

EPISODE 193

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[0:00:07] IP: Hello and welcome to Episode 193 of AvTalk. I am Ian Petchenik, here, as always with –

[0:00:17] JR: Jason Rabinowitz. Hello, Ian. How are you?

[0:00:19] IP: Hello, Jason. It's been a very long time since we've spoken.

[0:00:23] JR: About 14 hours now, is it?

[0:00:26] IP: I can't count. But sure, we'll say that. We had breakfast together, that we were talking about this before we hit record, and then it got a little more philosophical than I had assumed it would, or metaphysical perhaps. I said, "Okay, stop the conversation, we need to hit record." Here we are. We had breakfast together in Stockholm. I'm still in Stockholm.

[0:00:49] JR: I am decidedly not in Stockholm now.

[0:00:51] IP: You are not in Stockholm. We were talking, it's five after 10 in the evening in Stockholm, minus six. It's what?

[0:01:02] JR: 4:05 and 45 seconds PM in New York.

[0:01:05] IP: Thank you, sir. But, but, but your day, even though we have been up for roughly – We both got up about 7 AM, Central European standard time this morning, your day has been much longer.

[0:01:20] JR: I am exhausted and I haven't done anything today.

[0:01:23] IP: The time that you have experienced. This is what we're talking about before we hit record is the time you experience traveling, the act of traveling, even though the hours are the

same. Granted, Jason's day will end up in fact, being longer than mine, because he'll stay up till whatever he stays up. Then he'll go to bed and I will have long since gone to bed, hopefully. The experience of traveling is one that you experience more time than you have actually been awake for, completed in your day. I don't know how to describe it. It was one of those things where I was like, yeah, you've had a much longer day than I have already and we've been up for the same exact amount of time.

[0:02:08] JR: Yeah. I feel exhausted, but I mean, I didn't do much of anything today. I took a very nice train to a very nice airport, to a pretty okay airline lounge, and I boarded a okay airline cabin and sat for 10 hours and watched a couple movies and I watched a couple TV shows. Then I breezed through customs. You don't even have to take your passport out in the US anymore if you have global entry, which is wild. Then I got on a bus, then I got on a train and then I got on another train. Now I'm home drinking a beer. I'm exhausted. We've been up the same amount of time. I guess, I do have that whole jet lag thing going on. It was an A330 today on SAS. The cabin pressure and humidity thing that the A350 brings to the table is not present on the A330. I do feel just physically tired from this day of doing practically nothing.

[0:02:59] IP: Yeah, it's a fascinating feeling. I think it's also, that the human brain for as long as we've been traveling by air, I feel like, air travel is faster than the human brain was – it evolved to go. It's one of those things where you talk about infinitesimally small values and infinitesimally large values, the human brain just can't comprehend them. I feel like, the speed with which you can fly around the world is one of those values that the human brain just hasn't accounted for yet. Humans are not supposed to be able to visit two continents in less than 12 hours.

[0:03:41] JR: Wow. That did get deep. I mean, yeah, I had breakfast at the hotel with you, then –

[0:03:46] IP: I feel like, that's what it is.

[0:03:47] JR: Then I had a lunch, then I had another lunch. Really, we got to Newark in time for a late lunch even. Even just if you're looking at meals consumed during the day, I'm up to my sixth meal already today. It just makes my brain hurt.

[0:04:02] IP: Right. Exactly. It makes the brain hurt. But you made it, and there was some concern that you would not, given the weather in Newark, or the air soup.

[0:04:13] JR: Yes, pretty gross here in New York. Thankfully, it was above minimums, at least for a large wide-body aircraft auto land, which I felt like we used today, but I'll never know. It didn't quite get to the level of bad that I thought it would. I think at JFK, they had a bit more fog. Thankfully, we just cruised on in. We went straight to the gate after being towed in, because Newark things all in all. We got in a little bit of a delay, because we had to de-ice in Stockholm, because it was so damn cold.

[0:04:41] IP: It wasn't the cold, because you posted a picture and I was like, "Oh, yeah. That makes sense." Because I don't think I've never not experienced de-icing in Stockholm in the winter.

[0:04:51] JR: Well, the wing was frosty.

[0:04:53] IP: Because the humidity in the air is 90%.

[0:04:56] JR: It's a little weird getting de-iced –

[0:04:57] IP: There is where you frost is coming from.

[0:04:58] JR: - nothing on the wing. Yeah. There was, indeed, frost and that needed to be taken care of. All in all, we got in just a couple of minutes late, no big deal. One of my better flights with SAS this year, I think.

[0:05:09] IP: Well, good, good. Yeah. I mean, coming over was – my flight was very quick. Arriving in Stockholm on a Sunday morning at 7 AM is always an interesting experience. Because if you've ever been to Stockholm, or if you've ever been to anywhere that isn't a big city at 7 AM on a Sunday morning, because Stockholm at 7 AM on Sunday morning is decidedly not a big city. They consciously decided they're not a big city on a Sunday morning. I appreciate that. Also, it's a ghost town. A very beautiful, picturesque ghost town, but it's a ghost town.

