

**EPISODE 179**

[EPISODE]

**[00:00:07] IP:** Hello, and welcome to Episode 179 of AvTalk. I am Ian Petchenik, here, as always with –

**[00:00:15] JR:** Jason Rabinowitz. How are you, Ian?

**[00:00:17] IP:** I'm doing well, Jason. How are you? It's been quite a day. We're recording – I feel like we're back in the old days when we record late at night.

**[00:00:25] JR:** 9:30 at night. It's way past my bedtime.

**[00:00:30] IP:** I've usually been asleep for hours by now.

**[00:00:32] JR:** Yeah. Instead, I'm here at the beautiful Dulles Airport Marriott.

**[00:00:37] IP:** When I think of beautiful, I think of the Dulles Airport Marriott.

**[00:00:39] JR:** Yeah, I only got lost twice in the hallway so far today, so I'm doing okay.

**[00:00:43] IP:** Does that happen often to you when you're in a hotel?

**[00:00:45] JR:** In this particular hotel? Have you ever seen The Shining?

**[00:00:49] IP:** Yeah.

**[00:00:50] JR:** It's pretty much that hotel. It's quite confusing.

**[00:00:54] IP:** All right, then.

**[00:00:54] JR:** Yeah, a little less **[inaudible 00:00:55]** full blood, though.

**[00:00:57] IP:** That was going to be my next question, obviously.

**[00:00:59] JR:** Not yet. I haven't come across that yet. But it's always possible in this place.

**[00:01:04] IP:** There's a crazy man with an axe running around. That's good to know. We were talking before you got on your flight this morning, about how many people were you going to be on your flight. I think as of yesterday, it was eight. Did that number eventually rise to a decent number of people in flight? Or did it go out with eight?

**[00:01:21] JR:** Yeah. This was actually my first time on one of United's CRJ-550s, which if you've never heard of before, that's okay. It's not a real aircraft. It's actually just a CRJ-700 wearing a different hat, that says 'United Express' on it. Yeah, leading up to it, United squats on its slots at LaGuardia, and operates a ridiculous number of flights to Dulles, which is great for me, because I sometimes needed to go to Dulles. There is seven or eight, or maybe even nine flights per day, most of which don't need to exist. Up until the day before my flight, there were five passengers on the seat map for the entire flight. One of the earlier flights in the day canceled due to weather the day prior, so I guess, they rolled a bunch of those passengers over to later flights. My 50-seat airplane probably went out with maybe 25 passengers on it. Not bad. Being on that flight with five people would have been a bit more fun.

**[00:02:17] IP:** Yeah, yeah. The thing about that is with the smaller aircraft, you always end up dealing with weight and balances. Sometimes that works out for you and they move everybody up, and you get basically, a free upgrade because you contain mass. Congratulations. Was there anybody moving around the cabin? Or was it just –

**[00:02:35] JR:** Indeed, there was. Yeah. I intend on reviewing these flights, actually. I paid for an upgrade to economy plus, which was something stupidly high, like \$45 on this 40-minute flight. It's like \$1 a minute. I wanted the upgrade to get that very extra legroom row. Sure enough, yeah, one of my co-workers who was on the flight with me was down in the back of economy and due to weight and balance, ended up in the seat right next to me in economy plus. She got a free upgrade. I got a seatmate out of it. Very interesting that they did have to move. I

think, they filled up the economy plus cabin, actually, because there were just too many people down in the back of the aircraft.

**[00:03:15] IP:** I guess, that makes sense.

**[00:03:15] JR:** Yeah, it was fun. It was my first time on a CRJ-550 since the media preview of the aircraft. It feels like an eternity ago. Back in 2019, I think, it's a very interesting ride. Very comfortable up in row seven in economy plus where I was, because that's right behind the luggage storage lockers, I guess you would call them, which is an interesting thing on to have on a regional jet. It was very comfortable. Everything was great. Couldn't have asked for a better travel day. We pushed back from LaGuardia early. We took off, we landed half an hour early. Everything was really ideal today. I'm gearing up for punishment on the return flight home.

**[00:04:00] IP:** If you want to check out a video review of the CRJ-550, we've got one of those up on our YouTube channel. Our colleague, Gabriel Lee, took a CRJ-550 flight. I can't remember exactly where it was. Out of Chicago, I believe. Maybe up to Detroit. Anyway, he took the CRJ-550 and reviewed that aircraft in video format. If you want to check that out, we'll put a link in the show notes. Then, once Jason's review is up, we can add that to the show notes later on.

