes over decades along with the longer term support tail. That creates opportunity for that business.

The space business, both human space exploration and satellites, looking strong. I would argue our fighter business is the healthiest it's been in decades with both the F-15, including the interest in the F-15EX in the U.S. as well as the Super Hornet and the Growler. So we – we've got a number of good opportunities in our defense and space business and growing momentum, defense budgets are strong both domestically and internationally and we are winning some targeted franchises that will create long-term growth.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

You mentioned T-X, MQ-25, you took an unusual approach I would say in those program wins by making an investment. Can you talk about that strategy, why you did it that way, and what that suggests for future competitions?

Dennis A. Muilenburg

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

A

Well, couple of things. One, we did make some targeted investments in both programs. We invested in prototype vehicles, full-up vehicles. So the fact that we have confidence going into the development programs now with flying vehicles is a smart investment for us. It also created confidence for our customers in our – in the bid that we made. And we did that on both T-X and MQ-25 and we wanted to do that not only to have that prototype vehicle out there, but also to try out some brand new design and manufacturing techniques and prove the cost advantage they would create. And we did that because those are a couple of projects where we see downstream opportunities that are significant. If you look at the combination of T-X and MQ-25, it's a \$40 billion to \$60 billion opportunity downstream. So this is not a strategy we want to use everywhere but it's a strategy where you see long-term sort of commercial opportunities and having a commercial mindset on how we think about a defense bid.

I also think that what you see is, is the outcome of some of the incredible investments we've made in design and manufacturing. So this idea of digital assembly times taking fuselage joint on the T-X for example down from what is days of time to do a fuselage joint on today's fighters down to about an hour. And so order of magnitude improvements in assembly times, manufacturing times that have been enabled by some of the new digital tools. So that allowed us to bid at a more aggressive cost profile. I wouldn't necessarily characterize that as an investment, I'd characterize it as the fact that we're taking advantage of the new design and manufacturing techniques that have been created over time. Now, all of those create franchise opportunities that are measured in decades.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now another big program out there is Ground-Based Strategic Deterrent, so GBSD. Can you talk about how you're looking at this in terms of the timeline for that decision process...

Dennis A. Muilenburg

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

A

Yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

...and how you see yourselves positioned?

Dennis A. Muilenburg

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

A

Yeah, we're deep in the middle of that competition as we speak, so we're in the process of getting request for proposal iterations, updates from the customer; having deep discussions on their needs and value proposition and how the final evaluation will be made. We've made it through a previous couple of down select gates. So we've offered I think a very competitive solution, compelling solution for our customer. We still await to see the final request for proposal and make our decisions on our final bid, but clearly that's an important franchise opportunity and is also something that I think is very, very important for our country. So thinking through

strategically the importance of that from a national defense standpoint, strategic implications standpoint, is something that we're factoring in.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Is this something that – I mean I always look at these very large programs, it's obviously a priority, but they often can slip in timing. What do you say on that front?

Dennis A. Muilenburg

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

A

It's hard for me to predict. I know the customer for the program has a clear sense of urgency to proceed, operational urgency, but I also understand the challenges that come with the defense budget and annual procurement. So it's hard for me to predict the timeline, but we're going to be there to support our customers.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And then international, that's been a very big part of your business recently, can you tell us a little bit about international defense opportunities? How they look right now?

Dennis A. Muilenburg

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

A

A little over 30% of our backlog in the defense business is international. So we continue to see strong opportunities around the globe. We've seen strengthening of defense budgets and we've made progress in multiple regions, Europe, Middle East, India, throughout the Asia-Pacific arena and it really spans our product lines rotorcraft, Apache, Chinooks, V-22s. We're now seeing international demand for tankers and P-8s, fighters, F-15s, F-18s, satellites, services defense services continues to be strong. It's really the entire portfolio. I would expect to see the international segment continue to grow and in some cases outpace the domestic segment just given our view of international budgets and where we're positioned around the globe. And in many cases, we bring that capability to countries as a One Boeing capability where in some cases there are combinations of commercial and defense work that could be advantageous and where we can bring that value proposition to customers we do it.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

Now, you've talked about these goals of getting to mid-teens margins across your businesses and you're doing it in BCA, services looks good, defense looks difficult. Can you get defense to a mid-teens level?