[0:05:40] JR: Nothing opens until 12. Then everything closes at 4.

[0:05:43] IP: Everything closes at 4. We met at work and we rode some bicycles. That was fun. I'll put a link in the show notes, just because it was that much fun. We enjoyed ourselves. Then we had some good meetings, the company Christmas dinner, and then we sent Jason on his way. I'm here the rest of the week, and then we'll be back as normal next week. Today –

[0:06:06] JR: Things happened this week.

[0:06:08] IP: Things happened.

[0:06:09] JR: Yes. One very big thing.

[0:06:12] IP: Before we get to a very big thing this week, I will wish Jason and all of you, dear listeners, a Happy International Civil Aviation Day, the 7th of December, established to celebrate ICAO's 50th anniversary, or 45th anniversary previously. It is now celebrated every day on the 7th of December. Happy International Civil Aviation Day to all those who say it.

[0:06:36] JR: Hey, great. I'm happy to have flown internationally on this particular day. There was no cake served onboard, or anything, but what a nice day to fly.

[0:06:44] IP: What a nice day to fly. Last night in Everett, Washington, a major, major event. I feel like, it got – the phrase that came to mind was slow played, but that's not correct. Underplayed by Boeing, as all things seem to be these days. The final 747 rolled out of the factory. The final, completed 747, all assembled, ready for paint. Then onto its first flight, rolled out of the factory in Everett, Washington. Line number 1574. It will be delivered to Atlas Air early next year. It's a 747-8F. It's the fourth in the batch of final four aircraft. It's the second in the special – Atlas is leasing these particular aircraft and we talked about this last week in the hopes that we would get a special livery. There's a chance.

[0:07:46] JR: We don't know yet. The aircraft rolled out, still with an unpainted greeny, I guess, you would call it.

[0:07:51] IP: Exactly.

[0:07:52] JR: There's still time. They can still surprise us with a nice livery. As of now it rolled out, oddly, like any other 747. There was the banner that they put on proudly building the whatever number 747 for Atlas. I think, I may have heard that there was a Joe Sutter picture somewhere on the aircraft, but I don't recall seeing that. Whatever livery this aircraft wears, we do not know what it is yet. If it is special, it has not been leaked yet.

[0:08:18] IP: Yeah. It'll be interesting to see what the paint shows. I'm really hoping for something that indicates that this is a special aircraft.

[0:08:29] JR: But it's up to the airline at the end of the day. Boeing can pressure them to do it, but this is ultimately after Atlas and whomever it is that they're leasing this aircraft to.

[0:08:40] IP: The photos of the rollout showed how cleared out the building is. As the final 747 made its way through the production line, Boeing disassembled the tooling that goes into making the 747. It's pushed up against the sides of the building. No one really knows exactly what's going to happen to that space.

[0:09:04] JR: Yeah, what was the rush in clearing all that out? It's not like they have any, at least public plans to do anything with that space.

[0:09:11] IP: I feel like, you've got the people there, you might as well have them do the work to clean things up. They cleared out the building. The building being the largest building by volume in the world, built specifically for the assembly of the 747 and then expanded over the years to make way for various other Boeing aircraft. It's the end of an era as far as the 747 and production is concerned and seeing new 747s rollout the line. I put up a blog post today, because a lot of people were reacting with, "Oh, no. The 747 is going away. It's the last one. It's the end of an era." It is.

[0:09:54] JR: Been around for decades to come.

[0:09:56] IP: Right. It does mark the end of an era. But, I was like, okay, let's look at some numbers and let's talk about how many 747s are still out there. There are a lot of them. There were 17,500 747 flights in November. 93% of them carried cargo. 5.9% of them carried passengers, and the balancer are military and government flights and the like. There are a couple other flight types mixed in. There's one 747-SPBBJ still floating out there in service. There are a couple engine manufacturers that are using 747s as flying testbeds. For the most part, it's a cargo aircraft, which will keep it around not necessarily forever, but it'll certainly feel like forever to us.

[0:10:55] JR: Yes. Some airlines will keep these in service for as long as they can get their hands on the parts, which will become increasingly difficult.

[0:11:02] IP: Jason and I are going to be very old men before the final 747 is retired.

[0:11:07] JR: I hope so.

[0:11:08] IP: I'm willing to bet that – I mean, not to temp the thing high atop that, whatever. I'm willing to bet that we will be gone before the last 747 lands for the last time.

[0:11:22] JR: What's the oldest in-service 747 right now? It's probably pushing 50-years-old, maybe?

[0:11:28] IP: The oldest, yeah, right around 50-years-old.

[0:11:30] JR: Yeah. 50-plus whatever age we are now and we will be ripe old men by that time.

[0:11:37] IP: Yeah, yeah. We'll be right around 90.

[0:11:38] JR: Yeah. Okay. Okay. If we live to 90, I would like to see the last 747 fly to wherever and whenever that might be.

[0:11:47] IP: There you go.