**[00:04:29] JR:** Yeah. Fun little aircraft. Operated by GoJet, by the way, who operate an excellent flight. I hate the fact that it has to exist, because the only reason the 550 exists is to get around scope cause issues. They're actually just running a 76-person aircraft with 15 seats onboard, which is really not great from a whole host of perspectives, but sure is comfy.

**[00:04:49] IP:** Yeah. It wins on the passenger experience. It loses pretty much everywhere else. Speaking of passenger experience, next week, I will be subjecting myself to what is probably not going to be a very good passenger experience. I think, I think, I think I'm doing it for all the right reasons. Before we get too far into the show, I do want to mention that we were supposed to have Mike from Flying Life on this week. He is an airline dispatcher for one of the major US carriers. We've talked about a lot this summer, how it's been very busy, how pilots, flight attendants, airline personnel have been stretched thin, and how their schedules have been very compressed, and extended and shaped this way and that.

As it would turn out, we got bit by that. Mike was unavailable to chat with us this week. Thank you so much to everyone who sent in questions. A few of them were extremely detailed, multi-part questions that we will certainly be talking about and discussing in depth. All the questions we got were very good ones. We're going to take all that. We're going to talk with Mike in a future episode, probably in a couple of weeks, once I'm back from traveling, and we can find a time that works. Stay tuned for that. Unfortunately, that won't be part of our conversation this week. Back to my harebrained scheme.

**[00:06:13] JR:** You're under-selling it already.

**[00:06:17] IP:** Yeah. I'll go with the headline first. Next week, I will be participating in a parabolic flight campaign with the German Aerospace Center, the DLR and Novespace, which operates the parabolic flight A310 out of Bordeaux.

**[00:06:36] JR:** Not at all jealous over here.

**[00:06:39] IP:** Traveling to Bordeaux. I'm rubbing my hands together in anticipation. This is one of the things that super looking forward to and a lot of good podcasts content, video content, social content, all that fun stuff. Next week, you'll definitely want to be following along on that to come along for the ride, and then we'll talk about it afterwards as well. That flight is going to be on Tuesday. On Saturday, I begin the journey from Chicago to Bordeaux.

We've talked about how ticket prices have just been bonkers, how schedules have just been so out of whack. I was trying to find a way to make this work. Trying to find a way to make this all work to get from Chicago to Bordeaux, and back. Air France wanted well over \$2,000 for a Chicago-Paris, Paris-Bordeaux round trip. There were other options that were slightly less expensive. \$1,800, I think, I needed to connect into Detroit, and then Paris then Bordeaux, and all sorts of good fun stuff.

What I finally settled on was why not book two sets of flights. I'm flying Chicago-New York, New York to Stockholm. Then I'm going to fly from Stockholm to Paris, down to Bordeaux. All four of

those flights right in a row from 2:30 in the afternoon and Saturday, in Chicago, arriving on Sunday evening at 7 p.m. in Bordeaux.

**[00:08:08] JR:** Yup. All that checks out. That's a good plan. Nothing could go wrong. You'll get there and you're going to feel great.

**[00:08:13] IP:** If there could possibly go wrong. Jason, this is why I truly appreciate your confidence.

**[00:08:19] JR:** Yeah, it's going to be great. You know what? In reality, I have somehow gone the entirety of the summer of hell that is traveled 2022, without so much as a flight delay. I bestow that capability upon you for your travels.

**[00:08:33] IP:** I sure hope so.

**[00:08:35] JR:** Please give it back to me when you return to Chicago.

**[00:08:37] IP:** I will do. It's going to be fun. Then on the way back, I'll be stopping in Stockholm and visiting the flightradar24 office, and seeing some colleagues and all that good fun stuff. It's all hopefully going to work out. The highlight is certainly the Tuesday flight on the Novespace A310. I'm really looking forward to that. We're going to talk a lot more about that next week. We're going to have interviews with the flight operations managers. We're going to have interviews with the pilots of the aircraft. I really want to know about that. Because the aircraft itself is a normal A310, but it's flown in a very, very special way. I'm really excited to talk to the pilots and learn more about how all that works, and to see what it's like to fly in parabolas and feel very, very heavy gravity, 3Gs on the upswing, and then microgravity on the downswing, I guess, is what you could call it.