Dennis A. Muilenburg

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

A

We can. It will be challenging. It's – there are challenges in all three of our businesses, but I can tell you all three of our business leaders Kevin, Stan and Leanne stepped up to the challenge and we look at this again across the Boeing enterprise. So in some cases we're making investments that cross our three businesses and we do trades across those three businesses. So our incentive structure is set up to create maximum value for our customers and do the right thing from a One Boeing standpoint and all three of our business leaders have stepped up to try and hit that higher bar margin target for the future.

And I would say when we started on this journey a few years ago we set these new what I call Global Industrial Champion Standards of Performance. I think there was some skepticism over whether we could achieve that. And I think you've seen some market progress over the last three years. Our work isn't done. But I think we'll continue to make progress in all three of our business sectors including the defense sector and our teams are very much focused on driving affordability, driving quality and driving safety in everything we do.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

If I pull up for a minute, you stopped guidance for the year given the issues around the MAX.

Dennis A. Muilenburg

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

A

Yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

What do you need to see to get back and renew guidance? What are you looking at as the hurdles here?

Dennis A. Muilenburg

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

A

The really three pacing items we're looking at, one is gaining approval to return to service and making sure we do that safely and that, as I said, is work that we're doing every hour, every day. I can't give you a specific timeline but that is near term work that we're doing. So we need to get that work done.

Secondly, we need to get the fleet that's grounded back up and flying and done at a pace that accommodates our customers. And then thirdly ensure that all of that is done and we have a stable production system. So we're looking at those three dimensions. As soon as we've got our arms completely around that work and we can see what that future skyline will look like, because of our customer needs, then we'll be able to issue guidance and we're going to be working at pace to do that as soon as we can. We know there's a desire to learn more and we owe you more information, but we want to get clarity on these three dimensions first, so that when we issue updated guidance we can do it with confidence, and that we can then perform to the expectations we set.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And I have one question here that's related to that, which is how do you think about working with your customers on the MAX in terms of we've seen publicly a number have said, they want compensation, things like that. How do you work with customers in this situation, and how does that affect your outlook?

Dennis A. Muilenburg

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

A

We're working with individual customers on all of these, and you've seen it in the news, and this is not surprising. Obviously, our customers' fleet schedules have been interrupted by the MAX, and we regret that. We know we've impacted the summer schedules for many of them, and it's difficult, it's painful. I've been out talking to a number of our customers, as has our team. And there are a number of different ways that we can address these issues. In some cases it's skyline positioning. In some cases it's services and training support. In some cases there are other currencies that we can trade with customers, things that are valuable to them that we can provide in a

different way, and in some cases cash may be part of the solution. But the fact that we have this portfolio of options and we're going to work it individually by customer, I don't see this as an additional material event for us, but it's something that's going to require individual attention customer by customer.

I can tell you that we are absolutely focused on doing the right thing for our customers here. We need healthy, successful airline customers. They've been impacted by the MAX being down, and we're going to work with each of them to get them back up and running in a very healthy manner for the long run.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

So once you work through all of this, guidance is back. Are you still looking at steady growth in free cash flow over the next five years?

Dennis A. Muilenburg

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

A

We are. And again, I want to be very mindful that right now we are just laser-focused on the safe return of MAX to flight, and that's our top priority. But within that, our long-term prospects for the business have not changed. It's an \$8 trillion market over the next 10 years. Passenger traffic continues to grow at 5%, 6%, 7% a year. It's a long-term sustainable trend. 80% of the world's population has not yet taken a single commercial airplane flight, and they will fly. Defense and services markets look strong as well. So the long-term prospects for the marketplace, the product lineup that we have, the investments we're making in innovation and productivity, those all remain solid. And the fundamental nature of traffic has changed so that it's no longer a cyclical environment. It's a much more steady growth kind of environment.

