UNITED STATES
INTERNATIONAL TRADE COMMISSION

In the Matter of:	**) Investigation Nos.:**
100-TO 150-SEAT LARGE CIVIL AIRCRAFT	**) 701-TA-578 AND**
FROM CANADA	**) 731-TA-1368 (PRELIMINARY)**

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LARGE CIVIL AIRCRAFT	)	(Preliminary)
FROM CANADA	)	

Thursday, May 18, 2017
Main Hearing Room
U.S. International
Trade Commission
500 E Street, S.W.
Washington, D.C.

The meeting commenced, pursuant to notice, at 9:30 a.m., before the United States International Trade Commission Investigative Staff. Michael Anderson, Supervisory Investigator, presiding.

APPEARANCES:

On behalf of the International Trade Commission:

Michael Anderson, Director of Investigations, (presiding)

Douglas Corkran, Supervisory Investigator

Carolyn Carlson, Investigator

Nannette Christ, International Economist

APPEARANCES (Continued):

Charles Yost, Accountant/Auditor

Karl von Schriltz, Attorney/Advisor

Russell Duncan, Statistician

William R. Bishop, Supervisory Hearings and Information Officer

Sharon Bellamy, Records Management Specialist

Tyrell Burch, Legal Document Assistant

OPENING REMARKS:

Petitioners (Robert T. Novick, Wilmer Cutler Picering Hale and Dorr LLP)

Respondents (Peter Lichtenbaum, Covington & Burling LLP)

In Support of the Imposition of Antidumping and Countervailing Duty Orders:

Wilmer Cutler Pickering Hale and Dorr LLP

Washington, DC

On behalf of:

The Boeing Company

Raymond L. Conner, Vice Chairman, The Boeing Company

Charles Anderson, Principal, Capital Trade

Professor Jerry Nickelsburg, University of California Los Angeles

Robert T. Novick)

Patrick J. McLain)

Jeffrey I. Kessler) -- OF COUNSEL

Stephanie Hartmann)

William Desmond)

Sarah Licht)

In Opposition to the Imposition of Antidumping and Countervailing Duty Orders:

Dentons US LLP

Washington, DC

On behalf of:

Delta Air Lines, Inc.

Greg May, Senior Vice President, Supply Chain Management & Fleet, Delta Air Lines, Inc.

Joe Esposito, Vice President, Network Planning, Americas, Delta Air Lines, Inc.

Scott McClain, Associate General Counsel, Delta Air Lines, Inc.

Yohai Baisburd)

) -- OF COUNSEL

Daniel Morris)

Covington & Burling LLP

Washington, DC

On behalf of:

Bombardier Inc.

Sebastien Mullot, Director, C Series Program, Commercial Aircraft Division, Bombardier Inc.

Ross Mitchell, Vice President, Commercial Operations, Commercial Division, Bombardier, Inc.

Shara L. Aranoff)
) -- OF COUNSEL
Peter Lichtenbaum)
Curtis, Mallet-Prevost, Colt & Mosle LLP
Washington, LLP
On behalf of:
Government of Canada
Colin Bird, Minister-Counsellor, Economic and
Trade, Embassy of Canada
Daniel L. Porter)
) -- OF COUNSEL
James P. Durling)

REBUTTAL/CLOSING REMARKS:
Petitioner (Robert T. Novick, Wilmer Cutler Pickering Hale
and Dorr LLP)
Respondents (Peter Lichtenbaum, Covington & Burling LLP and
Yohai Baisburd, Dentons US LLP)

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P R O C C E D I N G S

MS. BELLAMY: Would the room please come to order?

CHAIRMAN ANDERSON: Good morning, and welcome to the U.S. International Trade Commission's conference with preliminary phase of antidumping and countervailing duty investigations number 701^^TA^^578 and 731^^TA^^1368 concerning 100 to 150 seat large civil aircraft from Canada.

My name is Michael Anderson. I'm the director of the Office of Investigations and I'll be presiding at this conference. Among those present from the Commission staff are from my far left, our supervisor investigator Mr. Douglas Corkran, or investigator Carolyn Carlson, and our attorney adviser who should be here momentarily is Karl Von Schriltz, and our economist, Nannette Christ. And to her right is our accountant and auditor, Charles Yost, and finally our statistician Russell Duncan.

I understand the parties are aware of the time allocations. Any questions regarding the time allocations should be addressed with the Secretary.

I would remind all speakers that -- not to refer to business proprietary remarks when you speak. And when you do speak, please identify yourself and speak clearly into the microphone for the benefit of the reporter -- court reporter.

It's also very important if you're on the sides, they cannot always see your name tag, so please speak clearly and state your name.

All witnesses must be sworn in before presenting testimony. Are there any questions? Hearing none, we will proceed with opening remarks.

MS. BELLAMY: Opening remarks on behalf of petitioner Robert T. Novick, Wilmer Cutler Pickering Hale and Dorr, LLP.

STATEMENT OF ROBERT T. NOVICK

MR. NOVICK: Good morning. My name is Bob Novick with Wilmer Hale, counsel to the Boeing Company. This investigation arises because Bombardier made a conscious decision to dump the C series in the U.S. market. Having previously manufactured only regional jets, Bombardier designed the C series for the 100 to 150 seat large civil aircraft market and explicitly targeted Boeing's 737^^700 and Airbus' 8319.

But Bombardier failed for over a decade to gain real traction offering the C series in the U.S. market at real market prices. But after receiving $2.5 billion in equity infusions from Quebec to augment the one^^half billion dollars in risk free launch it had already received, Bombardier began to dump its product into the U.S. market, which we saw in with particularly in its sale to Delta. And

that's why we're here today.

This investigation involves one of the most capital intensive products the Commission will have examined to date. In past cases involving large capital goods, the Commission has recognized that Congress' intent is to ensure that orders are issued whereas the House said, and I quote, "in large capital equipment cases, the loss of a single sale can cause immediate economic harm and where it may be impossible to offer meaningful relief if the investigation is not initiated until after importation takes place." And as the Senate said at the same time, "A sale for importation is sufficient to find injury or threat thereof."

In this investigation, the Commission has before it just such a sale, the Bombardier sale to Delta. The confirmed pricing and imminent imports from the sale require no speculation on the Commission's part. Beyond that, it has compelling information in the record regarding United's sales campaign, where direct competition between the CS-100 and the 737^^700 caused Boeing to have to drop prices significantly below any prior levels.

But the Commission has more on the record to confirm the threat to the U.S. industry. It has likely sales for importation as evidenced by confidential information in the record about near term additional campaigns. If Bombardier's practices are not addressed now,

Boeing will either have to offer severely depressed prices or forfeit additional market share, causing further injury.

The sale from Bombardier to Delta caused immediate economic harm. First, it's significantly depressed prices and those depressed prices will affect future competitions. Second, it deprived Boeing of sales opportunities at Delta in the 100 to 150 seat market. As a result of that sale, Delta has confirmed pricing for as many as 90 CS 300s, which establishes pricing for planes even Delta or Bombardier must acknowledge compete with the 700 and Mac 7. And third, it created commercial momentum for Bombardier because Delta is a marquis customer that will catalyze further sales. This harm is not inconsequential, immaterial, or unimportant.

In addition to the price effects, when imports began in less than a year, they will lock in Boeing's lost market share. The subject merchandise will account for 100 percent of imports and 100 percent of market share in 2018 and will account for 61 percent of market share for the period 2018 to 2021.

At the same time, the domestic industry's market share will plummet to 24 percent. And to put that into context, this is an almost $1 billion a year industry in the U.S. alone, this market. It's a $4 billion market globally.

And these price and volume effects are having

maximum impact just as Boeing is developing the 737 MAX 7. If Boeing cannot secure additional orders for the MAX 7, or is forced to sell at depressed prices, the program will not succeed and Boeing will be eliminated from the 100 to 150 seat market.

The domestic industry's ability to develop a derivative and more advanced version of the domestic like product is directly relevant in this investigation. As the Senate said at the time this provision was added in 1988, this provision is and I quote "particularly relevant to industries producing big ticket items such as aircraft, where a loss of a single sale may have a major impact on revenues and profits and thus the ability to proceed with research and development or production plans."

More broadly, if Bombardier's unfair trade practice are not addressed, it will next target the medium-sized single aisle market. This is not speculation. Bombardier is already talking about launching a CS-500 to compete with Boeing 7378 and MAX 8. And if you let that happen, we will be here again, but under worse conditions for the domestic industry.

This strategy is not new. It is the strategy Airbus used to force Lockheed and McDonnell Douglas from the market. Airbus used government subsidies first to enter a single market segment. And now it has a full fleet of LCA

and half of the global market. The WTO has found that this strategy of creating airplanes with subsidies and causing injury in our market after -- is a violation of our international trade rules. The Commission should find the same.

In sum, on this record, an affirmative injury determination is required. Applying the Commission's standard, the Commission cannot reasonably conclude that on the record as a whole there's -- it contains clear and convincing evidence that there's no threat of material injury. To the contrary, the record shows that there is just such a threat. And if anything, the evidence that will arise over the course of the investigation, including imports and further campaigns, will only reinforce that conclusion.

The Commission must act before imports for the sale of subsidized and dumped products materialize, because at that point, the material injury will be too late to undo. Thank you for your time.

MS. BELLAMY: Opening remarks on behalf of respondent Peter Lichtenbaum, Covington Burling, LLP.

STATEMENT OF PETER LICHTENBAUM

MR. LICHTENBAUM: Good morning, Mr. Anderson and Commission staff. I'm Peter Lichtenbaum from Covington & Burling appearing on behalf of respondent Bombardier, Inc.

Boeing's petition in this case is unprecedented in its overreach. There have been no subject imports. There are no lost sales or lost revenues. Boeing doesn't even make a product that competes with the aircraft Bombardier offered in the sales campaigns that Boeing complains about.

Boeing is a giant in the market for large civil aircraft with an enviable order back log, while Bombardier is a new entrant. There's nothing here that meets the Commission's standard for real and imminent threat of material injury.

Our witnesses from Bombardier and from Delta, well, fill in the details, but let me highlight the main themes in our presentation this morning. First, aircraft are not like the commodity products the Commission usually investigates. Large civil aircraft are complex, high^^technology products that purchasers select based on lifetime operating costs and a wide range of nonprice factors.

Even if the Commission could compare purchase prices for similar sized aircraft, which it can't for the United and Delta sales campaigns that Boeing complains about, that comparison would only tell a partial and misleading story about what ultimately drives purchasing decisions.

Second, by focusing only on its smallest and least successful 737 models, Boeing has created an artificially narrow like product. The like product should be the 737 family of aircraft, which represent a continuum of sizes, ranges, operating costs, and other features. There is no clear dividing line at 150 seats or elsewhere.

Third, Boeing has not suffered any lost sales or lost revenues due to competition with Bombardier. There just isn't much competition between Bombardier's C series and Boeing's products.

Airlines purchase aircraft to meet specific needs in terms of passenger load, range, and many other factors. The CS 100, the only product involved in the U.S. sales about which Boeing complains, seats about 30 fewer passengers than the 737 MAX 7. And aircraft are not like shampoo, where getting 30 percent more for a comparable price is a bonus. Larger aircraft are heavier and more expensive to operate. Thus an airline does not want to operate a larger aircraft than it needs for a particular route.

Boeing and Airbus both adopted deliberate strategies years ago to make larger single aisle aircraft that are more profitable for them. Boeing presses its customers to upgauge their orders from the 737^^700 and MAX 7 to the MAX 8 and 9, effectively cannibalizing demand for

its smaller aircraft. Airbus does much the same. And they've been able to follow this strategy because there was no alternative for airline customers.

But in doing so, they left a hole in the market that created the business case for the C series. Boeing had decades of headstart and plenty of opportunity to produce aircraft in the seat range as it did until 2006, but chose instead to exit the 100 seat market space.

As you'll hear from later witnesses, a new Boeing aircraft was never considered at Delta not because of price, but because Boeing does not have a new aircraft that meets Delta's needs for a smaller plane.

And United also expressed interest in the CS 100 again because of its smaller size. To keep Bombardier from gaining a foot hold at United, Boeing priced so aggressively, it was able to divert United to the larger MAX 7, away from the 100 seat aircraft United said it needed and that Boeing could not supply.

Within months, Boeing persuaded United to convert to the even larger and more profitable MAX 8. Again, the upgauging strategy. So Boeing is now complaining about pricing impact on a plane that doesn't compete with the CS 100 that Bombardier offered at United and that Boeing didn't even end up selling to United.

Fourth, there were no subject imports during the

POI and there won't be any this year. The small number of imports will begin no sooner than April of next year. And since Bombardier's still under production learning curve and aircraft are long lead items, it won't be able to ramp up imports any time soon. Meanwhile, Boeing has a seven to eight year backlog of orders for the 737 family and is effectively sold out for years. The threat Boeing imagines is both more speculative and more distant than anything the Commission has ever considered to be real and imminent.

Boeing's attempt to portray itself as a vulnerable market entrant is not credible in light of Boeing's commanding share in the U.S. single aisle market, its robust financials, and its lengthy 737 backlog. If this is the case of David versus Goliath, Boeing has cast itself in the wrong role. For all these reasons, the Commission can and should reach a negative preliminary determination. And we look forward to completing our presentation later this morning. Thank you.

MS. BELLAMY: Will petitioners please come forward?

CHAIRMAN ANDERSON: Good morning, Mr. Novick. Welcome to our panelists and when you're ready, please proceed.

MR. NOVICK: Thank you and good morning. Again, my name is Bob Novick with Wilmer Hale, counsel to the

Boeing Company. With me on the panel are to my immediate right, Ray Conner, the vice chairman of the Boeing Company, Professor Jerry Nickelsburg to my far left, Chuck Anderson to my far right, and my colleague Pat McLain to my immediate left. They will introduce themselves during their presentations.

Thank you for allowing us to participate in this conference and more importantly, the hard work you've done in such a short time frame to understand this industry, which we know is not one that you typically see.

I'll make three points to keep in mind during the course of this conference and then turn it over to the people you actually want to hear from. First, the subject imports would not exist but for government subsidies. At least $3 billion to date for the C series and that number is growing. Bombardier, Canada, and the European Commission have all acknowledged this fact as evidence on the record shows.

And the nature of these subsidies is to stimulate exports and harm the domestic industry. The half-billion dollars in launch aid is a de facto export subsidy, as the repayment is to be made from the delivery of airplanes and given the size of Canada's market, those cannot be consumed in the domestic market and will be exported.

And maybe even more pernicious is the recent -- are the recent equity infusions that the government of Quebec provided to cover net operating losses. They enabled Embraer to avoid bankruptcy and dump product in the U.S. These are the most pernicious form of subsidies under the WTO agreement.

Second, but for the $3 billion government subsidies, Bombardier would not have been able to offer the subject merchandise at the dumped prices it has. In fact, Quebec, Bombardier, and Delta all acknowledge that but for the subsidies, there would have been no sale to Delta. That evidence, too, is in the record.

A brief chronology of the events leading up to the Delta sale confirms this point. Whether one goes back to 2005 when Bombardier began offering the C series or 2008 when it actually launched the program, Bombardier has not been able to make a sale to a marquis U.S. airline.

This is despite having received the half-billion dollars in launch aid that it did from Canada, Quebec, and the U.K. By October 2015, just 18 months ago, Bombardier was, by its own admission, on the brink of bankruptcy because of this market failure. In that same month, rather than suffer the normal consequences of commercial failure, Bombardier was bailed out by Quebec, which committed $2.5 billion in equity infusion. It saved the C series program

and maybe the company itself.

Just one month later, after these government commitments, Bombardier offered United cut rate prices for the subject merchandise. And record evidence will show that the material -- the planes that Bombardier offered.

Boeing fought off that effort, but it prices far below those realized in prior sales. And then in April of 2016, just a few months later, Bombardier secured a sale to Delta at highly dumped prices. The orders for 75 CS 100s, but with substitution rights and options for up to 90 CS 300s at confirmed prices, a product I don't think we're going to hear either Bombardier or Delta dispute competes with Boeing 737-700 and MAX 7.

As Delta CEO observed at the time of the purchase, and I quote, "We are thrilled that the Quebec government is an investor. It gives us a lot of confidence to be able to make the decision. We see that the government supports the business." It is evident from the statement, let alone the prices, that but for the government subsidies, Delta would not have bought the C series.

So in a few short months, Bombardier went from the brink of bankruptcy to having "tremendous momentum" to use its own words and with only two intervening events, a $2.5 billion equity infusion and a sale to Delta at prices that results -- that result in a 80 percent dumping margin.

Fortunes can obviously turn quickly in this industry. They can go down as fast as they can go up.

Third, there's little doubt that Bombardier is determined to and indeed must in the short term further penetrate the U.S. market if it wants the C series to succeed, thus confirming that there will be future sales for importation if common practices are not addressed.

How do we know this? One, the U.S. market is the dominant market for the subject merchandise and drives demand for the product. Bombardier's own market forecast confirmed that Bombardier agrees.

Two, Bombardier plans to ramp up production of the subject merchandise to as many as 120 units per year by 2020. Where is this production going to go? In this industry, one produces to orders. Bombardier will need to secure significant additional U.S. orders in the short term, given the lag time between orders and deliveries, if it's to achieve this production goal necessary for the program to succeed. They won't be producing white tails. This is not an industry that builds for inventory.

Third, Bombardier has reportedly already had discussions with U.S. carriers, JetBlue and Spirit. In addition, Bombardier will compete with Boeing in a number of sales campaigns expected in the near future as confirmed by confidential information in the record.

MR. NOVICK: There can be no doubt that Bombardier will continue to target the U.S. Market with its dumped and subsidized product. I close as I opened earlier this morning. First, the prerequisites for preliminary injury determination are met. The Commission cannot reasonably conclude that the record as a whole contains clear and convincing evidence that there is no threat of material injury. This is true whether you conduct your volume price impact analysis or the 9-factor threat analysis.

Second, waiting to address the threat that Boeing is facing would be at odds with the statute and Congressional intent. Congress expressed its intention that the Commission not delay acting until after the imports occur and cause the material injury.

Third, the need for antidumping and countervailing duty orders is particularly acute under the present circumstances where Boeing, Airbus and Bombardier are each introducing new aircraft into the 100-150 seat market. The Commission cannot wait as in this industry with its very few customers there are limited opportunities to regain lost ground. As Ray Conner reminded me recently, once you've lost a sale, you never get it back. Before I turn it over to Ray Conner I just want to note that the General Counsel of Boeing Mike Ludick is also here

though he is not here as a witness so with that I turn it over to Ray Conner.

STATEMENT OF RAYMOND L. CONNER

MR. CONNER: Thanks Bob. Good morning. I am Ray Conner, Vice Chairman of the Boeing Company. I am here today to talk about the injury Boeing has suffered as a result of Bombardier's subsidies and predatory pricing. Luckily this is an injury that you can fix and if you don't fix it now it will be too late to do anything about it later.

Last year Bombardier sold 75 to 125 planes for less than 20 million dollars each. That's millions less than it costs to build them and millions less than it sold the C-series for in their home market. All this because they got millions of dollars and billions of dollars in subsidies from Canada. Now why would Bombardier do this? It's pretty simple. The U.S. Market is the most important market in the world. Major U.S. Airlines like Delta are among the biggest and most respected airlines in the world. They are the true market leaders.

A sale to Delta, United or any other big U.S. Airline is a seal of approval for a new airplane. These campaigns help determine whether a new airplane will thrive or die. That's why Bombardier is willing to lose millions of dollars per plane on this sale. That's what Bombardier

bought with Canada's subsidies -- a seal of approval for the C-series jets.

Let me explain why the subsidized sale is so harmful to Boeing, its employees, its supply chain and the American economy. The airplane business, and I've been associated with it for almost 40 years, is a long cycle industry. Products take years to develop and produce. Important sales are often made in big chunks. Those sales have an immediate impact on the winners and the losers and that impact sticks for a long time.

Bombardier is selling into the 100-150 seat market. That's a key part of our business. About 4 billion dollars a year around the world and about a billion dollars a year in the United States. In our industry every sale defines the pricing for the products in that market segment for years to come. The Delta sale was precisely that kind of market defining event. The planes Delta ordered on that one day in April of last year are equivalent to years of future demand in the 100-150 seat market. You can't get that back. We won't get an opportunity to produce those airplanes ever and therefore will forgo the revenue and the earnings we need to produce new products in the future. It is gone forever. Even worse, the sale set a new benchmark for pricing for the CS100 and the CS300.

That subsidized benchmark is far below the

commercial price for that plane. That pricing will continue to hurt us for years to come. Today we are spending hundreds of millions of dollars to develop our new competing product the 737Max7 and we are having to make adjustments to the plane design as we speak because of this pricing. As we know, if we have to sell those planes at Bombardier's subsidized pricing we will never get our money back. That's just the way it is.

Don't get me wrong, I want to be very clear here. We do love to compete. Competition is what makes us all better. What we want is competition that is fair. It is untenable for us to continue to compete against government subsidized competitors. Bombardier's subsidized competition has hurt us now and will hurt us for years to come but it doesn't have to be that way. You guys can fix this before it is too late.

Before I go on, let me tell you a little bit about myself. I've had the privilege to work for the Boeing Company now since 1977 when I started as a mechanic on the Boeing 727 program. I've served in a lot of the Boeing Company commercial airplane organization in a number of different positions that build both the 737-700 and the 737Max7 as well as other commercial airplanes. From 2003 to 2007 I was Vice President of Sales for the Americas so I am very familiar with this marketplace.

My next position was the Head of Sales for all commercial airplanes around the world. From 2012 through November of 2016 I was the President and CEO of BCA. Now I'm about to retire but I still care very deeply about the U.S. Commercial Aerospace Industry and about the Boeing Company and I'm extremely concerned about us having to continue to compete with subsidized competitors.

We're here today because the 100-150 seat market matters greatly to Boeing and Bombardier is very close to forcing us out of this altogether. Our share of the 100-150 seat LCA deliveries has historically been around 40 percent globally and about 70 percent in the U.S. Market. This shows how much we have to lose if Bombardier's subsidy-fueled attach on our home market continues.

Bombardier has said it wants 50 percent of this market, which it will probably win at the prices it is offering. If Bombardier does that, we're looking at losing 330 million dollars in revenue every year and about 1.7 billion every 5 years in the U.S. alone and this scenario is actually pretty optimistic because in this business there are no points for a distant 2nd or 3rd place.

You need commercial momentum and economy is a scale. When you lose big sales you lose both. Today, we are at a critical moment that will define the competition in the 100-150 seat market. Boeing, Bombardier and Airbus are

all introducing new models and competitions now will determine which models will succeed over the next 15 to 20 years and which will be dead in that marketplace.

To get a better sense of the stakes it is important to recognize that orders don't come in nice, smooth streams. The major orders that make or break an airplane program come in big chunks particularly with these big U.S. Carriers and this is a long-cycle market. It takes 4-7 years to develop new derivatives, new airplanes or derivative airplanes that are going to be successful in the commercial life for 20 years.

We schedule our production rates, delivery lots and supply chain requirements two or more years in advance and it typically takes several years between the time a customer orders an airplane and the time they take delivery of them. This cycle time is why today's financial results reflect the market conditions that prevailed years ago when the current deliveries were sold, so what we are talking about here is yes, we have had good financial results but that's because of the airplanes that we sold three and five years ago.

If we waited until the additional harm from Bombardier's ongoing aggressive penetration into the U.S. Market was reflected on our income statement we'd be far past the point of when this Commission could do anything

about that injury. A single campaign loss immediately harms our commercial momentum with only a handful of make or break orders from market customers to go around, every major order that Bombardier wins helps convince the remaining customers that Bombardier will be the best, long term solution and partner in this market.

It makes it much harder for Boeing to generate commercial momentum for the Max7. Because orders are so critical for every sale and we manage our delivery slots and production rates to align with that order intake. But we can't just win orders at any price. We must sell aircraft at prices that cover our costs and earn an adequate return so we can reinvest in our business and continue to perpetuate new airplane programs as we move forward.

That is simply impossible right now given Bombardier's subsidized pricing that a downward pull has on the entire U.S. Market. In the first place, Bombardier has been quite clear that the CS100 and the CS300 compete with Boeing and Airbus in the 100-150 seat market. The CS300 is very close in seat count and range capabilities to Boeing's 73700 and Max7 and importantly the price for both the C-series models affect Boeing prices.

This is not theoretical but fact. Bombardier competed the CS100 against Boeing at United. We won that campaign but the confidential materials we have submitted

clearly establish the direct price harm that the CS100 caused to Boeing prices. Then there is a direct downward pull on Boeing prices from the close connection between the price of the CS100 and the CS300. Because the CS300 is a larger sibling in the same market. The CS300's price is closely tied to that of the CS100. Dropping the CS100 price means dropping the CS200 price which in turn depresses the 737-700 and the Max7.

The Delta deal is a painful example of how this price transmission effect works. Like United, Delta is a vital customer for Boeing. In the second half of 2015, Delta was looking for used aircraft and we developed a solution to meet those requirements. We sold the airline 19 used airplanes in December of 2015 and were working on a second launch when Bombardier intervened with subsidized fuel price cuts on the new C-series aircraft.

In fact, they went deeper on price than they had at United. We did not try to compete with a new airplane because we knew we could never meet Delta's preferred price point which Bombardier met with dumped prices and it worked. Delta agreed to buy 75 brand new C-series aircraft with options for 50 more. Here's the harm that this caused which will continue. In Delta's deal for the CS100, Bombardier provided firm pricing on CS300s. In other words, if Delta chooses to exercise substitution rights for the CS300s, they

have already negotiated the price for that airplane and Delta officials have publically stated that they are very interested in the CS300 and they have even set a seating configuration for these aircraft.

As far as volume, Delta has the right to convert 40 of the 75 firm orders into CS300s and it can convert all 50 of its options into CS300s so that's 90 CS300s that have firm pricing in a deal that we know that the CS100 was sold at extremely low prices. As I just indicated, one would expect the CS300 to be priced somewhat higher than the CS100 but not dramatically so.

Now think of other U.S. Airlines. They know that Delta has already locked in extremely low prices on the CS300 for up to 90 aircraft. It makes no sense for those U.S. airlines to pay many million dollars more for either the C-series or the Max7. Buying Max7 at fair prices would put those other airlines at a severe disadvantage when they compete against Delta and its much lower cost structure.

As a result, Boeing must drop the Max7 prices substantially, far below levels we could ever justify on an economic basis, just to have a hope of competing for new orders and we must do it now because that's where the market prices are, now. This is untenable for Boeing. So both directly and indirectly the CS100 has a very real damaging effect on Boeing prices in the 100 to 150 seat market and

this will only worsen as Delta begins to operate the C-series and other U.S. Airlines feel the pain from competing against Delta's price.

Looking forward, Bombardier's targeted attack on the U.S. Market will continue. Additional U.S. sales campaigns with major customers will be happening in the very near future and absent a remedy everything indicates that the dumping will continue. Bombardier still needs to aggressively pursue additional orders from U.S. Customers to save the C-series program.

That means Boeing will again be faced with the untenable position, either we agree to painful price cuts that slash revenues and profits and our ability to reinvest in the business or we lose the C-series and our market share, employment, production, revenues and profits suffer accordingly. It will only take one or two lost sales involving U.S. customers before commercial viability of the Max7 and therefore the U.S. Industry's very future becomes very doubtful.

It is already in a precarious situation. The Max7 only has 63 orders from 5 customers, has not received a significant customer order since 2013 and received its only U.S. orders in 2011. Sixty-three orders is far from a healthy backlog. If Bombardier continues to take major sales, which it will with the current C-series prices, the

U.S. Industry will be unable to end its order drought and will not have any viable product in this market.

As I mentioned earlier, we want to compete fairly on a level playing field. Bombardier continues to receive subsidies and use them to offer below-market pricing and we cannot do that. Our pricing has to cover our costs. I hope you'll recognize the harm for what this is. Immediate and bound to get worse but there's time to nip this in the bud and I hope you will do that. Thank you for your time and now I'd like to turn it over to Professor Nickelsburg.

STATEMENT OF PROFESSOR JERRY NICKELSBURG

PROFESSOR NICKELSBURG: Thank you, Ray. Good morning. My name is Professor Jerry Nickelsburg. For the last on the faculty of UCLA and previously on the faculty of the University of Southern California. I've also had a 20-year career in Aviation with executive positions with Mcdonald Douglas, Flight Safety International and Flight Safety Boeing.

In 1986 I began doing research in Transportation Economics and with particular emphasis on aviation. My testimony this morning will address three topics. First, I would describe the 100-150 seat LCA market which includes Bombardier's CS100 and 300 and Boeing 737-700 and 737 Max7. I will also describe the factors that distinguishes the market from other aircraft markets.

Second, I will discuss the key conditions of competition and the dynamics of market prices for these aircraft. Third, I will explain how the C-series threatens to eliminate the Boeing Max7 with artificially low pricing made possible by government subsidies. Because of limited time available I will be brief but will be happy to answer your questions and will provide more detailed analysis and explication in the post conference brief.

Let me begin with the 100 to 150 seat LCA market. This is the market for single-aisle aircraft with standard two class seating capacity of 100-150 seats and range of at least 2900 nautical miles. These aircraft satisfy airline requirements for aircraft with a longer range than regional jets but less capacity than medium to large narrow body and wide body aircraft. The competing producers are Boeing, Airbus and Bombardier. The products in this market include the Boeing 737-700 and 737Max7, the Airbus A319CO and Neo and Bombardier's CS100 and CS300.

Bombardier is the newest entrant into this market. It first announced its C-series in 2005. It was initially shelved for a lack of customer interest and was ultimately launched or as Bombardier has described it, re-launched in 2008 with transport Canada certification in 2015 and first deliveries in 2016. The 100 to 150 seat LCA are optimal for U.S. airlines for a very large number of

routes that they want to operate. Why?

First, this type of LCA is well-suited to serve U.S. airlines' networks which often include many less populous destinations so it allows for more frequent flights with fewer passengers which passengers like. Pilot costs also tend to be less since with higher frequency of flights, airlines can more easily optimize pilots' schedules.

Finally, they can serve airports with short, high-hot or obstacle impaired runways which larger aircraft cannot do.

PROFESSOR NICKELSBURG: Thus the 100- to 150-Seat LCA increases the locations that airlines can serve. By the same token, there are many cases where using a regional jet would be suboptimal due to their short range. Many U.S. routes of transcontinental and regional jets cannot fly such long distances nonstop, and of course, the problem with aircraft with fewer than 100 seats is just that -- suboptimal low-seating capacity.

Actual usage patterns by airlines in the U.S. bear all this out, and indeed, industry literature and analysis recognizes the 100- to 150-Seat LCA market as one that is a separate market. Bombardier's own approach is instructed. It markets the CS100 and CS300 as competitors with Boeing 737-700 and Max 7, but it has not attempted to market these aircraft as competitors to the larger Boeing

737-800 and Airbus A320, A321 models. Simply put, the Bombardier CS100, 300, the Boeing 737-700 and Max 7, and Airbus A319 are substitutes and competitors and operate in the same market.

Now to return to my second topic. Given that the 100- to 150-Seat LCA products compete against each other, how do they compete and under what conditions of competition? Regarding demand, the primary U.S. customers for the 100- to 150-Seat LCA are major U.S. network airlines.

Virtually all U.S. carriers, including Delta, American, United, Alaskan and Southwest, have significant fleets in this market. Southwest, for example, operates 496 100- to 150-Seat aircraft out of its total fleet of 728 aircrafts.

Airline consolidation in recent years means that there are only a few large U.S. airlines left. This diminishes manufacturer's negotiating power, meaning that Boeing has even less power to resist low-price competition than it did a few years ago. In fact, Boeing listed its dependence on a limited number of commercial airlines as a risk factor in its most recent 10-K.

One of the main drivers of demand in the U.S. market is the large number of 100- to 150-Seat LCA currently in service. However, they're aging and in need of

replacement in the very near term and extending over several years into the future. Because aircraft are typically ordered in large blocks with deliveries years in the future, the demand for replacement is materializing now, and will continue to grow.

Supply conditions in the aircraft industry are characterized by long design and development periods, high capital intensive production, economies of scale, learning curve effects, and economies of scope. It is very costly to bring a new or derivative model of the 100- to 150-Seat LCAs to market.

The costs are concentrated in the early stage of an aircraft program before there's any guarantee of commercial success, because the first delivery is still years away in the future. This is when program viability is most uncertain. As a result, the program has magnified. Accordingly, orders are critical, particularly during the design and development phases.

Aircraft manufacturers depend on orders as an indicator of viability of their new aircraft. Orders represent a proof of concept, signaling to the market that a model has staying power, and therefore a customer's investment in the aircraft will hold value over time. In addition, orders generate substantial advanced payments long before delivery, and these payments can partially offset the

large upfront development costs, thus contributing to a program's viability.

Simply put, winning orders during the design and development phase is generally necessary to prevent premature program termination, and I'm happy to elaborate with examples of the MD-90, L-1011 and other aircraft in the past.

Now, let me discuss the rules of quality, market price, price discovery and launch prices. The airlines demand prices commensurate with pricing obtained by their competitors. This is because the capital costs incurred by airlines affects the fares that they can charge in the market.

Airlines and leasing companies are sophisticated players. The industry is relatively small and the results of sales campaigns are often well-publicized. These characteristics of the industry facilitate price discovery. Price discovery channels also include securities, filings, lease company offers, and financing packages.

Just as a personal note, during my time at McDonnell Douglas, when I was in the sales group, it was patently clear that airlines knew what other airlines had paid, even though on different continents for aircraft, and when they revealed to us what we had sold aircraft for, they were just dead-on, so price discovery is relatively

straightforward in this industry.

It's important to recognize the prices of different models of aircraft in the same market are linked, even if each model has slightly different characteristics. For example, the 2016 United Airlines campaign shows that Bombardier's low offer price for the CS100, which has a standard two-class seating capacity of about 108 seats, pulled down the offer price for the Boeing 737-700, which is a standard two-class seating capacity of 126 seats.

As a matter of economics, it's not necessary for two products to be completely identical in order for their prices to be closely linked. Sometimes LC manufacturers offer discounts early in the life-cycle of an airplane, a phenomenon known as launch pricing. The launch initiates the design and development phase of an aircraft program years before the first delivery. Launch prices are lower to compensate a customer for taking a risk by buying an unproven aircraft that is still not fully designed, not tested, not certified, and whose date of delivery is uncertain.

Manufacturers sometimes offer launch pricing during the new aircraft engineering and development phases to induce airlines to place early orders. But launch pricing, as the name suggests, occurs at program launch. Seven to eight years after launch, a steep drop in prices

would not be consistent with normal industry practice. Rather it suggests that a model is failing because the rationale for launch pricing, engineering and program risk is no longer present.

Under normal market conditions, such low prices are unsustainable. Why? Because excessively low prices make it impossible to achieve positive returns over the life of the aircraft program, assuming no government backing. In the current 100- to 150-Seat LCA market, Bombardier has set a price benchmarked below long-run average costs that other airlines will demand when they seek to purchase the same or similar aircraft from Bombardier. In other words, after a manufacturer lowers its price to a certain level, it is virtually impossible to raise it back up again.