[0:11:48] JR: I will say, you hinted to this being a low-key event, and I will echo that that the images Boeing posted, they were taken by Paul Weatherman, I think, Boeing's staff photographer and posted. There is really very little to do for the rollout of the last ever 747. There are a couple maybe dozen of employees in a parking lot next to a fence watching this rollout. Or maybe some of those are media. I know some of them are media. They actually posted a tweet today with the rollout of the first 747. There are hundreds, if not thousands of people watching the first 747 rollout. It's of stark comparison to see the last 747 is witnessed by a couple dozen people.

Then the press release accompanying it is a couple of paragraphs and three bullet points, but general information about the 747. Production began, the world's first twin Nite in 1967. Span 54 years with a total of 1,574 airplane built at 250 feet 2 inches. The 747 is the longest commercial airplane, blah, blah, blah. We know that. The final airplane is a 747-8 freighter. It can carry blah, blah, blah. That's really it. I really expected more from Boeing to celebrate the rollout of the last ever 747, the aircraft that saved Boeing. There would not be a Boeing without the 747. Maybe they're saving this for the delivery, or the first flight, or something. The rollout, the historic moment of it, leaving the factory that saved Boeing that defines the modern jet age, really, they didn't do much of anything, which is supremely disappointing to me.

[0:13:35] IP: Like you said, maybe they're saving it for the first flight. Maybe they're saving it for the delivery. I hope they do something for the delivery. Yeah, it would have been great to see something at the rollout, a proper celebration. A closing of one of, if not the biggest chapters in aviation history, because the aircraft didn't just save Boeing, it ushered in a wholly new era of aviation. I mean, the 707 changed how we thought about the world. It made trans-oceanic flight really, truly possible on a grander scale. The 737 ushered in the short-haul jet age. The 727 built on that. Then the 747 didn't really build on that.

[0:14:28] JR: It took that concept and ran with it at nearly supersonic speed.

[0:14:32] IP: The economics of the 747 enabled people who hadn't been able to travel before. People who could never have afforded a ticket on the 707. People who could have never traveled a long distance away from their homes. I mean, we talked about the 707 bringing in the

age of jet travel. Yes, that's true and the 747 certainly, the 747 stands on the 707 shoulders. It stands on its shoulders and then takes a spring leap.

I think that the closure of that episode, even though this is a cargo aircraft, even though we've become so accustomed to being able to get on a plane and fly, basically anywhere in the world with one connection. I mean, you can get to pretty much anywhere in the world with one connection, if you do it right. The fact that Boeing, the company that built this aircraft, that designed this aircraft, that kept this aircraft in production for 54 years, and that changed the face of the world with an aluminum tube and four engines just said, "Okay, we're done."

[0:15:53] JR: Let's reserve final judgment that maybe Boeing redeemed itself for the delivery of the aircraft, but the rollout was quite disappointing.

[0:16:01] IP: My goal is that if I complain enough about this now, what happens is they hear it, and then do something for the delivery.

[0:16:10] JR: If that makes you feel better, sure.

[0:16:11] IP: It doesn't make me feel better. I'm just saying that that's my post hoc rationalization of the rant that I just went off.

[0:16:17] JR: Okay. I'll accept it.

[0:16:19] IP: All right. Okay, so speaking of Boeing and not great stuff, the amendment that we talked about from Senator Cantwell last week, where it was going to solve all of Boeing's problems, basically for free, as far as Boeing was concerned. Yeah, that's not happening. At least not yet.

[0:16:37] JR: Yeah. Not great.

[0:16:39] IP: The Cantwell amendment, which would have required that Boeing refit, that would have removed the two-year restriction on certifying the 737-7 and 737-10 MAX, without adding a crew alerting system, in exchange, or in addition to requiring the Boeing retrofit all 737 MAX with

the extra angle of attack indicator, as well as the stick shaker, that amendment that Senator Maria Cantwell was workshopping, floating, whatever you want to call it, that we thought would be included in the NDAA, the Defense Authorization Act, which is basically a giant pile of money that Congress sends mostly to the Department of Defense, but also includes other things that they know they have to get through, that they don't want anybody voting against. We thought this would be attached. It's not in this particular bill.

[0:17:39] JR: We don't know why, which is quite interesting. We don't know if there was opposition against this, if someone said, "If you include this amendment, we're going to torpedo the whole thing." Or if they just didn't get around to inserting it? We don't really know. I'm quite surprised this didn't go through at this point. It seems unlikely at this – what I've read so far is that it's unlikely that the amendment will be added to this particular bill, and it could be added to something else, but it doesn't seem likely to be happening this year.

[0:18:11] IP: Yeah. Very strange to me. The fact that they didn't add it this time around means that they have to put it somewhere else. It doesn't seem like something that they're going to do on their own. It doesn't seem like something that's going to be included as a standalone bill, because it's really just an amendment to a previous bill that was passed in 2020. Jon Ostrower made an interesting point earlier in the week when we were talking about the angle of attack sensor and the stick shaker disable feature, because those two features are already required to be retrofit as soon as they are certified by IASA and by Transport Canada.

