

EPISODE 219

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[0:00:08] SM: Shimshimini. Shimshimini. Shimshimboeing. Sorry, I don't know the rest of the –

[0:00:14] IP: Hello and welcome – Oh, hello and welcome to episode 219 of AvTalk. I am Ian Petchenik, here, as always with –

[0:00:28] JR: Jason Rabinowitz. Also, here this week, with Seth Miller of paxex.aero, special guest during AIX here in Hamburg. Say hello, Seth.

[0:00:36] SM: And musician on retainer, apparently. Sorry about that, everybody.

[0:00:39] IP: Yeah. Joining us in musical form. No, we thought we needed a slightly different intro this week, so we're going with it. Jason and Seth are in Hamburg, Germany, as is the case every year, or almost every year for the Aircraft Interiors Expo, which we will talk about slightly later in the show. We're going to dive in and talk about, it's not quite breaking news, but one of the airplanes is still in the air, so I guess, this counts as breaking news.

[0:01:11] SM: Definitely broken.

[0:01:12] IP: It's definitely broken news. An Air India 777-300LR on its way from New Delhi to San Francisco on Tuesday, June 6th, one of the engines had an issue and the aircraft happened to be over North Eastern Russia. It diverted to Magadan in Eastern Russia on the sea of Okhotsk. The breaking part of this news beyond the engine being broken is that the rescue flight is currently in the air to collect the passengers from Magadan and take them onward to San Francisco.

The reason we're talking about this is not because an aircraft had an engine issue, it's not because there was a diversion, it's not because Air India is sending a rescue plane. It's because we're back in a situation where there is an aircraft on the ground in a country where it is going to be nearly impossible to cut through all of the red tape to get the aircraft fixed.

[0:02:11] JR: With an added twist this time of that flight having been bound to a country where it is not recommended that citizens of that country go to Russia right now. I'm not even sure if you're allowed to do that. This definitely differs quite significantly from the Norwegian Air 73 MAX landing in Iran, where, yes, the aircraft it was not going to have a good time because of the sanctions. But that aircraft wasn't going to the US. In this case, it is a whole other world of diplomatic and really just logistical nightmare for many of the passengers onboard that aircraft. It seems like they're being treated well, given the circumstances. It is not a large town by any stretch of the imagination, so they are being – these hundreds of people are being accommodated as best as the locals can do. You can't fault them there. But this is, I don't know, have we just found the newest addition to Aeroflot's fleet here?

[0:03:04] IP: Well, I don't think so. Mostly, because I don't think that Air India would be very happy if they didn't get their plane back. But the real issue becomes – so Jason alluded to, or mentioned what I was alluding to is the Norwegian Air diversion, the aircraft is flying from Dubai, I think, to Stockholm and diverted not long after takeoff, diverted to Shiraz Iran in December of 2018. That was a 737-8 MAX. That was an engine issue.

Aircraft diverted, landed safely. Passengers were taken care of overnight and then they left the next day. But the aircraft spent 70 days in Iran, because even though they had said, "Yeah, the export license shouldn't be a problem. We'll bring in the new engine. We'll bring in the maintenance tax. We'll bring in all of that," it ended up taking months, literally months to get all of the licensure from the US Department of Treasury to get the export technology license to be able to send the engine there. Then, they had to be able to actually get it there and do the placement work on the leap one beat. That took 70 days. It was just an issue of sanctions. There was no other issues involved.

[0:04:15] SM: This is also just an issue of sanctions, but they're a different set of sanctions, right?

[0:04:20] IP: Yes. Right.

[0:04:21] SM: Like you, Ian, I don't think that this plane ends up becoming spare parts for Aeroflot. Yay though, verily they might want that. They certainly need some spares. I do think eventually, they get it sorted and get it out. It would be a diplomatic nightmare between Russia and India. These days, India has been not outright supportive of Russia, but it's certainly not against its invasion of Ukraine nearly as vocally as other countries. Russia needs that support where it can get it

[0:04:48] IP: The interesting thing to me here is going to be, there are only two airlines that can transport a GE90 engine. One of them can't fly outside of Russia, really. The other definitely won't fly into Russia.

[0:05:05] JR: What a twist.

[0:05:08] IP: That's the other thing. I mean, because I'm talking about Volga-Dnepr's fleet of Antonov 124s. Then I'm talking about Antonov Airlines fleet of 124s.

[0:05:18] SM: Can they bolt it onto a 747 in the fifth engine position and ferry it in that way? Let it windmill?

[0:05:24] IP: I mean, setting aside the legal maneuvers to be able to export the engine there, I don't know physically how they're – I mean, they're going to have to truck it into Russia, I guess, maybe, and then fly it over on a Volga-Dnepr 124. Or, I honestly don't know what the logistics are going to look like. But it's also in such – they're going to have to fly it in, because there's no way that you can drive something to Magadan. A boat might work and then a truck.

[0:05:50] JR: Oh, sure, sure.

[0:05:52] IP: Because it is on the coast. I mean, we might see it flown to Japan and then they take a boat up from somewhere in Japan. I mean, setting aside the export license issues, the logistics and the legal maneuvers to be able to fly this engine in, or just get it delivered, that's going to be a project in and of itself. This aircraft is not going – I don't think it's going to be stuck there, but I definitely don't think it's going anywhere anytime soon.

[0:06:17] SM: I had another angle to the conversation. I'm pretty sure the –

[0:06:20] IP: Let's do it.

[0:06:21] SM: - answer is no, but it's something I thought about. That is earlier today is, should the facilities available at diversion airports beyond, is there a runway come into play when planning flights and routes? Like Jason said, they're being taken care of as best they can, but in this case, that's caught in a high school gym for most of the passengers. There's not enough hotel rooms in the town to handle the 200-something people.