In turn, this causes other manufacturers to compete with similarly low prices, even if unsustainable. This is what happened to the McDonnell Douglas DC10 and Lockheed L1011 competing with the subsidized Airbus A300 aircraft. I've emphasized the importance of price in airline customer purchasing decisions, and indeed, I would argue that price is paramount.

Do airline customers ever pay more for better quality, better operating characteristics or better performance? Yes. But only to the extent that it improves the airline customers' bottom line. For example, an

aircraft with lower fuel-burn will command a higher price than one with higher fuel-burn, holding all else equal, because the former lowers the operating costs to the airline.

So pricing for aircraft with superior performance characteristics will be above long-run minimum average costs, and it is this in part that induces aircraft manufacturers to innovate. And my recent research on aircraft pricing in response to fuel price spikes, confirms that this is what happens in this industry.

Again, better technology should translate into higher prices, not lower prices. Yet, the opposite has happened with Bombardier. Public information indicates that the C-series is priced far below competing products, and below even its own cost of production. So Bombardier's pricing has less to do with product excellence, and more to do with artificial support provided by Bombardier's government backers.

Now let me talk about commercial momentum, or feedback cycles. The dynamic that links one sales campaign to another. It's crucial to the success of an aircraft program. Major sales lead to more sales and failures to more failures. Success begets success and losses beget losses.

Why does this happen in the 100- to 150-Seat

market? Airlines want to know that their investments in aircraft will hold value over a long period of time. If an aircraft manufacturer's failing to attract customers, it raises doubts about the size of the secondary market and the availability of support services ten to twenty years in the future.

For example, an airline will see that if it buys an airplane that other airlines are not buying, then it or subsequent operators may not be able to share costs for aircraft support down the road. Thus, a loss of commercial momentum reduces the estimated residual value of the aircraft, reduces its net present value and therefore reduces the sales price required to secure an order.

New 100- to 150-Seat LCA are particularly vulnerable to negative commercial momentum cycles. Negative commercial momentum can get locked in very quickly as a result of only a couple of major well-publicized sales campaigns. This is because a large proportion of demand is concentrated in a small group of major U.S. airlines.

The Boeing 737 Max 7 appears to be perilously close to, or maybe even already be, locked into such a negative commercial momentum cycle. It has not had any major U.S. orders since 2011, and has not had any major orders of any kind since 2013. By contrast, Bombardier's success with Delta gives the C-series program a major boost

in commercial momentum.

So now I'm turning to the impact of this C-Series on the domestic industry. These well-documented conditions of competition naturally, and almost invariably, lead to certain conclusions regarding the ongoing competition between the C-Series and the Boeing 737-700 and 737 Max 7.

Simply put, Bombardier's artificially low prices are jeopardizing the future of both Boeing programs, and especially the 737 Max 7, which is still in the very risky initial design and development phase. The 737 Max 7 program is in serious danger, even before any deliveries are made.

If Boeing wins additional orders, they will be at artificially low prices. If Boeing loses, it will be sapped of commercial momentum. Already, the 737 Max program has had a drought of U.S. orders. That is not healthy, nor does it suggest a high degree of commercial momentum. The Max 7 is, thus, quite vulnerable and its risk of collapse is elevated.

Normally, competition induces efficiency and improves product quality, which is welfare improving for consumers. However, that requires the competition be on an equal footing. When part of the cost of production is subsidized, the outcome is worse for the unsubsidized producer, its shareholders, its workforce and for consumers

at large. The presence of government subsidies distorts the markets and moves production away from the more efficient producer to the less efficient producer. This is precisely what is happening with Bombardier.

In closing, let me note that historically, the market has not supported more than two suppliers for any appreciable length of time. The evidence for failed aircraft models no longer for sale, such as the Fokker 100, the MD 87-105, and the A318 is clear.

Today, Bombardier, Boeing and Airbus compete to establish newly developed aircraft in the market. Bombardier has achieved commercial momentum through below long-run average cost pricing. Few major U.S. customers are still at play and the 737 Max 7 is quite vulnerable.

Bombardier, with its subsidized production costs, has the incentive and the capability to marginalize the Boeing products in this market in a relatively short period of time. Were that to happen, the historical record in this industry, and again, for example, with the MD-87-105 and Fokker 100, and economic logic suggests that the Max 7 would no longer be viable.

Boeing would obtain few, if any, orders, in addition to those it already has. Also, existing customers for the Max 7 could seek to switch out their orders, and that would make the C-Series elimination of the Max 7 from

the market even faster.

And were all that to happen, all of this would likely occur before the first C-Series aircraft ever made it into the U.S. market. Thank you for your time, and I'll now turn it over to Chuck from Capital Trade.

STATEMENT OF CHARLES ANDERSON

MR. CHARLES ANDERSON: Good morning. I think I should say, to start out, that as far as I know, Mr. Anderson, you and I are not related.

My task today will be to draw on the testimony of Mr. Conner and Professor Nickelsburg and other evidence to give you an economic assessment of this case in the form of a standard ITC injury analysis. That is, like product, conditions of competitions and threat.

Starting with like product, let me run through the six factors. Let's start with physical characteristics and end uses. Professor Nickelsburg has described 100- to 150-Seat segment as a distinct market. Specifically, the seating capacity and range differences between the small, single-aisle aircraft on the one hand, and regional jets and LCA in the medium and large single-aisle markets on the other, make it a physically different product.

These characteristics directly affect how the different types of commercial aircraft are used. On what type of route structure they are purchased and best suited

for, and sometimes even the airports they fly to.

Second, interchangeability. This is not the typical industry that the ITC's, where there is a continuum of products encompassing hundreds of different sizes, types and characteristics. Very few models of large, commercial aircraft are produced.

These few specific models are made in a very limited number of capacity and range combinations, as dictated by the market. While they may be interchangeable on certain routes and on certain days, they are purchased to meet a specific route need. That is why aircraft with these characteristics exist.

Third, channels of distribution. I have to give up on that one. We agree that there are no meaningful differences here, but channels is rarely a deciding factor in like product analysis.

Fourth, manufacturing facilities, production processes, and employees. Because of the scale economies in aircraft manufacturing, it is cost-effective to make different types of planes in the same plant. Nonetheless, at Boeing, there is tooling that is unique to each model of aircraft. Tooling that must be used in producing these aircraft to meet the stipulations set forth in their FAA type certifications.

Further, small, single-aisle aircraft have

production learning curves that are distinct from other Boeing LCAs. In addition, I believe that an important reason why this factor is in like product analysis is to assess how easy or how difficult it is for producer to shift from one type of widget to another. Production shifting in this industry is limited by long lead times needed for tooling, parts and components. And by the significant learning curve costs that are incurred when production shifts between products.

The fifth factor is producer and customer perceptions. Mr. Conner and Professor Nickelsburg have addressed this factor in detail, so I will not repeat all that has been said. Suffice it to say that a large number of customers, producers, trade publications, and outside analysts have treated the 100- to 150- single-aisle LCA as a distinct and segregable market. This is the industry's definition of market, not ours.

Finally, on price. Boeing's confidential questionnaire response data shows a significant gap between historic U.S. pricing for small, single-aisle aircraft and other single-aisle aircraft. We will address this, obviously, more in our post-conference brief.

A broader set of more uniform pricing data, which is the list price information, confirms differences in prices between small, single-aisle aircraft and other

single-aisle aircraft of an absolute amount rarely, if ever, seen by the Commission. We're talking multiple millions of dollars here.

When you put these facts together, there's evidence that there are a number of clear dividing lines between 100- to 150-Seat single-aisle LCAs from other single-aisle LCAs.

I'll now summarize what others have already said about conditions of competition, focusing on those that are critical to an understanding of how unfairly traded imports constitute a threat to the U.S. industry.

First, the market is price-sensitive. Demand in this market is derived from the highly competitive market for domestic commercial air travel. Moreover, aircraft in this category tend to be configured for a relatively high proportion of economy class seats. Thus, this market is very price-sensitive. As Professor Nickelsburg has explained, airline seek to minimize their aircrafts costs, which encompass not only their initial price, but also their operating costs and residual values.

The second is the importance of the U.S. market. This is the world's largest market for small, single-aisle aircraft. Currently the U.S. market is emerging from a period of dormancy as the large installed fleet ages and as four new models enter into service. It may not be as big as

it once was, but it still will be a large and attractive market.

Third is about the nature of sales. As you have heard, orders in this industry are large and frequent and lumpy. Loss of even a single sale or the depression of prices on a single transaction can result in millions of foregone operating profits.

Fourth condition is, we're gonna switch to supply. This is a high-risk industry burdened by extremely large upfront R&D and tooling and high manufacturing costs, particularly in the late years of development and in the early years of production. Also because quality and safety in this industry are paramount. It requires the maintenance of a highly skilled workforce to produce this complex product. These workers are vital assets, and earn far about the national average.

The fifth factor is the importance of anchor sales. I'll not spend much time on this because others have already covered it. But an initial order by a market customer signals to other potential customers that this aircraft will be serviceable, and it will hold its value over its long, useful life.

As you've heard, this generates what is called commercial momentum. Airbus is the classic example of a producer that created commercial momentum through subsidized

market entry. And as the history of McDonnell Douglas illustrates, commercial momentum can also work in the reverse.

Before turning to threat, it's critical to understand that the subject merchandise and the domestic like product are substitutable and ultimately compete for sales on price, and really in the end, price alone. Notwithstanding the physical differences, Boeing's 737-700, Max 7 and C-Series models have competed head-to-head for orders.

Airline customers are very aware of differences in competing aircrafts such as C-count, maximum take-off weight, fuel efficiency, and maintenance requirements. They use that in-depth knowledge of such differences to negotiate price. In this industry, even factors that the Commission typically considers non-price are monetized and then valued by the customers and producers and find their way into the final contract price.

MR. ANDERSON: Turning now to threat, let me discuss the concept of what constitutes imminent here. For threat purposes, the concept of imminent is intended to weed out claims of future injury where the presence of imports and the likely effects are speculative. Thus, the concept is industry specific and it's dependent on the time horizon for reasonable forecasts.

In this regard, this injury -- industry is a little bit different from those you're normally looking at. The producers base their product strategies on 20 year demand projections. Airlines develop multiyear acquisition strategies that result in the stream of aircraft deliveries over a number of years, which are then operated for at least a decade and often longer.

Because of long lead times between order and delivery, it is possible to forecast with a great deal of certainty annual market shares for at least five years out. That is the period required by U.S. GAAP for public airlines to report their future purchase aircraft purchase commitments.

Detailed order and delivery schedules for all major aircraft manufacturers are announced regularly by producers and customers and are tracked daily by third party data gatherers. Contrast this with most industries before the Commission, where there are often no legal commitments regarding future volumes and prices at least beyond one year. Thus, imminent in this industry is much longer than one or two years.

Now on to adverse volume effects. Already booked Bombardier orders translate into unquestionable increases in imports, both absolutely and as a percentage of total domestic production and consumption. Using third

party delivery data, Boeing has prepared a forecast of subject import market shares over the next five years. This data shows a large imminent increase in subject imports.

But we believe that Bombardier will seek more U.S. sales volume. Our post conference brief will detail several major upcoming orders by U.S. airlines over the next several years, as well as a chart showing Boeing and Bombardier overlapping potential customers.

As mentioned, Bombardier needs to firm up the quality of its orders to ramp up delivery slots. That means that it will have to compete aggressively for those orders.

Now on to adverse price effects. The competition between Boeing and Bombardier at United provides the Commission with a concrete example of how unfair imports have irreversibly damaged U.S. producer pricing. The initial prices Boeing offered to United were in line with historic prices. Boeing believes that Bombardier undercuts those prices significantly, notwithstanding its claims of offering a better product. Based on its market intelligence, Boeing believes that Bombardier is underselling.

Stories about the low United prices found their way into the trade press. Through the mechanism of price transmission, this is creating current price depression, which will continue into the future. And the Delta fire

sale price, which was also widely reported in the press, exacerbated the downward price pressure on small single aisle aircraft.

Given the likely volume and price effects and the domestic industry's vulnerability, the subject imports are highly -- is highly likely to cause material injury, including harm to Boeing's operation and finances. These include reductions in the trade indicia, production and shipments, and the financial indicia, net sales, gross margins, operating income, returns on investment, research and development expenditures, as well as declines in the number of production related workers, hours worked, and total labor income.

Net sales production in shipments will decline because Boeing will sell fewer units of the MAX 7 in its all-important domestic market. What units it does sell will be at lower prices. Boeing will also be forced to spread large fixed costs over fewer units. As Boeing produces fewer single small single aisle aircraft, it will have to reduce employment, hours worked, and wages.

The condition of competition distinctive to this industry make Boeing susceptible to injury in other ways, including the loss of commercial momentum and the inability to fund the next generation. There is a large U.S. market for aircraft of this size and range. If reasonable pricing

and volumes prevail, Boeing would have the business justification to increase sales and increase production, which would lower its unit costs and generate the capital needed to fund the next generation of product.

That next generation will be especially expensive to develop as it almost certainly will be a clean sheet design incorporating advanced materials, avionics, and aerodynamics.

We're talking multiple billions of dollars. Because Boeing has no government back stop, it must earn relatively high rates of return on the current generation of offerings, especially given the maturity of the 737 program.

Finally, let me address the issue of vulnerability. Normally, the Commission focuses on recent financial performance as set forth in the financial data to assess whether the industry is vulnerable. While the Boeing data shows rates of returns that are relatively high by traditional ITC standards, the obvious fact is that these returns were earned on a paltry base of delivery volumes and revenues.

As Mr. Conner has said, if the domestic industry is delivering 10 or few aircraft per year, it's not healthy. The apparent rates of return are high for other reasons, as we will discuss in our post hearing brief.

What is more relevant is the drop in the

absolute level of operating profits over the POI. To make the funds needed to develop the next generation aircraft, manufacturers must earn high profits, both on an absolute and percentage basis, particularly in the late years of a program.

For threat purposes, what really is telling is the lack of any U.S. orders from the MAX 7 since 2011. Injury from lost sales or lost revenues will show up in the financials only several years after a sales campaign. But that future injury is locked in at the time that the order is lost. That is why the threat is so real now. I'll now turn it over to Pat McLain.

STATEMENT OF PATRICK J. MCLAIN

MR. MCLAIN: Good morning. I'm Pat McLain of Wilmer Hale. I'll conclude by connecting what you just heard from Mr. Conner and the economist to the relevant legal standards. My basic point is that the evidence compels an affirmative determination.

First, as Mr. Novick said at the beginning, Congress envisioned cases exactly like this one. And it authorized the Commission to make an affirmative determination before any subject imports have entered the country. This includes a single sale for importation like the Delta sale. It also includes the likelihood of sales for importation, such as the additional U.S. sales

Bombardier is targeting.

Second, the statute instructs the Commission to base its threat determination on two elements that are clearly satisfied here. Regarding the first element, that is whether further dumped or subsidized imports are imminent, the answer's obviously a yes. Delta is contractually committed to importing 75 C series aircraft as its SEC filings show. It will import 15 C series next year. This is a subject import volume well above the domestic industry's total production in each of several recent years.

And it will increase subject import levels from zero to 100 percent of all imports next year. The data on Delta's remaining 60 imports through 2021 are likewise scheduled in black and white and no less certain than what is coming next year.

As to the second element, that is whether material injury by reason of imports would occur unless an order is issued, this case presents a uniquely specific and predictable material injury scenario.

Now the Commission is authorized to draw inferences at a very high level of generality, but it doesn't need to do that here. The evidence answers the threat question directly. In Bombardier, we have one highly export oriented producer targeting the U.S. market with two

specific aircraft models that would not exist without subsidies.

As Professor Nickelsburg discussed, the predictable outcome of artificially injecting this supplier into this market is that Boeing's prices and sales must fall significantly. But the Commission has much more than economic theory to go on. Bombardier and its government sponsors have made no secret about their plans to beat Boeing in the market. Indeed, Bombardier itself places Boeing's like product in the same market that the C series "dominates." Bombardier boasts that with the C series now in production, it will "be able to compete with anybody in the world, including Boeing specifically." And Bombardier warns that its competitors are "right to be scared because there's nothing else like this aircraft in the marketplace."

In line with this attitude, Bombardier believes it is "well positioned to capture 50 percent of the U.S. -- of the 100 to 150 seat market." This 50 percent share target implies that Boeing must battle its other subsidized competitor Airbus for a rump of what the domestic industry used to have.

With the global market worth about $4 billion annually, and the U.S. market worth around $1 billion per year, Bombardier's plan is effectively to take $2 billion in global sales every year and around $400 million out of the

U.S. market every year.

For Boeing, this translates into a loss of about $330 million in U.S. sales each year and a loss of $1.7 billion every five years. This is what's at stake according to Bombardier's own plans. It is material by any measure.

Put in terms of the statutory threat factors, there's simply no question that a threat of material injury exists right now.

Nature of subsidies, Bombardier is fueled by $3 billion worth of the most harmful subsidies that can be designed, subsidies that create and then sustain its planes, subsidies that are contingent on exports, and subsidies that cover its operating losses.

Production capacity, Bombardier's entire C series program depends upon ramping up to full scale production rates through at least 2020. At least 75 percent of these slots are already earmarked for Delta in the U.S. market, but Bombardier still has big holes in its near term production schedule that compel it to seek more U.S. sales right now.

Market penetration, adverse effect -- adverse price effects, all of these are satisfied as we will elaborate in our post hearing brief. And I'll just -- I see the time is running short. I'll just touch on other demonstrable adverse trends.

The record shows that Bombardier continues to pursue additional U.S. sales and the C series has all the commercial momentum that makes further sales more likely. Meanwhile, the MAX 7 hasn't won a significant order in three and a half years, hasn't won a U.S. order in five years.

The overall trend is that the subject merchandise is taking over the U.S. market, while the domestic industry has one product for the future. And that product isn't selling.

The domestic industry is therefore exceedingly vulnerable to material injury beyond what is already locked in at Delta. Indeed in terms of imminent adverse impact, the domestic industry is on a knife edge. Even before subject imports begin, even before U.S. airlines see up close what the Delta price can do for their cost structures, and how painful it is to compete against -- for passenger traffic without the Delta price.

Absent orders, the likely scenarios for the domestic industry's product of the future, the MAX 7, are that it will very soon be marginalized in a distant second or third place and therefore on its way out of the market, or that it will already cease to be an effective competitor all together. Either way, the result is material injury.

I see my time is up, so we welcome your questions. Thank you.

CHAIRMAN ANDERSON: Okay, thank you, thank you Mr. Novick. And to our panelists, we appreciate you coming here to help us understand your product and the market and the conditions of competition, especially those who have taken time of their businesses and have travelled here.

We'd like to now start with questions from our staff. And we'll start first with our investigator Ms. Carlson.

MS. CARLSON: Good morning. Thank you all very much for being here and for your testimony. I wanted to start with a few questions related to production and production processes just for my better understanding, since you know, I'm new to learning about the industry.

I would -- I want to better understand the overall production process of the subject aircraft from initial design, to development, to actual fabrication. Does all this occur in your Renton, Washington facility at least for the subject 737 models?

MR. CONNER: On the 737 model?

MS. CARLSON: Yeah.

MR. CONNER: Yeah, for virtually the most part. I mean --

CHAIRMAN ANDERSON: Please state your name again for the --

MR. CONNER: Ray Conner.

CHAIRMAN ANDERSON: Thank you.

MR. CONNER: Vice chairman, Boeing Company. On the 737, yes, virtually all the production is done in design and production. Design in particular is done in Renton, Washington. And final assembly is done in Renton, Washington as well.

Now we do have a supply chain that's primarily -- 85 percent is within the United States. So a big portion of which is in Kansas, Wichita, Kansas, where they make all the fuselage and some of the other kinds of parts in that respect. And then they ship all that to Renton, where we put it all together with the wings, and the fuselage, and the wiring, and all those things. But most -- for the most part, it's done in Renton Washington.

MS. CARLSON: All right and to what extent are airlines or other types of companies involved in the design and the development of a new aircraft? For example, did you receive any direct input from airlines with regard to the 737 MAX 7?

MR. CONNER: Yeah, we always work with our airlines as we bring a new product to market to see what kinds of -- the demands that they're going to be looking for. What are they actually looking for in the various market segments? In the 100 to 150 seat market, you know, what we chose to do with concurrence from the airlines was

to address that market segment, which is a separate market segment within the single aisle family with the MAX 7. And that was done in conjunction with our interchange with the airline customers.

MS. CARLSON: Okay, thank you. How easily can you switch production from the subject 737 aircraft to for example single aisle large civil aircraft with more than 150 seats or maybe double aisle large civil aircraft?

MR. CONNER: Well, we do all the single aisle airplanes on the same production line. The twin aisle airplanes are done in another facility up north in Everett, Washington. And those are done on separate production lines as well.

Now each one of our production lines carries different variants of the family. So you have a 737-700 or MAX 7, a MAX 8, MAX 9, potentially a MAX 10. And we tend to run those down the same production line.

The issue is that when you make a change, if you move from a MAX 7 to a MAX 8, if you don't get enough of the same type together, it can be very disruptive to your production system, which can drive tremendous inefficiencies as you start to produce.

If you can imagine, you know, because the airplane is different enough, that if you just had one or maybe two and then the rest of them were a different type,

the disruption that would occur in the learning curve would be pretty significant. So what we'd like to do like these big chunks that we would sell to a Delta or to a United airlines, it creates a lot of efficiency in the production system if you can put them together in a block of maybe five, 10, or something like that, so we can get some similarity as they move down.

So not having or just having ones -- one or two is a very disruptive situation to any production system.

MR. NOVICK: Let me explain -- excuse me, you're answering why the change of tooling --

MR. CONNER: Yeah.

MR. NOVICK: Why is that?

MR. CONNER: Well, there's a number of different things. One, there's different tooling because the fuselages would be different. Different wire, wire runs because those things would be different. The joins would be somewhat a little bit different. You could have sometimes some landing gear issues that are different as well. So then your whole supply chain, it ripples -- and it ripples all the way through the whole supply chain of which, you know, we have thousands of suppliers that would be working on that. And your ability then to move things around becomes very limited.

MS. CARLSON: Okay, that's very helpful. Thank

you.

MR. CONNER: Okay.

MS. CARLSON: Can you further describe your relationship between your firm and engine manufacturers? And are there any other components or aspects of aircraft manufacturing that are carried out by other companies in this manner?

MR. CONNER: With respect to the 737, we work with CFMI, which is a joint venture between GE and Safran, which is a French company. And they provide all of the engines for the 737 family whether it's a 737-700, a MAX 7, or an 800, 900, et cetera.

Now the engines are a different variant for the MAX family as opposed to the next generation family. So they're developing a brand new engine for our new model, the MAX 7 and the MAX 8 and the MAX 9.

MS. CARLSON: Okay. The petition describes certain ancillary items in relation to the sale of an aircraft. Do ancillary items have a role with respect to production processes and overall production costs? Could you describe any of those?

MR CONNER: The ancillary items would be, you know, we can all kind of chime in on this, but it would be pilot training. It would be ground crew training, ground support aspects, spares. You might, you know, for a MAX 7,

you would have different spares components than you would have on say a MAX 8. So those are all ancillary type items.

MR. NOVICK: I don't think, Chuck might answer, that any of them go to the production process.

MS. CARLSON: Okay.

MR. ANDERSON: Yeah.

MR. NOVICK: Is that?

MR. ANDERSON: Sorry, Chuck Anderson, Cap Trade. It has more to do with actually the sales price. There's sort of like options. And they can include sort of services like training, goods like spare parts, and even things like residual guarantees. Those are considered.

But the important thing is they're always essentially valued and monetized in the discussion of price. So it becomes part of the overall contract price.

MR. CONNER: Yeah, if you -- when you Ray Conner again. When you go down that path, you know, when you bring in all the different elements of a deal, you can talk about escalation rates, you can talk about all these different things that you would bring to the contract terms. The pre-delivery payments, those are all ancillary items to the specific price of the airplane.

MS. CARLSON: Okay, thank you for clarifying. Mr. Conner, you mentioned in your testimony that the lag time between when an order is made and delivery is -- occurs

is two or more years. On average, how long is it? And what specifically occurs during this lag time?

MR. CONNER: Once an order occurs you know your production system is being set at that time. You get the order and then you start the motion. Are lead times are, when you talk about lead time, that's when we give notification to our supply base to start building this type of airplane and then that is what starts to move through the whole system so we create a whole production system that is set on that.

It really is right around a 2-year period so when you sell an airplane, that really starts the clock ticking in terms of when people start producing. So selling now, we would send a signal to our long lead suppliers, start using these unique parts for that Max7 airplane.

MR. ANDERSON: And sort of the important thing for your like product analysis is once you've essentially started ordering parts and components you really are limiting the switchability and the production processes. You can't then just switch to a different size aircraft because you've got to give your suppliers a long lead time in order to produce the specific parts and components for that order.

MR. CONNER: And so back to --

MR. NOVICK: For the record before was Chuck

Anderson and this is Ray Conner.

MR. CONNER: Yes, just to give you a sense of that I mean it's had then if there's a change to be made. So juggling your production system because more difficult in that scenario, particularly when you only have one or two of a known type that are moving down the line.

MS. CARLSON: Okay, thank you. My understanding is that airlines and leasing companies are the main customers of these aircraft. Are there any other types of customers we should be considering that are involved in the transaction process.

MR. CONNER: Well, we do sell -- Ray Conner again -- we do sell on the 737 line to the U.S. Navy for the P8 but we do that down on a separate production line.

MS. CARLSON: Okay and with regard to leasing companies are there different types of leasing companies and do they generally function in the same way? So like the sales marketing or delivery processes different depending on what type of leasing company or what type of --?

MR. CONNER: Ray Conner, again it's relatively the same. They'll set the configuration. They typically will have already designated who the ultimate customer will be and they will have set the configuration so we can start to move that through our production system. It is not very often that we haven't actually determined that specific

configuration but it works pretty much the same as an airline.

MS. CARLSON: In the Respondents' opening statement Mr. Lichtenbaum noted that Boeing's aircraft does not meet Delta's needs. Are you unable to meet certain requirements or specifications of your customers that are met by Bombardier's C-series or maybe that might be met by Airbus' A319 aircraft?

MR. CONNER: Excuse me, Ms. Carlson. Could you state that again?

MS. CARLSON: So I basically wanted to understand whether or not you are unable to meet certain requirements or specifications of your customers that are maybe met by Bombardier C-series aircraft or Airbus' 319 aircraft?

MR. CONNER: No, A319 is exactly the same as 737-700. In the case of United, we specifically went head to head with the C-series 100 with a 737-700 so we put ourselves in a position to compete directly with the CS100. It wasn't until after the Delta announcement that United actually, we did not push United to go to the higher gauged airplane, United came to us and decided to move to the higher gauged airplane and then we worked very hard to scramble to try to accommodate that request. MR. NOVICK: I'd just like to elaborate on that, the answer to your question is no. That is to say, Boeing can meet with

its 737-700 or Max7, all of the requirements in the 100-150 seat market. When a particular airline chooses to want to buy it at a particular point in time is a different issue than whether the Max7 or 737-700 compete with the C-series. They compete with the C-series, Bombardiers' marketing materials make clear that they compete.

Various customers including one that Ray mentioned they compete head to head. Delta chose a different path. It got a wonderful opportunity from Bombardier to buy planes at a highly dumped price and exercise that option, which it has. The smart decision is that as a commercial enterprise but there is no argument that can be made that the Boeing airplanes don't compete, are unable to perform every function that the C-series function and vice versa in terms of seating capacity and range and all of the other attributes that I think you're asking about.

MR. CONNER: Ms. Carlson, maybe I'll just -- Ray Conner again. That is our airplane for this 100-150 seat market, period. As is, Airbus' A319 Ceo and Neo for the same market. We both have chosen to address that market with those specific airplanes.

PROFESSOR NICKELSBURG: Let me also make a comment relative to that, so the 100-seat market is not a unique market in and of itself. Airlines that want a 100

seat aircraft want only 100-seat aircraft, can get that in a regional jet in impact. Bombardier has one that is 100-seat.

Aircraft manufacturers who have oriented their product around the 100-seat market have found that it's an insufficient market and examples abound: The Convair 990, the British Aerospace 146, The Faulker 100, aircraft that you may not have heard about because they all went out of business focusing on that market. The market is really a 100-150 seat market. Some manufacturers will approach it with one aircraft, some with two aircraft. That's the market.

In this 100-seat market it is either a regional type market or it's kind of the low-end to the 100 or 150-seat market that can be served by a multitude of products of different configurations. So that's what's happened historically.

MR. NOVICK: This is Bob Novick again. I would urge you when you go back to look at the transcript, you heard Mr. Lichtenbaum say there's no way to divide these planes at any number of seats, can't do it here, can't do it there, can't do it even at the Airbus 380 size and yet we're hearing there's a hundred, somehow there's a hundred-seat break, so I'd suggest you go back to the transcript. Thank you.

MR. MCLEAN: Patrick McLean from Wilmer Hale, the Commission is looking for dividing lines. Bombardier has given them to you in their own marketing materials 100-150 seats.

MS. CARLSON: Thank you. With regard to the sale that Delta made or that Bombardier made to Delta, did you compete -- was there actual competition in the negotiations for that sale?

MR. CONNER: Did we compete?

MS. CARLSON: Yes.

MR. CONNER: Yes, our initial discussions with Delta were around used aircraft, a combination of two airplanes -- E190 and Boeing 717 which they have in their fleets today. That's the way we approached it. The price target that we were given that was the best solution for us and for them. That was kind of the approach that we went down with a lot of the interchange that we had with the Delta team.

MS. CARLSON: Thank you. In the Petition you describe how this situation involving Bombardier is similar to the situation involving Airbus in the 1990's. Are there any significant differences in this current situation that we should consider that prompted you to take action in this manner?

MR. NOVICK: This is Bob Novick. So first I will

describe what we mean by the Airbus situation, this situation to show you our view of why it's parallel and then I can try to address your question, which I think is maybe why did you not go to the W2L as opposed to coming here? If that's the question but you can follow up. So I will just go through the Airbus experience.

This is all documented W2L decisions that have found this. So Airbus that was going into the large commercial aircraft space, it didn't exist as a large commercial aircraft producer unlike Bombardier, it wasn't even a regional producer. And it received government subsidies primarily Launch Aid which is also what Bombardier received from its governments. Launch Aid is an essentially risk-free loan.

It's a loan that's not on commercial terms. It only has to be repaid if at all after multiple sales of a plane that it supports. Oftentimes there is a period during which even your first number of planes you don't have to repay any of the Launch Aid and if your program doesn't succeed, if you don't sell the number of planes that you've said or that the Launch Aid was tied to the money is forgiven and that's happened in Airbus and that's documented by the W2L.

Airbus received that kind of money to enter, as Mr. Conner said earlier, the smallest single aisle market

with A310.

MR. CONNER: What Airbus did is they entered the wide -- it was a wide body market -- the smaller of the wide body with the A300 and then moved on from there. Over the course, so the Boeing Company has taken now 101 years to get to this position that we enjoy today. Airbus in 40 years has an airplane now in every single market segment. We compete head to head. Every program that they have produced they have had Launch Aid, every single one.

Today, historically we were a 60 percent market share commercial aerospace industry in the United States and today we are fighting for our lives to maintain upper 40's or to 50 percent. The impact is real and it sometimes takes many years to materialize. What they have done in 40 years what we had to do in 100.

MR. NOVICK: So if I may continue, thank you for correcting me on that Ray, just to be clear our case is not about the threat to the Max8 or the 737-800 or the twin aisle planes, that's not what our case is about. What it's about is receiving subsidies as Airbus did to penetrate a market segment, a defined market. The reason we are here at the ITC, the reason why we filed out Antidumping and Countervailing Duty Cases is that Bombardier's strategy is clearly to target the U.S. Market.

This is where the largest three, maybe four

airlines reside, four airlines in the world reside. You can look at Bombardier's marketing materials and you see clearly that they recognize rightly that the North American Market, which the United States is the most significant portion, is the most important market in the world. Their production plans to ramp up production by 2020 to 120 planes requires them to be able to sell into the U.S. Market.

That all makes sense. That makes complete sense. That's what anyone that would want to have a successful program would do. What doesn't make sense to us is that the way they are doing it is clearly, clearly through dumped pricing all fueled by subsidies that enabled it to do so. You can't price at the level they're pricing and have a successful program over the years without some other source of capital.

The capital in this case is the government. They've already got three billion worth and just this year more money came in from the Federal Government. So that's the concern. That's why we're here. It's the sale for importation that will lead, as Mr. Mclean said, without question to imports into this market locking down key U.S. Airlines. Marking key airline customers that, as M. Conner said, once the sale is gone you never get it back and the momentum from that can be destructive.

It is the Commission, it is the Department of

Commerce that can deal with the penetration of this market and where the WTO cannot. That's why we are here.

MR. CONNER: I would just add that in the U.S. there is going to be a huge replacement cycle that will occur over the next few years and the opportunity is now and again as Bob said you get one chance to sell that airplane. Once the airplane is in service and you've put in all the pilot training, you've put the spares and the infrastructure in place and all those things that happen, you don't get -- I mean it's really, really tough then to come back and when those tend to be in there for fifteen, twenty, twenty-five years so you only get that opportunity, and that opportunity is going to come up again and again.

This is where the biggest portion of that 100-150 seat market segment of which we have been a big player in over the course of time is going to occur. That's the concern here, okay.

MS. CARLSON: Thank you. That was very helpful. In the Petition you describe certain demand drivers such as demand for passenger air travel as well as US GDP. Are there any other demand drivers we should be aware of?

PROFESSOR NICKELSBURG: So the way in which an airline decides what aircraft to buy is they look at the routes that they want to serve and passenger demand is the key but how they capture that passenger demand is important

so as I outlined in my remarks the aircraft in this segment are particularly favored for lower density markets because airlines can fly with more frequency and that's the way in which they generate demand.

You see that with many airlines, including low-cost carriers that the more frequent the airline operates between two cities, particularly low population cities, the more of that market they will capture. So the capture is relatively complicated. The second aspect to that that is driving that demand is the way in which the airline will flow those airplanes over its routes in order to optimize the utilization of the aircraft.

All of that boils down in the end to be highly price sensitive because it's the capital cost of the aircraft that ultimately determines whether or not the aircraft as it flows over the airline system is going to generate profit for the airline or not. The aircraft that generates the largest profit will most invariably be the aircraft that is chosen by the airline to purchase.

MR. ANDERSON: If I could just add, within the market that we're defining, that particular market as Mr. Conner has said is a market where there is a very large installed base in the United States and essentially that large installed base has sort of dampened down sales during the POI but those aircraft are aging so we are predicting an

increase in demand based on a cyclical factor which is the average age of the installed base.

MS. CARLSON: Okay, thank you. Does Boeing receive government aide either directly or indirectly for its defense arm? To what extent does any of that get channeled into your civil aircraft? For example, does technology that has developed in the defense arm get spun off into the civil aircraft arm or are they completely separate?

MR. NOVICK: They're completely separate. There is -- we can address this further in the post-conference brief, there is in the WTO cases we have dealt with there is discussion with that but they are completely separate.

MS. CARLSON: Thank you. This question is for counsel. Have you filed any change of scope with the Department of Commerce?

MR. MCLEAN: Yes we have. I believe last week. So we were hoping to see the Commerce initiation notice that would confirm that but I don't think we've seen it quite yet. We will be happy to provide any information that you need on updated scope. It has not changed materially.