Where do they get certified? They get certified on the 737-10, because that is the aircraft they've been developed for. As soon as the 737-10 gets certified, the clock starts ticking on retrofitting all of the 737-8 and the 737-9 MAX to include third angle of attack sensor, as well as the stick shaker disabling feature. My question was, how are they going to do that? Have they been putting them – Because I was under the assumption that these things would be installed on the new builds, and then just turned on when they got approved. Jon's point was that they're not approved yet. You can't insert them onto the aircraft. It has to be the 737-10 MAX that gets approved before you can retrofit any of these.

To his main point was basically, that Boeing isn't going to build two different kinds of airplanes. One for Europe and Canada and then one for everybody else. The whole point about requiring

the retrofit of the stick shaker and the angle of attack sensors on to all 737-8 and 737-9 aircraft in the US, that was already going to happen basically, on all of the new builds. The question then becomes – That retrofit is a question of existing aircraft that are built and already delivered. What happens to those? One assumes that Boeing would want to common it, because their argument for all of the things they do is fleet commonality.

One assumes that they would want commonality on a required feature between new build aircraft and existing aircraft. Boeing was going to do this anyway. The bill just makes it explicit and puts it, I guess, in writing by Congress. It's interesting to me that this wasn't included, because we've had the Wicker amendment that wasn't included. We've had the Cantwell amendment that wasn't included. My goal is to run for Congress and include amendment and we'll call it the Petchenik amendment, and then that won't be included. Then that'll take us into 2030 something.

[0:21:08] JR: Well, you know who would be really good to have around for things like modifying potentially, the safety systems onboard an aircraft?

[0:21:17] IP: It's definitely the guys who record podcasts.

[0:21:21] JR: No. It's engineers. Do you know what company just lost hundreds of very experienced engineers? Just say Boeing. The answer is Boeing. Yeah, not great. Article published by Dominic Gates in the Seattle Times today, details that last month, hundreds of, and I'm quoting very experienced Seattle Boeing engineers, walked out the door last month. They chose to retire early with the realization that they'd have significant cut to their pension payouts if they delayed.

He goes on to note that this is a court for pension funds. This is not unique to Boeing, but it's really not great because Boeing has already experienced a significant level of brain drain to other aerospace companies, if they don't want to work for Boeing and just fixing the 78, or fixing the 73 Max, or whatever, and not building new aircraft. A lot of engineers have gone elsewhere. Not great to see literally hundreds of experienced engineers walk out the door. More than 500, apparently, and additional a 130 technical staff retired.

Apparently, Boeing was so driven to maintain some of these that they – Dominic goes on to say, they identified 26 key engineers represented by this union, and basically, dangled money in their faces, to the key of \$400,000 for two years. Only nine of those 26 actually accepted that. I guess, a lot of engineers did the math, that the extra money Boeing would give them would not counteract, or wouldn't be significant enough to offset the loss of their pension. Really not great over at Boeing, who has decidedly not looking to roll out a new clean sheet aircraft in the next decade. Why would these engineers stick around anyway? They've got nothing to do that probably interests them, I'm assuming, if their interest is building a new airplane.

[0:23:15] IP: I don't know if it's to be fair to Boeing, but this wasn't truly a Boeing issue, necessarily. This was a Internal Revenue Service, how things are calculating –

[0:23:27] JR: I said, it was not yet not Boeing specific thing. It's a weird pension thing, which most people don't even have anymore.

[0:23:33] IP: That's what I was getting to. These particular engineers, they're unionized engineers with SBIA and Washington, and they can take their pension as a lump sum.

[0:23:48] JR: That's a hell of a deal, by the way.

[0:23:49] IP: Yeah, they can take their pension, their entire pension. I'm not exactly sure how their pension is calculated, or exactly what their pension is. Usually, it's the last X number of years, a percentage of the last X number of years of your salary, generally speaking. But I'm not exactly sure how theirs is calculated. Whatever that number is, they can either take it as a lump sum when they retire, or they can take it as an annuity, paid out over monthly over the rest of their lives. Most of these folks do is they take it as a lump sum and then invest it, with the idea that the investment income from that lump sum will be greater than the monthly annuity that they make for the retirement.

Because inflation is so high in the US at the moment and worldwide, the IRS in at the end of November recalculates what that lump sum should be based on the amount of money that you could make by investing that lump sum. The lump sum from last year, if they retired before the end of November, the lump sum would be much larger, because interest rates were lower last

year than they are this year. They did the math. They said, "Okay, it's not worth it." As Jason mentioned, they were offered the – 26 of the highest rated and important engineers at Boeing's Washington facility, nine out of 26 said, "Okay, \$400,000 makes sense to me." The balance said, "You know what? I'm done. I'm out. I'm retiring. Thank you very much. We'll see you later."

[0:25:43] JR: To be more clear, I guess, anyone who took this out, wasn't going to be sticking around at Boeing for many, many years to come, I assume. Now that we know that Boeing isn't planning on rolling out a new clean sheet aircraft anytime soon, it's unclear to me how important these engineers would have been experience-wise to actually going through the details of rolling out a new aircraft. I'm sure, the more time the better. This doesn't, at the end of the day, leave Boeing in a not great position to yes, they have hired lots of new people fresh out of engineering school, or I'm sure they've poached from other aerospace firms and well-established people. When they do eventually get around to needing to certify new aircraft, it's going to be a majority of people doing it for the first time.