Way better than crashing. Obviously, safety comes first. Divert the plane when you get an engine issue. I get that. But should airports that don't really have facilities for the passengers that are in them in the plane be considered valid diversion points for the plane flying above?

[0:07:05] JR: In my opinion, I don't necessarily see anything fundamentally wrong with that, since the odds of ending up at any one of those possible diversion airports is so, so small until it happens and then suddenly, it becomes a very real issue. I'm assuming there are a whole bunch of routes, where if you took that into account, suddenly those routes would no longer be feasible.

[0:07:26] SM: ETOPS basically dies in many markets. I get it. But it's interesting to me.

[0:07:30] JR: There should maybe be contingency plans on the side of the airline to be prepared for this, which Air India, I doubt they had any such plans for landing at this particular airport. But again, everyone seems to be doing the best they can. It does seem to me that it probably took Air India a little too long to dispatch a new aircraft to get those passengers out of there. I think it was a full day guaranteeing that these passengers are going to be on the ground there in a high school gym, or whatever for days, rather than as a little time as possible. We'll have to see the end of this whole saga, if anything could have been done better and the answer is always yes.

[0:08:06] IP: The one thing about the Air India operation that is interesting and at least in my mind well done, did it take a little while to get this aircraft in the air? Yeah. The aircraft, I think,

was supposed to leave yesterday at about 1900 UTC, and ended up leaving, I want to say, about noon UTC today on Wednesday. It's supposed to leave Tuesday evening UTC and left Wednesday midday. But the interesting thing to me is that they're going to continue the flight. They're going to get everybody to San Francisco.

They're flying in what I assume is two crews, because this is a – I mean, from New Delhi to Magadan is a nine and a half hour flight roughly. That's almost a full duty day there. Then you've got the continuation of the being on the ground, refueling and then continuing the flight. They're bringing a bunch of Air India staff and they've also pre-catered. They're bringing everything that they need for the continuation flight, I assume, except for fuel, and they'll just refuel and move on. I think, that's at least well done.

[0:09:16] JR: Maybe they brought multiple crews, but maybe they didn't. Maybe they're just relying on the crew that's already stranded there that they've hit their rest time, right?

[0:09:23] IP: I suppose that's true.

[0:09:24] JR: I don't know if being on the high school gym is too restful. But legally, probably.

[0:09:30] SM: Apparently, crew got hotels.

[0:09:31] JR: Okay.

[0:09:33] IP: Maybe they are relying on that particular crew.

[0:09:35] JR: Yeah. It's possible.

[0:09:36] IP: But it sounds like, it's all going to work out for at least the passengers quickly enough. It'll be interesting to see how long this aircraft sits on the ground. Set your alerts. The registration of the stranded aircraft is VTALH.

[0:09:57] JR: Set an alert. You can't say that Air India didn't have an idea something like this could happen. I believe, I read just a day prior at IATA annual general meeting in Istanbul. Scott

Kirby the CEO of United literally warned, or pleaded with other airlines flying to the US, but are still using Russian airspace, "Hey, maybe you should stop doing that." Then literally the following day, this happened.

[0:10:24] SM: Are you saying Scott Kirby caused this diversion?

[0:10:27] JR: I mean, I don't think he would do that to a fellow Star Alliance member airline, but we can't really know.

[0:10:33] SM: To be fair, his position is based almost entirely on the economics of United Airlines and other US carriers being disadvantaged by not being able to overfly Russia.

[0:10:43] IP: What's interesting to me here is that there are two things I want to do bring that up, Jason, and I'm glad you did. There are two things to me here. One, I mean, to Seth's point, Kirby's complaint, he couched it in safety terms, which I think is truly disingenuous. Because there's nothing that we've seen that would say, flying over Eastern Russian airspace is any less safe than it was not a year ago, or two years ago. I think that's disingenuous.

His argument was is that there could be Americans on the plane, and if you have to divert, which there are ostensibly Americans on this aircraft. It was flying from India to the United States, so one would assume that out of the 216 passengers, at least one of them is probably an American citizen. It's interesting, right after this happened, well we're seeing it play out where it doesn't seem to be an issue.

The other thing here is that with the competition issue, I wish I could find it now, but I remember someone saying before, from an airline that this was in regards – this was a European airline talking about Chinese airlines that were still flying over Russian airspace to get from China to Europe and saying, it doesn't matter, because those passengers that we're dealing with flying in between – they're going to choose us anyway, because they want to fly on our airline, as opposed to they're just looking for the cheapest price.

[0:12:04] JR: Yeah. To be fair, I also – I don't think Americans are actually banned from Russia. I think you could still go. It's on the DOD's or the state department's do not travel to list, but I

don't think you're actually prohibited from going to Russia. It's not like they're going to arrest you at the border to tame you, but they could. That's the problem. That's the question is the local police chief, someone who's really into the Russian cause and will arrest an American on site, that's, I think, the question. I don't think that's going to happen, but there is not a ban, or prohibition on Americans actually going to Russia.

[0:12:35] IP: Right, right.

[0:12:36] JR: Anyway.

[0:12:38] IP: The rescue flight into Magadan is about 25 minutes from landing. Hopefully, they're not on the ground very long. They refuel and they get on their way. It has been a very long ordeal for those folks. Then we'll see how long the aircraft manages to stay on the ground in eastern Russia, or when it departs again. I don't know about him using the right word, but it would be a little funny to me if it was one of those things where it was just an indicator light.

[0:13:05] JR: Yeah. Nothing's actually broken.

[0:13:07] IP: Nothing's actually broken.

[0:13:09] JR: It's just, they had to reboot the computer.

[0:13:10] IP: Yeah. They tend to – It's okay. It happens. We'll see. Let's switch from engines to the actual airframe. There is another issue with quality control on the 787, and we're back to shims. It's always with the shims on the 787

[0:13:30] JR: We should really do some research to figure out what keeps happening with those things and how we can fix it and tell Boeing.