MS. CARLSON: Okay, I will keep an eye out for that. Are there any other antidumping or countervailing duty orders in aircraft generally in any third countries to your knowledge?

MR. MCLEAN: Not to our knowledge. Pat Mclean.

MS. CARLSON: Okay. If there are, feel free to provide in your post conference brief. That for now concludes my questions. Thank you very much.

MR. ANDERSON: Thank you, Ms. Carlson and now we will turn it over to our attorney Mr. Von Schriltz.

MR. VON SCHRILTZ: Good morning. Thank you so much for coming here and educating us about this market and about your Petition, your case. I have quite a few questions. This is a very interesting product and a very interesting case presented in your Petition and here during your presentation this morning.

I'd like to begin with like-product, the domestic like product at issue. Now I heard in the Respondents opening statement, they seem to be arguing that the Commission should define the like product to include not only the 737/700 and Max7 but also larger single aisle LCA in the 737 family which I think would include the 737/800 and 900 and perhaps the Max8 and the Max9.

You've talked a lot about the distinctions between regional jets and the 100-150 seat LCA but could you please talk about whether a clear dividing line separates domestically produced single aisle LCA outside the scope from domestically produced LCA within the scope in terms of the Commission's traditional 6 like product factors?

MR. CHARLES ANDERSON: Okay, I tried to do that a little bit in my presentation. I realize the big issue here is, what's the difference between the small single-aisle LCA and other LCAs? And the first thing is, just physically they're different. You have a different number of seats. And you have, basically, some differences in ranges.

The different number of seats are very important. Airlines do not want to fly a bunch of empty seats around. That's why there is a tendency for aircraft manufacturers to offer sort of specific models with fairly limited number of seats and range.

And if you look carefully, you'll see that the different offerings have a tendency to cluster and we believe that there is a definite cluster around the 100- to 150-Seat segment range, as opposed to larger ranges. The other important factor on interchangeability -- let's go on that one again.

You know, you can say that a 737-700 and a 737-800 might be used on the same route on a particular day, and that indeed does happen, but that's not why they're purchased. They're purchased to fit a specific need. Nobody's gonna pay the tens of million dollars more for a 737-800 if it's basically gonna be used exactly the same way as 737-700 would be used.

The smaller number of seats and some of the particular performance characteristics of the 737-700, which is, it can fly into what's called high, hot airports, makes it particularly suitable for certain routes. Now, airlines play around with planes at different times of the year. There might be more demand to go to Denver, for example, in the winter, than there is in the summer, but nevertheless they purchase the airplane to fill a specific need in their, essentially, in their fleet.

I talked about channels of distribution. We're not making any claims there. I think Mr. Conner explained very well the issues about production processes and the difficulties in just switching from one airplane to the next, even if it's produced in the same plant. In addition, there are certain tools. And those tools are certified by the FAA. It's part of the type certification, so you have to use those tools when you're making that plane, so there are some differences there.

The producer/customer perception one, I think is extremely clear. Almost everyone talks about the 100- to 150-Seat segment market. Bombardier certainly talks about the 100- to 150-Seat market. They don't talk about the CS100 being in a separate market from the CS100 and CS300. They put them both squarely within the 100- to 150-Seat market.

Finally, the price. This involves confidential data, for the most part, so I can't get into a great deal of detail. I would caution you, though, that you can't look at the average unit values based on the shipment data or the financial data, because that's only three years, and you have almost no data points in that data set. But the historic U.S. shipment data that you asked for, which has hundreds of sales for both single-aisle LCA and non-single-aisle LCA of 100- and 150-Seat and 150-Seat and Above, that has a lot of data points. But I also think the list prices are informative here. And let me tell you --

The average unit values are an aggregation of a lot of different sales, and a lot of different things happen in the sale. Is that a high-volume customer? A low-volume customer? What ancillary items are included? The list prices actually give you a metal-to-metal price, uniform pricing, if you will, that basically eliminates a lot of the differences and the actual circumstance of sales, involving individual sales.

That provides you with essentially how -- and all, basically, ultimate prices start from list, as well -- provides you with a way of determining how the market actually values the plane. So there is a clear step up, and the step up we're talking about is, on average, in the tens of millions of dollars between all of the planes included in

the 100- to 150-mark segment.

I almost would add, another good thing about the list prices is you have all the Airbus data as well. So it is more comprehensive. You can have Airbus, CS100, 300, and the Boeing planes all across or both the 100- to 150-Seat segment and the other segment. It shows a clear distinction in pricing.

So I think, you know, there could always be some overlap and it's always the case in ITC like product questions. It's almost never the case. There are just 100% clear lines, but if you take all the factors together, I think on balance, you have a very strong case that supports our definition of like product.

MR. NOVICK: This is Bob Novick, if I could just elaborate on, or add. I do think you heard the opening statement correctly. By Bombardier, I find it surprising that they would be arguing this, in light of their own materials. I'd refer you specifically to Exhibit 48 that's attached to the petition. I'll hold up for a second for you to see it when you --

They have their own dividing lines, clear dividing lines between the 149-Seat market, they call it 149, it's 150, and the markets to the left of that, the regional jets, and the markets to the right of that, the Max 8, the 737-800, they have a line on the right side of the

line are the 800s, inside the line are the 700s. I'm curious how they think that this is not a market that's got clear dividing lines. They actually drew the lines for you. That's in Exhibit 48.

And the Canadian government, in a reference in our petition, from the Canadian Deputy Minister of Innovation, Science and Economic Development, describe the C-Series as follows, and I quote, "Competing in the transcontinental range, 100- to 150-Seat segment of the global aerospace market," that's how today in government official talks about the C-Series.

MR. SCHRILTZ: Thank you for your responses. Mr. Anderson, going back to you, I think you discussed how the Commission should approach the imminent future in this case, given the unique conditions of competition in the 100- to 150-Seat LCA industry.

Did I hear you correctly to suggest that the Commission should consider that the imminent future to be three to five years or two to five years and if five years, in your opinion, is within the imminent future, why is that?

MR. CHARLES ANDERSON: When I started looking at this, the first thing I came across was the SCC requirement for public airlines that they disclosed their future purchase commitments for the next five years. You can certainly go out at least five years in this industry,

because you have data on actual expected deliveries and orders over a five-year period.

From that data you can derive specific information on market share, you can actually do proforma financials showing potential injury to the U.S. industry. I cannot think of any other industry where you have that type of information projected out for at least five years. That's backed up by third-party data gathers. Orders and deliveries are announced regularly.

And you also, I think, have to take into account the fact that there is such a long lead time between order and delivery in this industry. That means that you've got firm contractual commitments that extend long beyond a year, which in almost any commodity case that you have before you, a year is about as long as you can see, and usually it's a mix of sales.

There are some contract orders and some spot orders. This is all contract, all for multiple years, so you can project a number of years out beyond that which you can in a normal industry. So I would say that you can go at least five years with a great deal of certainty here.

MR. SCHRILTZ: Well, to follow up, I -- just quickly, and then you can address my follow-up question as well, if you'd like. So I heard that the typical lead time is two years, and I also heard that both Bombardier and

Boeing are gonna be going out and participating in a lot of campaigns over the next year or two. If that's true, aren't these market shares that we can project, based on current orders subject to change? I mean, as either Bombardier or Boeing or even Airbus wins these new orders, doesn't that mean that the projected market shares out five years are gonna change, perhaps dramatically? Over the next year or two?

MR. CHARLES ANDERSON: What I think you heard is production, basically scheduling begins two years out, not that orders are taken two years out. If you look at our confidential questionnaire response data and look at the Bombardier confidential questionnaire response data, you can see what the average time period is between orders and deliveries, and it's significantly longer than two years.

So that basically provides, I think, another strong reason why you can go longer. Having said that, we do know that there will be imports within the next two years. We can calculate market shares so those are then aircraft that would already begin to be the production scheduling most likely is fixed, and those planes are certainly coming in

But I still believe that you can go out even longer and with a much higher degree uncertainty than typical threat cases for even a year or two. That is,

you're making -- when you're doing a threat case for, even going out a year or two, there's a certain degree of uncertainty and orders that get cancelled. This one has a much higher degree certainty of that for a longer period of time.

MR. CONNER: Ray Conner. Just to kind of give you an example. We sold -- particularly on a new program, like a 737 Max or the new 777 program that we're doing with the wide-bodies -- we've sold and then launched the program in 2013 on the 777X. Those airplanes aren't gonna deliver until late 2019, 2020, and 2021 and such. So the orders may occur, but the deliveries are gonna take a long time, because you got to go through the whole development phase and all those things.

The preliminary design or production or product development cycle takes quite some time in order for that to happen. And the same thing was held true on the Max, although shorter, because it wasn't quite as complex. But we were selling and we launched the airplane in -- I think it was 2013 or 2011 -- and, you know, we delivered the very first one yesterday. The very first Max was delivered yesterday.

MR. SCHRILTZ: The first Max 7?

MR. CONNER: Not the first Max 7. The first Max 8 was our first product. But we launched the program that

would've included Max 7, Max 8, Max 9, the whole program, in 2011.

MR. NOVICK: So if I could just take a second. You touch on an important point here. I think you -- I don't know if you were here for the opening statement, but one of the important dimensions of this case and this industry is that we're dealing with sales for importation, all right?

We have a capital-intensive industry where it's at the moment of the sale that the injury, the harm occurs, because what follows from the sale are the imports and, depending on what the price was, if there were depressed prices, that's gonna carry through to the market, and it's also gonna obviously have diminished in the revenue from the sale.

We already have that sale for importation. That's occurred. We've got depressed prices, we've got lost market share, all these things are, as we said, not speculative. So to go to your point on imminence, and we talked about a bit ago, Bombardier has production plans to ramp up to 120 planes by 2020.

For them to be able to do that, and deliver those, as opposed to put white-tails, which are inventory, which never -- or if it exists, someone's gonna lose their job -- you don't do white-tails, you don't do inventory in

this business.

For them to succeed in doing that, which they need to do for it to be a successful program, they've got to sell some planes in the U.S. market now, in the next -- now. I'll just stop at now. So when those sales occur, the harm is done. The injury is done.

We've already seen it with the Delta sale. We saw the price depressing effect of the United sale. The next sale, because it will lock in imports for, not one year, but four, five or six years into the future, that's the effect of the lost sale in a capital-intensive industry like that.

You've seen them before. Look at large newspaper printing presses where you observed what happens and when the financial effects of the lost sale like that are experienced. And under imminent standard, you've always, as the Commission has always said, that you look at imminence in the context of the industry that you're looking at. And so we have injury now. And further sales for importation will only further that injury.

MR. MCLAIN: Pat McLain from Wilmer Hale for the record. You raised the question of, well, how do we know that the market shares that, for instance, that we've projected out in our brief, why won't those change? Well, right now, we're looking at Bombardier taking 61% of the

U.S. market from 2018 to 2021, where they're at zero now, as they have been for forever. And to believe -- so one of two things is going to happen.

Either they're going to make more sales for the reason that Bob just identified. Or to go to your point, the only way Boeing could make more sales and get Bombardier's market share below 61% is by meeting the Delta price, the price Bombardier gave to Delta, and that's injurious. So either way, it's material injury. The only way those market share numbers are going to change in Boeing's favor is if they're materially injured in terms of price and lost revenue and lost profits. Thanks.

MR. SCHRILTZ: Thank you. Respondents also, in their opening statement, pointed out that Boeing hasn't made any deliveries into this market, the 100- to 150-Seat LCA market since 2012, and I believe I also heard them suggest, or allege that Boeing has somehow exited this market. So first, is that true? Did Boeing effectively exit this market in 2012? And two, why would Boeing invest in the development of the 737 Max when there's been so little demand for 100- to 150-Seat LCA in the U.S. market for the 737-700, which it is to replace?

MR. NOVICK: This is Bob Novick for the record. I'll start. I think your questions, part of your question answers itself, which is the answer is, clearly Boeing has

not exited this market. Boeing is spending hundreds of millions of dollars to develop a Max 7. It wouldn't be spending hundreds of million dollars of dollars to build a Max 7 if it was exiting the 100- to 150-Seat market. As Ray Conner said, that's their plane to compete in this market. So they've not exited the market.

Your question about deliveries. A number of folks, Professor Nickelsburg as well, talked about the fact that we haven't -- again, let's go back to the way this industry works. You have big orders, they're lumpy. A lot of these orders happened years ago. The fleets are aging, there's gonna be a replacement of these fleets, and there are now three producers who are introducing new planes into the market to take advantage of the demand that's gonna come from the replacement of the aging fleets.

And we're here because it's what happens today. What you do. What happens in this proceeding can be dispositive of who succeeds in this market over the next ten, fifteen, twenty years. It is the Max 7. It's the Airbus 319, and it's the C-Series that are competing right now to define who's gonna be in this space over the long term.

So the fact that there've been diminished deliveries over the last couple of years are a function of the fact that orders have come a while ago. They've been

delivered. Now customers are ramping up and looking at replacing their fleets. And in fact, to the extent that Bombardier has come into the market now with this truly unbelievably low pricing, customers are gonna say to themselves, "Well, maybe we ought to jump in now, and see if we can capture that same pricing," given the price transmission effect that sales in the market have.

So Boeing is in this market. Boeing is spending hundreds of millions of dollars to build a plane to compete in this market. It has already gone head-to-head with Bombardier with the CS100. In the United campaign, as we talked about already, and it will compete its plane anytime a customer wants a plane in the 100- to 150-Seat market. And if Bombardier is required to price at anything that approaches market, then we'll have a fair competition.

MR. SCHRILTZ: Thank you. Now I heard Mr. Conner say, a few minutes ago, that the development of the Max 7 was kind of lumped together with development of the Max 7, 8 and 9. So that the other day, you said the first of the Max series was delivered, it was a Max 8.

You are also arguing, I believe, that the success of the Max 7 program and its development, because it's still apparently in the development phase, is dependent on orders today, because with orders come pre-delivery payments and those pre-delivery payments will be necessary

to finance the continued development and ultimate production of the Max 7.

But I'm wondering, could Boeing finance the development production of the Max 7 using cash flow generated by sales of out-of-scope LCA, like, the Max 8 which you delivered the other day, and perhaps the Max 9?

MR. NOVICK: I'd like to take this first, since I think it's a legal question. I think the Commission's practice is not to look at an entire company's financials when it's looking at a particular market that we're discussing. You didn't look at how GE's doing in the washers case. You have clear precedent that that's not the way to think about the market.

Boeing sells fighter jets. It's not -- we're not gonna ask the question whether it can support the development of the Max 7 with the proceeds from government contracts. So I just want to, from a legal standpoint, set the record straight, that that would be, in our view, an inappropriate way of thinking about it. And I can let Mr. Conner answer the question whether, how, what Boeing would do, but

I just --

MR. CONNER: No. Here's the way -- we are sequencing our development. The Max 8 was the first in a sequence of the family. The Max 9 is second, and then the

third will be the Max 7. So the Max 7's in its development stage right now. And so we are spending the money on the Max 7 as we speak right now, today. And, as we are on the Max 9. So it's -- they're separate development programs. Some of it is that we can take, across the board, and utilize on all three of the family members, much like what the C-Series can do with the 100 and the 300. That's one of the elements about having a family. They can address -- but this is -- the Max 7 is for a specific market segment of which we are in the development phase right now.

MR. CHARLES ANDERSON: This is Chuck Anderson. There's another important aspect as to why those orders are very important. It's not just the cash flow from pre-payments. Boeing, just like Bombardier, when they're launching a new aircraft, faces a very steep learning curve. You need orders during the development phase, so that when production commences, you can get down that learning curve as quickly as possible.

As Mr. Conner says, you get down the learning curve a lot quicker when you have a block of sales of the same particular aircraft. That lowers your per-unit costs over time and is the key to whether or not a program is financially successful over its long run. So it's not just the pre-payments, the lack of pre-payments that cause current injury. It's also the effect on the long-term

costs of the company.

MR. CONNER: That's actually the larger impact.

MR. SCHRILTZ: Thank you very much. Now the petition mentions that Boeing is the largest exporter in the United States. And I'm wondering, are Boeing's exports of 100- to 150-Seat LCA a relevant condition of competition here? I mean, could the Max 7 succeed based purely on exports?

MR. CONNER: In my view, no. Most of the replacement market is here in the United States. It's hard to determine yet what the growth of let's say the market in China, but the U.S. is the still -- the single largest market in the world. And that's why, you know, and we have by far and away, and you can look at it from a, you know, profitability standpoint, the U.S. carriers, and in particular, a airline like Delta, who is so superbly run, is one of the most profitable airlines in the world. The U.S. carriers are -- they have the biggest bulk of airplanes. They'll have the biggest bulk of replacement.

You know, how many of you have flown Southwest? Nobody? Oh, boy. I got a big problem then, because Southwest is an all Boeing customer. Southwest, yeah. Most all of their airplanes, most all of their airplanes are 737-700s. Almost all. And they have a fleet of almost 700 airplanes. So that is a huge replacement market for the

Boeing Company. And we've yet to continue to work through the negotiations on that. The same thing holds true in the U.S. at the other airlines as well.

So the U.S. market is the biggest one. We will penetrate the international market. And that's for sure. We're very much a global company in that respect. And we've done very well, but the biggest concern I have as I look forward, and I only have a few months left, but you know, I have a pension that's going to require them to do quite well, it is continuing to penetrate in the U.S. market. It is so very important to this whole scenario.

MR. NOVICK: If I can just, this is Bob Novick for the record again. If I can just add, the -- this is a global market. Airlines are sophisticated customers. They're global customers. They know the pricing that occurs in any other market, particularly a market of the size and scope of the United States.

We talked earlier. Professor Nickelsburg and Ray Conner about the price transmission effect. Those customers know, the foreign customers, know what the pricing is of the aircraft. They also know that if Bombardier's aircraft starts to take on the kind of commercial momentum that it will enjoy already from the Delta sale and potentially from additional sales, these are all conditions of competition in the industry. They're going to say to themselves, which

plane's going to have the best residual value at the end of the process? Which plane do I want to buy?

So whatever the -- it's not as though we're an in a bubble in the United States. This is a global industry, sophisticated airlines. The conditions of competition are known to everyone. And that's -- they know, too, what the pricing is for the airplane. They know, too, what the best residual values are going to be.

So the impact in the U.S. is not the only impact. It'll have an impact beyond that. It's unfortunately not your reach to be able to also take care of us in other markets.

MR. CONNER: Yeah, Ray Conner again. I want to just add, you know, I've been 40 years with the company. And about 25 of that have been associated with the sales activity. And the thing I think I've seen the biggest change that's occurred over the course of the last 25 years is the pricing transparency that exists in the marketplace today. It is -- it just spreads across the board because the financial community, they're all involved in these airplane deals. And they see all of the deals. And they're not going to be, you know, and they'll be communicating to the airline that, well, why would we finance, you know, an airplane from Boeing that's significantly higher than this or why would -- they're going to set the new benchmark. And

if the new benchmark becomes the Delta deal, then we've got a major issue across the board, because this transparency is real. I mean, it's -- it travels like lightening now. Just like you know, Expedia and, you know, all those other things that are out there. It's amazing what -- how much it's changed over the course of time.

MR. VON SCHRILTZ: Thank you. Very helpful. Now in analyzing under the statute, the Commission must consider significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports. That's the statutory language.

Now I've heard you discuss the, you know, likely volume in the context of the threat factors, but this particular factor seems to require that there be a significant rate of increase of the volume or market penetration of imports in the market during the period of investigation. How should the Commission address this threat factor, given that there were no subject imports during the period of investigation, given the language of the statute?

MR. NOVICK: Bob Novick. We're dealing with a sale for importation issue. And the statute is quite clear that you can find a threat of material injury based on the sale for importation. And that sale for importation has

attached to it imports that will be beginning in less than a year and continuing for at least four or five years thereafter.

So I think the statute's quite clear that you don't need, in the sale to importation context, you don't need to have current imports to find a threat of material injury.

You -- I think it was gas compressors, I'd have to go back and refresh my recollection, I think it was gas compressors in which you found a threat of material injury, even though there were no imports during the period. In fact, there were -- there was a sale that suggested imports would be coming. And that was more than enough for the Commission to find a threat of material injury.

So the statute's constructed so that sales for importation can lead to threat. Even likely sales can lead to threat as you find in 1671 and 1673. So I don't believe there's any requirement to -- that there's a actually imports during the period. We're talking about a new entrant into the U.S. market having completed a major sale for importation. No ambiguity about the fact that imports are arriving as we've heard as required by SEC filings and otherwise. So I don't think that issue is relevant in this case.

MR. MCLAIN: Pat McLain for the record. And you

-- we also have to recall that there's the catch all provision in factor 9 in the threat factors, any other demonstrable adverse trends that indicate the probability that there is likely to be injury by reason of imports or sale for importation of the subject merchandise, whether or not it's actually being imported at the time.

So that makes all of the foregoing factors regardless of verb tense. It's sort of academic to worry about gosh, does that cover something where we don't have current imports. Because if you look at 1671 or 1673, you can clearly make a final determination on the basis of sales for importation.

And the alternative view would basically say the Commission is allowed to look at a situation where last year, you had imports of five units and we project next year, you'll have imports of seven units. But the Commission could just -- would just have to blind itself to a situation where this year you have imports of zero units, and next year, you have imports of 15 units, which is in fact what we have this year in this case, which will be 100 percent of all imports.

So the notion that one should adopt a reading of the statute that blinds the Commission to that, especially when you have this catch all provision, I don't think it really holds up. Thanks.

MR. VON SCHRILTZ: Thank you. Speaking of 2018, so under the Delta contract, deliveries of the C series are scheduled to begin next April. And I think under the contract, as you said, 15 are to be delivered next year in 2018. But I understand that Boeing won't be in a position to deliver the MAX 7 until 2019. So given that, how should the Commission consider projected subject import market share in 2018?

MR. NOVICK: I'm not sure how to --

MR. VON SCHRILTZ: Well, in other words, if the MAX 7 is scheduled to enter service in 2019, you know, how could Boeing have any market share with the MAX 7 in 2018?

MR. NOVICK: Because the MAX 7 is a follow on to the 737-700, which is the like product. And had an airline, Delta for example, purchased that plane, maybe they didn't want to that plane or maybe they just got a great price on the Bombardier plane, they -- there would have been imports of that plane. So the MAX set -- it's not -- the MAX 7 isn't the only plane that is part of the like product. Part of -- yeah, the -- Ray Conner reminds me the United competition involved the 737-700 against the CS-100. And so that would be the result.

So we -- those events have, you know, speak to the reason that we're here. So and just while I have the microphone, just I do have in front of me the quote from

compressors where the Commission says "a significant sale with delivery expected in the quote 'near future' is sufficient to constitute potential imports where there had been no imports in the most recent 12 month period. "

MR. VON SCHRILTZ: Thank you. Changing the subject a little bit, you argue that one of the reasons that Bombardier is likely to focus its sales efforts on the U.S. market are barriers to access in China and the European Union. I'm wondering, to what extent Boeing been successful in penetrating the 100 to 150 seat LCA segment in Europe and China?

MR. NOVICK: Can you just can you repeat that? You said --

MR. VON SCHRILTZ: I'm sorry, maybe I'm talking too quickly.

MR. NOVICK: No, no, we were --

MR. VON SCHRILTZ: So I understand your argument in the petition, one of your arguments, and I'm not sure that I heard this morning yet, but one of your arguments in the petition is that one of the factors that's going to drive Bombardier to focus its sales efforts on the U.S. market is the fact that in China and the European Union, the government intervention in those markets kind of compels or creates an incentive for airlines in the European Union and China to buy aircraft produced in Europe and China. So I'm

wondering to what extent has Boeing had any success in selling 100 to 150 seat LCA in Europe and China, giving these barriers?

MR. CONNER: Well, the same barriers exist and, you know, if you go back in time, our market share has dropped pretty significantly. And now with the advent of the C-919, it just flew for the first time last week, the China airplane that's 150 seat airplane, it will become more difficult for us to penetrate that market.

Similar to Airbus, I think we penetrated the Chinese market equally, because there was nothing at that point that could compete with those airplanes. The European market's been much more difficult to us because of the Airbus connection there.

MR. VON SCHRILTZ: Thank you. Now you mentioned that for sales to airlines in 2018, Boeing could have agreed to deliver the 737-700, even though the MAX 7s aren't available, Boeing was perfectly capable of satisfying orders for 737-700s in 2018.

But would the fact that Boeing hasn't delivered any 737-700s since 2012 in the U.S. market at least, would that discourage airlines from purchasing the 737-700 or would that force Boeing to make perhaps price concessions to sell the 737-700, particularly when all airlines know that a better model is coming up, the MAX 7, but not until 2019?

MR. CONNER: It could. We -- I'm going to go back to the fact that most of the 700s were sold in years prior. That's why I'm focused on the replacement market for the -- that size airplane. And there would be a -- there's a significant number of airplanes that were all delivered in that period of time. I think at this point, they're moving towards the replacement cycle and that replacement cycle's going to occur over the course of the next few years.

MR. ANDERSON: I think -- this is Chuck Anderson. I think it's also important to remember that the United sales originally were 700s that would be delivered during this period. United then changed its fleet strategy. But it all depends upon sort of the timing of the particular airline's fleet replacement schedule. So there definitely would be a market for the 700 during this period if, you know, fair prices prevail.

MR. MCLAIN: Pat McLain and contrary to what you heard from the respondents in the opening remarks, United, so this directly responds to your question, United had before it the C series and the 737-700, which supposedly has exited the market. And United chose the 700.

And our petition details what competition primarily against the CS 100 did to 700 prices, dramatically dropping them. And that had a huge, that would have had a huge impact on Boeing's operating margins, but for the fact

that the Delta deal happens. And then United says we don't want aircraft in this space right now. Thanks.

MR. NOVICK: Just Bob Novick for the record. There was only one thing in the respondent's opening statement that I want to at least clear the record. And I think Mr. Conner tried to. They suggested that Boeing pushed United to upgauge to move the 800. That is completely false. United made a decision about what it wanted to do. It made some -- there's public information on their changing they're strategy in terms of the capital they want to spend. And that was the reason that there was a change. That would not because Boeing pushed them in that direction.

MR. CONNER: We would have actually had preferred not to do that.

MR. VON SCHRILTZ: Thank you. Let me see if I have some additional questions you haven't answered. Well, I'd like to kind of follow up on a question that I asked earlier about exports. You know, given the importance of exports to Boeing, to what extent would Boeing's exports of 100 to 150 CLCA attenuate the impact of subject imports on the domestic industry's performance in the imminent future?

MR. NOVICK: Was the question to what extent will exports --

MR. VON SCHRILTZ: Exports, that's right. So if

say 90 percent of the MAX 7 are going to be exported, you know, would that attenuate the impact of subject imports on the domestic industry?

MR. NOVICK: Well, sure. But it's not going to happen. I mean, the reality is that you're not going to be able to -- you may not even have a program if this continues. You may not have a MAX 7 to sell, because the effect of this pricing if you have to mean it, is going to be you're not going to generate enough cash flow to even to keep the program going. Or you're going to be selling at such depressed prices, that it's completely uneconomic.

The notion that a foreign airline is going to buy the MAX 7 at a price that's different than if you get a competitive product for at something, whatever percent below that, is just not real. So it's just -- it's not in hypothetical terms. Sure, if you could sell your entire production line to some other country and, you know, you wouldn't want to get into the U.S. market anyway, you'd probably be fine, but that's not a reality in this industry.

MR. ANDERSON: And I'd just like to add, it's important to realize that the conditions of competition here, with some exceptions, such as the size of the U.S. market, which by the way, reduces the hypothetical that you put forward, the exports will never be that large within

this segment okay.

But the rest of those conditions of competition prevail worldwide. So Boeing can't be bailed out by making money on export sales. It's going to face Bombardier. It's going to face Airbus and every other single market of the world. So to make the argument that Boeing that could somehow, you know, get itself out of trouble or is not injured because it makes boatloads of money on exports I think is -- there's just no basis for that whatsoever.

PROFESSOR NICKELSBURG: Jerry Nickelsburg. Let me address the question a little differently by talking about the nature of the market. So in my remarks, I indicated that the U.S. market was an ideal market for the 100 to 150 seat aircraft. And that's because of the geography in the U.S., the size of the airlines, their business plans, and the dispersion of population in the U.S. And you don't see that in the foreign markets.

So foreign airlines, if they look at the U.S. market, and see that marquis airlines in the U.S., where the aircraft is ideally suited, have chosen not to choose that aircraft, that will have a significant impact on commercial momentum. And so the idea that, no, the U.S. airlines do not take this aircraft, but foreign airlines will, I think, is not correct because of the nature of the U.S. market. And this is really the market that makes or breaks this

market segment.

MR. MCLAIN: Pat McLain. If I could just follow up.

MR. VON SCHRILTZ: Please.

MR. MCLAIN: So, you know, what -- I can see if a person is just looking at say Boeing's questionnaire response in isolation and you say, gosh, you only made 10 deliveries in 2016, which is a public figure. And none of those were to U.S. commercial customers, but you seem like you're doing okay. I guess this is just a business where Boeing doesn't sell at all in the U.S. market, just does exports, and does okay. And I think Mr. Conner can address about whether you would have a viable business in this industry if you just sold about 10 airplanes a year.

MR. CONNER: That's a short answer, but very hard to do. Given the investment that it takes to do that, it's very hard to do. And the -- and back to the disruptive element of the production system of just doing kind of one off airplanes every once and a while, it's so disruptive when you just do that. It makes it very, very hard to maintain a consistent production system all the way back up through the supply chain so we can be cost effective on the other airplanes that we're actually producing.

MR. VON SCHRILTZ: Okay. Thank you very much for your responses. I have no further questions at this

time.

MR. ANDERSON: Thanks, Mr. Von Schriltz. I just want to tie up a loose thread before I turn the microphone over to our economist, Ms. Christ. Talking about the replacement data, if you have data that you could share with us in a post conference brief, the volume that you're anticipating and the years and then how you think that might fit into this previous discussion of eminent.

If we're looking at eminent being more than a year or two, where does that replacement market and the volume of that market fit into this? And then the follow on to that is your brief mentions the expected production of a like product by Airbus inside the U.S. And so, how should the Commission look at that when we're looking at eminent and what the U.S. market is. This is all very squishy. This is all out in the future. How do we account for that? We're so used to looking at something within a three year POI and have solid data and solid numbers pry provided by parties and public data and so forth?

MR. NOVICK: We'll be happy to do that. Happy to do that.

MS. CHRIST: Thank you. I would also like to reiterate everybody here's gratitude for you coming and helping us to learn more about this very different and complicated industry.

Some of the questions that I have will be springboarding off of some other questions that you may have already heard. And also, if it's easier to give a brief answer and provide additional explanation in your post conference brief, feel free to that as well.

I'll start with if you could just either briefly now or in your brief provide some information about the global aircraft to market, particularly the subject in terms of you mentioned the 1 billion versus the 4 billion. What are the main markets? And how does the LCA fit into those markets? And who are the main competitors in those markets and terms of how much is Boeing, Bombardier, Airbus competing in those markets just so I can get a global picture of what I think is a global industry in a global competitive landscape?

MR. NOVICK: Bob Novick. We'll be happy to do that.

MS. CHRIST: Second, what is the role of used and refurbished planes in this market? Are they competitive and substitutable? I know that you mentioned something about the residual value that companies take into account. How does the used and refurbished airplanes factor into competitiveness?

You mentioned that for United, it was a competition between 700s and the CS, the C100s. I'm gonna

get my acronyms correct eventually. But then Delta came out and was looking for -- you had provided them with some refurbished or used aircraft. Could you explain to me how the competitive dynamics among those three?

MR. CONNER: Yeah. Specifically in the Delta case -- we have worked with them over the course of the last few years to satisfy a particular need with used aircraft. They have taken a strategy that has been extremely successful over the course of the last several years here to go in and acquire a lot of very relatively new, used airplanes to satisfy some of their market demand.

And we have been participating with them in order to give them the -- provide that kind of lift. And that was the approach that we were taking in this particular case, because that was kind of the way we were working with them, and they said that was the appropriate path to go down.

If you can get an airplane that is at an appropriate price, and you can get the refurbishment at an appropriate price, and it still has a long economic life left to it, and you're not as concerned about maybe some of the advanced operating performance, buying a used airplane sometimes can be a more economical solution for the market that you're gonna wanna play in.

That was kind of the approach that the Delta

team was going down in this particular case, and then now they've moved into buying the new airplanes and CS100s and getting that for the CS300s. But you can take that approach, and many airlines do. Allegiant is another airline that does a similar type thing. Sometimes airlines do it on a one or two basis, not big numbers.

But Delta, for instance, has taken a strategy that has been more about taking large quantities of airplanes, relatively large quantities of airplanes, and bringing them up to speed. But they've gotten relatively new airplanes, so they're not totally worn out. So used airplanes are part of the total economic equation at times. And we deal in both.

MS. CHRIST: To the extent that you can provide some data about share of sales, if you know for your firm in this in-scope product area that's either new, refurbished --

MR. CONNER: We can try. Yes.

MS. CHRIST: -- if others as well, that would be helpful --

MR. CONNER: Yeah, we can try to do that. Yeah.

MS. CHRIST: Give some data to that.

MR. CHARLES ANDERSON: If I could just add -- sorry, Chuck Anderson. You know, starting at 64,000 feet, an airline really has three choices. They can either buy new aircraft, they can continue to operate their old

aircraft, or they can go on to the used market and buy a used aircraft or lease any of the three above.

But the real critical factor is total operating costs, and the biggest, perhaps the biggest factor, other than fuel on total operating costs is the price of the aircraft itself. That means if the price is right, then you can have competition between used and new aircraft. Typically you don't. That is, an airline is essentially taking a position that, looking at the overall operating costs, it's more efficient to go on the used market.

When you buy used aircraft, your operating costs are higher because your maintenance costs are higher. You go to new aircraft, you have far less maintenance costs, but then the used aircrafts may be less fuel-efficient. So it's just sort of a, you know, this calculation you use to figure out which is the most cost-effective for you.

Generally speaking, and Delta is probably an exception, most airlines that essentially are looking at their fleet needs for the next X years out, will either say, "I want to go for used aircraft," or "I want to go for new aircraft." What's remarkable about the Delta sale is basically that the Bombardier price came down so low that it was competitive with used aircraft, and that's just almost never the case with the new aircraft.

MR. NOVICK: I'd like to just take that one step

further. I think we've said it before, but I think it's important. We heard in the opening statement the notion that, you know, no harm to Boeing, they didn't compete, it was a used aircraft, you know, the 100s, different than other things, which none of that we agree with, of course.

But when you look at what the sale ultimately was, as Chuck Anderson said, at the end of the day, it became a new aircraft sale of a great airplane at a very, very low price. But that wasn't all it turned out to be. It was the right of Delta to take, of those seventy-five planes, to have forty of them be CS300s at prices that are confirmed, and the fifty additional can also be CS300s.

So what started with a request for the used regional jet--let's call it--or used airplanes, ended up with a purchase of a hundred and twenty-five planes, ninety of which can be CS300s, which I hope and expect we will not hear, don't compete with the 737-700 and Max 7. So it is really important to understand what happened there, and not think of it as a competition between used aircraft and this brand-new plane that somehow was priced to a point where it was just as good as buying used aircraft.