This is not a new concept that we're talking about, but this really seems to raise the alert level, I think, at Boeing that the next time they need to do a certification on an aircraft, it's probably going to be a lot more difficult.

[0:26:42] IP: What this speaks to isn't necessarily Boeing causing the problem, but it's a problem for Boeing.

[0:26:48] JR: Yeah, exactly. This isn't anything Boeing did. Not completely. I mean, if they had a project for people to work on that they were excited about, maybe they would have been compelled to stay. Boeing did not say, leave now, or take less money.

[0:27:02] IP: Right. Right. It's a long-term concern.

[0:27:03] JR: Bad timing.

[0:27:05] IP: It's bad timing and a long-term concern. There you go. Also, bad timing, Airbus saying, "We're going to deliver 700 planes this year," and then not delivering anywhere close to that.

[0:27:17] JR: Not even close. Airbus's 2022 delivery target was to achieve, and I'm quoting their quote, around 700 commercial aircraft deliveries in 2022. After they've done the math of how many have we delivered so far this year? How many will we end up delivering? They missed it by our wide margin. The annual deliveries for 2022 for Airbus commercial will be 565*, because they don't count two, that Aeroflot could not take due to international sanctions. I think those ended up going to Turkish, or something.

[0:27:55] IP: Turkoflot.

[0:27:55] JR: Turkoflot. Yes. 565 is well short of 700 the last time I checked, and this is because of COVID and supply chain and manufacturing issues. Just remember, we can't as an industry get above 80% of doing anything without everything falling apart. They have also lowered the projections for output in the coming years. The ramp-up rate for 2023 and 2024 will be 65 and they hope to achieve a rate of 75 by 2025. Not great numbers coming out of Airbus.

[0:28:33] IP: Not great numbers.

[0:28:34] JR: Not great if you are Wall Street, or an analyst, or hoping to put Airbus up to their own projections. They didn't even come close.

[0:28:45] IP: What's interesting to me is that they held out for so long to these projections.

[0:28:49] JR: Yeah. It's not like, they didn't know the writing was on the wall in, I don't know, August?

[0:28:54] IP: I mean, the middle of the year when you're looking at the track figure going, okay, you come to the end of six months and you look at the end of June and go, "Well, that's not half of 700."

[0:29:06] JR: Math is tricky, but I'm sure there may be some sort of, I don't know, financial thing that stopped them from doing that. Who knows what the space –

[0:29:16] IP: Yes, the financial thing.

[0:29:18] JR: The financial things. Just pulling up the order, the deliveries for November, actually. There were quite a number of aircraft delivered, mostly the A320neo. There were, wow very few wide-body aircraft. I think one, two, three wide, or three A330s and one, two, three, four five A350s. Actually, wasn't a terrible month for Airbus. Is just overall, they didn't come anywhere near the projections.

[0:29:53] IP: To Airbus's point about the supply chain issues, I mean, getting parts, getting engines on planes, getting the aircraft fully kitted out and ready for a customer has slowed down. Which makes the late in the game beginning of December, "Oh, we're not going to meet our target surprise" thing, just that much more baffling to me.

[0:30:17] JR: Yeah. We all saw it coming. I guess, they had to wait to put the numbers together. By the way, it was 28 A320neo and 25 A321neos, a couple of a 220s. I think, it was six in total of the 300 variety. Five A350s. A couple A330-900s and one A330-800.

[0:30:45] IP: That A330-800 went home today.

[0:30:49] JR: What a segue.

[0:30:50] IP: I know. We had our very own Gabriel Lee down in Toulouse this morning, and he is currently in Kangerlussuaq, after the Air Greenland A330-800 delivery flight.

[0:31:03] JR: Say that again. Where is he?

[0:31:05] IP: Kangerlussuaq.

[0:31:06] JR: Well done.

[0:31:07] IP: Thank you. That's where he is. He has sat down with the CEO of Air Greenland once again. He had talked with Air Greenland CEO, Jacob Nitter, previously about what the A330-800 was going to open up, and some of the things that they're working on at Air

Greenland. He sat down with him today to catch up. Now, they've got the aircraft, now that construction is really underway at Nuuk, on the expanded airport, what's happening and how things are going. We'll let Gabe take it away now with his conversation with Jacob Nitter, the CEO of Air Greenland.

[GABRIEL LEE AND JACOB NITTER]

[0:31:52] GL: Can you just give me the headline of this moment, this day? It's obviously incredibly important moment for Greenland, for Air Greenland and I guess, for you. Tell me a little bit about that.

[0:32:01] JN: I think, the feeling that I'm feeling right now is just, I'm proud. I'm proud of my team. I'm proud of our company. I'm proud of Greenland as a country and yeah, just happy.

[0:32:13] GL: Yeah, I noticed that a number of people onboard became quite emotional as we arrived. I haven't been on any delivery flights, but I think it was an extra – there was an extra significance to it, because this is the first new Airbus Air Greenland has ever received, right? It's the one that's going to carry people. Could you talk a little bit about that?