[0:13:37] IP: Right. We should become the world leading experts in carbon fiber plastic composite tolerances technology and shimming. Let's do it. Boeing says that this particular issue is an attachment fitting on the horizontal stabilizer of some 787s. The issue now affects aircraft that have been manufactured, but not yet delivered. Could affect up to about 90 planes,

but Boeing says, “Not a problem. It'll take about two weeks to investigate and solve the situation. We expect our full year guidance between 70 and 80 787 deliveries to remain. We're sticking with that guidance.”

[0:14:17] SM: Didn't they just increase production?

[0:14:19] IP: Yup. Sure did. Like, last week.

[0:14:22] JR: They over-shimmed it. Too much shimming.

[0:14:26] IP: Yeah. Improper shimming around a bracket on the horizontal stabilizer of the Boeing 787.

[0:14:31] SM: The irony, of course, being that with the carbon fiber and the super modern CAD design and the exacting tolerances, this was a plane that really wasn't supposed to have shims at all. Now that's proving to be multiple times a necessary fix.

[0:14:47] IP: So many shims. Shims everywhere. My question to the internet yesterday was, why are we always shimming things? Because I was on an impression that you build these, they're either made to tolerance, or if they're not, then you ditch them and you do it again, because that's how these carbon fiber plastic composites work. Apparently, that's not the case.

You end up with things not as exactly as they should be, and then you use shims. Apparently, there's been a rash of improper shimming to meet the tolerance and fit things into where they are supposed to be. This doesn't seem like one of those things where they're going to have to study and look for a fix and things like that. It just seems like it was done wrong and needs to be done right, which, I guess, is a good thing to catch. If it's an easy fix, it's an easy fix. But man, that's a lot of shimming problems.

[0:15:47] JR: Yeah, not great. Not a surprise at this point. It feels like a weekly news cycle of finding something out about a Boeing aircraft that's not quite right. Not the biggest deal in the world, but just shouldn't have happened and here we are again.

[0:16:01] IP: I feel bad. One of the issues, I guess, that's important to mention here is that all of the work here is done by a supplier, and then the finished product, or what is supposed to be the finished product is brought to the assembly factory and then attached to the aircraft. And so, we're back to the maybe distributing manufacturing for the aircraft around the world and then hoping it all fits together wasn't the best decision that they've ever made.

[0:16:30] JR: In hindsight, that was fundamentally flawed. It probably lost –

[0:16:34] SM: The other thing, I mean, I just throw out there, talking about it's not that big a deal and this and that. Obviously, they will get the fixed done right. It will be safe to fly, etc. But airlines are facing so many delays in getting their new aircraft. Ultimately, this is bad for consumers. Fares are higher. Flights are being canceled, because the capacity of the planes aren't there. This isn't a just Boeing's bottom line, “Ha, ha, ha. Suck it, investors,” story. Real people are dealing with this, too.

[0:17:05] IP: I think Flight Global ran a piece after, or coming out of the IATA AGM this week that quoted an airline executive saying, “If we get planes six months late, they're not late.” You see these quotes from airlines saying, “No, no, no. We expect all of these – the planes are going to show up on time and don't worry about it.” Then –

[0:17:26] SM: They're lying.

[0:17:26] IP: - we're not going to get the planes on time. Who's being disingenuous and who's not telling who, the full story? I mean, is it the airlines telling their pastures? Is it the manufacturers telling the airlines? Is it just a chain of, “Oh, no. It'll be fine. It'll be fine,” and then it's not fine.

[0:17:41] JR: All of the above.

[0:17:44] IP: Fair enough. All right, gentlemen. You are in Hamburg, Germany.

[0:17:47] JR: We are.

[0:17:48] IP: That means that you must be there for the annual aircraft interiors expo. This year, there's actually been some pretty neat, if not earth-shattering technologies, but some solid improvements all around. I would love to hear about a few of these.

[0:18:05] JR: Yeah. We have to talk about how we got there first, though.

[0:18:07] IP: Let's do that.

[0:18:08] JR: Even that's a story. Seth, you –

[0:18:10] IP: That's always fun.

[0:18:11] JR: You live in Europe now.

[0:18:12] SM: I do. My wife is very happy that she has a European boyfriend. This is very sexy. What can I say? I came over –

[0:18:20] IP: It's the singing.

[0:18:22] SM: Yeah. Forget about that. I came over, actually, before Memorial Day. I've been over here 19 days now, as we're recording this. I came over on the daytime flight on British Airways from Boston to London and connected that same evening onward to Dublin. Spent a few days in Dublin at a conference. From there, flew on Ryanair to Poznań, Poland. Spent nine days in Poland tooling about, and basically, working from Poland, essentially, and seeing a friend and otherwise, enjoying myself.

Then took a train, or two trains, actually. The Polish intercity and then Deutsche Bahn intercity express from Poznań to Hamburg. It's been quite the adventure. I will say, British Airways economy is more comfortable on a daytime flight than on a nighttime flight, because I didn't have to worry about actually trying to sleep.

[0:19:12] IP: That checks out.

[0:19:14] JR: The morning flight is the way to go. If I need to go to London and I have say in the matter, I will always take the morning flight.

[0:19:20] SM: Yeah. Daytime flight to Europe is glorious. I love it. It's a shame that it's not available from more places, but the logistics and timing it's really hard to make it work financially and –

[0:19:30] JR: There are very few with them. I think there's actually three out of New York and maybe one or two, Boston. Sometimes, just one even had a Dulles, I think.

[0:19:39] SM: London has Dulles, New York, Boston, Chicago, Toronto.

[0:19:45] JR: Right. Chicago has that.