**[00:09:33] JR:** Yeah. Here I am raving about my CRJ flight, which is pretty great. It was pretty bumpy. It was nice, but I think you got me beat on this one.

**[00:09:43] IP:** I'm in the back of the bus the entire way in basic economy. Delta connection CRJ-700 to New York, from New York to Stockholm. It's a 767-300. I sure hope it's not the one that Ghana has banned.

**[00:09:58] JR:** 195DN, yours for the taking.

**[00:10:01] IP:** No whammies. No whammies. Then a standard Airbus fare. I think it's an A320, than an A319. A320, A321, 763 on the way back, and then I get, I hope, an E175 with the spatula winglets as my last flight. Stay tuned for all of that AND we will have much more to talk about next week.

**[00:10:24] JR:** You know what? You're safe. 195DN is out in Guangzhou for some heavy maintenance.

**[00:10:30] IP:** Heavy maintenance. It's about time.

**[00:10:31] JR:** Yeah, yeah. About time. Overdue. You're safe. You're not going to have it this time.

**[00:10:36] IP:** Let's talk about what's happening this week, and let's stay with Air France, shall we?

**[00:10:42] JR:** Okay.

**[00:10:42] IP:** This was a very interesting thing. The French paper, La Tribune, came out with an article late last week, discussing the BEA's report that detailed a fuel leak that occurred to an Airbus A330. This was in December of 2020, a fuel leak was detected. What happened was the Air France pilots landed the aircraft safely, but did not follow proper procedures as laid out by both Airbus and the airline. That was the BEA's report. Then what happened was the same newspaper had an exclusive report that discussed some of the other things that are undergirding the cultural issues, the setting the Air France crews, or at least that's what the report is saying. In this report, they discuss the fact that two pilots on an Air France Flight flying from Paris to Geneva had a fight on the flight deck.

**[00:11:46] JR:** It's not really the kind of thing you want to hear about on a –

**[00:11:48] IP:** Not good. Not good.

**[00:11:50] JR:** No. I mean, I have heard of tensions between pilots before, because you're up there for hours without nothing to do but really talk to each other. Sometimes that you have two conflicting personalities. This seems like it got a little more heated really quickly, didn't it?

**[00:12:04] IP:** The La Tribune report says, and this is translating the French here. They weren't punching each other, but they were hitting each other in some sort of manner and there was collar grabbing. You're basically sitting, one person has the aisle seat, one person has the window seat, the middle seat is open and you're trying to fight that person from that seat. I mean, not a huge set of possibilities here. The flight landed safely in Geneva. Everything was fine. The two pilots have been suspended. This happened, and the La Tribune article was basically pointing to a larger culture of non-compliance. They pointed to the 777 incident that we talked about in landing in Paris, where there was a deviation.

Basically, the pilot told the aircraft to do something, the aircraft did something and the pilot was confused by that. We talked about that a month or two ago as the Air France 777 was landing in Paris. The BEA has called on Air France to “put respect for procedures back at the center of its culture.”

**[00:13:09] JR:** Not sure how exactly they go about doing that, but probably good to get it back in focus.

**[00:13:15] IP:** Yeah. I think that's definitely something that they're going to want to do.

**[00:13:19] JR:** Yeah. I think what was most alarming about this, the fight up in the flight deck was that it – apparently, was so loud, if I'm remembering the details correctly, that one of the cabin crew opened the cockpit door to see what was going on and had to sit there for the rest of the flight to keep the peace between the two pilots. Am I remembering that right?

**[00:13:37] IP:** Yeah. You are correct. Those details are correct, at least as reported.

**[00:13:40] JR:** Can't be great for CRM operationally of the aircraft, if you have to have a flight attendant sit in there and make sure the two pilots aren't actively attacking each other.

**[00:13:51] IP:** No, it's not great. I was going to say, to be fair, but I don't think that's what this is. Just as a point of reference. This is not the only fight that has ever occurred on the flight deck. There have been other instances of pilots going beyond arguments and coming to blows. The French fisticuffs are not the only incident, but they are, I guess, the latest incident.

Very worrisome. That's the shining example of this culture that the BEA is trying to rein in. The BEA being the French accent investigation body. We'd rather not have them be investigating fights on the flight deck.

**[00:14:33] JR:** Can French fisticuffs be the podcast episode name?

**[00:14:36] IP:** I mean, I had planned that from the go. Yes absolutely.

**[00:14:39] JR:** That's perfect. Okay. How to get that out there?

**[00:14:44] IP:** Yes, absolutely. Let's talk about a bunch of aircraft orders, because that is what we have this week. Should we start with China Airlines and their order for 787s?