There is much more going on there and that's part of the harm to Boeing because the pricing of the CS100 alone directly harms Boeing by depressing the price, but there's also a price transmission effect associated with the

CS300. That plane -- every airline in the -- aside from Delta being able to buy that plane, therefore locking Boeing out of having opportunities to sell that plane to Delta unless there's some new competition for it, every other airline in the market knows what that price is.

They know what they price is. And so if Boeing has to compete, it's Max 7 or 737-700 against a CS300, that's the price it has to compete with. And that price is a dump price. It's a price that Boeing will -- if it wins the sale, it'll cost it dearly and if it forfeits the sale, it'll reduce its market share even more, and further make the 737, the Max 7 vulnerable. So I just -- there's a chain there that's important to make clear.

MR. CONNER: Ray Conner. And taking into account the used airplanes that we were working with, were used airplanes that were already in their fleet. They already have established fleet for those. So that, for them to move into the new airplanes, it had to be a very compelling pricing scenario, very compelling.

MS. CHRIST: Just to clarify what I heard. That the initial request by Delta was for used regional jets. And that those used regional jets were reflected brands or models that already existing in their current fleet.

MR. CONNER: And that was a conversation that I personally had with the CEO and Chairman of Delta Airlines,

Richard Anderson, asking me to get more 717s and the E190s.

MS. CHRIST: I'd like to ask about the relationship between the subject airplane and other types of airplanes. Do you negotiate simultaneously or bundle sales of the in-scope with out-of-scope product? Out-of-scope airplanes?

Like would you, when you're discussing with an airline, is it strictly, this is how many of the 100- to 150- large civil aircraft, and we're negotiating those, or is there simultaneous discussions for other smaller or larger aircraft at the same time. Are there bundled sales?

MR. CONNER: Sure. I mean airlines are trying to match specific airplanes to a specific demand within their fleet, yes. We would do that -- we would do it with wide-bodies, we'd do it with narrow bodies or a combination thereof.

But just to emphasize, these are usually large quantities of airplanes that we're talking about here. So I go back to the point is that when we're negotiating these deals, these are typically not one airplane or two airplanes. These are probably hundreds of airplanes that are gonna carry over in delivery timeframe of sometimes as far as ten years.

So losing one of those, you've lost for the next ten years, at least an opportunity. You'll never deliver

those again. And those airplanes will stay in those fleets for twenty years. And they will create a whole infrastructure around them and your ability -- you'll then come back twenty years later and flip those airplanes to your airplane is extremely difficult.

This is a high stakes game. It's one of the reasons why I love it. It's because it's immediate and you win or you lose. And that's what the competition's about. And we don't mind it, we like it, just want it to be fair.

MR. NOVICK: This is Bob Novick for the record. I just wanna -- you mentioned, you asked about subject merchandise competing across -- there, the subject merchandise doesn't at present, the Bombardier only has the planes in the 100- to 150-Seat market. They've talked about publicly, possibly a launching a CS500 to compete with Boeing's 737-800 and Max 8, but that's not--at least to my knowledge--currently a plane that they've offered.

Maybe they will in the future campaigns. I just wanna be clear. Mr. Conner was talking about the like product and what Boeing's offering is the subject merchandise right now is only in the 100- to 150-Seat market. But I don't know whether they're gonna be offering a CS500 in the future.

MS. CHRIST: Okay. I just wanted to get a better idea of whether or not you -- when an airline company

comes to you --

MR. CONNER: An airline company could come to see and say, "Okay, give us an offer for, you know, the whole family," right? But they could carve out that piece of the segment. They could carve out the 100- to 150- and say, okay, we're gonna do something different there. But, so we actually compete in every single element of the segment. What you'd like to do is win the whole family, but you know, sometimes they carve that out.

MS. CHRIST: You actually started along the next -- oh, did you wanna follow up? Okay. Follow up on actually the next question I have. So taking a couple pieces of information, it seemed in your -- you've mentioned a couple of times that it looks like, that Bombardier has intimated that it's moving into the larger civil aircraft sizes.

You also mentioned that the development schedule for the Maxes was the 8, 9 and the 7. Is it a necessary stepping stone to a larger civil aircraft, the 100- to the 150-, and if so, is that the same for derivative models such as the Max 7, 8 and 9?

Is it necessary? So, for example, you also mentioned that China just launched the 919? And the 150? Do they have smaller models? Do they --

MR. CONNER: They have a RJ21 that they do -- I

would imagine where they're going. I haven't seen their plan, but they're gonna start with the 150, they will probably move up. You typically, when you're gonna create a family, you start with a smaller and then you expand it, so the CS100 and then the 300 and then we'll move to the 500.

You know, we did a very similar thing. Back when we did the NG, we started with the 737-700, then we went to the 800, then we went to the 900. This time, we started with the Max 8, and then we went to the Max 9, just because of where, for the airlines, where their push was, and then the Max 7. But you typically build off of airplanes to create the family. That's some of the --

MS. CHRIST: So the smaller size LCA, would you say in the long-term development of an aircraft company, is a necessary stepping stone or precondition for a larger size models?

MR. CONNER: Typically, yeah.

MS. CHRIST: Okay. I'd like to switch it a little it to some supply related questions. With this industry, obviously there's challenging to the normal sort of capacity utilization estimates and calculations that we have. Could you give me some idea what the overall limitations are to your ability to quickly shift production? I understand there was discussion, you know, one of the things that manufacturers look at is the book-to-bill ratio.

How easily can you adjust your book-to-bill ratio, and what are the constraints or limitations on that?

MR. CHARLES ANDERSON: Let me start. Are you talking about increasing production or shifting production between types of aircraft?

MS. CHRIST: Ability to increase production of the in-scope product, right.

MR. CHARLES ANDERSON: So essentially to increase the production, you basically have to have a healthy book-to-bill ratio that'll justify the pretty substantial investment to increase what's called your production right. That is, the factory is currently configured to produce a certain rate per month or certain rate per year.

That's really, in this industry, it's quite a bit different. It's based on your, essentially your orders. Because you cannot build white-tails. It's extremely economically damaging to do so. At no point do you have excess capacity. It's normally understood in ITC terms.

So what's really relevant is whether or not absent imports you could increase your, essentially, production rate, which means increase your capacity. So in the end, your capacity really is tied very much to your, essentially, your ability to win orders.

MS. CHRIST: So how much time would an airline

customer have to give you in terms of lead time, to increase that rate per month or rate per year?

MR. CHARLES ANDERSON: I think we have some data on that, but I think we would prefer to provide that in the post-conference brief.

MS. CHRIST: That would be helpful.

MR. CONNER: I'm a little more aggressive in this particular area. Because I know how important the orders are with respect to production rate. If we get the orders, we are going to -- depending on where the airline wants -- if Delta was to come in to us and say, "We want airplanes in X period of time frame," we're gonna go do everything that we can to go fulfill that order. We're either gonna move, go work with our other airline customers and have them move and do some things, and we do a lot of that.

Or if there's enough orders, if they come in with a large enough order, we'll take our production rate up. And we will match our production rate to the orders. And we will take it up. We typically need, you know, two years or so to do that, to get the supply chain ready to go, and to move that up, but we'll take the orders up and increase our production rate. And we've done so over the course of the last several years, in terms of what we've done on our single-aisle airplanes. But we are more than

willing to take our production rates higher to satisfy orders.

MS. CHRIST: So in terms of that production rate and what you need to increase, what is the role of the components? So you turn around, you mentioned that when you get an order, you start reaching out to your component builders. How do they serve in terms of those components? How are they specific to a particular customer? So If you get an order from Southwest and you get an order from Delta, are your component producers producing the same product? Or are they specific --

MR. CONNER: You know, for the most part --

MS. CHRIST: -- to the customer?

MR. CONNER: -- we try to maintain, to try to make things as common as possible, particularly in the basic airframe and the basic wiring and electronics. We get into uniqueness in certain configurations. And sometimes we call that buyer-furnished equipment. That's the equipment that the airline would be providing to us.

They have a contract, like, for instance, they buy the seats or they buy the galleys or they buy the lavatories and those kinds of things. So then they would have to go out and do that to help support our production rate. But typically it's really our supply base that then has to be able to deal with the production rate. That's why

we gotta get those lead times or two years, because we've got to get to them and get them and increase production scenario.

MS. CHRIST: And do the component suppliers supply other producers? So do component suppliers --

MR. CONNER: Yes. Yes.

MS. CHRIST: -- supply Airbus and Bombardier?

MR. CONNER: Yes.

MS. CHRIST: And Boeing?

MR. CONNER: Yes, they do. For the most part, we don't have as much overlap as you would think, but there are, in some instances, overlap. We're about, on average, 85% done in the United States, and they're a little bit less. Most of their stuff is done in Europe.

MS. CHRIST: And I believe Karl touched on this a little bit, but just to follow-up, specific, how does the introduction of a new model plane, such as the Max 7 and the 700, how does that affect the pricing of the prior model?

MR. CONNER: Usually when you're bringing in a newer model, you're bringing performance enhancements and if you're having to fill the gap between the older model and newer model, depending though, if an airline really needs the airplanes quickly and fuel-burn or whatever, what we've ever, has improved, has not been a big driving force for the airline, then we don't see as big of a, a price degradation

or gap.

But we put that all into our projections when we look at a new airplane, in terms of what it's gonna do to the existing airplane from a financial perspective. There is some degradation at times. I wouldn't say that there's not. But typically it's not too bad. And because you're tending to deliver the airplanes earlier and timing is really good and then they tend to use those later deliveries as the airplanes that they replaced last with the new products.

Because they've got so many airplanes that they've already got it replaced, and they'll use the new products to replace those and then they'll run the older ones for a longer period of time and -- because they can't get all the replacement done at one particular time.

MS. CHRIST: And you've discussed and used the term new model versus derivative model. Could you give me some idea of what distinguishes a new model and what kind of enhancements distinguish a derivative? So is the Max 7 a derivative of the 700?

MR. CONNER: Yeah, it's a derivative, but it has completely different aerodynamics. The flight deck has been changed. It's a major derivative. It has new propulsion system, wing enhancements. It has a new AF-48 section. We've done a lot of different things to that airplane. It's

been a significant investment on Boeing company's part. The significant engineering change on the Boeing company's part to bring that airplane to market.

MS. CHRIST: So what would constitute a new model? Relative to a derivative model?

MR. CONNER: Well, that's a completely new design with respect to a clean design.

MS. CHRIST: Okay. So sort of starting from scratch, so to speak?

MR. CONNER: From scratch, yeah.

MS. CHRIST: Okay. So you've mentioned that the Max 7, the Max 8, and the Max 9 were announced at about the same time? Do they share any technological innovations across them, so these things that you mentioned that were new to the Max 7 relative to the 700, are those also shared for the Max 8 and the Max 9, and does that affect the ability to more quickly produce or the cost of the Max 7 relative to its predecessors?

MR. CONNER: Yes, it does.

MS. CHRIST: If you could give some more information on what kind of technology shared across those as --

MR. CONNER: Exactly what I said.

MS. CHRIST: Okay.

MR. CONNER: New propulsion systems, new flight

deck, new wiring, new AF-48, new aerodynamics, new wing enhancements, new winglet, all those -- we take those all the way across.

MS. CHRIST: So in terms of your customers, you've mentioned -- so the airlines -- I'd like to get some idea of the demand drivers in the industry. How has the airline industry changed over time in terms of the fleet size, the number of routes and the types of planes that they use on those routes, specifically with the airline consolidation. You know, I think some -- a couple of the metrics that are often used are the number of routes and the load intensity. Right? How have -- and you can do this in your post-conference briefs, but how have the number of routes that airline industries use, or the load intensity, the number of routes, the load intensity and how they're affecting the demand, not only for airplanes overall, but specifically this type of plane, given the lower density markets that you saw are where the demand for this plane is situated.

MR. NOVICK: Why don't we do that in the post-conference brief?

MS. CHRIST: Now, you mentioned this a little bit earlier when you were talking about the Delta sale in terms of the used product that you were planning to sell, and that fact that it was consistent with the established

fleet. Could you talk to a little bit more about the fleet complexity and how that factors into airline decisions in terms of when they weigh, which firms to purchase aircraft from.

PROFESSOR NICKELSBURG: So fleet complexity or a commonality across the fleet is something that's often talked about and if you think about a small airline, you wanna have as much commonality as possible, so if you only have five or ten aircraft in the airline, you wouldn't want to have five or ten different types of aircraft, because it wouldn't be any sharing of costs, of spares, inventory, pilot training, and it is more difficult to reroute aircraft in the case that one of them is AOG or Aircraft on Ground for maintenance.

When you get to larger airlines such as the ones in the U.S., after all of the consolidation, commonality becomes much less important and so what we see in the large U.S. airlines is a lot of mixed fleets. So if you have a fleet that is anywhere from twenty-five to fifty aircraft, well, then you're gonna buy a new simulator anyway for flight training. You're going to have separate spares, or additional spares inventory.

There's not a lot of sharing across fleets. And you don't get a lot of commonality going from fifty to a hundred. And their part becomes much less important in the

decision of the airline. And that's why you see, you know, for example, with large U.S. airlines, acquisitions from one manufacturer of 165-, 170-Seat aircraft and from a different manufacturer in the 100- to 150-Seat market. So commonality becomes much less important to the market we're talking about.

MS. CHRIST: You mentioned that the sale to Delta includes an option to convert to the CS300 and that also at some point, United shifted its contract for the 700s, I believe, to larger models. When you're selling and you've got a contract and there's options, how often are the conversion options explicitly written in the contract outside of subject scope product? So how often would a written contract for 700s, Max 7s, CS100s, 300s, a contract for that particular product, how often would the options that are written in the contract include out-of-scope product?

MR. CONNER: Like a wide-body?

MS. CHRIST: Yeah, so it's like they purchased the, you know, the seventy-five CS100s, and they were offering the 500s, how often would the options in a contract specifically allow for the ability to purchase out-of-scope product?

MR. CONNER: Yeah. There are times when you would say, we're gonna do substitutions, but of equal dollar

value, you know, so you created, you know, $100 million of single-aisle, but you'd have to buy at least $100 million of wide-bodies, that doesn't happen very often. It typically it stays within the product size because that's what the competition has been focused on.

We do tend to stay, you know, more along the lines of options to buy a, you know, a member of a particular family like the CS100 to the CS300. And since they haven't launched the -- you know, maybe there's something in there that says "subject to the launching of the CS500, we'd want to have the ability to just switch to that subject to the negotiation of the price and performance and those kind of things.

MS. CHRIST: But that's a different case than the United?

MR. CONNER: Yeah, United was not -- that was not the case. United actually -- there was no provision in there that said that they could move to another airplane. They actually just came to us and we accommodated. They wanted to do that, and we accommodated that request because they are such a good customer of ours.

MR. NOVICK: I'd like to just follow-up. Bob Novick for the record. Just note the timing of that switch. That switch for United occurred after the Delta sale. And so just for the timing, from a chronological standpoint,

it's important to note that, so United now, at least had been in the market for a product that was in the 100- to 150-Seat market. It's now -- it bought Boeing planes after the Delta sale, it converted. At Boeing, it allowed them to do that. So there's a, if you will, an open market in the 100- to 150-Seat market where one can imagine that United may need to fill that.

MR. CHARLES ANDERSON: And this is Chuck Anderson. I just want to jump in just to emphasize, that doesn't mean, just because you have an option to upgauge doesn't mean that those two aircrafts are interchangeable. Not at all. There's still millions of dollars in difference in price, but airlines put in orders.

They put in options for the very good reason that, you know, they're not quite sure of what their fleet demand's gonna be, depending on how traffic and route structures develop. So they like the option. But when they choose to switch out, from one plane to the other, that's because they think that the other plane meets the particular need for their fleet.

So it's not just that they're interchangeable. It's just that the airlines want that option because they're buying for something of a moving target, if you will.

MR. MCLAIN: If I could just add. Pat McLain. With the Delta sale, it's instructive that Delta was so

interested in the CS300 that they negotiated rights on ninety CS300s, so well over half of the aircraft in the total deal for one hundred and twenty-five aircraft. They locked in pricing for the CS300.

And whether or not Delta actually exercises either those substitution rights or those options, all of Delta's airline competitors in the U.S. market must act as if they will. Because if they -- and I think Ray or Professor Nickelsburg can add to this.

If they get locked in to long-term Max 7 deals where they're taking Max 7 at the fair-market prices, and operating those aircraft for ten to twenty years, they're going to get killed competing against Delta's CS300s. And they have to act like those Delta CS300s are coming, regardless of whether Delta does exercise that or not, because that pricing is already at the Delta price.

MS. CHRIST: Could I -- you mentioned in the petition that there was a sale to Republic Airways. Given the propensity for price discovery and transmission, how did that impact either commercial momentum or the lighthouse effect when that occurred?

MR. MCLAIN: The Republic sale was before Bombardier got its subsidy infusion, so we don't have the same kinds of evidence that it was so far below cost and below fair value.

MS. CHRIST: Do you have any idea what those costs are? Given the price transmission and discovery --

MR. NOVICK: This is Bob Novick. Not on the Republic sale. But there is confidential information on the record where you can see where prices were at one point in time against where prices are today. You have that. And I can't speak about it further obviously.

MS. CHRIST: But to the extent that that particular sale that happened at the time and how that affected the conditions of the market differently than the Delta? If you could provide some follow-up, why that sale in and of itself, did not pose the kind of concerns that you've presented with the other sales, I'd appreciate that.

MR. NOVICK: We will do that. The only observation I'd wanna make is what I said in my opening is that, Bombardier, it appears, in fact it's clear, changed its pricing strategy. For many, many years, it seemed to be operating in the market, trying to sell at a commercially reasonable price and was not succeeding.

So the pricing that preceded the $2.5 billion equity infusion, Bombardier, again, using its own words, was on the brink of bankruptcy. There are quotes by the CEO. In June I have here, saying we should just shut, we have to shut down the program. And then they got $2.5 billion dollars from Quebec and then their pricing strategy changed.

So very different set of circumstances. They weren't able to sell their plane successfully at market prices for many, many years.

MS. CHRIST: And you mentioned the quality of the airplanes that a manufacturer has in its future sales? You have to discuss the, your at-risk planes. How does the quality of this -- of the order book. How does the quality of the order book, particularly the amount that are categorized as at-risk sales, affect the ability, the pricing of those products, as well as the ability to pick up commercial momentum?

MR. CHARLES ANDERSON: I think we're gonna see a lot more about that in our post-conference brief because it involves a lot of confidential data. But just to give you a general idea, essentially it's extremely important to have a solid order book for a new aircraft, especially a new aircraft, because you have such a steep learning curve.

And the way to get down the learning curve is to have solid deliveries over the first five years. The faster you can get down the learning curve, the quicker you're gonna achieve, break even and the greater the likelihood the program overall be a financial success.

If those orders are at risk, that is a certain percentage of them are with airlines that are financially shaky, or with leasing companies that aren't on solid

financial grounds, then you will need to have more orders than essentially delivery slots just to basically cover the likelihood that some of those orders will disappear.

This is a big factor in this case, because it points directly to, I believe, the likelihood of U.S. sales in the future. So we'll discuss that more in our post-conference brief.

MS. CHRIST: And I think finally to the extent that you can provide -- this might require a little more research, but to the extent that you could identify and list the types of either production factors, as you mentioned, the FAA tooling certification, and/or operating characteristics, such as the requirement for a two-person flight crew or the pilot rating that is required for particular type of planes. If you could identify those characteristics that are specific to the in-scope product, that would be -- and relative to --

MR. NOVICK: To differentiate, there's a problem with the product that is not in scope. Yeah, we will provide a full list of all of the particulars that demonstrate that they're not the same product.

MS. CHRIST: I'm sorry. I had actually one more thing. If you could mention the role of FAA worthiness directives in the overall competition among airline manufacturers and production processes.

It's something that's new to me, so if you have ability to speak to whether or not it's something that we should look into as a condition of competition, the ability for different planes and how that factors into the assessment, the purchasing factors for airline companies.

MR. CONNER: The air worthiness directives typically come out some time after the airplane's been in production for some time. What will typically happen, we'll get a FAA certificate on a new airplane, and then we'll get our production certificate that will occur for each model, like, for instance, we have a FAA cert now for the 737 Max 8. We will get an FAA cert for the 737 Max 9, and then we'll get an FAA certification for the 737 Max 7. We'll get a production certificate for each one of those as well.

Which essentially says that we are following all the procedures of processes that we said that we were going to do in order to produce the airplane. The certification that we receive on the airplane says the airplane conforms or complies to all of the engineering requirements and such and all the safety requirements of that, that are required for that airplane. And that happens on every single model.

MS. CHRIST: Thank you. And I certainly moved up my own learning curve right now. Thank you.

MR. YOST: Charles Yost, Office of Investigations. I wanna join my colleagues in thanking you

very much. This has been very, very informative. I have just a couple of follow-up questions to those of my colleagues. The first one is just the follow-up to the question that was just immediately asked. Is each airplane then air-tested? Or the engines are run in and so forth and that takes what? About forty-five days?

MR. CONNER: No-no. Each derivative of the, like, the Max 8, it's about a year-long certification process. And then we go to the Max 9, it'll be slightly less time, because you'll have been able to utilize some of the other things. But the same thing will hold true if it drops back in maybe ten months. And then the same thing would hold true when you go to the dash 7. Each one carries its own certification.

MR. YOST: Okay. So that's the model certification?

MR. CONNER: Right.

MR. YOST: Then each aircraft also goes through a airworthiness certificate, or rather its own certification that it's --

MR. CONNER: Yes. And then when we go to deliver an airplane, you know, whether we've delivered a thousand or doesn't matter, every single airplane gets an FAA certification. And then up here, what you're delivering to the, um, to an international airline as well, they

provide their cert, too. Sometimes they just, sometimes they utilize the FAA certification and buyout from that, but --

MR. YOST: So certification of each airplane, does that take a long time? Or is that --

MR. CONNER: Oh, no. Once we've gotten in, once we've gotten the ticket, the airworthiness ticket for the basic family, then we got through a series when we go through the delivery process, we'll do a Boeing flights, and then we'll do customer flights that will then provide the ticket, the FAA ticket to be able to deliver that airplane to this specific customer. And that happens on every single airplane.

MR. YOST: How long does that take?

MR. CONNER: Well, that's not -- that takes days. But the initial certification takes months.

MR. YOST: Then I think you had answered a question about development of each model within a series. And again, you mentioned winglets and the fuselage, the tail assembly, the reverse thrusters, the etcetera, etcetera. And so each -- that development also takes a fairly long time --

MR. CONNER: Years --

MR. YOST: -- and if I, if not in months, at least --

MR. CONNER: That' years.
MR. YOST: -- in years.
MR. CONNER: Yeah
MR. YOST: Does that require specialized tooling to produce each model? I'm wondering about the interchangeability. The tooling between the Max 7, the 8 and the 9.
MR. CONNER: The Max 7 has some specialized tooling. We are able to utilize some existing tooling on the Max 8 and the Max 9 to the Max 7. But the Max 7 does have specialized tooling in the areas that it's unique.
MR. YOST: And does the tooling for the Max 7 differ from that used on the 700?
MR. CONNER: Yes. It can.
MR. YOST: Okay. If you, in the post-conference, if you would try to quantify or qualify what those differences are, that'd be helpful.
MR. CONNER: We can.
MR. YOST: I have a question. What's the effect on sales of the 700 and/or the Max 7? Caused by trading commitments or contingent repurchase agreements?
MR. CONNER: Maybe I --
MR. YOST: Would you see sales of these models go up because you had put in the contract and, you know, after a certain amount of time, Boeing is then obligated to

provide you with a trade-in commitment or repurchase?

MR. CONNER: Sometimes there are negotiations that entail buyback provisions or -- but typically we would do that if we were replacing it with another airplane. So we would say we'll take out your older aircraft in light of replacing it with a newer airplane. And we will negotiate the take-out price, take-out conditions, those kinds of things, and then we would then turn, try to turn around and sell that on the used airplane market.

MR. YOST: So, for example, the 737-700 that was produced ten years ago or thereabouts, you might take that back, transfer it to Boeing Capital, and Boeing Capital then leases it? But the customer then buys either a new model or the Max 7 or something comparable.

MR. CONNER: We could do that. Not typically something that we like do, but just depending on what the situation is. You know, we would entertain it and try to come up with the best solution possible for both parties.

MR. YOST: Okay. In post-conference, if you could quantify the repurchase and contingent trade-in for these 737-700?

MR. CONNER: Okay.

MR. YOST: That'd be helpful. Doesn't -- when you grant an option or the customer wants an option to purchase additional aircraft, does the customer pay an

option price?

MR. CONNER: They pay option deposit.

MR. YOST: I'm sorry?

MR. CONNER: Deposit.

MR. YOST: Deposit?

MR. CONNER: Yeah. We would negotiate an option price and then they would pay an option deposit, which would thereby hold that delivery position for them for when they wanna exercise that option.

MR. YOST: Is that the same price as you normally charge, when they make a firm order?

MR. CONNER: No, it's not. It's different, because it's further out. But it's a price that we feel is appropriate in order to hold until delivery position. So what they're really doing there, Mr. Yost, is that they are -- they're securing and holding in delivery position some time in the future, and then there's a fee to be able to do that.

MR. YOST: Okay. Thank you very much for your answers. That concludes my questions.

MR. CONNER: Thank you.

MR. MICHAEL ANDERSON: Thank you, Mr. Yost. Mr. Duncan?

MR. DUNCAN: My first question is directed to Mr. Anderson. In testimony you indicated that price alone

is driving the competition in the market. If so, how do you compare that to subject imports and domestic like product competing on price alone if, in the contracts, there's discussions of all these ancillary items and various bells and whistles for the aircraft under consideration.

MR. CHARLES ANDERSON: Sorry about that. Chuck Anderson. The point I was trying to make is, there are ancillary items. There are these differences in performance and operating characteristics. There are differences in seats, but they're all essentially monetized and valued. And that basically really gets you to what the final price is.

Essentially the way the airlines value these aircraft and figure out what price is good for them, is they take the potential revenue streams the they are estimating from the aircraft and then the potential operating costs. And that includes all of the ancillary items as well as the aircraft itself. And then an important factor in this calculation then is the expected residual value.

So in other cases, for example, in washing machines, you know, how do you value red or a color versus white. That's kind of subjective, right? And it may not be at all sort of related to its cost, but in this case the customer does, in fact, assign values to each of these. And Professor Nickelsburg, who has really taught me on this

issue, perhaps speak to it a little more.

But the way that aircraft pricing works is these things all essentially get assigned a value and then what is the variable in the end? The variable then is, okay, what's the price for the plane, and that's essentially affected by these different, what you sometimes call non-price factors.

MR. DUNCAN: It was indicated in earlier testimony that operators have a certain efficiency that they gain and maintain a certain level of fleet of a given aircraft model that then builds up an incentive for them to purchase more of that model. Does that operation of fleet efficiency bleed over from the 700 to the 7Max models? Or would you have to start over to build up that efficiency to maintain your fleet as an operator?

MR. CONNER: There is a lot of commonality between the ground support equipment and those kinds of things and there is obviously we try to maintain maintenance procedures that are very similar between the two. The big differences are in the propulsion side of things so it would be very different from a propulsion side of things and maybe some of the flight deck and those kinds of things but the structural elements in terms of being able to maintain the airplane are very, very similar. We've tried to maintain that as we've gone along. The big difference would be on the propulsion side because they would be learning a new

engine.

MR. DUNCAN: In terms of the concept of the orders for the scope merchandise being bunched where historically a lot prior to the current, the typical ITC period of the past three years plus a partial year period is when most of the sales of the 737/700 occurred. How much of that first cycle market share did Boeing capture?

MR. MCLEAN: Well, in the U.S. Market from 2007, so this is Exhibit 44 to our Petition, Boeing's market share from 2007 through 2012, basically it's from 2007 to 2016 was 70 percent of U.S. consumption. All of that was 2007 to 2011 plus one delivery in 2012. So historically Boeing has a very large share of the U.S. Market and one of the key reasons why we are threatened with material injury is now we are looking at a very different situation that is going to change next year. Something that's never happened before, that Bombardier will be a huge supplier to U.S. Airlines starting next year.

MR. DUNCAN: So that sort of answered my next question, what share do you estimate in the replacement cycle for the 737/700 which is going to be supplied by the 7Max do you estimate now with the Delta sales that you would have lost?

MR. MCLEAN: Pat Mclean for the record. As I said before, we're in a situation where Bombardier has

already locked in a 61 percent share of U.S. Consumption through 2021. The only way Boeing gets that down is by agreeing to depress prices on its aircraft. So it gets injured through price harm, through significantly lower operating margins, profits, revenues, etc or it just has to cede sales and Bombardier's market share goes up.
So we can't see any outcome in the near term where Boeing isn't injured.

MR. NOVICK: Bob Novick, just to talk about the sales openings, based on the orders and the deliveries for the 737/7 Boeing will have a 24 percent market share for the period 2018 to 2021 as compared to the 61 percent market share that Bombardier will enjoy as a result of the sales that have already occurred. So that's the world we're in right now. Just so you have the facts, that's where we are. Boeing down to 24 percent and Bombardier will go up to 61 percent of the market for the period of 2018 to 2021.

MR. MCLEAN: Pat Mclean again. If I could just add, this isn't all just sort of coincidence. As I said in my opening comments Bombardier believes it can take 50 percent of this market. That's its target and if you wonder where I have that information that's from a Government of Canada memo that was considering Bombardier's request for more subsidies. That's how closely linked the subsidies and the unfair trading and the penetration of the U.S. Market

is. Thanks.

MR. DUNCAN: I have sort of a threshold question. How do we measure imports of this market? What are the mechanics of the imports?

MR. NOVICK: Are you talking about Entry? When do the imports occur?

MR. DUNCAN: Yes.

MR. NOVICK: They occur when the airline brings the, typically what happens is the airline and Ray can speak to this better than I but it's at the time they pick up the plane. In this case we assume that Delta will pick up the plane at Bombardier's facility and they will fly it back to the United States and when it lands in the United States it will be an entry into the United States.

MR. CONNER: That's when you get your exports. That delivery.

MR. DUNCAN: Is this also the same situation in the case of a third company, a leasing company involved in the transactions?

MR. CONNER: Very similar. The leasing company would take the delivery of the airplane and then they would export it to, the operator ends up being maybe an international carrier. They would be a, that would count as an export.

MR. DUNCAN: Given that the scoped merchandise I

would imagine flies between U.S. cities and non U.S. cities, how does that play with the concept of an import? What keeps an operating product outside of the U.S. Market but flying it in for routes?

MR. CONNER: A U.S. airline is an in-registered airline and whether they fly that internationally or not it is still considered a U.S. airplane and then conversely if it's an international carrier that's operating into the U.S. it's still considered a U.S. -- it would be considered an export for us. I think that answers your question. I'm not sure.

MR. DUNCAN: Yeah, I think it does. Any more details that you have on the mechanics of that? The regulations involving that? That would be useful.

MR. NOVICK: Okay. We will provide them at the closing conference brief.

MR. DUNCAN: That's all my questions.

MR. ANDERSON: Okay. Thank you Mr. Duncan. Mr. Corkran, your turn.

MR. CORKRAN: Douglas Corkran, Office of Investigations and my thanks to all the Panel for being here today and for providing some very useful testimony to help us develop this record. I was really struck with some of the earlier testimony about the size of the Southwest fleet of 737/700's. Can you tell me a little bit about Delta's

fleet? Do they also have the 700's in their fleet?

MR. CONNER: Yes, I do. I don't have the numbers right off the top of my head but they do have 700s. Not to the numbers that Southwest has and I would have to turn to Greg May on this one. I just don't know to be honest with you I really just don't know but we could certainly find that out for you.

MR. CORKRAN: They're here, they might be --

MR. CONNER: Greg might be able to help you with that. But I believe they can help.

MR. CORKRAN: I was mainly using that as a precursor for another part of my question and I will circle back to Delta later, I'm sure. Okay, but in the Petition and you said essentially identical numbers later on, you noted that historically through 2007 through 2016 the Domestic Industry accounted for 70 percent of U.S. Consumption and then you noted that it would be projected to decline in the future and you've calculated as 24 percent looking in the out years.

Okay my question is this, I do follow the math of that but isn't the factual situation that you have a potential purchaser that is familiar with your product in the 100 and 150 seat range and was looking to purchase not only a regional jet rather than a large civil aircraft but was looking to purchase a used product. Why wouldn't one,

if you were looking at market share, why wouldn't you conceptualize that as Bombardier essentially growing the market for this product as opposed to a straight up shift in market share?

MR. MCLEAN: Pat Mclean. A couple reasons. First, what Bombardier did was grow the market through a means that is Congress has said is unacceptable. So we don't think it's appropriate to sort of bake in the unfair trading to how you just sort of start by looking at the market historically and going forward.

Second, the market share loss is inherently injurious in and of itself and it represents not just a competition between regional jets and the C-series but what it did was absorb demand that had Boeing been able to stay on course and meet Delta's requirement for used aircraft they still would have had this gap in demand for 100 to 150 seat LCA that that regional jet deal would not fill which explains why Boeing was willing to do it. They are not blocking themselves by doing that.

Delta comes in with an extremely dumped, subsidized price and now they have captured all of that demand. Now you have the price transmission effects from that and the market share figures convey how massive that volume is coming in and therefore that's indicative of how much that's going to impact all of the other customers in

terms of their pricing expectations.

MR. CORKRAN: Just so I'm understanding the volume part of that argument correctly is it your contention that market share change reflects future refurbishment of Delta's existing 737/700 fleet?

MR. CONNER: I mean, it could. I think; I don't know. That's a question I think we'll have to ask but if they have 700s and they go for the CS300 then that would be the likely replacement for the 700.

MR. CORKRAN: Okay, thank you very much. I appreciate those answers. Switching gears entirely, what does the concept of backlog mean in this industry and if you state your backlog in terms of X number of years of backlog is there any flexibility to that concept? That is, can you bring in a new order and shift the priority of filling that order even given your backlog?

MR. CONNER: Yes, we do that all the time. We look for opportunities to, if we're in a campaign and in particular with an airline of great significance to us we will look to fulfill those orders by moving other people around, increasing our production rates or doing whatever we need to do to put the airplanes in a place where they want the deliveries. So it's the shifting in the backlog in terms of years and things like that, yes we have the ability to do that and we have done that.

MR. CORKRAN: In terms of backlog, do you also have flexibility of shifting within the various size aircraft that you offer? That is, can you shift between the 737, the 700 and other size aircraft?

MR. CONNER: We can do that within an airplane type, like a 737. But again, we have to have the lead time to be able to do that. It has to be all within lead time because the supply chain is making those unique parts for that particular airplane so yes we can but again it has to be under certain conditions.

MR. ANDERSON: If I can just elaborate, Chuck Anderson. My understanding is it's possible up to about 24 months before scheduled delivery at which point you lock down a particular aircraft model and you cannot switch out because the lead time required for all the specific parts and components.

MR. CORKRAN: Looking at two of the specific transactions that have been mentioned today, the transaction involving United and the transaction involving Delta, to your knowledge did Airbus compete for either of those supply agreements?

MR. COOPER: That's part of the confidential update.