[0:19:47] SM: Toronto has service on Air Canada and Halifax on a MAX, if I remember correctly.

[0:19:53] JR: Right. When that's allowed to fly. Yeah.

[0:19:56] SM: There are a few. It's also worth pointing out, Reykjavik in the summer has a Boston and a New York flight. Istanbul has a JFK flight. It leaves at 6 in the morning and gets in at just before midnight. Technically, it qualifies.

[0:20:11] JR: Oh, sounds awful.

[0:20:13] IP: That's a weird flight.

[0:20:14] SM: It's built for onward connections into Europe and the – I have actually referred to as the stands, former Soviet states. I don't know what we actually call – I don't know. I really don't know what they're actually supposed to be called geographically. But those flights often are a late-night turn, where it's a terrible three or four-hour red eye in and then a 4 or 5 a.m. return back. But you leave Istanbul just after midnight, so they sort of work.

[0:20:44] JR: Very nice.

[0:20:45] IP: Yeah. All right.

[0:20:46] SM: But I love the new time flight. Jason had much more adventures than I did, which is bizarre, given what I –

[0:20:50] JR: I mean, I almost didn't. I, I had great trip here, until I almost didn't. I flew Air France on the very early, but not earliest flight of the day, the 5.30 flight out of JFK, which was fine. I happened to snag the new Air France business class. It was only the aircraft's third turn with that new cabin, so everything is really nice. Then I got to De Gaulle racing for the worst, because my experience there last year was just hectic craziness and it was empty. There was nobody there. It was amazing. I got to go to the lounge and take a shower and have a meal. I don't know what happened, but it was a really great experience.

That was on a 777-300ER, then I connected onto a year old A220-300. Both aircraft had Air France's latest, greatest, newest everything. It was a great flight. Then we were about a 145 feet from landing here in Hamburg. So close that I'm taking pictures of the Lufthansa Technik hangars and the aircraft hanging out in front of it. 145 feet, we go around and they go, huh, that's peculiar, but it happens.

The cabin crew gets on the PA very quickly and says, obviously, something has happened and we're going around. The flight crew will be with us momentarily. That's good. Then the flight crew makes a long announcement in French and I go, "Oh, no. He's not going to say it in English." Immediately, he says in English that there was a bomb threat at Hamburg airport. The entire airport is closed and we have 20 minutes of fuel for holding. I guess, they didn't anticipate any issues on this flight. No holding of any sort, so they didn't take much extra fuel. They gave us 20 minutes of holding before we'd have to divert to Bremen in Germany, which is not all that far from here.

Thankfully, after 17 minutes of circling, we were in the airport. Very quickly cleared its situation and we were able to land, and that was that. It was three minutes away from having a very, very different day. That's it.

[0:22:45] IP: That sounds like more excitement than you needed.

[0:22:47] JR: Yeah. Everyone was very calm. I mean, it seems like that happens not regularly, but more frequently than it does in the states, airports randomly close, or some threat, or if you are in Gatwick, seemingly commonly for a drone of some sort. There was no panic onboard. Nothing. Everyone just continued along their day.

[0:23:08] SM: I will say, I had a go around on BA in Boston back in April. Similarly, the crew, cabin crew was on incredibly quickly – In my case, the cabin crew spoke on behalf of the pilot and said, “Everything is fine. Don't worry.” Said more than probably was reasonable. Everything was fine and we shouldn't – didn't need to worry, but they didn't necessarily know that at the time, right?

[0:23:36] JR: Right. Yeah. They don't have any idea what's going on. They didn't know whether they're not going where they're supposed to. They don't know what happened.

[0:23:44] IP: Frank-driven, everything's fine. Disperse.

[0:23:47] SM: We couldn't disperse around an airplane. It was very interesting to have that experience and have the announcement very quickly. I've been on a US carrier to have a go around, the cabin crew in my experience does not get involved in that. Obviously, it seems to be a different training and policy decision between European and US carriers. From a comfort, for the passenger's perspective, I'm sure that that announcement is very nice. Obviously, on our go around, I said it out loud before anybody said anything. We feel the engine spool up. I was like, “Yup, going around.” My neighbor was like, “What?” I'm like, “We're not landing now,” and then we didn't land. But –

[0:24:25] IP: It's going to be another 20 minutes.

[0:24:28] SM: Yeah. You can feel it. It was fine, but it's interesting to me the difference between the US and the European carriers now that I've done it a few times on each.

[0:24:35] JR: Yeah. It was quite frankly, very nice that the Air France, the cabin crew almost immediately assumed and made an announcement. The flight crew, thankfully, made the announcement not just in French, but also in English for people like me. That was very nice. I didn't have to look around to anyone around me and say, "Hello. Did anyone understand that announcement? Anyone? Anyone?"

[0:24:54] IP: Are we good? Is everything fine?

[0:24:55] JR: Are we good? Is anything on fire? No? Okay. It's just a bomb threat. No big deal. But no, it was really great. Hats off to Air France, everything was handled really, really well. I hope I can replicate that on my return trip in a few days.

[0:25:10] IP: I hope so, too. Tell me about the show. I don't want to say, what's coming new in aircraft soon, because as we all know, things that happen at AIX take years to actually make it out to the aircraft.

[0:25:18] JR: Soon is very relative term in this industry.

[0:25:21] IP: But what is in the process of coming to an aircraft near you?

[0:25:25] SM: For me, the star of the show and I think most of what we've got to talk about is seating on the aircraft here. The star of the show in many ways was the Delta flight products. Doesn't really have a name, but the group that's helped driving the program is called Air4All. It's a handy, or a wheelchair mount seat. A ring.

[0:25:48] JR: Powered wheelchair.