[0:32:32] JN: I think, it was quite an emotional experience for all of us. I think the comparison that we did last night at the delivery event in Airbus, where we compared the size of France was 67 million people to the 57,000 people of Greenland. Buying one Airbus for Air Greenland would be the equivalent of Air France buying 1,176 Airbuses. That just puts it into perspective. We are a very small nation. This symbolizes that even though we're a small country, we can actually be a player and we can actually achieve great things if we work together. I think that was the emotion that we all felt. It's like, this is a huge moment for all of us. It was very special.

[0:33:12] GL: It's like, if you think about it, it's as if a medium-sized town in any place would buy an A330neo. It's in any other situation, it will be a crazy thing to think.

[0:33:21] JN: Yeah. The other thing is that Air Greenland is critical infrastructure in Greenland. You will fly with this airplane, whether you are going on vacation, visiting friends and family, if you're going to the hospital, if you're ill, or if you're getting married. So many, many different

occasions, you will be flying on this aircraft. It becomes part of the everyday life and part of our society. It's not just Air Greenland's aircraft, it's all Greenlanders' aircraft.

[0:33:49] GL: Is this event the beginning of a big period of change for Greenland with the new runways coming in, with ambitions for building up things, like tourism? Does this define the beginning of that in a way?

[0:34:01] JN: Yeah, I think in a way, you're right, because we are working towards economic independence and working towards becoming an independent country. Part of that is actually, achieving things on our own. This is an example of that. It's an example of us preparing for a new reality with new potential. This is a very visual image of that preparation and of the potential for the future.

[0:34:26] GL: You all were getting this plane ready to go for the past few years during a pandemic with a small team. Can you tell us a little bit about that?

[0:34:34] JN: Yeah. The easy part is looking in the catalog, saying, "Okay, I want this one, and let's sign the contract." Then the hard work begins. To be honest, we did not know how much work it would take. We had a very short period of time to do it with a small team. Everyone has just really pulled it together. Very, very small team, who also had their normal jobs to do besides this huge project. What made this possible was great leadership from our managers, and just great teamwork from all our employees. It has taken a lot of work. I must also say, that the people at Airbus and Rolls Royce have been very good at supporting us in the process. It's been a true team effort. It would not have been possible if just one team member sat down and said, "No, I don't really want to do this." Everyone pulled through and here we are.

[0:35:24] GL: I've heard some people ask, okay, why did Air Greenland really need to go and buy a brand-new A330neo? Why not just lease a slightly less old A330, or something like that? What's your answer for that?

[0:35:35] JN: Yeah. That is a good question. The answer is sustainability. The final choice came down to sustainability. As you say, we could go for the more economic option and lease a cheaper aircraft, but then we would not be able to get the fuel savings, the CO2 emission

savings and the possibility of going to a 100% SAF, sustainable aviation fuel one day. Part of our future is building tourism. Tourists who come to Greenland, they will want to visit a sustainable destination. We have to be a big part of the branding of Greenland as a sustainable destination. We can only do that by showing that we actually mean it. We have to walk the talk. Basically, the choice of buying a brand-new Neo was a matter of walking the talk.

[0:36:20] GL: Do you think that Tuukkaq will become a calling card for these future tourists that are going to come and discover Greenland?

[0:36:25] JN: I certainly hope so. I'm sure you're satisfied with the end product here. I hope that a lot of people will want to, of course, come and experience this nice aircraft, Tuukkaq. Of course, people don't buy tickets just to go on airplanes. They come to visit our beautiful country, our beautiful culture. We're ready to welcome everyone who wants to come here.

[0:36:44] GL: Lovely. Okay, thank you so much.

[BREAK]

[0:36:52] IP: Welcome back. Now we are in for the sprint portion of the episode, where we realize we've talked for quite a long time, we've had a lot going on and now we are going to do our best to shorten Jason's day as much as possible, and close out the episode. We've got a bunch of kind of developments in the aircraft and fleet arena. The first of which is Air India's went from merging with Vistara and becoming a much larger airline to also, we're going to get more aircraft. They said, "We're going to lease six 777-300ERs and six A320neos and grow even faster than we already said we were going to grow."

[0:37:34] JR: Okay. We don't know where those aircraft are coming from, or at least I don't know. I don't think we know. that's a sizable order for 777-300ERs, of which they already have quite a number. Are these replacements for aircraft that Air India had neglected for so long? Or are these really fleet expansion? I don't know that answer.

[0:37:54] IP: That's a very fair and good question.

[0:37:56] JR: That's a question when it comes to Air India, because that was a big topic when Air India went private is that how many of their aircraft are truly up to the standards of a real international airline? How many are salvageable, or how many are they going to, I don't know, part out, or how many they're going to convert to freighters. Hopefully, the six 777s are in better shape than the ones Air India has been known for in the past few years, of just not keeping up.