MR. NOVICK: I'll address that at the post-conference brief.

MR. CORKRAN: In terms of the workforce, what is your ability to -- do you cross-train workers between production of different size aircraft or is the labor force essentially dedicated to a particular model or size of aircraft?

MR. COOPER: No, we cross-train. Because we do this on one production line we have to have people that can be moved between airplanes but the reason why we wanted to have similar airplanes moving down the production line of type. That's one of the reasons why we do that. So we have to, people have to know whether they are working on a 700 or a -7 and hopefully it's not just one, they get an opportunity to work on a few of them in a row so they can maintain the learning curve and we don't have a disrupted state but yes, they work on all our product.

MR. CORKRAN: Thank you. Again I appreciate all the time the Panel has devoted to us today and at this point I have no further questions.

MR. ANDERSON: Okay, thank you Mr. Corkran. I'm going to visually scan my colleagues to see if they have follow up questions. Ms. Christ?

MS. CHRIST: Yes, in your post conference brief could you just follow up on one thing with regard to the monetization of ancillary components in the contract you mentioned that their price is the driving factor because all

components are essentially monetized. If you could elaborate on that with respect to certain characteristics, specific to delivery risk and order book quality. How does that get monetized into a contract? Or how does a purchaser potentially, also the location for a particular product in this lifecycle.

So for example if it's a new product versus it's established and has been time-tested. How might a purchaser monetize that in their purchase contract? And finally as I think we touched on earlier, the presence of incoming derivative models. How might those be monetized relative to the back of that presence in the purchase contract? Thank you.

MR. ANDERSON: Okay. Thank you very much for bearing with our questions. I just had one follow up question. I promise it will be the last one because I know I am standing between you and a lunch break, everyone in this room. on the contracts either now or in your post conference brief if you could help us to understand the pricing mechanisms.

My understanding is that this option within the Delta contract allows them to switch between the 100 to the 300. There must be a price differential I'm assuming in the contract so in your brief you quote the total value of the contract and you provide an average per plane price.

Wouldn't that price fluctuate or move depending on if they exercise those options and then the other part of the question is are there any kind of meet or release provisions or delayed production provisions where the price could change if you are not able to deliver on time, or you run into the supply bottlenecks with the parts systems, your Tier I, your Tier II and so forth?

Are there any ways since you're placing so much emphasis on this contract and the price of this contract and the per plane price, are there variables that could change that when you actually get to the actual delivery when Delta actually gets deliveries?

MR. NOVICK: We're happy to do that. What we would also ask though is that since that information resides with Delta and Bombardier and it wasn't -- I will just leave it there. You've got on the record that information from the actual contract. We, from public sources calculated the price. We, from our knowledge can tell you the relationship we believe exists between the CS100 and CS300 and we're pretty good, Boeing's pretty good but they know what the contract provisions are.

They know what the price is for the options for the CS300 so we would hope that the record would reflect that so we could all see it.

MR. CONNER: Ray Conner. Typically there are

provisions in place in a contract whether it's us or anyone else that for late delivery or those kinds of things so again that's with the individual manufacturer and the airline directly. That's not something that we would have privy to but I know in our contracts we have provisions for that.

MR. NOVICK: We will do the best we can to address it from our perspective.

MR. ANDERSON: Understood. Staff is pretty good about flipping questions to both parties equally so --

MR. NOVICK: (Laughs) Thank you.

MR. ANDERSON: With that, on behalf of the staff I very much want to thank you for being here today. As you can tell, last year we conducted 18 of these conferences and I would say by the volume and the depth of the questions and the time spent today this is obviously a very complex fascinating industry and a huge challenge for the Commission so it's very helpful to get your information and get it on the record. With that, I thank you very much. I would like to now set the recess or a break and we will reconvene in this room at 2:00 according to the clock to my left there. Thank you very much.

MR. BIRCH: Will the room come to order?

MR. ANDERSON: Good afternoon Mr. Lichtenbaum and the rest of the Panel here. Thank you for your patience.

It's been a long morning/afternoon and we're looking forward to your testimony and responses to our questions so when you are ready, please proceed.

MR. LICHTENBAUM: Thank you very much, Mr. Anderson. Again, I'm Peter Lichtenbaum with Covington and Burling on behalf of Bombardier Inc. We very much appreciate the time that you all are dedicating to this and the hard work that was evident in your question this morning. We are going to move straight to our witnesses so you can hear from the people who are engaged in this business every day.

For Bombardier we have Sebastien Mullot who is Director of the C Series Program for the Commercial Aircraft Division. Sebastien. To my left, Ross Mitchell who is Vice President of Commercial Operations, Commercial Division at Bombardier Inc. Also in the audience is the General Counsel of Bombardier, Danielle D. Jardin, and we will also hear witnesses for Delta, Greg May who is Senior Vice President of Supply Management and Fleet at Delta as well as Joe Esposito who is Vice President of Network Planning for the Americas at Delta and then we will hear from my colleague Shara Aaronoff who is probably well known to you to speak to certain legal issues as well. Thank you. Sebastien?

STATEMENT OF SEBASTIEN MULLOT

MR. MULLOT: Thank you. Good afternoon. I'm

Sebastien Mullot. Since 2008 I have served as Director over the C Series program in Bombardier Commercial Aircraft Division. In this role I am responsible for the C Series Business case and I also support sales campaigns and accompany customers who are entering into service.

I have been with Bombardier 17 years, holding positions spanning the company's rail transportation and business aircraft units. Today, I appreciate the importance of the C Series. I will first explain the origins of the aircraft and how it responds to unmet customer needs.

Next, I will walk you through a high-level timeline of the aircraft development, including key milestones and challenges and finally I will share an overview of the aircraft's groundbreaking features that enable efficiency, operational flexibility, comfort and environmental benefits unparallel among the single out our aircraft and that set it apart from Boeing's product.

Bombardier efforts to develop the C Series began around 2004 when we conducted a study that identified an open end of the single aisle market. At the time, none of our products could accommodate over 100 seats and the Airbus AA320 and Boeing 737 targeted larger capacity well above over 150 seats. No other new aircraft were specifically designed for the smaller size range. Older jets like DMD80 and Boeing 717 were in service but they were expected to

need replacing within 10 to 15 years.

The lack of new aircraft offering wasn't for the lack of demand. Data showed that for over 50 percent of departures an airline would not have optimally sized aircraft going forward. That is that the airplanes would actually take off with a lot of unused capacity. Airlines themselves confirm this.

They were expressing interest in an offering in the lower seat range but we recognized that airlines were not just looking for a certain seat capacity. Smaller single aisle aircraft were disadvantaged in the United States. First, the average seat cost per trip were higher due to the lower seat count. Second, the pilot contracts were more expensive for planes larger than 100 seats. So, airlines needed a breakthrough in operating efficiency to offset these costs.

They also wanted features that no manufacturer to date had been able to integrate into a single aircraft of that size. Bombardier not only saw the opportunity but it believed it had the unique capability to capture it. Our experience in the developing business and regional jets gave us helpful prospective on how to build a better small single aisle commercial aircraft.

By contrast, Boeing and Airbus have focused on larger aircraft like the 737 and the A320 and their flagship

double aisle wide-bodies. The process of developing the C Series was an iterative one as the timeline on Slide 2 shows here. In 2006 we completed our first design iteration but potential airline customers told us that this iteration did not yield major gain in the kind of efficiency that they wanted. Namely, they wanted minimum 15% cash operating cost improvement.

So between 2006 and 2008 we made technical improvements to meet the airline's cost improvement target. For example we integrated the Pratt & Whitney geared turbofan engine. This engine enabled an improvement in fuel burning hours reduction. We also made bolder technology choices using more advanced materials and more integrated systems and the result was a lighter and more efficient aircraft so in 2008 we reached our target of 15 percent of cost improvement and this was the trigger for securing our initial customer, Lufthansa in 2009.

In 2016, both the CS100 and CS300 received FAA certifications. Here I would like to respond one point that I understand Boeing has raised. Boeing alleges that Bombardier is in the position to rabidly increase its imports into the U.S. Market in the near term. Well, this allegation doesn't actually represent our ramp up capabilities frankly.

The C Series is a clean ship design. It is

basically the aircraft manufacturer equivalent of a startup. Bombardier is still on learning curve, working to optimize the supply chain and the final assembly operation so it can meet the delivery dates for existing U.S. and International customers.

Now, I will explain some of the most innovative features of the C Series. Today, the C Series is the most efficient and technologically advanced single aisle aircraft in the skies. As seen on Slide 3, the C Series is on the cutting edge along four main dimensions: Efficiency, operational flexibility, passenger experience and environmental benefits. The C Series family diverts a 15% cash operating cost advantage and a 20% fuel-burn advantage making this family ideal for longer, thinner routes and by thin we mean that they are generating 9 of passengers who want a larger aircraft.

This means the airlines can service far-flung points that previously would not have been profitable or possible to connect. The C Series also boasts significant operational flexibility. The shorter landing and field length enable the plane to service a wider range of destinations. Cabin configuration can be easily customized to particular airlines needs and adjusted as those needs evolve.

Besides delivering best-in-class economies we

wanted the C Series cabin to ensure an excellent passenger experience as well. Although there is only one aisle in the aircraft a wide cross section and larger windows, seats and overhead beams create a wide body feel. These features add additional weight for sure, yes, but we decided not to compromise and stick them.

Lastly, the C Series family is a community-minded aircraft. Efficiency gains like reduced fuel burn and emissions translate directly into a smaller carbon footprint. The engine also features reduced noise levels. Back in 2008, noise was more an afterthought for the airlines and even the manufacturers but it's now increasingly a concern as airport restrictions grow more strict.

Slide 4 shows some of the positive feedback we have received from customers. This praise has confirmed that we have been able to deliver on our promise. You have heard a bit about what our C Series family is now. Now I will tell you what it isn't. it's not a substitute for the Boeing 737 family. As Slide 5 states the fundamental difference from a product perspective is that he C Series brand new technology custom built from the ground up and optimized for the small single aisle segment with all the efficiencies and performance metrics I have already discussed.

The 737-700 by contrast is really just a smaller version of the 737-800 but simply shrinking an aircraft doesn't enable much weight reduction or efficiency gains. Most of the systems, the components remain unchanged. Moreover, the 737-700 has old technology generally. As for the 737 Max7, well the story is similar. No real competition with the C Series here. The Max7 is Boeing's attempt at breathing new life into an aging platform by using a new engine but there have been a few takers and many customers may convert to the Max8.

In fact, as you see here on Slide 6 in discussing the Delta deal, Mr. Conner admitted that the Max doesn't compete directly with the CS100. There is another example involving the Max 7, Air Canada. Air Canada purchased CS300s to replace Embraer Ejets and the Max8 to replace Airbus A320s. The Max7 really wasn't in the picture. In fact as shown on the following slide, Boeing's investor communications compared the Max family with only the Airbus A320 Neo family so even Boeing does not really believe that the C Series is competing with the 737Max 7.

So in closing this aircraft was born out of a genuine market need and evolved over years of research and development and today we are proud that the C Series is delivering on its promises to airlines and passengers. Thank you for your attention.

MR. LICHTENBAUM: Thank you, Sebastien. Ross?

STATEMENT OF ROSS MITCHELL

MR. MITCHELL: Thank you very much. Good afternoon and thank you very much for having us here today. My name is Ross Mitchell and I am the Vice President of Commercial Operations of Bombardier's Commercial Aircraft Division. In this position, which I have held since 2014, I run the overall commercial aircraft sales and marketing team. The commercial aircraft division covers not only the C Series but also the regional jets and turbo props.

I have worked in the business aircraft division and I spent a large part of my 18-year career at Bombardier in contracts and sales working directly with airlines in various sales campaigns. My remarks today will cover two topics. First, I will describe the position of the C Series in the marketplace for single aisle aircraft and second I will discuss the ways in which large civil aircraft such as the C Series and Boeing 737 family are marketed and sold.

As my colleague Sebastien Mullot has explained, the C Series occupies a unique and underserved place on the continuum of customer demand for large civil aircraft. Airlines seek to optimize the deployment of their fleet-matching seat capacity to passenger demand on specific routes at specific times. Passenger demand is continuous across the spectrum up to 210 seats.

As you can see on Slide 2 there is no break in demand at any particular seat count. To minimize trip cost airlines typically utilize a range of model sizes from regional jets to large civil aircraft of various dimensions. The C Series is a uniquely modern, high performance and efficient option for airlines with passenger counts in the lower part of the single aisle size range. Analysts and customers praise its low fuel burn, quiet operation, passenger comfort and landing and takeoff performance among other features.

I described the C Series as unique partly because there is nothing like it in the lower segment of the size continuum. As Slide 3 shows, the C Series shows a recent gap in the single aisle market. Boeing once produced aircraft within that segment including the 717 and the 737-600 but it abandoned that more than a decade ago. Today, Boeing does not produce any commercial aircraft for the 100 to 120 seat segment and that's offers no competitor to the CS100.

When our U.S. customers Delta and Republic placed orders for the C Series, the Boeing 737-700 and Max7 were not on the airlines' radar screen. When the airlines are looking to cover a route with only 100 to 120 passengers it cannot turn to the Max7 because using a Max 7 on those routes would result in higher trip costs and no return from

the additional empty seats. Our competition for the Delta deal for example was not any new aircraft from Boeing.

As Slide 4 shows, Boeing admitted that it offered only used aircraft. Boeing was eager to get rid of Ember E190s that it had accepted as trade-ins. The Delta campaign was never a price competition among new aircraft and whenever we are competing against used aircraft there is inevitably downward pressure on pricing. In the global marketplace more generally as in the Delta campaign Ember is widely perceived as the main competitor of the C Series. The C Series, the Ember E-jets, the Airbus AA320 family and the Boeing 737 family are all in the single aisle segment.

As Slide 5 indicates, that is how Boeing itself describes the market. Boeing's 737 family is not generally regarded as interchangeable with the C Series. In fact as slide 6 shows Boeing executives have made clear that they do not want to compete at the low end with the C Series. Neither the 737-700 nor the Max7 was designed from the beginning to serve the part of the market on which the C Series is focused.

Each is a smaller version of the 737-800 or Max 8. As a result, neither is as capable as the C Series. Boeing markets and supports its 737 line as a family, built from a common blueprint. Boeing calls it one airplane in three sizes. The 737 family competes with the AA320 Neo

family from Airbus not with the C Series. For example, when Boeing reconfigured the Max& last year, it added seats.

As Slide 7 reveals Boeing's smallest 737 the Max7 now holds more passengers than the CS100 and the CS300. This means this will be even less competition between Bombardier and Boeing in the future. That is by design. From Boeing's standpoint, Boeing works hard to upgrade orders from the 737-700 and Max7 to the larger 737-800 and Max8 models which are more profitable. It's efforts have paid off.

As you can see in Slide 8, over the past 5 years Boeing has delivered only one 737-700 in the U.S. Market. a clear example of this dynamic is the United Campaign. In the early stages of our discussions, United told us the CS100 was too big for its needs. In response, we offered a smaller version, the CS100 light. Our competition throughout was the even smaller Embraer 190. At the very end however Boeing swooped in an offered United a deal too good to refuse. Not on a 100-seat aircraft but on larger 737-700s that do not compete with the CS100.

United later converted its order to even larger 737s and never accepted a single 737-700. Why did Boeing make this late move? A Boeing executive told employees it was very important to Boeing that united not provide validation of the C Series in the marketplace. Again,

Boeing was not competing with the CS100 in which United had expressed interest. As Slide 9 shows, Boeing has almost 20 times as many single aisle orders as Bombardier.

Boeing was acting aggressively to preserve its dominant position as United's exclusive supplier. Well, Boeing won the campaign and had to offer terms so attractive that United was willing to take an aircraft much larger and more costly to operate than what it claimed to need.

My second topic is the sales and marketing process. in my experience, a sales campaign is often a lengthy and gradual process of learning and relationship building. An airline will indicate that it is thinking about a certain type of purchase and will encourage us to make an initial offer. Specifications and performance requirements begin to matter once an offer is on the table. It is thus misleading to suggest that the usual aircraft sale is the product of a formal bidding or tender process based on a single, clear set of specifications.

The marketing and sales process for large civil aircraft is complicated because airlines are looking to accomplish two core objectives at the same time. First, they need an overall economic package that works for their business needs and second they need an airplane that performs according to their specific technical requirements.

On the economic side, in addition to purchase price airlines place significant emphasis on considerations such as fuel burn rates and efficiency, the weight of the aircraft which can drive landing fees and other costs and maintenance costs. For an airline, the purchase price typically represents at most 25 percent of direct operating costs and it is the long term operating costs of the airplane over its lifetime that is critical to the economic assessment.

On the performance side, factors such as range, passenger comfort, field performance and noise levels may all be core considerations. In sum, to win a sale the aircraft must fit the customer's route network, the airline must have a need to expand or replace its fleet and the overall economics of the deal must work. Multiple considerations, economic, technical and strategic. In form, an airline's evaluation of alternative aircraft it is my no means a simple and straight forward assessment of the initial purchase price.

Turning to the topic of purchase prices, there is a pattern of pricing for new aircraft that are entering into service for the first time. An airline that is among the first to accept the delivery of a new model knows that it faces risks of difficulties and delays given the complexity of aircraft production.

Early models of the Boeing 787 for example were famously plagued by battery problems among other issues. Technical problems can lead to flight cancellations affecting the entire network. Challenges on the production line or with suppliers can lead to late deliveries. When airlines buy a new aircraft they seek compensation for these kinds of entry into service risks. That is known in the industry as launch pricing and it is standard practice.

As shown in Slide 10, Boeing's CFO has acknowledged that launching the 787 Boeing faced early pricing disruption that Boeing expects to improve over time. Once the aircraft obtains certification, a steady delivery stream is established and in-service disruptions diminish the level of risks fall and prices tend to rise.

MR. MITCHELL: While this pattern is widely known, specific purchase prices are not known to others in the industry so there is no lighthouse affect in the U.S. market.

I talk with U.S. airline executives all the time and I have never been told a competitor's specific price for an aircraft. This is no surprise. Airlines have an obvious incentive not to disclose price information.

Once a contract is executed and a firm order is placed, the initial deposit is typically between 1 and 5 percent of the contract value. As delivery approaches,

additional pre-delivery payments are often made, but they top out at 15 to 30 percent of contract value. This makes it impossible to finance development costs using pre-delivery payments.

Even contracts with firm orders contain significant flexibilities. For example, deferral rights are common. They enable purchasers to adjust their delivery schedule. When such a right is exercised, the basis terms of an order may dramatically change. Just in the last couple of weeks this happened twice. Delta deferred an order for Airbus A350s, but added A321s and West Jet deferred an order for Boeing Mac 7's, but ordered Wide Bodies 787's.

As the examples make clear, there are often significant changes between when a contract for a firm order is executed and when deliveries are made.

In conclusion, I am grateful for the chance to speak with you today about the competitive landscape for single single aisle aircraft in the United States and about Bombardier markets and sales of the C Series, an airplane of which we are proud. I look forward to answering any questions you have.

MR. LINCTENBAUM: Thank you, Ross. Mr. May or Mr. Esposito.

STATEMENT OF MR. JOSEPH ESPOSITO

MR. ESPOSITO: Good afternoon. My name is Joe Esposito and I'm the Vice President of Network Planning for the Americas for Delta Airlines.

My guess is that you're already very familiar with Delta. We serve more than 180 million customers each year. Delta, in addition with Delta connection carriers, offer service to over 300 destinations in nearly 60 countries on six continents. In total, we offer more than 5,000 flights each day and I'll get into more detail of what kind of fleet that we need because we have such a complex network and what different iterations of size of airplanes that we require.

I've been with Delta since 1990. I started with Delta working at airport customer service in Orlando before moving to Atlanta in 1995 where I worked in strategic planning before I joined the network planning team. I've held various positions in network planning within increasing levels of responsibility, including Director of International and most recently Managing Director of Network and Schedule Planning, so I've worked in all facets of our network Planning Division, long-term planning, short-term planning, and fleet selection has been one of my responsibilities.

In my current role, I oversee our network planning operations, which means I'm responsible for the

economic, financial, and capacity planning for Delta's domestic and Latin American system as well as schedule planning. I've been doing this for over 20 years, so I bring a practical, real world experience that I'd like to share with you today, not just an academic view, but really one that I've worked on every single day for the past 20 years.

A key part of what network planning does is to design the mission for particular flights on our schedule. Defining the mission includes identifying the right level of seat capacity with customer demand specifying, amongst other factors, the seat capacity, range, and special requirements for the operating environment of the Delta fleet. Delta fleet includes almost 1300 airplanes, predominantly single-aisle domestic and Latin America aircraft.

We fly aircraft manufactured by each of the world's major aircraft manufacturers, including Boeing, Bombardier, Airbus, and Embraer. Each of the aircraft we fly are suited for specific missions to which they are tasked, as well as the specific seat size of that airplane. That means part of network planning is try to assess how much demand there will be for a particular flight at a particular time of day on a particular day of week and adjusting for seasonal variations, so we review every single flight and every single market, both short-term and

long-term on a monthly basis, so it's reviewed quite regularly of what exactly the level of capacity we want to deploy to each market.

We all know that the summer season, for example, is one of the busiest travel times of the year; likewise, demand fluctuations by day of the week and even by hour of the day. For example, peak business demand is often during early morning hours and early evening hours, which require us to fly larger aircraft and please note we'll fly different types of airplanes on the same routes at different times of day or different times of year. So throughout the day, you may see one market that has a 50-seater, a 100-seater, and a 150-seater because we tailor that demand for the specific customer travel pattern, so we try to be consistent. We follow demand trends and customers really dictate what that is. And also, as you can imagine, certain destinations are much more attractive at different times of year and draw far greater numbers of visitors.

Ideally, we want to have seats available for our customers when they want to travel, so we try to ensure that the aircraft assigned to that particular mission of the early evening flight, for example, is large enough to accommodate expected demand. This, of course, goes to our bottom line. The more seats we sell, generally speaking, the better our revenues, but it also meets the needs of our

customers. But if the plane is too big for the mission, we may well have to fly with empty seats or not offer flights to that market at all. Flying with empty seats means a higher per seat costs which means a poorer return for our shareholders and generally, an increase in ticket prices for our customers.

In that sense, it is very important to be aware that a l00-seat plane and 150-seat plane are not interchangeable for Delta's purpose. We cannot profitably fly a 150-seat aircraft on a flight with demand for only 100 passengers. At Delta, in this hearing we're talking a lot about the variation of 100 to 150 seats, which in my world is a big difference. It's a 50 percent increase in capacity on any given route, so we are very specific in having a 100-seat airplane.

Within a 100 to 150-seat aircraft types, we actually break that done into three demand sets. The first being 100 seats approximately, 130 approximately, and 150 approximately and I'll talk about all the different types of our aircraft in just a second.

We analyze our narrow-bodied fleet in terms of six-step functions of capacity, which allows Delta to be a national carrier that serves everything from the smallest community, such as Duluth, Minnesota to the largest cities of Los Angeles and New York. We want to be the carrier that

serves all customers.

We group our narrowed-body fleet by seats in the following order, from 50 seats to 199 seats with multiple step functions and it's very important that we take those step functions in small steps. If you are to shop the market, as we sometimes say, and put a 50-seater in it one day and a 100-seater in it the next day, you probably won't get another 50 passengers to show up on that flight and we'd go out without empty seats. So we take the capacity in what we call step function. Either it's up or down. Either we're up gauging a market or down gauging a market.

So we start with 50-seaters, the next level of capacity that we have are 76-seaters. Both of these aircraft types serve primarily smaller communities or thinner business markets. Our 50-seaters are single class aircraft. Our 76-seaters are two class airplanes and by that I mean a first-class cabin and comfort plus, so we'll deploy those on business routes and refer to those as regional carriers or regional aircraft. And the difference in Delta of what a regional aircraft is and a mainline aircraft is who operates it and which pilot group operates it.

So anything of 76 seats or below we operate with what we call our Delta Connection Partners and these are partnerships that we have, such as Sky West Endeavor that

will fly for us as a capacity buy program. Anything greater than 76 seats is required that would be a mainline airplane is required to be flown by our mainline pilots. So Delta pilots, Delta-owned airplanes. So that's the differentiation that we make within Delta Airlines.

After we talk about the regional fleet, then we continue to walk up the capacity ladder. After a 76-seat airplane, then we move to a 100 to 110-seat aircraft. That is generally served by our Boeing 717. We have over 80 of those airplanes. Then we move up to our 130, on average, seat airplanes. Those are our airbus 319s and our Boeing 737 700s. Then we move to our 150-seat airplanes. Approximately, they range from 149 to 160. There's four categories within that called the M88s, MD90s, the Boeing 737 800, and the Airbus A320. Those are generally interchangeable, but have different attributes towards performance or range of what those aircraft can do.

After the 150-seat airplane, we move to our larger mainline called the 180 to 199. Those are our 737 900s, our Airbus 321s, and our 757s. So you can see our business model with Delta is a little bit different than other airlines. If you were to ask every airline in the country, they would have something a little bit different for how they approach the market, but if you want to fly to and have a product for all customers in the U.S., then you

need to be able to make sure you supply the right level of seats for each different and unique marketplace. So that's the differentiation of how we at Delta Airlines look at capacity planning.

MR. BAISBURD: And now, Greg May, from Delta will continue.

STATEMENT OF MR. GREG MAY

MR. MAY: Good afternoon. My name is Greg May. I'm the Senior Vice President of Fleet and Supply Chain Management at Delta Airlines.

My department manages the global supply chain for billions of dollars of goods and services that we acquire every year. That does include aircraft. I've worked in the airline industry for over 30 years, getting closer to 35 since getting my degree in Aerospace Engineering. Over the course of my career, I've worked in various areas, all in aviation, including aircraft acquisition, treasury, maintenance, engineering, and frontline operations.

Before joining Delta in 2014, I was president and CEO of an aircraft leasing company that had approximately a billion and a half dollars in aircraft and aircraft loans. Before that, I was Vice President of Purchasing and Aircraft Transactions for Northwest Airlines where I lead Northwest Airlines fleet campaigns similar to

what I do at Delta. Prior to that, I spent 18 years with United in various roles, including fleet, technical and operational. Pertinent to today's discussion, I have going on 25 years of experience in acquiring aircraft with three different major airlines and two leasing companies.

I appreciate the opportunity to talk to you this morning about the aircraft acquisition process from the airline's perspective. I'll start with a general overview of how airlines purchase aircraft and then I'll talk about the lead up to and purchase of the CS100 that is the focus of today's discussion.

As Joe explained, before we engage with our suppliers, we first define the mission. What do we need the aircraft to do and what's the role the aircraft will play in our fleet? The mission's defined in coordination with network planning and many other key stakeholders at Delta. For example, the range and seating capacity of our aircraft are driven by the needs of the routes we fly and the destinations we serve. I can't stress enough that when we began looking at our single-aisle replacement growth strategy in 2015 our focus was on reducing our 50-seat regions jets by up gauging to small gauge mainline aircraft.

One of the highest priorities at the time was to find a small gauge aircraft, one with capacity definitely under 120 seats that met our mission profiles, including

average route distances of under 1,000 nautical miles, not the 2900 nautical miles that have been defined today.

Once the mission parameters are defined, we consider what is currently available, what are the currently aircraft to potential future aircraft that will meet those needs. Purchase of aircraft is such a significant event for us we keep maximum flexibility as we go through our acquisition processes. As a result, at Delta we don't have a standard, single process for purchasing aircraft in all situations. We have used formal RFP procurements. We've simultaneously solicited where we simultaneously solicit bids from multiple parties. We've also conducted direct negotiations with potential suppliers.

In the narrow-body market that is the focus of this investigation, Delta has more frequently used direct negotiations as opposed to the RFP and bid process. We've provided multiple examples of this on page 18 of our questionnaire response. I should clarify that "direct" does not mean "exclusive," as you'll see when I talk about the CS100 acquisition we were not just talking with Bombardier. We were also talking with Boeing and other parties regarding alternatives.

The key difference, though, between Bombardier and Boeing was that Boeing could not offer us a new airplane in the 100 to 110-seat space that met our needs in the

timeframe that we needed to execute. Boeing was aware of what we were looking for and simply could not offer a new Boeing alternative.

Before talking about the CS100 acquisition, I want to talk a bit about aircraft pricing. First, since not long after the Delta/Northwest merger in 2008, Delta's been receiving more favorable pricing from all of our suppliers. We believe our global network growth trajectory and related fleet requirements make us an important and attractive customer with significant purchases that result in appropriate commercial discounts. The aircraft industry is not different from many others in the sense that the more you buy the better price you get.

Second, it is very common for so-called "launch" from our key purchasers to get favorable pricing. This has been true for the more than 30 years that I've been in the industry. In my experience, the marquee purchase price does not set a ceiling, though. As you can imagine, airlines are somewhat conservative by nature and frequently cautious when it comes to introducing new aircraft types into their fleet.

While there are still many airlines operating globally, there are only a handful with the depth, the resources that Delta has to fully evaluate a potential new aircraft type. As a result, many smaller airlines will give significant weight to the decisions of a larger airline like

Delta before placing an order for a new design. Those other airlines will then have greater confidence in placing their own orders. Our manufacturers know this, including Boeing.

If they haven't, in fact, designed a plane in close partnership with a particular airline, they will work actively to secure that first big order from a major airline and the validation in the market that comes with it.

Third, I want to address the so-called "price transmission and commercial momentum." The first big order to marquee or signal customers like Delta doesn't set pricing for the series. Everyone in the industry understands that the first marquee or single customer is being rewarded for being the first for fully evaluating the aircraft. While speculation abounds in the press and various analyst reports, there also is no pricing transparency here.

While we certainly make every effort to gauge what others are paying for airplanes, we simply don't know. At best, there are pockets of partial information, which I'll talk a little more about. That's not the information -- the price information is not something that we would ever share with our competitors. It is not in our best interest.

Delta does not negotiate acquisition prices based on what our competitors may or may not pay as well. Our sense of market pricing is often driven by our own

recent experiences. In other words, we know what manufacturers are offering their airplanes to us at, thus, we look at our mission per seat cost, revenue projections to evaluate the financial merit of any potential acquisition in combination with our own experience in negotiating with suppliers.

Furthermore, besides price, aircraft are complex pieces of equipment with many optional features to chose, including performance weights, thrust, and many other features that can represent as much as 20 to 30 percent of the price of an aircraft. The features an airline has, their spec and what they are, what they own, what they borrowed from the manufacturer that is not public information as well and adds further to the opacity of aircraft pricing.

Frankly, you simply cannot put a lot of weight on what you read in industry papers or in the rumor mill about pricing. We don't rely on abstract and opaque market intelligence. We rely on our own actual data.

Lastly, to briefly rebut an early comment about list prices because of the magnitude in variation and discounts from so-called "list prices," we find them, frankly, to be completely meaningless and Delta's so-called "commercial momentum" does not drive our purchasing decisions. In fact, it's not even a term we use at Delta or

that I think others generally use in the airline industry.

While it's true that our marquee customer often receives favorably initial pricing, it's my experience that other than large, sophisticated purchase service -- that all other large, sophisticated purchasers do not follow the herd. At Delta, we independently evaluate the merits of any potential aircraft type and additional purchase of the same plane or another type from the same supplier it's simply not the case that we are more likely to continue to buy this same aircraft or other types of aircraft from the same supplier because we or another airline have already done so.

So when looking at aircraft purchases, we first calculate the net present value or NPV to determine the potential contributions to the company. To calculate the NPV, we forecast generally for approximately 15 years the cost and estimated revenues. The costs we look at are far more than just acquisition price. NPV calculations include fuel, crew, maintenance, spare engines, spare parts, tooling, flight simulators, training costs, and numerous other costs.

Finally, once we've identified the new and used aircraft that could meet our mission profile, we evaluate the per seat cost under various range and fuel cost scenarios. For the campaign with the CS100 that resulted in

the CS100 agreement, we looked at ranges of 750 to 1500 miles. This is an important point. The product definition of this investigation is aircraft with a range of over 2900 miles. While the CS100 meets the requirement that was not a factor in our purchase.

In fact, our agreement is structured with maximum takeoff weight provisions that reflect our intended deployment plan to fly the aircraft, on average, on routes that are less than 1000 miles. If we exceed those averages, i.e., the plane needs to carry more fuel because it's flying longer distances, we're going to be required to pay Bombardier additional payments.

MR. MAY: I'll now discuss our neuro-body replacement campaign that began in 2015 and lead to the CS100 agreement that Boeing claims its financial health in the single-aisle mainline market that Boeing claims is threatening its financial health in the airline -- the single-aisle market that Boeing has dominated since the 1960s.

Delta initially considered used Brazilian manufactured Embraer E170s and used 717s as well as new Embraer E195 and Bombardier's CS100 to meet our priority to up gauge the regional jet fleet. We engaged in talks with Boeing about 19 used E190s that they'd taken in trade from Air Canada. We'd already determined that there were not

sufficient used 717s available. It was only about 17 airplanes potentially available in the distant future to meet our long-term needs and Boeing had ceased production of the 717, as you've heard earlier, in 2006. The 717 was, in fact, the last model that did fit the 100 to 110-seat space that Boeing had to offer.

While we were negotiating with Boeing for used E190s, they never offered us any new Boeing-produced planes as alternative to our needs. They couldn't because they do not produce a plane in the 100 to 110-seat gauge.

Also, while the new E190s that Boeing offered were at an attractive price, we found shortly after agreeing to that particular agreement that subsequent aircraft were going to be as much as 40 percent more expensive for us and we needed to find a fleet of 75 aircraft. So in questioning the change in direction, a lot of that was due to looking at, again, the entirety of the fleet that we would need to grow.

I want to be clear that Boeing is not competing for new orders when we were negotiating with Bombardier. Boeing had no viable competitive alternatives to the CS100. We were not even considering any new Boeing product as an alternative when we made the purchase that Boeing challenges in the petition. Boeing offered us used E190s and Embraer Brazilian E190s, which we purchased and subsequently resold.

At no time did Boeing even try to convince us to consider the 737 and 700.

It would be wrong to suggest that Boeing lost sales to Delta because we purchased the CS100. Boeing simply was not in the mix. They did not have a plane that satisfied our mission profile and needs.

From Delta's perspective, the 737-700 Mac 7 did not meet our mission goals. They're both essentially iterations of a basic design that has its origins in the sixties. No one can doubt the overall success of the 737 family of single-aisle planes. We have several iterations of the aircraft in our fleet. They were designed to be a large-gauge aircraft that were subsequently redesigned to be smaller. The 737-700 is particularly well suited for certain unique mission profile, such as takeoff and landing at airports with shorter runways or at high elevations. However, it's not economical on the vast majority of our routes. That is why we only have 10 of these aircraft in our fleet. I can't emphasize enough it is not -- the 737-700 is not a 100 to 110-seat aircraft.

STATEMENT OF SHARA L. ARANOFF

MS. ARANOFF: Good afternoon. I'm Shara Aranoff, with Covington and Burling. In the remaining few minutes, I want to focus on like product and threat.

In Respondent's view, Boeing has defined the

domestic-like product too narrowly, asserting a clear dividing line based on seat count and range where none exists.