[0:25:51] SM: You can roll onto the plane on a single aisle using a powered wheelchair. Seats 1A and 1B, or 1D and F, however they're labeled, would be a pair. The aisle seat becomes with a very, very simple mechanical mechanism, converts from a regular seat to the seat part flips out of the way, the cushions get stowed and you can – and it has tie-down hooks onboard. You can roll a wheelchair on under its own power and the passenger can remain in their wheelchair for the flight, which is huge.

[0:26:28] JR: Yeah, it's pretty great. Since today, this whole situation requires the passenger checking their powered wheelchair onboard, which leaves it in all sorts of jeopardy of getting damaged, lost and these cost thousands of dollars if it's damaged and just, it's life-changing if it's lost, or damaged beyond repair. In this case, today, they would have to be transferred to a regular wheelchair inside the airport. Then in even worse, I guess, you would call an aisle wheelchair to actually board the aircraft and then transfer that passenger from the horrible aisle wheelchair onto the actual seat. In that case, they get to enjoy the actual seat as best they can.

In this case, the whole chair just folds up in a way. Gets out of the way. They have these big, at least in the current iteration, which they said is approximately 20% completed. It's a concept. Maybe not a concept now, but an early product development prototype, you would say. They have these two hooks in the back that hooks onto the wheelchair and repels it back into position, and two more hooks in the front that really secure it into place, which is really nice, really interesting for a segment of airline passengers who have historically in recent history had put up with way too much – Oh, crap. We probably have to bleep that out. But they have put up with way too much. Been ignored and this is – It's nice to see a major company that you've probably never heard of before.

Delta Flight Products is a subsidiary of Delta Airlines. It does not mean that Delta will install this onboard its aircraft, although it sure seemed like they will at some point. But other airlines will be able to buy this product theoretically from Delta Flight Products to install on their A320 series aircraft, and hopefully, the 73.

[0:28:16] SM: They said it should fit in the 737s as well. The other thing I'll say, just in the timeline scenario, yes, nothing happens quickly in aviation, but they are – Delta Flight Products is talking about potentially having it certified within 18 months, which basically, takes an act of God. I mean, that is amazingly quick for something in the state –

[0:28:34] JR: That's time to certification and they actually have to manufacture it and the airline has to buy it and then install it.

[0:28:39] SM: Yeah. But they do that in-house. Yeah. It's not going to be flying any people. That is still very quick. There has been discussion, I understand, with the FAA out even trying to fast track them a little bit if they can. Because of the impact it has on accessibility. I mean, Chris from flying disabled, who has been driving this program, he's spent eight years at this point trying to get this to happen. Basically, said to me when we're talking about it, it's like, when wheelchair user loses, or has their chair damaged, it's the equivalent of me taking a baseball bat to your knees, or a saw to your knees and cutting them off. You literally can't go anywhere. People don't travel, because it's not worth that risk.

[0:29:18] JR: Yeah. I did see some commentary on Twitter when I posted about this. I'm saying, "Oh, well. That just means the downside of this is that those passengers will have to sit in their wheelchair for many hours, unable to recline." This is not targeted for long-haul flights. This iteration of the product will end up on short-haul aircraft that will operate four, maybe five hours.

[0:29:43] SM: Those people are used to spending extended periods of time in their wheelchair. That's how they live. Again, it opens up opportunities.

[0:29:50] JR: It is, yes, unfortunately that they are not able to enjoy the actual seat onboard the aircraft. But I think most people in the situation would be more than happy to trade that off for getting their chair onboard and knowing for sure that they're not going to come out the other side of their arrival airport and their wheelchair is damaged, or gone in some cases.

[0:30:10] IP: Yeah. No, I can only imagine how truly awful it is to have to worry about that every time you fly, especially if you're flying on a regular basis, I mean, to wonder if, "Am I going to be able to move after the flight lands? Or has the airline taken my mobility?"

[0:30:28] JR: Forget the airline losing your bags. That's horrible enough. But then imagine when you get there, your bag's not gone, it's your legs are missing. That's not great.

[0:30:37] IP: Yeah. I mean, amazing if it gets certified that fast. I think it's just great to see that a company has decided to finally tackle this problem once and for all and hopefully, they get it on aircraft as quickly as possible.

[0:30:52] JR: What else did we see, Seth? What were some of the other headlining items?

[0:30:55] SM: There was also at the other end of the seating spectrum, Recaro aircraft seating is one of the major suppliers, has a product called the Xtend seat. That's X-T-E-N-D.

[0:31:07] JR: I don't want to talk about this one, but I guess we need to.

[0:31:11] SM: We need to. This is –

[0:31:12] JR: I feel like, if we ignore it, if we don't look at it, it will go away, but that's not real.

[0:31:16] SM: That's not real, I'm afraid. This is a seat design for the exit rows, the emergency exit rows of an overwing exit row. Today, you're required, I believe, to have 13 inches of clearance between the seat and the seat back in front for people to be able to get out. Today –

[0:31:33] JR: It's the seats you're guaranteed to have extra leg room, or a normal amount of legroom, where the rest of the seats are terrible.

[0:31:41] SM: Can be much smaller. Fair. What they've done here is basically, created a design where the seat pan is split in half, or 30/70, something like that and part of it flips down. It is mechanically operated. If you are not seated in that row, or in that seat, it will remain down. Once you sit down on the 70% of a seat that you have available normally, you reach underneath your legs and pull the rest of the seat up.

[0:32:10] JR: It does not reach flush with the rest of the seat cushion over it. Is in indentation and it's maybe half an inch, a couple centimeters below where the rest of the thing is. When I tried it, my legs didn't even touch it. It really was just like I had 70% of a seat cushion under me.

[0:32:26] SM: Then when you stand up –

[0:32:27] IP: That is annoying.

[0:32:28] SM: Yeah, there's a spring-loaded clip inside, essentially. That when you stand up, that clip releases and it flips down, making it say for emergency exit.