**[00:14:54] JR:** Yeah. I think you said it. You spilled the beans, but China Airlines ordered 16 787-9s to replace their well-aged A330s. If I'm reading our notes right, it's 16 firm, plus eight options with conversion rights for the 787-10, which is interesting. The replacements for the A330s are 23 in the fleet, and deliveries began in 2025. They snuck that in relatively soon, I guess. It's only about a year and a half from now.

**[00:15:28] IP:** Yeah. I was interested to see which, if they're going to take any of the ante use to get in to that 2025 delivery slot. Or if Boeing is really just able to crank them out that fast now, for them to be able to take on their order book. It'll be interesting to see.

**[00:15:47] JR:** Speaking of NTU 787s, it was quite a notable delivery of an NTU 787 this week, wasn't there?

**[00:15:56] IP:** There sure was.

**[00:15:58] JR:** Free to go to.

**[00:15:59] IP:** We'll get there, because I lost my –

**[00:16:03] JR:** You want to talk about history first. Okay.

**[00:16:04] IP:** Yeah. I love history.

**[00:16:05] JR:** Okay. Tell us about the history.

**[00:16:07] IP:** First ordered by Hainan in their order for 962,000 787 that first time.

**[00:16:13] JR:** I don't think it ever got painted in Hainan colors, right?

**[00:16:16] IP:** Correct.

**[00:16:17] JR:** Or at least, I haven't seen a picture of it in Hainan color.

**[00:16:20] IP:** If that one got painted, I never saw a picture of it. It then went assigned over to Vistara, and they didn't want it.

**[00:16:27] JR:** But it did get full Vistara livery.

**[00:16:29] IP:** It did get full Vistara livery and then went – gotten stored in the desert, and then it got pulled out of the desert. Then Lufthansa said, “We'll take it.” Boeing said, “Okay.” This week, Lufthansa took delivery of their first of 32 Boeing 787-9s. I think it's the first of three of the NTU fleet. Lufthansa's 787s are going to be a weird combination at least until Lufthansa decides to refit the cabins on these particular aircraft of not Lufthansa business class.

**[00:17:05] JR:** Yeah. I hope they don't, because it's significantly better than Lufthansa business class. It's the original Hainan cabin, I believe, which is better in every way, than Lufthansa's really sad, old business class, that they swear there's going to be a new one coming on the 777X in 2019 or whatever. That didn't happen. Yeah, that didn't happen.

**[00:17:28] IP:** No. These have the original interiors, not Lufthansa designed interiors. Then there will be the second batch of deliveries. The bulk of the deliveries will include Lufthansa's designed business class, or chosen business class. That'll be a fun to –

**[00:17:44] JR:** Yeah, this is obviously a huge relief for Boeing. It's the second airline now that they've been able to get a 787 out to, following American last week, or whatever, the week before. Finally resuming delivery of 787s. This is a nice landmark for Boeing. Lufthansa made a big deal about getting this aircraft. This is a big deal for them. Less so for American, who is just another entry into the fleet of a fleet type they already have. But it's an entirely new aircraft type for Lufthansa, an airline famous for flying everything.

**[00:18:16] IP:** I mean pretty much. Yeah. For being, if not the launch customer, then certainly, one of the first to take a variety of aircraft types. Good for them. I hope to see it in service soon, and off we go. Who else is taking Boeing aircraft, Jason? Because I honestly forgot they were an airline.

**[00:18:35] JR:** Yeah. Air Europa, which still exists. I'm told they haven't been gobbled up by IAG, or whomever I think it was. I think it was IAG pre-COVID and that deal fell apart during COVID. Air Europa had ordered five Boeing 787-9s and 10 Boeing 737 MAX 8 aircraft. Those deliveries will begin in 2024 through 2026. Good for Air Europa, who again, I'm told is still an airline.

**[00:19:05] IP:** We'll triple check that information just to be sure and put confirmation in the show notes. On the reverse, Thai Airways finally, finally finally – I think they were trying to get rid of these aircraft for a decade. They have finally sold off their fleet of A340-600s and an A340 – one A340-500.