In defining domestic-like product, the Commission looks for clear dividing lines and is skeptical of arbitrary divisions within a continuum of products. Boeing's proposed like product, the 737-700 and Mac 7 fails this test because 150 seats, two class configuration, and 2900 nautical miles of range are entirely arbitrary dividing lines within the family of 737 products.

Instead, Bombardier urges the Commission to define the domestic-like product as all single-aisle LCAs with the ability to hold at least a hundred seats. Within the category of single-aisle LCAs, there's a continuum of seating capacities, range, operational capabilities, and operating costs and purchases choose among them based on multiple criteria, so there's no clear dividing line based on seat count. And don't take our word for it. This is how Boeing itself defines the single-aisle category as evident from their current market outlook document, which is on Slide 2.

Looking at physical characteristics and uses, 737s come in a range of seat counts that increase incrementally. In two-class configurations, there's the 737-700, which, by the way, Boeing stopped selling a year

ago, that has 128 seats. The Max 7 has 138, the 800, 160, the Max 8, 162, the Max 9, 178. In some cases, the same aircraft can be configured with either more or fewer than 150 seats. The Max 7 can seat up to 172 in a one-class configuration. And in shown in Slide 3, American has configured some 737-800s with 150 seats, some with 160, so there's nothing magical about 150 seats nor does adding a minimum range of 2900 nautical miles change anything.

As Slide 4 shows, all Boeing 737 aircraft exceed this minimum range and frankly, as far as we can tell, the range went into the scope in order to exclude Embraer from the data for non-subject imports and has nothing to do with the domestic product.

Turning to interchangeability, Boeing conceived of each successive 737 program, using the aircraft family concept and they're all on a common type certificate. Boeing's common type certificate is excerpt on Slide 5 and it permits commonality in operational requirements, crew, and maintenance between the 700, the Max 7, and the rest of the 737 family.

And while there wouldn't be interchangeability between single-aisle aircraft at the highest and lowest ends of the continuum, there is within modest size increments. For instance, aircraft that have greater than 150 seats could be substituted for aircraft that have fewer than 150

seats on some routes as demand fluctuates by season and time of day. With respect to manufacturing facilities, production processes, and employees the record is very clear. Slide 6 shows Boeing produces the entire 737 family in common manufacturing facilities with the same workers and a high degree of parts commonality. That's possible because the various 737 models increase incrementally in size, but maintain the same basic design. Channels of distribution are all the same. Boeing conceded that this morning.

With respect to customer and producer perceptions, Boeing markets a family of 737 aircraft and that's what purchasers see, a continuum of products designed to meet a continuum of passenger demand. As shown on Boeing's website, seen here on Slide 7, Boeing has consistently marketed the 737 as a single, interoperable family of aircraft. Bombardier has never encountered separate advertisements or promotional materials just for the 737-700 or the Max 7.

To distract from its own marketing and brand perception, Boeing points at marketing materials from Bombardier that describe the 100 to 150-seat category as a market segment. Well, it makes sense for Bombardier to focus its marketing on the lack of Boeing or Airbus options in the 100-seat range and to highlight this hole in the market, but remember, Bombardier is not a domestic producer

and to identify the domestic-like product the Commission should not get sidetracked on how Bombardier markets the "C" Series while ignoring how Boeing markets the domestically produced 737 family.

Finally, there is no clear dividing line along the price continuum, especially, as aircraft pricing is multidimensional and opaque. Given the complexity of the lifetime cost calculations that airlines do, larger planes could be cheaper to operate on a seat mile basis, the cost per seat of operating the aircraft on a particular route and list prices don't reflect this reality.

Let me now turn to threat. Boeing's threat case begins with two glaring deficiencies. To begin with, Boeing is not vulnerable. As Slide 8 shows, the 737 family represents 45 percent of Boeing's $424 billion commercial airplanes backlog and the average profit across Boeing commercial airplanes for 2013 to '15 was 9.8 percent.

Slide 9 shows that cash flows derived from the 737 family have been forecasted by analysts to total over $26 billion for the period from 2017 to 2020. Moreover, the complete absence of subject imports during the period of investigation means that there are no lost sales, no lost revenues, no adverse trends in import volumes or prices from which to project worsening future trends.

This record is fundamentally different from

cases like Super Computers and large newspaper printing presses where the Commission's threat determinations relied on volume and price trends during the period of investigation.

Turning to the statutory threat factors, none of the subsidies alleged in Boeing's petition are prohibited export subsidies within the meaning of Article 3 of the subsidies agreement. There's no existing unused production capacity or imminent substantial increase in production capacity for "C" Series aircraft.

Assuming on-time production and no cancellation or delays by Bombardier, its suppliers, or its customers, none of which is certain, Bombardier plans to deliver a small number of aircraft to the U.S. market in 2018 and continue deliveries based on existing orders to U.S. customers in modest numbers in the following years. A rapid ramp up in deliveries would not be possible in the short run because, as Mr. Mullot noted, Bombardier is still working its way along a production learning curve.

Bombardier currently cannot make more aircraft than it has already agreed to deliver in 2017 and 2018, and any aircraft ordered for delivery after 2018 would be subject to an approximately 18-month lag, at a minimum, between order and delivery for supply chain. The record does not establish a significant rate of increase in the

volume or market penetration of imports. It's misleading to focus on the rate of increase in imports when imports from Bombardier were zero through the POI and will be zero through the rest of 2017.

Fundamentally, Bombardier is not Airbus with its multi-country ecosystem, large home market, and defense customers to help it grow large and do so quickly. The "C" Series share of total U.S. deliveries of single-aisle LCAs with greater than 100 seats would amount to only 7 percent of the market for 2018.

Regardless of how the Commission defines the like product, the imports from Bombardier scheduled to begin in 2018 do not indicate a likelihood of substantially increased imports over and above existing orders for the reasons described by Mr. Mullot. Although, Bombardier remains committed to the U.S. market to the extent that there is demand for small LCAs, whether its efforts will actually bear fruit at this point is pure speculation. Indeed, over a year has passed since the Delta deal and no additional U.S. firm orders have been secured.

Turning to price affects, Boeing cannot show the "C" Series is entering at prices likely to have a significant depressing or suppressing affect on domestic prices or increase demand. Although Boeing attempts to conjure up lost sales in the Delta and United campaigns, the

witnesses have explained why Boeing's version of events doesn't square with reality.

You've also heard why Bombardier's sale price to Delta will not have an adverse lighthouse affect on market pricing for Boeing's products nor does the "C" Series give rise to any negative affects on existing development and production efforts. Slide 11 shows that Boeing 737 backlog numbers 4,500 planes and stretches over seven years.

The company's CEO recently announced the 737 Skyline is "oversold through the end of the decade." And according to Boeing and analysts public reports, the 737 line is highly profitable. Even if Boeing made a competitive 100-seat plane, it couldn't deliver aircraft to replace the "C" Series ordered by Bombardier's U.S. customers when Bombardier's customers expect to receive them, given its full skyline nor would potential "C" Series sales jeopardize any R&D efforts for the 737 Max 7 as that's already mostly occurred.

The Commission must consider all of the above factors in determining whether further dumped or subsidized imports are imminent. As a special matter, any new "C" Series orders received today could not result in imminent imports because of the approximately 18 month lag that I mentioned and maybe even longer in Bombardier's case. What's more, any new "C" Series placed today couldn't

materially injure Boeing in the imminent future because its backlog is over seven years long.

Until Boeing makes enough progress against its backlog that it could deploy resources toward new orders, it wouldn't be vulnerable to a lost sale from a cash flow standpoint. A seven-year period is far beyond any reasonable interpretation of what it means for a threat to be imminent. It's plainly inconsistent with the Commission's typical practice of looking forward only about a year. In fact, it's so far in the future that before the threat would materialize the Commission would actually already have held the first sunset review.

So Boeing's threat claim boils down to mere conjecture or supposition because it fundamentally mischaracterizes the purported threat presented by the "C" Series. There's no real threat from the CS100 because Boeing doesn't make an aircraft in the CS100 size range and it lost interest in doing so long before Bombardier introduced the "C" Series. Even the CS300 is smaller than the new upsized design of the 737 Max 7 announced last year.

In essence, what Boeing is trying to do here is to shut a promising, innovative technology out of the market a decade or more before Bombardier could even hypothetically produce a "C" Series aircraft large enough to truly compete with the 737.

The Commission has a complete record here and to find an imminent threat to Boeing's domestic industry based on these facts strains cartulary.

With that, we thank you and we look forward to answering your questions.

MR. ANDERSON: Thank you to the panel and thank you very much for your helpful information and your presentations and for the slides. We'd now like to thank the witnesses who traveled to be here with us today too.

We'd like to now turn questions over to staff and we'll start with Ms. Carla Carlson.

MS. CARLSON: Good afternoon. Thank you also from me for you all being here for your testimony.

The first couple of questions that I have will mirror what I asked in the earlier panel just so I can better understand Bombardier's operations.

So does your overall production process from initial design to development to fabrication occur in one general facility, which is located near Montr al, correct?

MR. MULLOT: Good afternoon. So yes, the initial design and the manufacturing for the aircraft takes place four to six weeks in one facility, which is in Montreal, but we also, from a design standpoint, had to rely a lot on our own supply base. We are an integrator and therefore we are basically giving an envelope of design to

our suppliers. Those suppliers are international suppliers, a lot of them being based in the U.S., by the way.

On the manufacturing side, the activities do take place in our facility in Montreal and it's a single facility for the "C" Series. We do manufacture in that facility CRJ aircraft as well, but they're done in separate hangers and they don't use the same manufacturing processes. We've had to actually invest in a totally new manufacturing processes for the "C" Series aircraft.

MS. CARLTON: Mr. Mitchell, you described briefly the extent that you communicate with airlines as you develop your models. So to what extent were airlines or was Delta involved with the development of the CS100 and maybe the CS300?

MR. MITCHELL: When we developed the "C" Series, we had airline counsels where we would talk airlines about what they want and they were very specific about requiring an airplane in the space where we built it. You know 100 seats to 150 was not the number they were talking about, but they were really concerned about that 100 to 120-seat space. And one of the airlines that was really heavily involved early on was Northwest Airlines. And of course, Northwest merged later on with Delta and those counsels were back in 2005 through 2010.

MS. CARLTON: Thank you. Can you also describe the relationship you have between Bombardier and engine manufacturers? Are those Canadian engine manufacturers or U.S. companies?

MR. MULLOT: So while the engine manufacturer on the "C" Series has developed engineered the engine out of their Hartford facility in the U.S. The final assembly of the engine takes place near the Montreal facility where we do the "C" Series, but we have to keep in mind it's a final assembly facility. That means that a lot of the core components are actually manufactured in many other facilities, including in the U.S. and we have only one supplier of engines on the "C" Series.

MS. CARLTON: Okay. Can you describe the lag time between the order and delivery. I think, if I remember correctly, starting off, said it's about 18 months. Does the production begin as soon as the order is made or did you already start production? What exactly happens during that time?

MR. MULLOT: Yes, you're absolutely right. We talked about an 18-month lead time at the minimum and I would say this is probably on the optimistic side.

At the beginning of the program, I alluded to the fact that we're going down a learning curve on the program right now, so at the early stages of the program

actually the lead time could actually be longer and it really depends also on the configuration choices made by the operators, the airlines. An airline may elect to include certain options in their aircraft that may take more time to develop. And Bombardier, again, being at the early stage of the program actually has to develop a number of options that do not exist yet. So each time we have a customer that comes up with a new configuration, we have to go through the process of developing those configuration, which Boeing I would say has the luxury to you know pick from existing configurations that they have been developing over the past 20 years.

So I was a bit puzzled to hear that you know the lead time would be around 24 months for Boeing knowing how much aircraft they've already delivered, how many options they've already delivered. I would expect them to have a lot more flexibility and a much shorter lead time. So for us, 18 months is the very minimum, more likely to go to 24 months if the complexity of the configuration of the customer increases.

MS. CARLSON: Thank you very much. Can you describe the market for 100 to 150-seat, aircraft or maybe 100 to 110-seat aircraft in Canada and how is it different from the U.S. market in any aspect?

MR. MITCHELL: Well, I don't think the market is

really different. In terms of the United States and Canada, the airlines that are positioned in those two countries effectively compete with one another, so when a Canadian airline is selecting airplanes it would be a similar process to the process that Mr. May described. And the airlines in the two countries, given that there's a large contiguous border, they compete with one another. So I would say that the markets are, in fact, one market not two. In fact, when we do our forecast, we forecast on North America. We do not separate between Canada and the United states.

MS. CARLSON: Can you describe any plans to expand capacity in the future? Ms. Aranoff, you'd described this a bit in your testimony, but will it fully depend on orders made or how do you foresee this happening or do you hope to?

MR. MULLOT: We're really intent on trying to divert or ramp up -- you know we have to announce and guide it through in the markets and it's really a tall order to actually be able to ramp up to the numbers that we have given. People tend to underestimate the complexity of going through the learning curve and the ramp of the production.

We're talking to a supply chain that is already stretched. Stretched by the fact that other, too big, OENs ordering roughly 1200 aircraft a year, which gives very little added room of maneuvers for single-aisle players like

Bombardier. So delivering on our current ramp up plan, as I said, is already a significant task that we have ahead of us.

Talking about increase beyond that point is -- quite frankly, I would laugh to have that on my mind right now, but it's not the case.

MR. MITCHELL: Just to add to that, I think it's important for you to know what Sebastian says is borne by experience. Last year we hoped to deliver 15 airplanes. We delivered seven. So talking about going above our planned production is not realistic.

MS. CARLSON: Okay. Were these deliveries within Canada or the United States?

MR. MITCHELL: The deliveries that we made last year were both to European airlines.

MS. CARLSON: So just to confirm, the other types of single-aisle aircraft you produce are those all regional jets with less than 100 seats?

MR. MITCHELL: Yes. The aircraft we produce, other than the "C" Series are the CRJ family of aircraft, the CRJ 700, the CRJ 900, and the CRJ 1000. They're all technically below 100 seats, though the CRJ 1000 is capable of carrying more than 100 passengers. In reality, no airline has taken it above 100 seats.

MS. CARLTON: And how easily would you be able

to switch production from the CRJ family to the "C" Series?

MR. MULLOT: It would not be possible to switch production from the CRJ family to the "C" Series. If you were to come to our site in Montreal, you'll see that those two products are manufactured on different product line, even though they are next to each other and the manufacturing process is fundamentally different and they are not using the same tooling at all. They are not using the same processes, so it's fundamentally impossible.

MS. CARLTON: Okay, thank you.

MR. MULLOT: And by the way, it's not true for the original jet family, the CRJ 700, 900, 1000 we do have a lot of flexibility to actually switch production between those because they are made on the same tooling, the same -- very similar to the flexibility that Boeing has on the 737 Findley.

MR. MITCHELL: Just to add to that, I mean we were quite surprise to hear that the 737 line requires 24 months to have some interchangeability between a 700 and 800 and 900 because that's not the reality we face on our CRJ line. We can do it in less time. We produce fewer airplanes than they do, have been producing them for less time than they do, so I'm a little bit surprised that they can't meet sort of the same commercial conditions we can on the CRJ line.

MS. CARLSON: Okay, thank you.

In the earlier panel, Mr. Novick mentioned that Bombardier has been in discussion with airline, such as Spirit and JetBlue. Do you feel that you can fulfill certain needs of these airlines that Boeing cannot?

MR. MITCHELL: To the extent that U.S. airlines require an airplane below the family that Boeing, then there should be interest. While I can't necessarily confirm at this stage what airlines may buy or may not buy from us. That would be merely speculation.

MS. CARLSON: Thank you.

MR. BAISBURD: But Delta can speak to their specific experience, which is they were looking for a plane in the 100 to 110 space. And what you didn't hear at all this morning is how many seats are on the 737-700 or the Max 7. My understanding is on the 700 it's about 126.

MR. MAY: In our configuration, which is a little more generous, 124 seats and the 737-7 is 12 seats more than that, so 136, getting close to the 150 seats.

MR. BAISBURD: So to the extent that a U.S. airline wants a plane in the 100 to 110 seat, Boeing does not manufacture today a plane that fits that mission profile in the 100 to 110-seat category.

MR. MAY: Another point to be made on that, the discussion earlier about the design phase on the "C" Series

what I can confirm from my earlier days with Northwest that it's true that Northwest was a key input on the design for the "C" Series and many of those Northwest people work at Delta now, but furthermore, during this entire timeframe, the last decade at least, Boeing has never expressed any interest in entering into the 100 to 110-seat market. After they exited the market by shutting down the 717 in 2006, they were finished.

MS. CARLSON: Thank you.

The next couple of questions are directed more towards Delta. Just so I understand, at what point does an order actually become a purchase? Is it when the order is made or when the delivery occurs if the delivery doesn't happen until later in the future?

MR. MAY: It really becomes a purchase when you're fully committed; you're contractually obligated when we sign the purchase agreement, which generally is probably about two years before deliveries are going to start. You know the early deliveries especially we're very much on the hook for. If we were to try to negotiate our way out of it, it would be very, very painful from an economic standpoint.

Also, there's been talked about earlier flexibility rights that are very common, being able to later deliveries like with our "C" Series, which is after aircraft 35 that we can defer aircraft. We can substitute. And it's

because as time goes on you have less clarity with what the market needs are going to be, so it's very common to negotiate that flexibility.

MS. CARLSON: Thank you. Can you describe the reasons for using leased aircrafts rather than directly purchasing the aircraft and what would be the advantages and disadvantages of purchases versus leasing?

MR. MAY: That varies by carriers. For someone like Delta because our creditworthiness, leased aircraft are actually very expensive for us relative to acquire an aircraft on our own. We generally are not going to go to a big leasing company to commit to a large block of leases. Instead, if we do want to do lease financing, we will go to the manufacturers directly ourselves first and negotiate the purchase price, getting frankly a better purchase price than what the leasors get and then do sale lease backs with those leasors to the extent that that's the financing opportunity we want.

In Delta's case, when we would be looking at leasing, it would be a matter of looking at maybe wanting some flexibility to get out of aircraft at a later date or also just looking at our overall CAPX profile.

MR. BAISBURD: Did you ask about lease or used?

MS. CARLSON: For now, just the --

MR. BAISBURD: The analysis of when you decide

when to purchase a used plane as oppose to when you purchase a new.

MR. MAY: So going on the used side, I mean it's the same analysis whether it's new or used. It's an NPV analysis that we're doing. You know the key -- the big numbers we're looking at are net present value, return on invested capital, what's the cost per available seat mile going to be in the markets that we're going to be using this. How does it stack up? And again, this is an interesting case here because of the fact that we did change direction.

You know we had gone in and committed to acquire 19 U190s. We were going down that path, but it was after that that 19 that we started talking to other owners of the U190s to see what kind of deals that we could get and they were much more expensive than what we were going to be paying with Boeing for the 19 aircraft. We needed 75 aircraft to know we'd get to that kind of quantity and it was becoming clear that it was going to be a different picture than what we'd originally thought it would be and that is what caused us to really taking Bombardier more seriously again.

MS. CARLSON: Would you say that marketing plays a very large role in the types of decisions you make when purchasing or leasing or do you look at your individual sort

of economic reasons?

MR. MAY: For some of my Delta, again, we meet at a minimum monthly with all the major manufacturers. We're in constant dialogue with them on what they have on their -- you know what they're developing and what they have availability-wise. It's a very close relationship. So whether that's Boeing or that's Bombardier and Embraer, it's an ongoing dialogue. So it's really not influenced by -- if you're talking about marketing and what you see out in the press, no, not really influenced.

MS. CARLSON: Thank you. For now, that concludes my questions.

MR. ANDERSON: Okay, thanks Ms. Carlson, and now Mr. von Schriltz.

MR. VAN SCHRILTZ: Thank you. And thank you to everyone on this panel for coming here to talk about the "C" Series and your views on this case.

Now I heard your testimony that -- your view that the CS100 doesn't compete with either the 737-700 or the Max 7 because the CS100 covers the 100 to 110-seat niche, whereas both the Max 7 and 737-700 have many more seats than that. Does the CS300 compete with the 737-700 and the Max 7?

MR. MAY: From a mission standpoint, yes, that would be the case that it does compete, but one other

clarification point too on this is you know it's not just about seats. It's about the operating economics. And this is something we can provide more detail in the confidential briefs afterward, but I can -- ignoring price you would still select the "C" Series because of its superior operating costs.

MR. BAISBURD: One thing I would just add is at this point there's not a single firm order for a CS300. I mean the petition complains about a sale that Boeing made of used Brazilian E190s, so they made a sale. There was no lost sale. They had no competing aircraft in that space and the purchase, the firm order is for 75 CS100s. So it's completely speculative as to if, when, or if there will ever be a CS300. As we sit right now, there's a firm order for CS100s.

And as Mr. May mentioned, it is common throughout the industry to have substitutability rights and conversion rights in contracts because of flexibility entailed as you project out into 5-, 10-year needs.

MR. MAY: Yes, the deferrals that were mentioned earlier, the 350s that we did that was a contractual right that was negotiated back in 2014. Those deferrals are nothing beyond what we'd already agreed to in that earlier agreement and those agreements, as another example, we have substitution rights too. We can substitute A330s for A350s,

even though those are very different airplanes and there are pre-agreed prices on that as well.

MR. MCCLAIN: Just one additional observation with respect to your question about the substitutability of these aircraft. The 737-700 plays a very unique role in Delta's fleet. It would be more accurate to say that the CS300 would compete directly with the Airbus 319s, which are roughly the same size and they play sort of a workhorse role in the Delta fleet for that size aircraft.

The 737-700 we've talked earlier about this is really a truncated version of a much bigger aircraft, so it has performance characteristics that make it very attractive to Delta in a very, very narrow range of unique performance mission profiles like taking off at airports with very short runways or at very high elevation. So for example, Key West has a very short runway and most mainline aircraft can't take off on it, only RJ, so when Delta wants to have a larger aircraft to fly to that airport, it uses 737-700, but Delta would not consider that as an alterative really to the A319 or the CS300.

MR. BAISBURD: Again, to add one more point, that's why Delta has 10 of them in its fleet, 737-700s.

MR. VAN SCHRILTZ: Why would Southwest have so many 737-700s if its performance limits, its application for Delta. I mean it seems like it hasn't limited its

application for Southwest at all?

MR. ESPOSITO: I really can't speak for Southwest, but they're also looking for a domestic workhorse, but if you look at what they're doing now they're buying larger airplanes than the 700, which are more economical per seat cost. So they're changing their strategy to go to a larger aircraft, but it's difficult for me to --

MR. MITCHELL: If I might jump in there just to correct the record on the 737-700 at Southwest. Currently, Southwest's fleet is not exclusive 737-700. I don't know what the record shows earlier, but they have 151 737-800 in service. 737-800 would've been ordered later in date than the 737-700s. They originally had 700s. They've been buying more 800s. When they placed their Max order recently, it was divided 170 Max 8s, 30 Max 7s. So as you can see, Southwest is moving from the Max 7 or 700 to the Max 8 because it gives them better economics.

MR. VAN SCHRILTZ: Alright, do you agree with Boeing that there's going to be a lot of replacement demands for LCAs in the 100 to 150-seat category? In other words, planes within the scope of this investigation over the next year or two, given the age of the domestic fleet of such airplanes? I mean there've been very few deliveries of such planes since 2012, so I'm wondering is there going to be a

pickup in demand. Are there going to be more -- is there going to be more interest from U.S. airlines in acquiring these planes over the next year or two?

MR. BAISBURD: Just in terms of the scope of this investigation, it's 100 to 150 planes, but at the bottom end of that Boeing starts at 126. So almost 50 percent of what they've defined as the subject merchandise, and they defined it. I think Mr. Anderson said the market we defined this morning. They don't have a plane at all in 50 percent of that, so from 100 to 125, essentially, they have no plane there. And so in terms of -- I think it's critical to keep that in mind as you're talking about the scope and the impact and the competition here that they're not in the space.

Now in term of replacement, as you heard, there are different step ups, different groupings that the airlines themselves look at and that they can talk to about their acquisition and replacement needs in those groupings that they actually operate and not in this kind of generic 100 to 150 space, which is not the way they consider it.

MR. MAY: I mean I really comment on the other major airlines, other than to say our sense is that this is actually a relative quiet period for some of our competitors in going out and acquiring additional aircraft the next couple of years, but that is just our impression, not

represented as fact.

But what I will say is outside of our order, our next focus is actually on large, narrow bodies and this is more about what was touched on earlier about how we're doing up gauging and so we have, as far as this bow wave of aircraft being replaced, our next bow wave of aircraft being replaced are MD88s. Those are 150-seat airplanes that we are replacing with 180 to 200-seat aircraft, similarly to how we're replacing 50-seat airplanes with the 100 to 110-seat airplanes. It's all part of our up gauging strategy, which is in the airline industry it's an ever-falling yield, falling fare prices. We need to come up with ways that are going to improve our economics. Up gauging is a key piece of that strategy.

MR. von SCHRILTZ: Well I would like to hear from Bombardier. I mean, in Bombardier's view, based on your understanding of the market, is there going to be a lot--are airlines going to be on the market for 100- to 150-seat LCA over the next year or two to replace their aging fleets?

MR. MITCHELL: Ross Mitchell for Bombardier. We don't tend to forecast our sales in the short term one- to two years. We have two metrics we really look at. One is a 20-year forecast, which our last 20-year forecast was 2 years ago, and I can tell you that we have forecasted 1,900

airplanes in this broader segment over 20 years.

We look in the sales team at a five-year period. And certainly we would anticipate there will be aircraft in the five-year period, but I can't give you a definitive answer on the one- to two-year period, though we could give you a little more information in terms of our sales prospects in our confidential brief after the meeting.

MR. von SCHRILTZ: Thank you. Now I heard a lot of discussion of the superior features, or the innovative features of the C Series aircraft. I'm wondering, if these--and also I heard that the aircraft was kind of developed to fill what was thought to be a need in the market for the smaller aircraft with certain efficiencies.

If that is the case, then why did Bombardier sell so few of these aircraft such that the company was on the verge of bankruptcy in 2015? I mean I'm wondering, if it's such an innovative product, if there really was this demand in the market for it, why so few sales? You know, why did you not make a sale to a major marque U.S. airline until after Quebec's alleged equity infusion?

MR. MITCHELL: Ross Mitchell for Bombardier. I think there are a number of factors there. Certainly when an aircraft is in development airlines tend to be cautious. They're concerned about delays. They're concerned about us hitting our performance objectives.

So we certainly anticipated that there would be a pickup in sales after we confirmed our performance, you know, in terms of fuel burns, in terms of range, in terms of all of the performance metrics of the airplane, which we were able to start doing in late 2015 and early 2016.

Generally you will see that there was experience in the market with some new airplanes that were innovative in the A380 and the Boeing 787 where they had massive delays, and considerable disruptions in service.

And it was not uncommon for us to hear the question: Why are you different than those two big players? And certainly that played a role in when we were going to get certain sales.

So it's a number of factors, but it comes down to the airlines being comfortable with the stage you're at in your development program. They wanted to see us get through the flight test program, and that's when we started to get traction from the market because they knew what we were building and we could confirm to them exactly what they would get.

MR. von SCHRILTZ: And to what extent--I mean, Petitioners allege that a major factor in Delta's decision to purchase the C Series were these government subsidies; that they made them more confident in the financial viability of Bombardier. What is your response?

MR. ROSS: Well I think--I mean, Delta is here. I think they've testified to the fact that really what they were doing was buying the airplane based on the requirement they had for 100 to 110 seats; that they were buying the airplane for the performance that it has. They are buying the airplane for its extraordinary economics. And that's what they made the decision on, and I believe that's on the record.

MR. von SCHRILTZ: Mr. May?

MR. MAY: If I could add, to just confirm and also emphasize, the purchase price for an aircraft in general is only about 20 percent of the overall economics that we're looking at. Fuel burn, maintenance costs, flight crew, all these other things really add up and have a huge impact on the overall decision on what we're going to be acquiring.

MR. McCLAIN: One other thing--whoops, sorry. Scott McClain for Delta. One other observation connected to that is to put in context the timing of all of this. Remember that Delta's current fleet in this 100- to 110-seat space is the Boeing 717 used aircraft, which the largest bulk of which Delta acquired from Southwest Airlines after the Southwest-Air Tran merger. Air Tran had an extensive fleet of 717 and Southwest didn't want to use that aircraft anymore after their merger.

So Delta acquired that fleet en mass as its

initial strategy of using used aircraft to fill that space. If that strategy had played out, it had lasted its course by the time we were presented with the CS-100 opportunity because there just simply aren't anymore 717s out there to acquire at a reasonable price. It's a limited fixed supply of them because they've been out of production since 2006.

It's ironic that the product definition here excludes the two aircraft that Delta were seriously considering as an alternative to the CS-100. It's defined in a way to exclude the 717, which has a shorter range, and to exclude the Embraer aircraft because both they have shorter range and slightly smaller seat capacity, when in fact the commercial reality is those were the aircraft that were the real competitors to the CS-100. It's sort of a Through The Looking Glass sort of product definition in that it ignores every actual competitive alternative that Delta considered.

MR. BAISBURD: Yohai Baisburd. And just one additional point I would make. This isn't Geneva, and this isn't the Department of Commerce. So we heard all morning about subsidies. For the analysis of the Commission, subsidy and alleged dumping is kind of a given. You look at the injury or the threat of injury aspect to it.

The level of alleged subsidization, the level of alleged dumping, is effectively a footnote in the analysis.

So really it's just atmospherics and noise. And the question here for the Commission is: Is there a reasonable indication of threat? Not the impact that alleged subsidies have, or the level of the alleged subsidies, but is there a threat? The subsidy issue is dealt with in other forum, not really here.

MR. MITCHELL: Ross Mitchell from Bombardier, if I may. I would like to follow on a point that Scott made, which is our real competition--I made the point in my testimony--but our real competition is Embraer. Embraer makes airplanes exactly in the size range that we're talking about when we talk about the C Series.

If you ask people in the industry: Who does Bombardier compete with? They will say Embraer. I was at the Air Finance Conference on Monday. They put everyone up on the stage. Boeing and Air Bus were up on the stage. I was not with them. I was with Embraer. Our competitor in this size range is Embraer. They go from about 98 seats to a maximum of 144, and when we compare ourselves we compare our CS-100 against the Embraer 190E2, which is their future airplane. And we compare the CS-300 against the Embraer 195E2. That is our main competition.

MR. von SCHRILTZ: Thank you. Now the Petition includes a chart from Bombardier with production plans, or projected production, and according to this chart

Bombardier's goal is to produce 120 planes by 2020. And my question is: Is it important that Bombardier adhere to this schedule to make this program a financial success?

And would it be able to achieve that goal without increasing its sales to U.S. airlines, given the importance of the U.S. market in this segment?

MR. MULLOT: Sebastien Mullot. So it is very important. You know, we are forced to achieve that rate. We went out and made it public. It's numbers that we guide for the markets. So when we go out and make those statements, we take them seriously. So, yes, we'd like to achieve those.

Is it going to be easy? No, it's not going to be easy to achieve those production ramp-ups. So--and I would prefer to put that in the postbrief submission to speak about some of the challenges that we might be faced with ramping up production.

So, yes, it is important. Are we going to achieve those ramp ups? We certainly intend to. But there will be challenges.

MR. von SCHRILTZ: And how important is the U.S. market to achieving that target?

MR. MULLOT: If you look at our current portfolio, we have a fairly international portfolio. So we would love to make sure that we have good coverage in all geographies,

but there are very important customers outside of the U.S. as well for us. And we're taking about a four-year plan, and we are here on a program that will last 20 to 25 years to 30 years.

So American customers might come on the program; they might come later.

MR. von SCHRILTZ: Thank you.

MR. ESPOSITO: Joe Esposito with Delta. Just one more input. For what Delta looks at for the 110-seater has been used primarily to upgrade our 50-seat fleet. And those step functions where we take 76-seaters to go to 110, and 50-seaters to go to 76, because we're rapidly phasing out our 50-seaters.

Delta had, at the time of the merger with Northwest, almost 500 50-seaters. By the end of this year, we will have closer to 130. So an aircraft that's not really well received in the traveling public, less efficient. That's why we've been moving towards the upgrade strategy.

MR. von SCHRILTZ: Thank you. Now Boeing has calculated that the Delta purchase of the C Series aircraft came out to around $19.6 million per aircraft. It's based on public sources. And they also claim that Bombardier recorded a $500 million owner's contract provision to cover losses related to orders placed by Delta and two other

airlines.

So is it true that Bombardier offered this plane to Delta at below cost? And if so, why would it do that? I understand that it's important to validate the product with a major U.S. airline. Is that why Bombardier did it? Is it true that they're offering this plane below cost to Delta?

MR. MITCHELL: Well I think that question is one that is better meant for the postconference brief, so we will provide some information there.

Suffice it to say that we have publicly said that the price that has been quoted is way off, and we'll leave it at that.

MR. MAY: Greg May for Delta Airlines, and I will confirm that, that that number is very low. It's way off of what the actual price is.

MS. ARANOFF: Just to add, Mr. von Schriltz, we'll add this in our postconference brief as well, but there's a difference in accounting rules between the rules that Boeing operates under and the rules that Bombardier is operating under, and that actually has an effect on the accounting that you were mentioning about the impairment.

MR. von SCHRILTZ: The builders contract provision.

MS. ARANOFF: Exactly.

MR. von SCHRILTZ: Ah. Okay, great. Yes, if you

could address that in the postconference brief, I would appreciate it.

MR. BAISBURD: Yohai Baisburd. One additional point. It's exactly the fact that that number is wrong which this price transmission theory doesn't make sense. And I think Mr. May spoke about it in his testimony, too, about pricing is opaque; that there isn't transparency here. There's a high degree of speculation in the analyst's reports and in the industry itself. And I think when you see the actual price and compare it to the calculated alleged price, you will see just how off those things can be.

MR. von SCHRILTZ: I want to thank you.

Well I just have a few more questions. Now the Commission does have to consider the nature of the subsidies. One of the threat factors. And Boeing alleges that the only way, the only way that Bombardier can comply with the terms of its launch aid is to export this plane; that the market in Canada is not large enough to meet what they characterize as something of a sales target that was part of the launch aid package.

Does that make the launch aid an export subsidy that's going to stimulate exports to the United States?

MR. LICHTENBAUM: Peter Lichtenbaum for Bombardier. So, yeah, we did hear a lot this morning from

Mr. Novick and Mr. Conner about subsidies. And as Mr. Mitchell said--or, sorry, Mr. Baisburd said, that's really for the Commerce Department to determine as to when the case proceeds.

We would dispute their claims vigorously. So for example the equity investment by Quebec was an equity where the entity--the investment by the CES was not by Quebec at all but by a pension fund and was in Bombardier's rail business, which was also equity worthy.

And the whole criticism is a bit ironic, as their expert claimed that Boeing has to invest on commercial terms because it's not subsidized. But the WTO has found they got almost $3 billion in subsidies, and that's based on their own website.

So maybe there's a bit of the pot calling the kettle black on that one.

As to the specific issue of export subsidies, we don't believe that any of the subsidies alleged in Boeing's petition are export subsidies within the meaning of Article 3 of the Subsidies Agreement. Obviously the equities investments are not. And even as to the alleged launch aid subsidies, the focus in the Petition is on whether the launch aid was specific to an industry rather than on exportation.

And that's a totally different position in their

threat section of the Petition versus how they've argued specificity in the CBD section.