[0:32:36] JR: Not immediately. It's like an egg timer situation, where you stand up and it counts down. The little pressure sensitive things brings up. After two seconds, the thing goes, "kachink," and the seat reverts to its folded down position, and that's so that if there is an emergency where they do need to use that exit, nobody actually has to do anything to get that seat out of the way.

[0:32:58] SM: The interesting thing about this is it probably saves 3 or 4 inches of pitch, which seems silly, because what do you do with 3 or 4 inches of pitch? You can't put an extra row in, because you have 3 or 4 inches of pitch. It only really works in the second of the exit rows of the overwing, because the one in front of it still – you can't move it forward and actually block the window. Maybe you can if you take the window seat out, then you have B and C, or D and E, but not A or F. There's some interesting challenges there.

I was thinking about it more and it seems like, the idea would be, you take those few inches and you take an inch away from everything else behind the exit row. Now all of a sudden, it looks like you've got a full row of extra seats you can put in. It's not just those seats that are getting worse. It might be everybody.

[0:33:41] JR: I hate it.

[0:33:43] SM: Or, the back half.

[0:33:45] IP: Oh, that sounds like it's a solution in search of a problem, to my mind.

[0:33:48] JR: Yes. I hope this never sees the light of day.

[0:33:51] SM: I am relatively convinced that there are markets where it might make sense. There are markets where exit row ancillary fee pricing has not yet really become compelling. US, not going to see it, because the airlines have gotten good enough at selling those seats for \$70 to a \$150, or whatever it may be. The high numbers are really long haul. But whatever, you

get the idea, right? They can make more money that way than trying to get extra seats onboard. Maybe Southeast Asia where on average, people are a little shorter, so the extra legroom isn't as compelling.

[0:34:25] JR: But I need those seats, because –

[0:34:27] SM: Well, right.

[0:34:27] JR: When we flew VietJet, those were the only seats I could fit in were the exit row.

[0:34:31] SM: I remember. I was not in that row with you.

[0:34:34] JR: Yeah. You made a mistake. You had an experience. It wasn't a mistake. But what else did we see?

[0:34:41] SM: The last one that I thought was super interesting, and you spent more time looking at this was the fancy lavatory demonstration model. This is very much far down in the future in Collins airspace.

[0:34:51] JR: Oh, you mean the one with the camera and the screen in it?

[0:34:52] SM: Yeah. Okay, well, the camera is not in the lavatory to make that –

[0:34:58] IP: Yeah. Okay. That was my first question.

[0:35:00] JR: The flexible OLED screen is in the lavatory. To demo its capabilities, they had a camera outside of the lav pointing into the boot. Of course, Seth parked himself in front of it and waved at me while I was looking at the display. But basically, you know how some Emirates first class 777 suites have – they're in the center section, so they don't have windows, but they have a mock window with the screen showing a camera feed of what's outside. Basically, the concept is like that, where if anyone has flown on any modern narrowbody aircraft, the lavatories onboard are ridiculously, stupidly small. Instead of making them bigger somehow, they've decided, "Why don't we just make them appear bigger," like Boeing does with Boeing sky

interior, where they didn't actually make the seats any bigger, or the airplane any bigger on the MAX. They just made it look prettier. They say, we're just displaying that you can show anything on this camera and we use other lighting to make the lavatory seem less unknowingly small than it is.

[0:36:00] SM: There was also a flight status display in the lav, like a moving map situation. Did any of you saw that? It was in on the side mirror on –

[0:36:10] JR: I did. It was a screen behind a mirror, which is something you actually see at some nicer hotels, or venues like that. They're just showing that you can do – you can display anything you want. It seems like a pricey way to go, but an interesting way to use a flexible OLED screen.

[0:36:26] IP: This seems like the first step to displaying a countdown timer.

[0:36:29] JR: That's what I said. That's exactly what I said on the spot. Time is expired. You've been too much in the lav. Time to leave. Other interesting things, there was a Chinese seat vendor there that caters to a domestic Chinese airline. Didn't they mention the ARJ21 and C919 had some interesting features in economy. Well, in business class, a lot of seats have a privacy slider that says, or a button that lights up a light that says, wake me up for meal, or leave me alone. Some other airlines have taken that physical approach that with a sticker, or something. But these seats for the Chinese market and I guess, really any other market, there's a little slider on the sleeve. You slide it to the left and it says, 'Leave me alone'. You slide it to the right, it says, 'Wake me up for meal service'. I thought that was an interesting way to do that. If you're sleeping on a red eye, but still want your little breakfast, they can either leave you alone, or wake you up. That was nice.

[0:37:20] IP: I like that. That does seem like a –

[0:37:21] JR: Yeah, little innovations.

[0:37:22] IP: - like an easy thing. Yeah.

[0:37:23] JR: Yeah. It also showed how long product development in this space takes, because it was another slider that had a picture of a little Coronavirus virus, indicating whether or not the seat had been sanitized, or not. I feel like, that might be a product of the 2020-2021 product development life cycle that's just now being shown now. But you can change that out quickly and have it show whatever you want.

[0:37:49] IP: But that's going to be a whole another round of certification. We need to certify that sticker.

[0:37:53] JR: Sure, sure. Why not? Was there anything else that you – I mean, I realized we're talking a lot about seats this year. In the past, we've talked about connectivity, we've talked about in-flight entertainment. Have we reached the point where we're yes, there's development there, but it's starting to slow down, because we've hit a milestone, or hit a plateau with those types of things, where there's a –

[0:38:15] JR: Yes and no.

[0:38:16] IP: - we need to see where to go from here?

[0:38:17] SM: There were some new screens that were on display. Mini LED and OLED that's 42 inches, things like that. But a lot of them are 2025 timeframe.