[0:38:22] IP: That's a very fair point. Speaking of keeping up aircraft, Lufthansa has brought its first A380 out of storage, in anticipation for return to service in the middle of 2023. The aircraft was down in Spain in long-term storage. They brought it out to Frankfurt. They flew from Teruel to Frankfurt with the gear down, because they don't have the facilities at Tarmac Aerosave's facility in Spain to do an A380 gear swing. They said, well, we haven't completed that thing in the checklist, so we're going to fly with the gear down. They flew to Frankfurt, where they're going to do the gear swing, so that they can then send it and do a little bit of maintenance, so that they can then send it to Manila for heavy maintenance to get the aircraft fully prepared for return to service.

[0:39:18] JR: Now, was it Lufthansa that in 2020, said that the A380 would only come back in exceptional circumstances, where travel rebounds to the degree that they can't predict and they will need those aircraft back? I think that was Lufthansa that said that.

[0:39:31] IP: Yes.

[0:39:32] JR: Well, exceptional circumstances have occurred and they need the A380s back and I am happy.

[0:39:37] IP: Yeah, they need the A380s back. They're preparing to bring back three to start. If things go well, if demand continues to climb, they could bring back additional A380s. But it'll be three to start. The first will return to service in mid-2023.

[0:39:55] JR: All right. Now bring back the American A330s, the Delta 777s and the BA 747s and we'll be happy. The last one is probably not going to happen.

[0:40:05] IP: I don't think any of those are going to happen.

[0:40:07] JR: No. Well, I can dream, right?

[0:40:09] IP: You work on that.

[0:40:10] JR: Okay.

[0:40:12] IP: Speaking of dreams, WestJet is going west for once. I mean, which is really interesting, because their long-haul expansion was east and only east. Now they are going west. They are finally opening a trans-pacific route. WestJet will add Calgary, Tokyo to its route map shortly on the 787. An interesting one.

[0:40:38] JR: Yeah. Sad to see them go from the East Coast. It was always an option, not one that I ever exercise, because I really don't want to connect internationally through Toronto. Those WestJet 787s are quite nice. Good for the west coast of Canada. Another option to fly out to Asia, instead of just having Air Canada.

[0:40:57] IP: Yeah. Jason, this was a story that you were following much more closely than I. The report has come out on the Viva Air Colombia A320 that landed, I believe it was with just a few 100 kilograms of fuel.

[0:41:12] JR: A thimble, I believe. One thimble.

[0:41:14] IP: A thimble. Yes. There you go. The report is out.

[0:41:17] JR: Yeah, the initial report is out. It was that not great incident where the Viva Air Colombia aircraft landed after diverting with very, very, very little fuel left. The initial report is actually quite interesting in that everyone did everything by the book and correctly. Whenever something like this happens, you automatically assume, not rightly, that somebody, somewhere screwed up. That just wasn't the case that when this aircraft took off, the pilots did all their checks. They had the meteorology reports, they had their TAFs, they had the information at their disposal that they needed that said the weather was going to be fine for their arrival.

Turns out, the weather rapidly deteriorated through the region, and the weather was no longer fine. They diverted and then diverted from their diversion point. Then lots of other aircraft got stacked up and hauled and the air traffic controller got very busy putting them all in a stack. It just turned out that there was just bad circumstances. Everyone did everything right. Thankfully, nothing bad happened, but this aircraft was one more go around away probably from disaster, I would say. It's just an interesting read. We'll link to it that everyone did everything well. I think, the only slip-up was some slow ACARs messages being sent by the crew and that it got stuck in the computer, or something like that, or maybe receiving it. That communication was not as quick as it needed to be.

Really, it's more of not a procedure thing, but the technology of getting more accurate and more real-time forecasting in real-time weather to flight crews varies wildly by airline. Some airlines have real-time data to pilot IPADs and through ACARs and other airlines have minimal information. It depends on the airline, depends on the aircraft, depends on the country and the individual airport, because some of these airports didn't have TAFs, I think, was something that the report mentioned. Just wanted to give that update that actually, everyone did everything right. Yeah.

[0:43:18] IP: I mean, we'll take it. I mean, we'll take the safe outcome and everyone did everything right. I will take it.

[0:43:23] JR: One more thing to say on that, the rapidly deteriorating weather. I don't feel I know science says. This is going to become more of a thing as climate change continues and weather gets more extreme. This is going to become more of a thing, where the weather as it was when you departed is not what it is when you're on approach, or landing. That's going to become increasingly problematic. Hopefully, the technology to provide real-time weather forecasting and real-time weather information becomes more robust to prevent issues like this.

[0:43:58] IP: I mean, I'm all for it. Let's do it. What do we need to do?

[0:44:01] JR: Money.

[0:44:02] IP: Okay.

[0:44:03] JR: Okay.

[0:44:04] IP: Problem solved. Let's go to saving money, or at least kind of saving money. This was the thing you really wanted to talk about. I don't care so much. You said and I quote, "I can rant about this for a few seconds." I'm just going to sit back, relax and enjoy the show.

[0:44:24] JR: Sure. Well, Amsterdam's Airport Schiphol tweeted out today and so did KLM, that they're testing out a new taxi bot. I don't think it's a taxi, but I'm pretty sure there's a human and it's a tug. It's just a tug, tugging an aircraft. But instead of the aircraft powering up its engines and taxiing under its own power to the active runway, Amsterdam's airport is very proud of themselves that they are testing the tugging of a KLM 737-700 out to the runway, where it will then power up and take off.