And, moreover, even if you take them at face value based on your question, their interpretation of export contingent is inconsistent with the WTO appellate body's reasoning in the EC aircraft case. You know, they note in their Petition that it's what the U.S. argued. It is what the U.S. argued. It was rejected by the WTO appellate body. And so if the ITC were to take that approach, presumably the WTO appellate body would do the same thing. So it does present I think a significant risk for the Commission if that approach were to be taken.

MR. von SCHRILTZ: Thank you. Boeing also alleges that the C Series wouldn't exist but for the launch aid and the equity infusions that Bombardier received. They also submitted some articles quoting the CEO as saying the company was on the edge of bankruptcy in 2015.

How do you respond to this argument that the C Series wouldn't exist but for these subsidies; that Boeing would be doing much better, that the MAC-7 would be getting a lot more orders, that the prices would be higher absent these subsidies?

MR. LICHTENBAUM: Well, again it's a bit ironic, as Boeing wouldn't exist were it not for U.S. defense spending. So, you know, there is a role for government

support of the aerospace industry. There has been forever. There will be. And there's nothing wrong with that.

Government support plays an important role in aerospace. Governments have always recognized that. And the question is: Is that support consistent with international rules? That's been the focus of Canada ever since Bombardier has been around.

You know, sometimes the government may miscalculate what the international rules are because the international rules, you know, have some ambiguity. But I think the government has been making a full-faith effort to ensure that its investments in Bombardier comply with all the international rules.

And, you know, we've looked at those investments that Quebec made in the C Series LP that the CES made in the transportation business. And we believe that there's strong grounds to believe those are not subsidies as they've been defined by international rules.

MR. MAY: Greg May with Delta Airlines. I would like to make one point that's really key to this overall discussion. Let us be clear. If it had not been for Bombardier C Series we would have been continuing forward with USD 190s, or--and a combination of a few used 717s. Not only did the 737 700 not work economically for us, Boeing also had made it clear during this time frame they

had no slot availability in 2018 and 2019 to deliver aircraft in that critical time for us.

MR. BAISBURD: Yohi Baisburd. I mean this case is complex enough that we don't have to take physical goods out of the mix. And I think what I hear kind of from Boeing this morning is the suggestion, the mere fact that Bombardier is alive creates a threat to them because maybe sometime down the road it's possible they'll sell into the U.S. market C-300s and C-500s.

That's not what a threat analysis is at the ITC, and the dumping or subsidy--you know, in a Title 7 case. What you have here is a sale. You have a sale of C-100s which don't compete with anything that Boeing currently manufactures. And whether or not alleged subsidies kept Bombardier alive or not is a completely separate issue for maybe some other forum, and it is not a relevant factor, in my belief, under Title 7.

This is about goods. This is about imports. And perhaps maybe imports that may be starting in 2018, and we have that whole eminence question as well. We don't have to add additional complexity by looking at just the fact that Bombardier may be alive or, you know, a viable commercial concern in the future; that that somehow is the threat that can be remedied in a Title 7 situation.

MR. von SCHRILTZ: Thank you. One last question,

and your response actually kind of brought it to mind, is this whole question of what is the imminent future of this case? I heard you say, well, it's usually a year, maybe two. What do you think of Boeing's argument that because of these orders, these contractual obligations to deliver so many aircraft in each year, going through 2020, that there's greater certainty about what subject imports are going to be? And perhaps justification for longer imminent future, or a longer period?

MS. ARANOFF: So Congress has told the Commission emphatically not to engage in speculation and conjecture. And Boeing has contradicted themself on that argument.

On the one hand they say it's absolutely sure what's going to happen five years out. We can predict it. And then they say to you, every contract has conversion options in it and we've got to decide now whether those are going to be exercised. And if so, everything could change.

So they said even though, for example, Delta ordered CS-100s, somehow we have to plan as those might all be CS-300s. The truth is that the future is very difficult to predict, even in this industry, and the further out you go the more speculative it gets.

Contracts have flexibilities because times change and needs change, and airlines want to be able to have those options. But because they have the options does not mean

they're going to exercise them. Mr. Mitchell can tell you that. It sometimes happens; it sometimes doesn't.

So the further out you look, you'll have maybe purchasers who run into financial trouble and have deferred their deliveries out several years; maybe purchasers who want to exercise the option to buy a different aircraft entirely. A lot of things can happen.

So to say that we know exactly what's going to happen five years from now is not true, and it puts the Commission at a very high risk of going against that concern about speculation and conjecture.

What we know--and even then not with 100 percent certainty--is what's going to happen within the period of time that the Commission normally considers imminent. But there will be a few CS-100s delivered to the U.S. market in 2018. No CS-300s. And that's only, as Mr. Mullot said, if we make optimistic assumptions about Bombardier's ability to get up that learning curve and produce the aircraft that it's already committed to deliver, not any new ones.

MR. DURLING: Mr. von Schriltz, just one additional comment. Jim Durling for the Government of Canada. Yes, imminence is in the context of each industry, but imminence is a statutory term that has some intrinsic meaning. And with all due respect, five years stretches the term "imminence" beyond any recognizable term. Imminence

means imminent. Imminent doesn't mean five years in the future based on speculation.

And the other thing about the notion of imminence is whenever the Commission has considered this concept in the past, it has always been imminence against the backdrop of some existing imports. Maybe not in every year, but every case we've found there's been at least some imports during the Period of Investigation to provide some contextual anchor for then making sort of a limited projection into the future for some imminent period of time, but grounded in some economic reality.

I think the opening comment by Mr. Lichtenbaum summed it up great when he said this is the most extreme example of overreach, because we can't think of any other case where there's been no import activity at all, not in any year of the Period of Investigation--at least not subject imports; no domestic production during this period of time of any significance; and the threat case based entirely on not what's going to happen right after the period, not what's going to happen in like the year after the period, but speculation about what's going to happen three, four, five years out into the future.

I mean, this is really uncharted territory based on the Commission's prior practice.

MS. ARANOFF: I do also want to add one more

thing, and that's that the Commission has said that what it considers is not whether the imports are imminent, but whether the injury, the material injury, is imminent.

Boeing told you this morning that the only way that they can take new orders for a 737 is basically to bump some of their existing customers further out into their seven-year backlog. So that does raise the question of how can injury by imminent if the only way that they can take a new sale is to make somebody else wait seven years? From a cash flow standpoint, as we mentioned earlier, the prospect of imminent injury is extremely hard to figure out under those circumstances.

MR. BAISBURD: Yohai Baisburd again. And let's go to the facts of this record. So the facts of this record is Boeing stopped making a plane in the 100- to 110- space in 2006. They abandoned that segment of the demand.

In 2015, Delta went to market to fill that space. As Mr. Esposito said, they wanted to up gauge from 50-seat regional jets. And you don't go from 50 all the way to 130, or thereabouts. And so there was a demand that they were looking to fill in the 100- to 110 space. They went to Boeing. Boeing at no time offered them a new plane. They can't. They don't produce one in that space.

And so what did they offer them? They offered them used Brazilian planes, which they purchased. Then they

had the opportunity to purchase a plane that Boeing doesn't compete with, because there is not a Boeing alternative in the 100- to 110 space.

So to the extent there is a sale for future import into the United States, it is a sale for 75 CS-100s. Full stop. That is the record before the Commission at this point. And as Ms. Aranoff mentioned--and she is absolutely correct--anything beyond that is entirely speculative. And the statute prohibits speculation even in, or especially in, a threat context.

MR. MITCHELL: Ross Mitchell for Bombardier. If I could put some context around our delivery ramp up. So in some years, in 2021, we may hit 120 aircraft per year. I would like to let you know what Boeing and Air Bus do today in this market, and both of them are in excess of 500 airplanes a year now. They will go to 700 airplanes a year over the same period, each.

We are talking between 1,000 and 1,400 airplanes, and they have sold every single one of those positions. So when you talk about our ramp up and what it means, it is nowhere near the size of what they're doing right now with their airplanes.

MR. von SCHRILTZ: Thank you. I have no further questions.

MR. ANDERSON: Thank you, Mr. von Schriltz. Ms.

Christ?

MS. CHRIST: Thank you very much for coming to again provide us with some illumination on a very complicated and getting more complicated as the day goes on, industry.

I would like to start and make sure I cover some of the questions that I had asked this morning in the event that there's--you know, I don't want to take it for granted that the answers are similar as the panel earlier.

So if you could describe for the global market where are the various producers most competitive, or most present? This morning it was mentioned that there was the $100 billion U.S. market, or a billion globally. Is that also how you see it? And do you see that you compete in all of these markets?

MR. ESPOSITO: Joe Esposito, Delta. From a global perspective, we compete--we do compete globally. The majority of our business, 60 percent plus of our business is in the U.S. market, and 40 percent is offshore, and within the Asia, Europe, Latin America, Canada. So that's where Delta competes in the marketplace.

MS. CHRIST: And what about the C Series? Do you see that as competing with Air Bus and Boeing in all of those other global markets as well in terms of their demand relative to the U.S. demand?

MR. MITCHELL: Ross Mitchell for Bombardier. We certainly compete worldwide with the C Series, without a doubt. We provide a market forecast, a 20-year market forecast, which talks about the entire world market. And the entire world market we see for the smaller, narrow-body aircraft, is 7,000 units.

If you were to ask us who we compete against, again I would say Embraer. We compete against Embraer. And Embraer, strangely enough, defines the market that they compete against, us, with the C Series, as 70 to 130 seats. And they will give a slightly different number, but it is worldwide. North America makes up approximately 20 percent. We don't, as I stated earlier, we don't distinguish in our forecast between the United States and Canada. But clearly it's an important market.

But so is Europe. So is China. Southeast Asia is a growing market. There are many markets where we compete with Embraer and compete for this business for the lower end of the single-aisle market.

MS. CHRIST: Also, what percentage of sales in the market are new--are used or refurbished airplanes? And is that--it seems that it's not consistent across customers; that some customers are more inclined to be purchasing used or refurbished versus others. And is that strictly an airline choice? Or what's driving the distinctions across?

MR. MAY: That's actually a very complicated question. We'll be happy to try to provide an answer for that in the briefs later.

MS. CHRIST: Do you have bundled sales or simultaneous negotiations with the regional aircraft that are sold when you're approaching customers, whether it's in the United States or internationally?

MR. MITCHELL: No, we don't. Generally they're separate markets, and oftentimes, as I think was mentioned in some of the testimony from Delta, they are operated by different airlines. Delta, our regional jets that operate with Delta, are not operated by Delta. And that's common throughout the world. The regional jets would be operated by regional operators.

So it would be extremely rare for us to be discussing CRJs and C Series, or for that matter Q400s which we also make, in a single sale. And in the vast majority of cases where we're selling C Series, it is C Series alone for that particular need for that airline. So we don't see that, no, not at all.

MS. CHRIST: In terms of your capacity--I think you mentioned that you had expected, I don't know if I have the right year, to deliver 15, but you in fact delivered 7. How would one interpret capacity utilization in that context? Did you get the resources to be able to build 15?

Or did you scale back? When did the distinction between what you thought you were going to build and what you ended up building occur?

I'm just trying to get this build-to-build ratio, and the flexibility in terms of how much lead time do you need. If a customer came to you and said I'd like to buy a certain number of C Series planes, what would be the minimum amount you could say, yes, we can meet that need?

MR. MULLOT: Sebastien Mullot from Bombardier. I suggest you go back on the 7 versus 15 deliveries. That was last year. It was, the original plan was to deliver 15 aircraft. Unfortunately we encountered some issues with our supply chain, deliveries of engines. So our supplier advised us, I would say quite a bit of time in advance, that they would not be able to meet the amount of engines to be delivered that we required, and therefore we had to plan for reduced deliveries, and therefore also delayed deliveries to our customers.

So we had to slightly adjust demand power to reflect that lower delivery rates, but again it was something that was properly planned in advance and we were not talking about huge amounts, right? We were talking about a handful of aircraft and engines. So that was something that was painful, I would say, nothing that you really want to go and tell your customers. It's not a

pleasant discussion that you have. But it was manageable.

Now if I turn to I guess going forward, the ability to affect change, our production rates going forward, again it's limited by our ability to give enough heads-up to our suppliers for the potential increase. It's really depending on the systems, or on the structures. It's probably around 24 months on average. It could be longer. Like an engine manufacturer might need a bit more lead time. And that's the sort of lead time we need to tell our supply chain we're going to increase the rate.

And that increase in rate would not be huge. You're talking probably a 10 percent, 20 percent if you're lucky, increase in the project rate. And I go back to the comment I made earlier. Why is that? Because, quite frankly, Bombardier is not the preferred OEM here when it comes to suppliers. There are big players out there--namely, Boeing and Air Bus--that are stretching the supply chain. And with the volumes that Ross was alluding to, you can guess where the priority would go if you are a supplier.

So, you know, a significant increase in production from Bombardier above and beyond what we have showed in the market is, quite frankly, going to be extremely challenging.

MR. BAISBURD: Ms. Christ, you have asked about competition amongst the aircraft manufacturers, but I think

Delta has a perspective in terms of competition amongst the airlines and what need they have, and how that plays into the aircraft that they purchase. And I think Mr. Esposito wants to talk about that, as well.

MR. ESPOSITO: Joe Esposito with Delta. Just to give as little bit more clarity on the process, it does start from the business side within any airline of what the needs are for the long-term future.

We make that decision on a 20-year-plus basis. So we first define what we need. Then we define the market--the aircraft size, the markets we're going to go into. So to ensure that we really optimize capacity with demand at all times. And throughout the chain of size of airplanes, too, if that makes sense to you.

MS. CHRIST: So you touched on the engine. Could you elaborate on the sourcing of your components? Specifically, do your component suppliers also supply your competitors? And to what extent would the demand from your competitors, if you have shared component suppliers, affect your ability to meet your production rates?

MR. MULLOT: Sebastien Mullot again. So we do have common suppliers across the program. We do talk to suppliers that are also supplying to our competitors. We do have systems on the aircraft that are almost exactly the same as some of our competitors.

I'll give you an example. I don't want to get too technical here, but the auxiliary power unit, the engine that you are using to generate electricity when you are on the ground, is the same as the one used on the Air Bus 320 and Boeing 727. That's one example. There are a few others.

So, yes, we do have some common suppliers. And as I said earlier, those suppliers naturally, I don't blame them, might actually elect to give a bit more priority to serving our competitors. I'll leave it there.

MS. CHRIST: I want to ask a little about the demand drivers, as I asked this morning, the load intensity and the number of routes. Are the number of routes being provided by U.S. airlines decreasing? And if so, how is that affecting the relative size of planes that airlines are demanding as they look forward?

MR. ESPOSITO: Joe Esposito with Delta. The number of routes change by different airlines. Some are growing. Some are shrinking. Overall, capacity in the U.S., and I'll talk about the U.S. specifically, has been growing every year. Like I said, some airlines are growing, are shrinking, and some are growing faster than others, and some are growing like Delta, United, American typically grow a little bit slower. Carriers like Southwest, Spirit, typically grow a little bit faster.

So the market selection changes. It changes by carrier. What's happening, though, is--what's happening in the U.S. is smaller cities, smaller communities, are getting smaller just because populations are shrinking. And populations in say New York, Los Angeles, Washington, Seattle, Boston, big metropolitan areas, are actually getting larger.

So the dynamic shift of capacity has been to follow that trend, because airlines basically follow passengers. And passengers are moving in different--passengers are moving out of smaller cities to larger cities. So is industry and business, slowly, not dramatically. And so that's been the change that you've seen at Delta.

MS. CHRIST: And that--is that dynamic driving your upgrading strategy?

MR. ESPOSITO: There's two things that are driving that. One is bigger population centers. And the second is, as we talked about earlier, we have seen over the past 20 years average fares decrease over time when adjusted for inflation. So in order to keep putting out an efficient seat, or one that's an economical seat, as we see air fares drop, and if we see that trend for a very long period of time, there's nothing that says that air fares are then going to continue to go up. So we need to be innovating and

we need to produce a seat that continues to be more efficient so that we can pass on the lower fares to consumers. So two things are driving the up-gauge strategy.

MS. CHRIST: So far I've heard a lot about some of the demands of the passengers and the adjustment of your lead to meet those demands. To what extent does the airline adjust its network to the fleet composition and the fleet size? It seems like it's not completely a one-way direction, right? You've got a certain fleet size. And if you don't have the plane, or it's not where it is, it's not completely a one-way transmission of signals.

MR. ESPOSITO: Well it starts at Delta--I can speak for Delta--from the business perspective of what the need is from a demand perspective. Then we size the airline with the fleet. So that's always changing. And we do this annually. We'll do a 5- and 10-year plan of where we see demand going, then match it up with our long-term, or our short- and long-term aircraft that are being delivered or retired and see does that match up?

So we want to make sure that the fleet isn't driving the business, but the business drives the fleet decisions for the future.

MS. CHRIST: Similarly to what I requested of the panel, if you have any sort of technical specifications such as pilot ratings, crew requirements, FAA regulations, that

are technical or regulatory in nature that would help us understand your description of where the market segments are, I understand sometimes you can't just switch out a pilot, or you can't just switch out a crew, or the FAA has certain regulations. And so something external to your specific fleet needs may be driving your ability to substitute certain airplanes for each other in terms of the seat size. So if you have any information about that to provide, either in your postconference briefs, that would be helpful.

MR. ESPOSITO: Yes, we can provide anything that you're requiring on that subject.

MS. CHRIST: Okay. And you mentioned that you made a sale to Lufthansa? Sorry--

MR. MITCHELL; Ross Mitchell from Bombardier. Yes, we did. They were the first customers to sign on for the C Series.

MS. CHRIST: Okay. And I think, at one point--I'm trying to remember what the exact--oh, yes, that there was some sort of a recognition of the first person to test and fly the plane, and so that potentially Delta served as this tester, and maybe were rewarded in terms of the price. Why would Lufthansa not serve that same signal to the rest of the industry that Delta might have served?

MR. MITCHELL: Well, I think Lufthansa would

have been an airline that would have sent that signal. It was early in the program. I think Mr. Mullot indicated that what Lufthansa needed to go forward was to meet certain cost targets. For most situations, there isn't a single launch customer. There are usually multiple launch customers. They may be across different geographies, they may be across different business types within the airline industry.

So I think Lufthansa, if you're asking the question, yeah I mean Lufthansa does send a signal. They're a quality airline that a lot of people would look at, and the same is true for Delta.

I mean the other thing -- sorry, Ross Mitchell from Bombardier. The other thing to note here is that the Lufthansa order was actually assigned to Swiss Airlines. So Swiss is a fully owned subsidiary of Lufthansa. So today Swiss operates the CS-100 out of their bases in Geneva and Zurich, and certainly in terms of a signal, Lufthansa is a much bigger airline than Swiss, who eventually take the airplanes.

MS. CHRIST: So you would consider Lufthansa a marquee customer, consistent with Delta in terms of the type of signal that it could provide, or its marquee -- is it market-specific like there's marquee for Europe and there's marquee for everyone else?

MR. MITCHELL: Well, I think -- I don't know.

Delta can probably speak to this as well, but I think there are certainly airlines across the world that are seen as, you know, market leaders. They may, for example, lead their specific partnership agreements. So in the case of Delta Sky Team, in the case of Lufthansa Star Alliance, these are seen as the anchor airlines of those alliances. So they are extremely important within the business.

MR. MAY: Greg May for Delta. I would also comment, and it's not only, you know, the fact that it's Delta operating these aircraft. It's the magnitude as well, that it's 75 firm aircraft that we have stepped up to, which is an overwhelming endorsement of the aircraft. Then further one of the top things that's been discussed here is, you know, about setting the price, you know, that the marquee sets a lower bar and that everybody else wants that, you know.

From my almost 25 years in buying aircraft, I can tell you I've seen a number of marquee deals. They typically are able to achieve anywhere from 20 to 30 percent better pricing, than what follow on customers are able to achieve. It's something that is understood by the airlines, that that customer who stepped up, took the risk is going to get a better price. The manufacturers are pretty disciplined about not providing that pricing down the road.

MS. CHRIST: And you said that 20 percent --

I'm sorry, was it about 20 percent that you mentioned?

MR. MAY: Yes from -- anywhere from 20 to 30 percent versus what subsequent pricing would be for a, you know, once the aircraft is established, that it would be a more market price for even larger airlines.

MS. CHRIST: Is that --

MR. MAY: I can give examples in even where we are at the higher end on aircraft, where someone else has gotten the marquee pricing ahead of us.

MS. CHRIST: Is that dynamic also true of derivative models. Would an airline be given a similar type of discount or maybe slightly less if it was something like the MAX-7? Would they get some sort of --

MR. MAY: The first MAXs customer who would get a marquee pricing. I think in this case Southwest is probably the airline that achieved that. I don't know what their pricing was, but it's probably -- it is to a lesser degree though, because a derivative is perceived as lower risk than a clean sheet airplane.

MS. CHRIST: Oh before I forget at the end, there are a couple of documents, or if you have anything that's briefed to share with respect to the 2004 study, and the airline counsels from 2005 to 2010 that you said are -- gave ^^^^ I'm sorry, Bombardier, that gave you the impression that the industry was looking for this specific

space of aircraft. If you have anything to provide like from that time period or from those it would be helpful.

Back to Delta. You mentioned that when you were looking for -- looking at the used 717s and the Embry Airs, and there was not sufficient supply, I think you mentioned it gave you opportunity to take Bombardier more seriously again. Can I ask, if I'm reading too much in this, what do you mean by "again"? Did you look at them at a prior time and if so, what was your assessment at that time?

MR. MAY: Yes. We've, as I said, we're always in dialogue with all the manufacturers, and we had been considering, always been looking at the C series. Again, however, what changed that made us go looking more seriously at it was, you know, an expectation to begin with that we would continue to find aircraft at the price level and cost of getting them delivered on ramp that we would achieve with the aircraft from Boeing.

What we found after those aircraft was that that total cost was increasing by 40 percent or more, which again made us go back and revisit conclusions that we had had before, that the E-190 was the way to go. We had -- you know, the time frame we're talking about is December of 2015-January 2016. You know, we had really focused in on the E-190 beginning in like March of 2015, and had made an

initial decision to go with E-190s more in the summer of 2015, but didn't commit until the end of the year.

But it was during that time frame again. We needed to pool of 75 aircraft at least. On the 717 side of things, the only aircraft that were possibly viable were I believe it was 17 aircraft. They're operated by Volatia. Those aircraft were not going to become available until maybe 2019, and the numbers that they were indicating just were not something that we would pursue.

So it was really about E-190s, and the E-190s, we were talking to many leasing companies and getting indications on where they would come out on -- it wasn't only about ownership cost, but then also our cost to transition those aircraft and what they would contribute in order to get them on lease with Delta.

MR. BAISBURD: Yohai Baisburd, and just to add one point, to show you just how arbitrary and bespoke this product definition is those Embry Air 190s are less than 100 seats, slightly less than 100 seats, and they're less than 2,900 nautical miles. That was what Boeing came to the table to offer when Delta was looking, and Delta ultimately went with the CS-100.

But that just shows you this line at 100 on the low end, and the line at 150 at the top end, don't make commercial sense from the airlines that fly. They may make

some academic sense; maybe it's the way the producers are looking at it, although I don't know that that's the case. But certainly from the airline perspective, no one in this industry that I'm aware of groups planes in 100 to 150 as a single tranche.

MR. MAY: And Greg May at Delta. Just for on the record, that this size -- in our configuration, the C series is 109 seats, and the E-190 would have been 96 seats.

MR. McCLAIN: And also there was a third aircraft that was in the mix that we didn't pursue quite as extensively, but it was in the same discussion range, which is the slightly larger Embry Air aircraft, the E-195, which is over the 100 seat limit. So it's almost exactly the same size as the CS-100 but again artificially excluded out of the product definition because of this artificial range requirement.

MS. CHRIST: I think you've touched on this a little bit in the opening statements with your presentation, but your 2015 to 20 -- I think I wrote this, 2034 or 2035 market forecast indicates that the C series offers operators potential savings between 7-1/2 million to 12 million per aircraft.

If it's possible in the post-conference brief, could you give some additional information on sort of what that entails, where the cost savings that you're -- a little

bit more itemization of those cost savings for airline operators.

MR. MULLOT: So we can submit that, yes.

MR. MAY: Greg May for Delta. We'd be also happy to share with you our own conclusions on those operating cost savings that the aircraft provides.

MS. CHRIST: That would be helpful, thank you. Do you have -- at Bombardier, do you have or have had relationships with other producers to develop your product, either in other countries, help develop overall?

MR. MULLOT: Sebastian Mullot, Bombardier. So especially on the C series, we did mobilize extensively amongst the international supply chain. We are really truly an integrator, meaning that when we design an aircraft, we define the envelope of the requirements, the performance, the range, the fuel burn performance, the cabin comfort.

So we define those parameters and then we go and select suppliers for they're called work packages. So chunks of the aircraft, and we ask them to design within that design space. So we're doing that internationally, and you know, a number of the player in the supply chains actually are based here in the U.S. I've already mentioned Pratt-Whitney, which was with the engine one of the key contributor to the step change in the economic efficiency of the aircraft.

I could name, you know, for the avionics, which is sort of the brain of the aircraft Rockwell Cummings out of Cedar Rapids, as well as for the fly by wire, again very important system in the aircraft, which is really electrical comments on the flight control, Parker out of Irvine, California. So yes, we've mobilized suppliers across our supply chain.

MS. CHRIST: Did you have any kind of development agreement with the Chinese like Komac and what was that and does it still exist or if you could just give me some information on it?

MR. MULLOT: No, we do not have a development agreement with Komac, certainly not on the C series. One of the suppliers for this fuselage is a Chinese supplier named ACC. Just like many other suppliers on the aircraft structures come from various countries, but only for the fuselage. Some of our own facilities in Northern Ireland for the wing.

So it's truly -- you know, today our business is truly international, and it's very difficult to only rely on one home country or one country for supply.

MS. CHRIST: I think that's all I have for questions. Thank you very much.

MR. ANDERSON: Thank you, Ms. Christ. Okay, Mr. Yost.

MR. YOST: Good afternoon. Thank you very much for coming, and I've really enjoyed your testimonies, all of it. Let me be very brief because the day has already been very long. In Bombardier's financial, 2016 financial report, I see an item in Special Items on page 66 of an impairment and other write-offs of program tooling and inventory worth $3.249 billion. Could Bombardier explain what these items are, either now or in your post-conference brief? Was this inventory meaning airplanes that may have been produced?

MR. MULLOT: We will definitely explain that in our post-brief submission. I think we're no accounting experts here, so we do not venture there. But we will definitely provide that information, and it goes back to what Shara said earlier I believe, on the various or the difference in the accounting methodology used by Bombardier and the one used by Boeing, which we actually have done in a few years back. But we'll provide that in the submission.

MR. YOST: Okay, thank you very much. Referring to a question that was asked earlier regarding the onerous contracts provision for the C series, I'll look forward to the explanations that were already offered and to the explanation regarding the accounting for this.

MS. ARANOFF: We'd be happy to supply that.

MR. YOST: Okay. Getting back to the previous

question, does the impairments indicate that the C series was a troubled launch? Were these teething problems, so to speak?

MR. MULLOT: Sebastian Mullot. It is simply an indication of an adjustment in the forecast of the cost, not if he has to do with the, you know, with the health of the program. But we'll elaborate in the brief again.

MR. YOST: Okay. Thank you very much. That concludes my questions.

MR. ANDERSON: Okay. Mr. Duncan.

MR. DUNCAN: First question to Ms. Aranoff, you talked about expanding the like product from one that is co-extensive with the proposed scope. How do you square that with the testimony we've been hearing today around this table about how there is such a large gulf between the subject sales for importation, in terms of seat count, with even the smallest model number that Boeing offers within the expanded numbers?

MS. ARANOFF: Yeah. This is a puzzle, because of course the Petitioner selected the scope, and they ran into the problem right away that our witnesses have been telling you about this afternoon, which is that the C series is smaller than anything that Boeing now produces.

And that left them with a quandary of how to define the scope on the bottom end, that doesn't necessarily

reflect the realities of competition in the marketplace, where as Mr. Mitchell has noted, Bombardier sees its competition mainly with Embraer, which is an out of scope product.

So you're asking us to justify the broader like product that we've defined. We simply said to ourselves okay, we know what the competitive realities are in this market, but in defining the domestic like product, the Commission is supposed to be looking at what the domestic industry makes in the United States, and then say to itself is this a narrow product or is there a broader continuum of products. We think that the latter is in fact the right answer.

You can take Boeing's smallest narrow body up to its largest, and depending on how you configure them, they can have a range of seat capacities and different ranges as well. But Boeing has artificially tried to create a dividing line by saying to you if you configure it in exactly two classes with exactly a certain seat pitch and exactly a certain range, then there's a clear dividing line.

The problem is that's not actually how the planes are made or used. There's a much broader range in terms of seat pitch is or whether there are one, two or three classes, which all of those things will result in each of those models not being as widely separated from each

other in terms of seat size.

This morning Boeing said to you oh really there's a gulf. These things go up in large steps of size between the 737, 7, 8 and 9. Well, if you look at it exactly, configured in exactly one way, maybe you could make that argument. But that isn't how the market works. One airline is going to have more seats than another in the same 737, MAX 7, 8 or 9. So if you look at it in terms of the diversity of use that's actually taking place in the market, there really isn't a clear dividing line.

There's absolutely no magic to 150 seats, and everything that Boeing makes is above the 2,900 range limit, so that doesn't help you distinguish either.

MR. BAISBURD: Yohai Baisburd. If I can add one thing. If I understood the testimony this morning, United switched from 700's to MAX-8s. Well, the MAX-8 is above the 150 seat, whereas the 700 is in this artificial definition that they've put forth. I mean that alone shows you that for a large campaign and sale to United, that they were willing to move up gauge at that range.

But in terms of a family of products, I mean I don't think anyone can credibly maintain that the 737 is not a family of planes. I mean you heard this morning that they're produced on the same line, using similarly trained employees. They're sold in the same channel of

distribution. I mean if you look at all the traditional factors that you look at, there's an overwhelming continuum of the 737 family.

This is two steps, right. The first question is did the sale injure, right? Was there a kind of causation, and the answer is no because there was no competing Boeing product at that time that Boeing can offer. There's no lost sale. There's no lost revenue.

Separate from that is what industry does Boeing have, whether it is the domestic industry? The domestic industry is the 737 family, for all the reasons that were developed earlier.

MR. MITCHELL: Ross Mitchell from Bombardier. If I may, the seat count is really a difficult matter, and in the United States, the largest airlines actually will describe the configurations they have as three class, right. They have a first or business class, a premium economy and an economy. So we all have been asked to put together a three class configuration.

But putting the extra class in there can sometimes make a difference in terms of the number of seats you have in the airplane. When you asked this morning, you know, what's the real differentiator, 150? What's the solid line? I mean the answer was difficult to follow, but there isn't one. Every airline configures their airplane

differently.

In our testimony, we showed that American Airlines went from 150 to 160, and that's just simply a matter of changing seat pitch within the airplane. It's not something that they have to get certified; it's not something that requires the manufacturers input. They simply put the seats either closer together or further apart.

So when you're trying to nail the seat count as a dividing line, that's really tough. You know, in a sales campaign we spend an awful lot of time going back and forth with airlines on exactly what the seat count is for the airplane we're selling at that time, and no two airlines are the same.

So to suggest that a market exists or doesn't exist at 150 seats as a firm position is, in my experience, completely artificial.

MR. DUNCAN: I understand from testimony this morning and this afternoon that Boeing has exited the 717 model, which used to be, I would say in your guys' opinion a closer match to the C-100 from your testimony earlier. Are there anything under the product scope specifications, not expansion upwards but going underneath the scope limits that Boeing produces that competes in the market?

MS. ARANOFF: Boeing doesn't produce anything

smaller. Right now, the MAX-7 is the smallest. Well, the 700 to the extent it's still being produced, but they're not offering new ones for sale, and the MAX-7 is a little bit bigger. There's nothing smaller than that that Boeing makes in the United States.

MR. DUNCAN: And the CRJ is a model that Bombardier produces that's smaller but competes in that area.

MS. ARANOFF: Bombardier produces regional jets, which is the CRJ, and they are smaller. They're not part of the domestic like product calculation because they're not a U.S. product produced by a domestic industry. I think Mr. Mitchell mentioned just a while ago that if you asked Embry Air what the market segment in which they compete is, they would say 76 to 130 seats.

So you know, airlines define the markets for -- or the aircraft manufacturers define the markets for marketing purposes wherever they see their competitive sweet spot. But if Embry Air is saying 76 to 130 and Bombardier is saying 100 to 130 and Boeing is saying something else, it just goes to show you that really it's hard to draw any distinctions that are meaningful based on the Commission's like product criteria based on seat size.

MR. DUNCAN: And on the upper range, I know there was talk about plans for a CS-500, which would be

above the scope definition as proposed by the Petitioner. But does Bombardier produce anything currently in that range?

MR. MITCHELL: Ross Mitchell for Bombardier. No, we don't. The CS-300 is the largest aircraft we produce and have ever produced.

MR. DUNCAN: As the counsel and firms should know, we gathered certain like product or alternative product information in the Commission's questionnaire collection. Should there be an importer or purchaser that's reporting expansion merchandise? That would be a misunderstanding of the products in question, would it not?

MS. ARANOFF: Shara Aranoff. I'm not sure Mr. Duncan that I understand your question.

MR. DUNCAN: If importer or a purchaser in the U.S. was saying it had imports or purchases of other single aisle LCAs from Bombardier, that would be a misunderstanding, correct?

MS. ARANOFF: There's only two single aisle LCAs from Bombardier, the CS-100 and the CS-300.

MR. DUNCAN: And my final question --

MR. McCLAIN: If I could weigh in on that question too, the questionnaire was somewhat unclear on the definition of an LCA. The only definition of LCA as opposed to the 100 dash to 150 dash seat LCA was the phrase "large

commercial aircraft." The regional, there is a distinction between regional jets and mainland aircraft in Delta's view, which is driven by the pilot contract scope clause that Mr. Esposito was explaining earlier. In other words, that the -- if the aircraft if 76 seat or smaller, it must be operated by the regional affiliate and not by Delta mainline pilots, and if the aircraft are larger, then it can be operated by mainline pilots and we would call that a mainline aircraft.

But these regional jets that we're talking about, particularly the larger ones, are large commercial aircraft, and Delta has in its fleet some of its larger CRJ or they're regional jets in the sense that they're 76 seat or smaller aircraft. But we would also consider them to be large commercial aircraft. So that may be where some the confusion that you're describing is coming from.

MR. DUNCAN: Thank you. My final question is this morning, the morning panel spoke about how to analyze in the context of threat, shifts in market share. I invite the panel to react to that analysis within the understanding of a single like product coextensive with the scope.

MR. LICHTENBAUM: Sorry. Peter Lichtenbaum for Bombardier. Can you focus your question a little bit further? I just want to make sure that I'm answering it.

MR. DUNCAN: All right. As you're aware, as

was discussed this morning and this afternoon, a lot of the way the Commission typically analyzes injury is nailing some aspects in this case to the large capital intensive nature and the fact that certain sales are grouped and there are long lead times, etcetera, etcetera.