[0:38:27] JR: Yeah. A lot of this stuff, again, with the way the product development life cycle here goes is all of the new entertainment things, they were announced and revealed at the show last year. Now they're announcing orders for those things. Like, Panasonic announced for its new Astrova entertainment system. A massive order from United, putting those on new 787 dash whatever. The A321neo XLR I think starting from 2025. Last year was the product announcement. This year was the customer announcement. Next year, maybe, is, hey, this thing is flying. Then at that point, maybe we get to see what's coming.

[0:39:07] IP: We'll do it all over again.

[0:39:08] JR: What's coming next. Interestingly, it seems like that product life cycle might be different moving forward, because a lot of the talk, especially from Panasonic and another company, Zodiac, was upgradability of the hardware we're installing now. Where in the past, you installed a screen and the screen had the processor and all the RAM, the memory, all that stuff in the screen itself. If you wanted to upgrade that, you have to tear up the entire thing, throw it away, or recycle it, whatever, sell it to another airline and then install an entirely new system.

Now, they have more, not recyclability, but more upgradability in mind, where rather than throwing the system away, you can – the processor for the Panasonic one at least isn't in the screen itself. It's in the seat box underneath, and they can take out a car, take out the processor chip from 2020 and put a new one from 2025. When the time comes over at Zodiac, they have a little bar underneath where the USB port is and the headphone jack. When USB A goes out of fashion, they can just easily swap that off and swap a new one on for Bluetooth low energy, or having two USB C jacks and stuff like that.

They're more like platforms rather than standalone systems at this point. I don't really think we'll be seeing any new entertainment systems in the near future. But Seth might have a different take.

[0:40:29] SM: No. I think you're right. There's going to be little upgrades here and there. So far, it's not the only one with that idea of upgrading the bar, instead of the whole screen.

[0:40:37] JR: Yup. Panasonic's doing the same thing.

[0:40:38] SM: Yeah. We're seeing it in a lot of places. The modular nature, all those things. It is smart. It is good. It will be installed eventually. These things take time to develop and then certify and then convince airlines to buy and then install. It's all well and good. In some ways, Jason likes to complain about this in every conversation we had. It doesn't matter, because none of the content is high-quality enough.

[0:40:59] JR: Oh, it's true. It's true. They talk up, our screen is 4K UHD HDR 10-plus, and then the content you watch is 480i in the wrong aspect ratio, SDR, so none of it matters. That might be the next frontier of making this content better is –

[0:41:17] IP: Getting actual –

[0:41:18] JR: - content needs to be better. Yeah.

[0:41:19] IP: Get the actual quality content on the good screen.

[0:41:21] JR: When you ask them about that, they're like, "Oh, we provide the capability, but if you want to know about the content, you got to talk to those guys over there." They're not wrong. I just don't like the answer.

[0:41:30] IP: Yeah. Well, all right. Well, if anything else happens in the show we can chat about it next week. Let's close out the show with a few things worth mentioning. It is closing the first week of June. The third week of June rolls around and we're talking not about what's in the airplane, but the actual airplane itself. Of course, I'm talking about the Paris airshow that's coming up the third week of June. We'll have much more to talk about during and after the Paris airshow.

One of the pre-Paris airshow things that has already happened is the unveiling of the first Riyadh Air 787 livery. There will be two of them. This one is a very purple and blue, kind of a starry night meets Tron thing going on.

[0:42:21] JR: Okay.

[0:42:22] IP: I like it. I don't think it's the going to be the livery that – I think it's going to be akin to an air New Zealand thing, where there's maybe a handful of planes that look like this. Then the rest of them that operate in the hot desert would probably not be painted in very dark colors.

[0:42:39] JR: Very different choice, at least on the onset from Saudia, which uses, I guess, you could call it beige sand colored aircraft that in part to – sure, in part to reduce the sun radiation heating up the insides of those aircraft and deteriorating the paint. They chose very appropriate color for their location. Then Riyadh Air is like, "Yeah, forget all that and science and everything.

Let's make them as pretty as we can, regardless of the conditions these things will be flying into.”

[0:43:07] IP: This makes perfect sense, because this particular aircraft and I brought it up as far as Paris Airshow. These this particular aircraft which is a Boeing 787-9, it's Boeing's aircraft at the moment in Riyadh Air livery. The registration is N8572C. That particular craft will be on display at the Paris Airshow. Certainly, this is a special livery. Who knows if Riyadh Air even actually ever takes delivery of this particular 787?

[0:43:38] JR: Ian, there's only one thing I want to know.

[0:43:40] IP: Yes, sir.

[0:43:41] JR: Did this aircraft previously belong to Hainan?

[0:43:44] IP: So close.

[0:43:46] JR: Oh. No? Damn.

[0:43:47] IP: So close. No, this is line number 1128, formerly destined for MIAT Mongolian Airlines.

[0:43:57] JR: Really? Oh, I would not have called that.

[0:44:01] IP: Now, it's going to the Paris Airshow as part of the Riyadh Air tour. But who knows whether or not this particular airframe will ever end up –

[0:44:10] JR: Could it still go to Mongolian?

[0:44:10] IP: - being delivered to Riyadh.

[0:44:12] JR: I wasn't aware that they cancelled their orders. Maybe this is just a such a temporarily slapped on –

[0:44:18] IP: You know what? I don't know.

[0:44:19] JR: - livery that it could go back to that. I didn't hear of this aircraft.

[0:44:24] IP: I think it's an NTU, but I don't know what they shifted around to take that deal. We'll put a picture on the show notes. It's pretty. Things that don't look pretty. New York right now is experiencing heavy smoke and low visibility, because of all of the wildfires that are burning in Canada. Today, the LaGuardia and New York both went into ground delay programs and ground stops, because of low visibility. Not a great thing and hopefully –

[0:45:00] JR: I'm glad to not be home right now. I keep getting pictures from friends and family. It looks hellish. Thanks for that, Canada. I have some friends and family leaving JFK tonight and I hope they're able to get out. So far, JFK seems okay. I saw one JetBlue flight diverted oddly to Newark earlier and is shoveling back to JFK now.