So all of those fundamentals lead us to a business that's a long-term sustained growth business, that's top line growth, that's also bottom line growth, and it's year-over-year cash growth. And we're designing the business that way. It's the market forces that I've talked about, but it's also how we're thinking about development program pacing and how we make our investments in our production line discipline – rate discipline. All of that will fuel a long-term sustained growth year-over-year cash growth business.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And one part of that is emerging markets are obviously a big part of that. China is a big part of that. One of the questions here is around trade.

Dennis A. Muilenburg

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

A

Yeah.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And trade war with China. How do you all look at that in the context of both commercial and defense?

Dennis A. Muilenburg

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

A

As you might guess, we continue to be very engaged in the trade dialogue, and we're engaged both with the leadership in the U.S. and in China. I think the good thing is we clearly have a seat at the table and we're involved in the discussions. And we've seen notable progress over the last six months. And clearly, there are some challenges right now in terms of getting to the finish line on a deal. There are some very real issues that still need to be addressed around intellectual property and trade practices, and those are being worked through in a disciplined way. But we also see in both countries a real desire for a trade solution, and within that aerospace. A healthy aerospace industry is a mutual interest. In China, they clearly need the lift in the capacity. Traffic there is growing by 10%, 12%, as much as 15% a year depending on region. They need the lift capacity. Of those 43,000 new airplanes over the next 20 years, about 7,700 of them are in China. And growth of their aerospace industry and travel fuels the rest of their economic growth. So they need a healthy aerospace industry. They need the airplanes.

Here, in the U.S., our business – Boeing's business, we're the biggest manufacturing exporter in the U.S. If you're concerned about trade, surplus or deficit, the aerospace sector is the largest trade surplus generator in the U.S., more than \$80 billion a year. And the large majority of that is Boeing and our supply chain. U.S. manufacturing jobs, about 90% of our manufacturing jobs are here in the U.S. So all of those add up to things that are of high interest here in the U.S. in terms of a healthy aerospace business. So we see mutual interest in a healthy aerospace ecosystem in both countries and a desire to get to a trade deal overall. I think in the end, that will lead to a successful conclusion. There's still a lot of hard work to do, but I think we're on a positive vector.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

And if you were to relate that to your position in the market versus Airbus's position in the market, do you see any that create any added challenges?

Dennis A. Muilenburg

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

A

I'd say we face similar challenges. World trade organizations and relationships and dialogue is ongoing in multiple areas. And in many cases, our supply chains span all of these. We have a strong European supply chain, Chinese supply chain, U.S. supply chain, so all of these economies and trade discussions are interlinked. I don't know that there's any unique advantage or disadvantage for us and Airbus in China. I think we're both obviously very interested in China. We both compete strongly there. Airbus is a respected competitor, but I'd like having competition. It makes us stronger, makes us better and I think our prospects in China are very strong.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Q

With that, I'd ask you just if you think more broadly what do you see as the two biggest challenges, two biggest opportunities going forward?

Dennis A. Muilenburg

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

A

I think certainly on the challenge side is getting the MAX back up and flying safely and regaining the public's confidence and these two accidents, as I said, have been devastating for us, devastating for the families involved, the trust of the flying public has been hurt and it will take time for us to rebuild that trust and re-earn their confidence. It's very important work for us and the long-term prospects of our business count on people's confidence in the safety of flying. And so we're going to be on that and we're going to do everything we can to

make sure that the public confidence is there and MAX is one of the safest airplanes ever to fly. I think also on the challenge side is working our way through some of the trade challenges in the geopolitics around the world.

On the opportunity side, I said the market is looking as strong as ever. I think the investments we're making are solid in our product lineup across defense, space, commercial services is solid and we're continuing to invest in innovation not only in products but also in how we design and produce and support. And those opportunities are very clear that this is a top and bottom line growth business for the long term.

And I guess lastly, I'd say given the challenges we're facing right now as a company, I do see this as a defining moment for The Boeing Company and it's been a clear challenge for us on the MAX, but we're going to stay true to our values and what has made this company great for 103 years is our focus on integrity, quality, safety and the current situation only reinforces those values. So we're going to stay true to those values, and we're going to come out even stronger, even better as a company.

Douglas Stuart Harned

Analyst, Sanford C. Bernstein & Co. LLC

Great, thank you very much, Dennis.

Dennis A. Muilenburg

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

You bet, thanks.

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