The Petitioners want us to look at the market share that they had for the 737-700 in a period prior to a standard ITC Period of Investigation, and compare that to a future period, which they made some calculations and they discussed what their drop in market share was, and I'm inviting you to respond to that.

MR. LICHTENBAUM: Yeah, okay. So you know, it's sort of puzzling to me as well, and so I think what they're doing is looking back to some prior point in time when they had market share, because they haven't had market share recently, and saying that the Delta sale is going to be a drop from that market share which they had many years ago, but haven't had in a while.

If I understood their position, that basically they at one point, maybe it was 2007 or something, they had like 70 percent market share in this segment, but they haven't been, you know, dueling in the U.S. these last few years. So I think their current market share is not 70 percent but is zero percent, and Mr. Novick said this morning, you know, our market share is going to drop to 24

percent.

It actually seems to me that their market share would increase from zero percent to 24 percent once they start delivering the 737 MAX. So it is a pretty unique situation that the Commission is confronted with when you have a zero percent domestic market. They haven't been delivering any product. I don't know. Shara, do you want to --

BB Oh okay. Yohai Baisburd. I think actually the standard Commission analysis works here, right? So what are the facts on the record again. Boeing moved out of this space in 2006 when they stopped producing the 717. That's a fact. Obviously their market share declined because they stopped producing the plane, you know, more a decade before the first CS-100 will arrive in the United States.

They put to market the 700. You heard earlier from Mr. Esposito, the 700 from Delta's perspective has certain limitations in terms of fuel efficiency. They have ten of them in their fleet for certain particular missions. It does not fill the role that airlines needed in that space in the 100 to 110 space, which is an actual operating space, not an academic consideration of what the range should be.

Thus, you have no market share because you did not offer a product to the market that the market wanted at

that time. They made -- they were going for upgauge, larger aircraft at the top end of the range that they've defined. That's fine, except you have no subject imports in that space because the only subject import you have is an order for deliveries of a relatively, you know, modest number when compared to the Boeing production per year of planes that will start to arrive in 2018.

We'll go into more detail obviously in the post-conference brief on this. But I think like there's not actually that much creativity that has to happen here. If you really look at how they've defined what they're going after, and if you look at how they define what they're going after, you'll see the gamesmanship at play here, and then the record, I think, doesn't allow for a reasonable indication of threat.

MR. DUNCAN: All right. One last point. There seems to be a lot of joint understanding of the facts surrounding the Delta purchase of the CS-100. But there seems to be a dispute over some of the facts in relation to that, where in the morning panel there were firm orders alleged for the CS-300.

I think in the afternoon panel, I've heard testimony that there haven't been. So to the degree in your post-conference brief you can clarify the facts of that, it would be appreciated.

MR. MAY: Greg May for Delta Airlines. I, you know, can make it very firm and clear right now. We have only ordered CS-100s. We have a firm, a firm order for 75 CS-100s. We have the options for 50 additional CS-100s after that. We also have flexibility rights, as we talked about before, that beginning with aircraft 36 we could decide to convert to CS-300.

No such decision has been made or is contemplated in the near future. Again, it comes back to flexibility, because the further out you go, the less certain we are as far as what the market demands are going to be.

MR. MITCHELL: Ross Mitchell for Bombardier. I can confirm that what Mr. May has just described in relation to our contract with Delta is exactly correct, and we are not -- the facts between us are clearly agreed.

MR. ANDERSON: Mr. Corkran.

MR. CORKRAN: Douglas Corkran, Office of Investigations. Thank you to this panel for all your very helpful testimony. I only have a few questions to follow up with what you already answered for this panel. One is can you give me maybe a little bit better sense of the comparison between the CS-100 and CS-300?

In terms of your production line, are you able to -- are you able to produce both on the same production

line? Do you have to have special tooling for one versus the other? Do you have employees who are capable of producing both variants?

MR. MULLOT: Sebastian Mullot, Bombardier. So yes, on the final assembly line in Montreal, we're able to manufacture in different lease, yes one red NCS. Obviously, very few companies might defer, namely the wings are reinforced for the CS-100. It's a bigger aircraft and therefore carries more weight, and so we need to advise our supplier in the Northern Ireland facility of the type of wing we would want on future deliveries.

That goes back to the lead time I was alluding to earlier of, you know, 18 to 20 airplanes, I would say a heads up for citing which versions you want. But ultimately, we're driving to make sure we can manufacture either aircraft on the line, just like Boeing does on their facility on the 737 line. In fact, there's no secret here. We try to do as well as they do. When we launched that aircraft, we had Airbus on the Boeing line.

We observed what they did on those two product lines, and we thought well gee, if we want to compete in that market and be effective to our customer in the 100 seat, 110 seat, we need to have some flexibility. So yes, we can use and can manufacture those aircraft on the line in Montreal.

MR. CORKRAN: Thank you, and I'm sorry if I missed this. To date, have there been any orders for the CS-300, or have all your orders so far in this size range been exclusively CS-100?

MR. MITCHELL: Ross Mitchell for Bombardier. We do have orders for the CS-300. Our first customer for the CS-300 is Air Baltic of Latvia, and they have the airplane in service, as airlines will also take CS-300s for their services in Europe. So we have had CS-300 orders.

MR. CORKRAN: Okay. Can you tell me a little bit more about the consuming market in Canada for aircraft of this particular size range?

MR. MITCHELL: Ross Mitchell for Bombardier. In Canada, the aircraft in this size range, we have an order from Air Canada for the CS-300. The CS-300 was ordered to replace Embry Air 190s, ironically Embry Air 190s that Boeing took in trade from Air Canada when they sold 737 MAX 8s to Air Canada. Another large airline in Canada is WestJet. WestJet operates 737- 700s, 737-800s. Those are the major airlines within Air Canada.

There are also charter airlines that exist that carry vacation passengers mostly to the south and to Europe in the summer. There is a regional affiliate of Air Canada called Air Canada Jazz. They operate regional jets and are turboprops, and again they are separate and apart in

terms of their operation from Air Canada.

So it's similar to the situation that exists in the United States, and then I have some smaller regional carriers throughout the country. But that's pretty much the market in Canada.

MR. CORKRAN: What is your estimate of annual sales of aircraft in this size range for the Canadian market?

MR. MITCHELL: Well, as I mentioned earlier, we don't really look at the Canadian market in isolation. We look at the North American market as a whole, simply because the North American market is our market in our view, because all of the Canadian airlines compete to a greater or lesser extent with the airlines in the U.S.

MR. CORKRAN: Thank you. My apologies. You did mention that earlier. One of the statements that we heard, I think several times actually in the morning panel was that this is not a product that is produced for inventory, that there are no, and I believe the term was "white tails," that white tails are not produced in this particular market. Would you agree with that particular assessment?

MR. MITCHELL: Ross Mitchell for Bombardier. I would agree with that statement. It's not in our interest to build airplanes without a customer attached to that.

MR. CORKRAN: And to follow up on some testimony that was heard, that was delivered earlier, the 120 plane capacity that was referenced first in the morning panel, I believe I heard this afternoon that like 2020 or 2021, that was actually deemed to be achievable?

MR. MULLOT: Sebastian Mullot. Yes, this is the objective that we have stated out there to any potential, to investors in the markets. We intend to deliver 20 aircraft per year in that time frame, and I stated earlier that we see it's not an easy task and I also want to bring that back in perspective by saying that we present roughly in 2020 time frame three month of production of the 737 aircraft.

MR. CORKRAN: Thank you very much. I believe this question's for Mr. Mitchell. I asked a similar question of the morning's panel as well. What if any role did Airbus play in the -- in the United transaction and the Delta transaction to your knowledge?

MR. MITCHELL: To my knowledge, I'll begin with United. Airbus didn't play a role in that transaction. From our perspective, the transaction from the beginning was a discussion between Bombardier and United and Embry Air and United for 100 seat aircraft. We, as I said in my testimony earlier, were offering a CS-100, and United told us it was too big.

And the Embry Air 190, as I think in some discussions earlier, Delta has it at 96 seats and United will probably something similar to that. So we weren't trying to find ways to make our airplane, which is 109 seats in a Delta configuration, match up economically with a smaller airplane. Airbus was not involved in that particular campaign that I can recall.

And Delta from my experience, and certainly they can confirm this, the transaction was always about Embry Air 190s used, but potentially used Boeing 717s. It did not involve, to my knowledge, no aircraft from Boeing or Airbus, and I do not remember any instance where used aircraft from Airbus were involved.

MR. CORKRAN: And from Delta's perspective?

MR. MAY: Greg May from Delta. It's correct for the size category that we're talking about, the 110 seats, that there was no new product from either Boeing or Airbus under consideration. It was only used aircraft that were discussed with Boeing because of their trade-ins that they had taken on the E-190s. Just for completeness of information, during this time frame we besides having a need for this size category aircraft, we had a need for large narrow bodies.

Again, as I'd mentioned earlier, Boeing had indicated -- and the time frame was similar, 2018, 2019.

Boeing had again indicated to us that they were full up, that they were sold out during that time frame. So we did a direct negotiation with Airbus and acquired additional A-321s because of the fact that they could fill the need in that time frame that Boeing could not. But they were completely unrelated.

MR. CORKRAN: This is a question just to sort of help me put certain time frames in context. It seemed like when we were talking this morning about lag time, about order books, that we were talking a number of years out. It sounded like from some of Delta's transactions in the marketplace, that you seem to buying on a -- in a much shorter time period, only a couple, one to a couple of aircraft.

Is that typical? I mean to airlines come into negotiations with manufacturers with different time tables, time frames for purchasing?

MR. MAY: So it's really more related -- so the longer term commitment is more related to entering into a new aircraft type that we haven't operated before. So if you look at what we've done over the last few years, so this was a very significant order with Bombardier, 75 firm aircraft. During this last couple of years, we've also gone in and done a direct negotiation with Boeing to order 20 incremental 73-900s.

We went in and ordered 37 additional A-321s with Airbus, and in those situations they are generally closer in, and it's just satisfying changes, more near-term changes in our fleet plans. Also to help put it in perspective, because of our fleet size, on an annual basis just to stay at kind of a level field as far as our aircraft count, just for ordinary replacement we need to be acquiring 40 to 50 aircraft per year.

If you look at where we are over the next few years, we're bringing in 60 probably, I think on average maybe a little more than 60 per year over the next few years, and that's because of replacement and to a much lesser extent growth. Our growth overall is only in the two to two and a half percent basis on an ASM available seat model basis, and two-thirds of that growth is provided for by up-gauging, where only one-third is by shell count, by aircraft count.

MS. ARANOFF: Mr. Corkran.

MR. BAISBURD: Yohai Baisburd. Just to quickly clarify, I think you're talking about fleet-wide, those replacements.

MR. CORKRAN: Yes, yes, fleet-wide.

MS. ARANOFF: Mr. Corkran, Shara Aranoff, if I might. I think one thing to just clarify, because we've had a lot of discussion today about lag times and the time

between order and delivery, is Delta has spoken to the demand side. But just on the supply side, you have what Mr. Mullot is discussing and Boeing was discussing as well, which is that there is a certain lag associated with the amount of time that it takes all of the parts producers to produce the parts to assemble that aircraft.

That's, you know, as we've noted for Bombardier, about 18 to 24 months from when you got an order minimum time before you would be able to assemble an aircraft, and Boeing has its own numbers for that. But there's a second issue of lag here that you've heard about, and that is the backlog issue, that for Boeing and for Airbus, they have these massive multi-year order queues that are waiting to be produced.

So an airline might come in and say we want aircraft in 2019, and they might be told, as Delta was told sorry, we're sold out. You'll have to wait longer than that. So it's just important on the supply side to distinguish between sort of the built-in manufacturing lag and the supply lag, due to the fact that for both Boeing and Airbus there are these very large backlogs. Boeing's publicly announced that there is this 4500 aircraft for the single aisle.

MR. MAY: Greg May at Delta. One more further clarification as well as is, you know, that the situation of

being sold out isn't a stagnant situation necessarily. So when we were competing the C series, and when we made the decision that we, you know, on the large size, the 190 seat narrow bodies and went with some more Airbus aircraft, Boeing indicated that they were full up.

However, at that time was when they also had the United 737-700 order. After that was converted, those slots opened up. So at a later date, they suddenly did have some slot availability, but our decision had already been made.

MR. CORKRAN: I think that completes my questioning. I would -- I would very much appreciate if in the post-conference brief the sales projections that I believe were mentioned earlier and are projected out for five years, if they could be --

If they could be provided, as well as any information on the -- I believe the Spirit and Jet Blue transactions that were mentioned earlier. With that, I have no further questions and I thank the panel very much.

MR. ANDERSON: Thank you, Mr. Corkran. I'll just visually see if my colleagues have any follow-up questions. Ms. Christ or Mr. Yost.

MS. CHRIST: Just one quick follow-up, and if you could address it, actually both parties if they could address it in post-conference brief. We've heard in our

questionnaires we asked a lot about non-price factors, and we've had a lot of discussion about the role of non-price factors. Some of those non-price factors seem to be more or less important depending on the fleet size of the airline.

So for example, potentially a larger fleet size is less concerned about fleet complexity and the cost of fleet complexity, but maybe a smaller airline is more concerned about the non-price factor of risk appetite and imitating larger airlines. So as we get this information from the questionnaires, from the purchasers of airline, to the extent that you can give us some information on how to understand the differences in importance, relative importance of some of the non-price factors, that would help me in sort of understanding and analyzing the responses that I get from them.

MR. MAY: Greg May from Delta. When you're referring to that, you are referring to anything besides price. You're talking about all the other operating costs that we face and other non-cost factors?

MS. CHRIST: Yeah. We had in the questionnaire a list of some non-price factors, and different companies may consider it very important, somewhat important, not at all important in the grid that we had, in trying to understand what might be driving their assessment of the relative importance to the extent that you are either

a leasing company or you have ^^^^ or your fleet size or other factors that might help explain the relative importance or the difference among purchasers of non-price factors and how they rank those and use those in their decision-making.

That would be helpful just for me when I get to interpret the information that I receive. Thank you.

MR. ANDERSON: Okay, and with that, for parity sake, I would just encourage you to comment on what I asked the first panel, given the details of the transaction, the Delta transaction, and you already said that you will provide some information in the post-conference brief. But more detail on the pricing of the options of the C-100 and the C-300, any other information you can provide.

I know you've already said that the information you believe is incorrect and way off I believe it was said. So that would be very helpful. I know it's very confidential, and then I just had one real brief question.

Given the testimony about the high quality, the clean sheet product, the C-100 and that I believe it was stated that it was the most advanced technology, most advanced technically single aisle aircraft in the skies, and given that the customer had a specific request that was being either unmet or underserved by a very large

manufacturer in the case of Boeing, would it -- do you expect to be able to be a price-maker, and therefore charge a premium price for your products, as opposed to ^^^^ and we'll see what the details of that sales transaction are.

But wouldn't you be a price-maker here and be able to charge premium prices for your product in that situation?

MR. MITCHELL: Ross Mitchell from Bombardier. All things being equal, that might be the case. But all things aren't equal here. So we are bringing a brand new program to market with significant risk, and there is consultation that you need to give to an airline to take that risk, to putting on those airplanes.

We're also up against the two largest players in the industry, massive compared to us. And so, you know, if things were equal that would be the case. But here, things are not equal and we are under extreme pressure, and we are trying to get airlines to accept a brand new airplane. Just to give you a little bit of perspective, this is the first airplane designed clean sheet in the single aisle market in three decades.

So nobody else has tried to do this in three decades. So you can imagine that if an airline's going to come along with Bombardier on this ride, they will want fair compensation to come along on that ride. And so I think

certainly like I said, all things are not equal and so that's the reality of the situation.

MS. ARANOFF: Shara Aranoff here, and Mr. Mitchell, maybe you want to also touch on one other point, which is that, you know, when Bombardier was looking at this 100 seat aircraft, there was a seat cost issue that you had to compensate for in terms of the fuel efficiency, right?

So that the new technology and Mr. Mitchell can comment on this further, the new technology, one of the new technologies that the C series brings to the market is a degree of fuel efficiency that takes a seat size, the 100 seat that was inefficient with a higher fuel consumption, and makes it affordable in terms of seat costs for an airline.

So they were overcoming a disadvantage with the new technology, as opposed to jumping ahead in a way that would command a premium. Mr. Mitchell, maybe you can explain that better than I can.

MR. MITCHELL: Certainly. Ross Mitchell from Bombardier. Generally when we look at aircraft that are in the single aisle market, a smaller aircraft historically has had a disadvantage versus a larger aircraft in some sense because the airlines are often interested in the seat cost that can be provided to the airline.

And so typically the 100 seat market was

filled with a number of airplanes, which I think Boeing testified had failed earlier, including their own 737-600 and 717, the Airbus A-318. So you had to bring extraordinary technology to the market to be able to get a seat cost that twas acceptable to the airlines. Ultimately, passengers will only pay a certain price, and that price dictates a seat cost that the airline must hit.

The 100 seat to 110 seat market has been exceptionally difficult for anyone to compete in, and there are a lot of programs that have disappeared over the years. So we had to bring, let's be clear. The engine technology that's on this airplane was very innovative. We were the first to put this on our airplane.

We made a carbon fiber wing that we had never done before. We had to change the alloys we use on the aircraft fuselage to make sure they cut the weight and maintenance cost savings that would bring the aircraft into line with the seat costs that were necessary. There were a number of things we've had to do to revive the 100 seat market.

So it's been a long journey and it required a lot from us to deliver an aircraft which now we can say makes the 100 seat market competitive, brings an airplane that the airlines are interested to put in their fleet.

MR. BAISBURD: Yohai Baisburd. Just one thing

that Mr. Mitchell also mentioned earlier, which is a condition of competition that has to be kept in mind is while the CS-100 is a clean sheet in this space, there were still used aircraft that were in the market at the time, that were competitive alternatives, which Delta itself considered. So it's not like there was an excitement here that a new plane hadn't been introduced in a long time, and which Boeing itself had abandoned back in 2006. But there were certainly other used options in the marketplace that have an effect on the pricing.

MR. McCLAIN: Right, and just Scott McClain for Delta. Just to add to that point, it's important to understand that that used aircraft strategy had been a critical component of Delta's fleet strategy for several years, not just with the 717 acquisition that I've already described to you and this Embry Air 190 acquisition that we've talked about.

But Delta has had an extensive strategy over the last several years of acquiring older MD-88 and MD-90 aircraft, and then leveraging its own tech ops, its own maintenance and repair capabilities to sort of squeeze the life out of, you know, the last 15 years of life out of these older aircraft, as a way of managing the total cost of ownership and the total cost of operation of the aircraft.

So Delta was absolutely open to considering

used aircraft as an alternative to the CS-100 and used that competitive alternative as a part of driving the deal with Bombardier.

MR. MITCHELL: Ross Mitchell from Bombardier. If I might, one further thing, because there is an airplane that is in the 100 seat space, the Embry Air 190 and 195, and that is the used aircraft that we competed against. That airplane is still in the market, used aircraft because -- and this will give you an indication of how difficult that market is.

After only ten years in operation, they have decided to re-engine that airplane to keep it competitive. That is not a normal production cycle for an aircraft of any size. To have them re-engine an airplane after ten years is quite unusual. But it gives you a sense of how difficult that particular market is to remain competitive in.

MR. ANDERSON: Thank you all for those fulsome answers and clarifications, and with that, thank you very much this afternoon for all your testimony, responding to our questions. Again, you can tell the depth of interest and complexity here based on staff's questions and thank you very much.

We would -- I would like to now just take a five minute recess and ask that both Mr. Lichtenbaum and Mr. Novick be ready to do closing arguments in five minutes.

Thank you.

(Whereupon, a short recess was taken.)

MS. BELLAMY: Closing remarks on behalf of Petitioner, Robert T. Novick, Wilmer Cutler Pickering Hale and Dorr LLP. You have ten minutes.

CLOSING REMARKS BY ROBERT T. NOVICK

MR. NOVICK: Ready? I have to say, I've been practicing trade law for 34 years, and I have never, ever witnessed a presentation like I just saw that is so hard for me to actually contain myself to comment on. So we're going to do most of what we're going to do in the post-conference brief, because I believe in civility. But let's put up one slide. Let's put up one website.

This is the Bombardier landing page. Look at that. "Optimized for the 100 to 150 seat market segment." Today, we saw a Slide 3 from Mr. Mitchell. This is the one he put up. This is our Exhibit 44 from our petition. They somehow both took out the dividing lines between the different segments, and then moved the 737 back 7 off over to the right, so it doesn't compete with their 110, their 100 and 300. I've never seen such a thing.

We heard ten different suggestions about what the like product ought to look like. We heard 100 to 110 seats. We heard 100 to 120 seats. We heard maybe 220 seats. Then from the counsel to Delta, we heard well, what

Boeing did is they told you about 100-150 seats, but they're out at 50 percent of the market. Does he imagine that every plane is going to have a different seat? We're going to have a 101 seat, a 102 seat, a 103 seat, a 104 seat plane? It's outrageous what we heard earlier this afternoon.

Then Mr. Mitchell says -- first he says we compete with Embry Air. We don't compete with Boeing and Airbus. Go back and tell the Quebec premier that, who when you made your Delta sale boasted that today, Boeing and Airbus aren't going to be happy because today Quebec won. Go tell him you compete with Embraer.

But later, in response to the last question, he said we had to offer this price because we're competing with these behemoths, these behemoths, Boeing and Airbus. What happened to being in competition with Embraer? Which is it? You can't have it both ways.

Then, and I can't say much about it because it's confidential information in the record. On two critical, critical issues to this investigation, the suggestion, the statements made belie what's in the confidential data that's in the record. You have it. You can look at it. We'll point it out clearly in our post-conference brief. I'm shocked.

We heard there's no price transmission in this industry. That's just not right. Everyone knows there's

price transmission. But then after hearing that we later hear I can calculate the price from others. How do you do that if there's no price transmission in the industry? We certainly calculated a price and provided it to the Commission.

I mean I have to say I'm shocked at what we heard earlier. This case is about Bombardier building a 100 to 150 seat two aircraft for that segment of the market, getting billions of dollars of subsidies to be able to build it, and there's no dispute about that, that they got the money to build it, and they're selling it in the U.S. market not just to Delta. Delta's an example. Delta can talk all about what it wanted for its particular needs. Somehow though Delta started a campaign for a used regional jet and ended up with 125 planes, 90 of which can be CS-300s.

First, we heard there were no -- the suggestion was maybe there weren't firm orders. No, we didn't say there weren't firm orders. There are options for 90 CS-300s. That campaign is a critical campaign, not because of whether Delta wanted a 100 or 110 seat plane. What happened was a price that Delta received on a CS-100, which is in the 100 to 150 seat market in which Boeing competes, that is so far below any price you could imagine.

And now we heard it's launch pricing. We all know there was launch pricing in 2008, but now there is U.S.

launch pricing. We agree there's launch pricing in the world, but launch pricing is not an exception to the dumping statute. The price they offered and the price Delta paid is a dumped price. The Department of Commerce initiated its investigation, putting 80 percent dumping margins, 80 percent countervailing duty margins. We recognize that it was just initiated, but we have to go through the process.

I also was struck by -- I couldn't figure out which statute we were talking about. We heard that dumping margins don't matter. I think that it's pretty clear in the Commission impact analysis that the size of the dumping margins do matter. We heard the subsidies, you know, I heard something about the WTO and it's not the WTO.

It's pretty clear that the nature of the subsidy does matter in the analysis. So I have to say I was struck, I really have to say I was struck by the testimony earlier. I was struck by the statements about confidential information in the record. There were assertions made publicly that the confidential information you'll see you have will reveal the outrageous, the landing page.

Changing slides to make it look more like they're not in the market, to hear they're not competing with Boeing, to hear they're not competing with Airbus. It's only Embraer, this little bitty plane. They're just building this little bitty plane that competes with a

regional jet, and that we somehow concocted a market because there's no difference. Everything's a LCA.

Well, we know that's not true. There's a significant difference between a plane that can fly transcontinentally, which is why there's a nautical mile dimension to the scope merchandise, and a regional jet that doesn't. The fact that Delta may choose to fly the plane only a few hundred miles or whatever number of miles is not what defines what the market is.

The reason you have large commercial aircraft, the reason Bombardier built a large commercial aircraft as opposed to just maintaining the regional jet that it already has, is it offers capabilities that are different. It can fly transcontinentally. That's why the definition of the product includes a nautical mile. We keep hearing some artificially created definition.

That's why they built the large commercial aircraft. They could have just upgraded their regional jet if they just wanted to compete with Embraer. That's not what's going on. What's going on is a new entrant into a LCA space. We heard at least one of the Bombardier call it the small single aisle space, the most honest characterization of how the industry looks at these airplanes.

That's what they're doing. That's fine.

They're entitled to do that. It's great that they're doing that. They're smart competition, as the question was asked. They built a great plane, new technology and then priced it accordingly. The way they're pricing it is dumped beyond any reasonable imagination, and I have to say I apologize to the staff who have worked so hard all day and before and been here probably more than any other preliminary staff conference. But what I saw just the last couple of hours was really difficult to sit and watch.

So with that, I'm not going to go through the fact that the Commission standards is such that the evidence on the record is certainly adequate for a preliminary threat finding, and I'll leave it at that, and we will address each of the allegations that you heard earlier in our post-conference brief. Thank you.

MR. ANDERSON: Thank you, Mr. Novick.

MS. BELLAMY: Closing remarks on behalf of Respondents, Peter Lichtenbaum, Covington and Burling, LLP and Yohai Baisburd from Dentons US, LLP. You have ten minutes.

CLOSING REMARKS BY PETER LICHTENBAUM

MR. LICHTENBAUM: Thank you very much. Staff, thank you very much for your active attention through a long day. So I've also been practicing in Washington quite a while, I think maybe not quite as long as Bob, since I

started out my career working for the government.

I've been in Washington a long time as well, and in my experience in Washington, when people start using words like "shocked" and "outraged," it's often because they're concerned that their case has been substantively undermined, and I think that's just what happened this afternoon. You know, Bob knows that politicians may say many things, but that's not evidence that the Commission is going to look at. You all will have the task of assembling the record for the Commission to decide.

Obviously, the domestic like product is a critical issue in this investigation. The domestic like product is defined with respect to the U.S. industry that produced it, not what Bombardier or Embraer make. Boeing defines, manufactures and markets their 737 as a family. The same aircraft can be configured with one, two or three classes and range of seats.

Indeed as you heard from Mr. Mitchell, three classes of configurations are actually more common these days, and sometimes that spans the 150 seat line, and range is more or less than 2,900 nautical miles. So for Boeing, the only place where it matters to define the product, the 737 is a continuum with no clear dividing line let alone at 150 seats.

So I think we've been actually quite clear all

day today. I'll be clear again now, that we believe that the domestic like product is all single aisle aircraft 100 seats and up in case there's any doubt about that. As to the Delta sale, Mr. Baisburd may have additional comments when I'm done. But I think Boeing has admitted in response to your questions that they didn't compete with a domestic like product. They claimed that they can meet all requirements in the segment they defined, but for some reason they didn't allow for a new aircraft to Delta.

And it wasn't because of Bombardier pricing; it was already their plan to offer only used aircraft. They didn't have the right-sized new aircraft, and even their 737 plane wasn't available in the time frame that Delta needed, as you heard from Delta. They claim that a single lost sale can cause threat of injury, and cite Commission precedent in the newspaper printing presses case.

Well that's different, because there was competition from the domestic like product in that case. It's really hard to complain about impact from the sale where you didn't compete. It's not a lost sale if the domestic like product didn't compete.

I thought there was an excellent point from staff about Bombardier growing the market. Basically, the company moved Delta way from non-subject merchandise, regional jets, to subject merchandise, as we've defined the

like product and as Boeing has. Delta was not replacing it 737-7s; they were replacing regional jets.

They make a lot of the inclusion of CS-300 options. Those are not a sale. Those options are an example of the flexibilities that Delta mentioned are included in contracts, but the Commission can't assume that they will be used. It is long-term protection for Delta as their needs evolve, and even if the 300 options were a sale, it's not a sale again if Boeing isn't competing. It's not a lost sale if Boeing doesn't compete.

In the United transaction, their other focus in this case, they claim head to head competition. That's not our understanding, so we'll have to see how the record plays out on that one. They themselves say that their plane doesn't compete with the CS-100. Mr. Conner has said that, which is the plane that Bombardier offered, and they don't dispute and they can't dispute that United didn't end up buying the domestic like product as they have defined.

United ended up buying the 737-800, so any direct impact from the United sales on a product that Boeing believes is outside the relevant industry. I'd also suggest that the Commission ask Boeing about any non-subject sales and other terms that were bundled in their transaction, as those have been referenced in media reports.

Price transmission. They say a lot about

price transmission coming out of Delta and United. They say every other airline in the market knows the price. The evidence you heard from Delta today doesn't support that claim. Prices are opaque and whatever impact there is is highly speculative. The Delta sale was an initial major U.S. customer for a unique airline. There's no reason to assume that other airlines are going to get that price.

Even if they knew the Delta price, they wouldn't expect to get the same price. As Delta explained, the price was for a launched campaign is generally 20 to 30 percent below what other airlines will get. As far as Boeing exiting the market, Mr. Novick complained that I said Boeing had exited the market.

I point him to the transcript here of what I actually said. Boeing did abandon the lower end of the single aisle market. It's reflected in the fact that they only have one delivery in the U.S. in the POI. Yes, they're building the MAX-7, but they just upgauged to 138 seats, much more in the middle of the single aisle market. They really can't satisfy the lower end airline needs for that big an airplane.

The evidence is the Delta sale, where they couldn't offer the MAX-7. That was not going to meet Delta's needs, and United, where they had to discount very sharply to persuade the customer to change to a plane that

the airline didn't want. And on the eminence of injury, Boeing seems to want you to look out five or six years, maybe longer. There's no precedent for anything like that.

A lot can happen in five or six years. Boeing, Bombardier and Airbus will all be competing. There's no way to predict the result of that competition in the marketplace. The results of it are going to depend and determine whether Boeing is injured five or six years from now. So if their case depends on that approach, it's very speculative and no way is accepted under international rules.

We're not aware of any case where the Commission has found threat in the absence of any import. It's hard to say how it would be consistent with a statutory requirement, for threat to be based on further dumped or subsidized imports, which is the standard for threat under U.S. law. There haven't been any dumped or subsidized imports, so how can you have more, which is what the statute requires.

Somebody mentioned through the looking glass earlier today, so I'll quote Lewis Carroll from "Alice in Wonderland." She's had no tea, and the Mad Hatter asks her if she would like some more tea. She says "I haven't had any yet, so I can't very well take more." I think that's sort of what we have here as far as imports go. Okay, I'll

stop.

And the last point I'd like to make on the impact of the Delta sale in terms of derivative development of the MAX-7. It's a re-engining, not a clean sheet. Most of the costs of re-engining are often borne by the engine manufacturer, so we should understand that. And if there are large costs, whatever revenues they might have gotten from the Delta sale would be immaterial.

As you heard, advance payments are small and once you start building planes, the cost of actually building that are way larger than the advance payments. So it's very implausible you would fund any derivative development out of advance payments from a particular airline sale. I'm going to turn to Mr. Baisburd.

CLOSING REMARKS BY YOHAI BAISBURD

MR. BAISBURD: Thank you and I'll be quick because the day has been long. So let me just be clear from the outset, that it really matters to Delta that they wanted a 100 seat plane. It starts with the mission for the purchaser. They can't fly 130 seat plane on a 110 or 109 or 100 seat route, period, full stop.

We started the morning with a statement we are here today because immediate economic harm. To whom? Boeing, the largest exporter in the United States? Not of aircraft, of anything, with billions, hundreds of billions

of dollars of revenue. How are they subject to immediate economic harm because of depressed prices and lost sales to Delta? You have to be in it to win it. They didn't have a plane to offer Delta that they manufactured. They had used Brazilian planes that they resold.

So they made their sale. They were never had an opportunity to produce planes for this particular sale because they don't have a plane in the size that meets the mission criteria that Delta needed. You heard this afternoon that they didn't have slots. Their order book is full. Delta needed those planes in their fleet to provide service to their customers and make money for their shareholders and employees by 2018, and Boeing did not have an option to offer them out of Boeing's own production.

They also made it clear that they cannot economically -- Delta has made it clear that they cannot economically fly 124 or 130 seat plane on a route that will only justify 110 seat. Do not go with an abstract, academic definition of 100 to 150 seat, even if a manufacturer themselves claim that that's the market they're serving, because the purchasers do not see it that way.

The purchasers have been absolutely clear. They segment the market. You cannot justify flying a plane that's 30 percent empty or 20 percent empty. That seat spoils. You never recover that revenue if that seat is

empty, and so critical. You start with the mission. You define the plane that meets that mission, and then you go to market to find the economical plane that allows you to meet the seat cost that you need to meet to run your airline profitably.

Boeing exited a space. That was a decision they made obviously decades ago because of the long lead time, and the consequences are they're late to market with an option that meets what Delta's needs were when they did their campaign in 2016, and thank you very much for your time today.

MR. ANDERSON: Thank you, Mr. Baisburd and Mr. Lichtenbaum. I would like to just, on behalf of staff, close this conference by thanking everybody who has come here today, and for your patience and your time. It's been a long day. The Commission has previously looked at aircraft in a number of non-trade remedy studies. I think we've done a couple of studies on LCAs and aerostructures and even business jets.

But it's a fascinating industry, a very complicated industry and we've all moved along the learning curve, whether it was up or down today. So thank you very much. Just a couple of reminders about the preliminary investigation, some key dates to keep in mind.

The deadline for submission of corrections to

the transcript and submission of post-conference briefs is Tuesday, May 23rd. If briefs contain business proprietary information, a public version is due on Wednesday, May 24th. The Commission has tentatively scheduled its vote on these investigations for Friday, June 9th, and we'll report our determinations to the Secretary of the Department of Commerce on Monday, June 12th.

Commissioners' opinions will be issued on Monday, June 19th, and with that, thank you all for coming. This conference is adjourned.

(Whereupon, at 5:36 p.m., the conference was concluded.)

CERTIFICATE OF REPORTER

TITLE: In The Matter Of: 100-To 150-Seat Large Civil Aircraft From Canada

INVESTIGATION NOS.: 701-TA-578 and 731-TA-1368

HEARING DATE: 5-18-17

LOCATION: Washington, D.C.

NATURE OF HEARING: Preliminary

I hereby certify that the foregoing/attached transcript is a true, correct and complete record of the above-referenced proceeding(s) of the U.S. International Trade Commission.

DATE: 5-18-17

SIGNED: Mark A. Jagan

Signature of the Contractor or the Authorized Contractor's Representative

I hereby certify that I am not the Court Reporter and that I have proofread the above-referenced transcript of the proceedings of the U.S. International Trade Commission, against the aforementioned Court Reporter's notes and recordings, for accuracy in transcription in the spelling, hyphenation, punctuation and speaker identification and did not make any changes of a substantive nature. The foregoing/attached transcript is a true, correct and complete transcription of the proceedings.

SIGNED: Duane Rice
Proofreader

I hereby certify that I reported the above-referenced proceedings of the U.S. International Trade Commission and caused to be prepared from my tapes and notes of the proceedings a true, correct and complete verbatim recording of the proceedings.

SIGNED: Larry Flowers
Court Reporter