[0:45:21] IP: The weird New York microclimate.

[0:45:22] JR: Yeah. You never know. But, yeah, the situation doesn't seem to be getting any better before it gets any worse, unfortunately. I just can't believe all that's coming from wildfires and no discussion. That's crazy.

[0:45:34] IP: We'll stay at LaGuardia in fact, and talk about the continued saga of JetBlue and Spirit. JetBlue –

[0:45:43] JR: Oh, yeah. I forgot about this.

[0:45:44] IP: - is agreeing to give Spirit's LaGuardia, the entirety of LaGuardia's assets, entirety of their assets at LaGuardia to Frontier. As part of this, Frontier will pick up –

[0:45:56] JR: Ending, ending, ending the deal going through.

[0:45:58] IP: As part of this agreement, if it's approved, as part of this agreement, if it's approved, Frontier will pick up six gates and 22 slots.

[0:46:07] JR: Ooh, that's some good stuff. You don't just find those lying around on eBay. That's

–

[0:46:10] IP: You really don't.

[0:46:11] JR: - millions and millions and millions of dollars' worth of stuff.

[0:46:12] SM: I don't know. The marine air terminal seems like the thing that might show up there every now and then. That's where the gates are, so consider that. One of the challenges and the marine air terminal is a glorious historic building, the waiting area at least, the outside –

[0:46:28] JR: The pre-secure side is lovely.

[0:46:31] SM: The gate area though is definitely not designed to handle six high density A321s departing at any given time. That would be –

[0:46:39] JR: No, it was great for the Delta shuttle when there were only a few aircraft going at any given time, but maybe 50 people onboard, but when you slap –

[0:46:47] SM: Yeah. MD-80s.

[0:46:47] JR: - a 230-passenger A321, it's bad. It's real bad.

[0:46:52] SM: Minimal concessions. It's whatever, right? Take the slots you can get. Take the gates you can get. 22 slot pairs it is glorious. Who knows if that's enough to convince the, I guess, DOJ, or a judge who's trying to hear this case to let them get it approved.

[0:47:07] IP: I mean, I think it would have to be a judge at this point, because the DOJ is already sued.

[0:47:10] JR: When was the last time? I don't even know that this many slot pairs were transferred at LaGuardia, because these are coveted. It's not just the slot pairs. It's the gate space, too.

[0:47:21] SM: This many –

[0:47:22] JR: Would it have to be US Air and American?

[0:47:25] SM: I don't think there were that many.

[0:47:25] JR: I don't think it was that many.

[0:47:25] SM: I don't think that may have divested then. Prior to that would have been the Delta and US Airways trade between LaGuardia and DCA.

[0:47:36] JR: Yeah. Those were trades. That wasn't just a, here, take them.

[0:47:39] SM: Yeah. I can't remember if they also had to divest some as part of that. But, yeah, this is a big chunk of LaGuardia ops.

[0:47:46] JR: It makes me mad. I don't want those going to Frontier. I want them to stay with Spirit and Spirit to remain a thing. I'll fly Spirit. I won't fly Frontier, if I can help it.

[0:47:58] IP: That's fair. Let's close the show, because I know it's getting late where you are and we're running out of things to talk about. But let's close the show with some news that I think we'll be talking about next week, at least I hope we'll be talking about next week, because perhaps, it's good news for Mexican-US relations. Secretary of transportation, Pete Buttigieg, is traveling to Mexico to meet with Mexico's President, Andrés Manuel López Obrador. There we go. I got all the names in.

[0:48:24] JR: Nailed it.

[0:48:25] IP: They are going to be talking, at least according to the Mexican president, they're going to be talking about Mexico's aviation safety rating, which the FAA signs. As we've talked about multiple times on the podcast before, Mexico's rating is currently not category 1, which means they cannot begin any new flights to the US at this point.

[0:48:46] JR: And codeshares were suspended.

[0:48:48] IP: And codeshares. Yes.

[0:48:49] JR: Maybe an even bigger deal.

[0:48:51] IP: They've been keen to regain their status. We had heard June would actually be the month to make that happen, so maybe this is it.

[0:48:59] SM: Just a quick update on the LaGuardia smoke situation. Philadelphia is now also seeing traffic delays, inbound traffic from the FAA owing to the smoke.

[0:49:08] JR: Fantastic.

[0:49:09] SM: It's moving further south. Not good.

[0:49:12] JR: Awesome. On that note –

[0:49:14] SM: Just a bundle of joy for you guys today.

[0:49:17] IP: Good luck getting home. Yeah.

[0:49:18] JR: Yeah. Thanks. I live in Germany now.

[0:49:21] IP: There you go. We'll have updates on wildfire events. Hopefully, we can say that we're done with them, but I don't think that's ever going to be the case and certainly, not this summer. We'll have updates on the US-Mexico aviation safety rating for next week, and anything else that pops up in the last few days of the aircraft interiors expo show that Seth and

Jason are both at. This, however, concludes this particular episode of AvTalk, episode 219. Seth Miller from paxex.aero thank you so much for joining us, as always.

[0:49:53] SM: Always a pleasure. Thank you.

[0:49:56] IP: I will let you gentlemen get off to bed. I'm sure you have a busy day ahead of you. Everyone else, thank you so very much for listening and we'll talk to you next time. Seth do you want to sing us out?

[0:50:06] SM: No.

[0:50:06] JR: Hell, no.

[0:50:08] SM: Thank you.

[0:50:10] IP: We'll see you next time.

[END]