I've been around this industry not a long time, but long enough to know that – this is on a five-year cycle. Every five years, the wheel is reinvented on how you can get an aircraft from the gate to the runway with something taking it there, other than the aircraft's own engines. Paris Airshow 2013, I think the big thing on this was actually integrating an e-bike motor in the nosewheel of the aircraft, that would electronically power the aircraft out to the active runway. I think, there were two competing. One from Honeywell and one startup, I believe, pitching this and then it just disappeared. It went silent.

Now KLM and Schiphol are tooting their own horn that they've reinvented the tug, bringing the aircraft out to the runway. It either works, or it doesn't. Do it or don't do it. Why are we still testing this? That's all I got.

[0:45:55] IP: I don't know. It's not a bad idea.

[0:45:59] JR: No, it's a good idea. We should do it, if it works, at least. I don't understand why they still have to test this. Different tests have gone on for decades at this point. I think, Virgin Atlantic with the A340-300s, literally decades ago.

[0:46:14] IP: The system that you were mentioning is quite extensive. The Safran, Honeywell system, the electric green taxiing system, the EGTS, if you will, was basically attached electric motors to the main landing gears of the aircraft, and then have the APU drive those electric motors, so that you could DC9 style power back the aircraft without a tug, and then get to the runway with those electric motors. Neat idea. This is nothing new. Will it eventually succeed? Will we eventually figure something out? Maybe. I don't know.

Do you get to the point where you just design procedures that are efficient enough for them to go, "You know what? We can just turn on the engines and go to the runway." Again, I don't know. Anything at this point that saves fuel, cuts emissions and makes things more efficient is a good thing. I hit that more efficient thing, because the issue that I know a lot of operators, a lot of airport operators had and a lot of airlines had with the electric taxi systems is that you're basically delaying the startup of the engines and engines need to run for a certain amount of time before they can be used to actually fly the aircraft. If you get to the runway without your engines on and you've gotten there via electric taxi bot, a little metal thing that pulls the aircraft along the taxiway all carwash style, whatever gets you there that isn't the engines, you still have to give the engines time to warm up and get ready to go.

[0:47:57] JR: This will be especially helpful at airports that are congested, like at JFK could take you an hour-plus to get to the runway. This can be exceptionally helpful. Amsterdam too, is a major airport and it can take a long time to get from the gate to the active runway. Let's just do it already. That would be nice.

[0:48:16] IP: Or don't.

[0:48:17] JR: Or don't.

[0:48:17] IP: Do it, or don't.

[0:48:18] JR: Do it or don't.

[0:48:19] IP: I'm glad they're working on it. Hopefully, they figure it out so that it works holistically.

[0:48:24] JR: Yes.

[0:48:25] IP: Last thing before we go, what has become quite the lengthy episode. I didn't realize so much had happened this week. Last week, we talked about an identified customer for five E195-E2s, Embraer's e-jet. Right after we hit stop on the recording, they announced to that customer was. It turns out that Binter is the customer with exciting new plans for future growth.

[0:48:55] JR: Good for them.

[0:48:56] IP: They're going to do that with five E195-E2s. Congratulations Binter Canarias and we wish you all the best.

[0:49:05] JR: That was bizarre. I've never seen any airframer put out early saying, somebody's taking airplanes and then 48 hours later, "Oh, yeah. It's these guys over here." You couldn't just wait?

[0:49:17] IP: They had to make sure the check cleared.

[0:49:19] JR: I guess, or probably some financial market thing, like they wanted the good news out on a Tuesday. I don't know. It was really strange.

[0:49:27] IP: It was bizarre.

[0:49:28] JR: I wish Binter good luck in its exciting new plans for future growth.

[0:49:33] IP: Absolutely. There you go. Well, Jason, it was great to see you in Stockholm. It was great to be with you here. I'm glad you made it home safe.

[0:49:42] JR: Didn't even have to go to Finland this year.

[0:49:45] IP: There you go. Your plane didn't get frozen to the round. Everyone who is listening to the podcast, thank you so much. We're coming to the close of the year. We'll have a couple

new episodes before we get to the end of the year. Then we'll have our customer week half of the year that was, and I hope you're looking forward to that as much as I am. If you're wondering about the quiz portion of the podcast, we're working on that. We've just had so many people express interest, that we're trying to find a way to make it so that as many people can play as possible. We're exploring a couple options, not only playing on the podcast, but playing elsewhere outside of the podcast.

[0:50:27] JR: We can do that?

[0:50:28] IP: Yes, indeed, we can. I'll say more about that in the coming weeks. We're talking to some folks about making that work as efficiently as possible, so that we can have more people play, and that as many people can participate at the same time as they want. That's all I'm going to say about that for now, but rest assured, we are going to do more quizzes in future episodes and outside of the podcast, under a larger flightradar24 umbrella. Stay tuned for more on that. In the meantime, this has been Episode 193 of AvTalk. I'm Ian Petchenik, here, as always, with –

[0:51:05] JR: Jason Rabinowitz. Thanks for listening and I'm going to bed.

[END]