**[00:19:26] JR:** I think it was a VIP aircraft, right?

**[00:19:28] IP:** Well, they had previously had another A340-500 and that was taken up by the Thai Air Force as a VIP aircraft. This is the other one that they finally got rid of. Swirling rumors indicate that our friend, John Walton, has purchased them. We've been unable to confirm those at this time. But if he has, he's a very happy man.

**[00:19:48] JR:** Yeah. That's an inside joke that literally, tens of you are going to get.

**[00:19:52] IP:** That's okay.

**[00:19:54] JR:** Yeah. Thai Airways has been ridiculed for a long time of having a fleet of aircraft that made absolutely no sense and leases that were astronomically high payment-wise. It's good to see the airline finally being able to offload some aircraft that had no right flying in the first place. I see in our show notes here that it says, still some A380s available. I guess, they didn't sell everything off.

**[00:20:20] IP:** They did not sell everything off. If you're in the market for some A380s, that would probably need either a very, very strong tug, or a whole lot of maintenance to get back in the air. They could be yours for a decent price. I believe, the A340s went as a package deal. We don't know who bought them at this point yet, but they went for a whole package deal for about 10 million dollars, which was more than their worth, which is interesting.

**[00:20:51] JR:** Yeah. Dictations are that they're probably going to be scrapped, that they were bought by a scrapper and that's that. But we don't know that for sure.

**[00:20:58] IP:** Yeah, we don't have confirmation on that. It'll be interesting to see what actually happens to these aircraft. I can't imagine any airline – Oh, I can imagine one.

**[00:21:07] JR:** I can. I can think of a country that is in dire need of functional aircraft.

**[00:21:13] IP:** Well, okay.

**[00:21:14] JR:** They're going to end up in Russia, aren't they?

**[00:21:17] IP:** I mean, that would be very interesting to me on a variety of levels.

**[00:21:22] JR:** Is it going to be like the Iranian method of delivering aircraft, where, oh, no, they squawk 7700 and they have to land in Iran. Then they become an Iranian aircraft? Is that how we're going to start seeing aircraft delivered to Russia?

**[00:21:35] IP:** No. Or, we could see them delivered to Iran, because Iran does have airlines operating the A340-600.

**[00:21:42] JR:** We should set some alerts for these aircraft and see where they end up.

**[00:21:45] IP:** Yeah, if they ever fly again.

**[00:21:47] JR:** That's true. Just because someone bought them doesn't mean they're going to fly.

**[00:21:51] IP:** Exactly, exactly. I think, Jason, probably going down the right path on this one. Speaking of things that are still very much up in the air as far as the details, this week, our good friend, Jon Ostrower over at The Air Current broke this story, probably much to the chagrin of the folks over at United and Emirates, because it doesn't sound like they wanted to tell anybody quite yet.

**[00:22:11] JR:** No, but they leaned into it.

**[00:22:13] IP:** But they did. They did. Officially on the 14<sup>th</sup> of September, United and Emirates are announcing something. According to Jon's reporting, that something is going to be an expansive codeshare agreement between the two airlines. What makes this very interesting is the fact that a long, long time ago in a galaxy far, far away, United and Emirates were cooperating on perhaps not the same level that they're going to cooperate now, but did have an agreement in place previously. Then over the past, shall we say, almost a decade?

**[00:22:45] JR:** Yeah, give or take.

**[00:22:47] IP:** We've talked about this on the podcast, probably pretty near the beginning of the show back in 2017. A, we've been doing this a while. Good job us. B, this has been going on a while. Good job them. Where United, American and Delta were basically fighting Emirates Etihad, and –

**[00:23:05] JR:** They took our jobs, basically, was the whole argument.

**[00:23:09] IP:** Right. Now, American Airlines has had a tie up with Qatar Airways.

**[00:23:14] JR:** Well, Qatar joined Oneworld in that time.

**[00:23:16] IP:** Right. That was big enough in its own right. Now, it sounds like Qatar and American are headed towards a deeper integration.

**[00:23:24] JR:** I mean, American literally flies to Qatar now from JFK. Things patched up quite well there.

**[00:23:30] IP:** Yeah. We'll see what happens, as far as the United and Emirates deal goes. It'll be interesting to see, what does Delta do?

**[00:23:40] JR:** Yeah. For some background there, big three US airlines led some pretty aggressive media campaigns against the Middle East airlines, specifically Emirates, Qatar, and to a lesser extent, Etihad, because they're much smaller. Delta was really leading that charge in calling out the Middle Eastern Airlines is basically state sponsored, state subsidized airlines that are going to run the US three out of business somehow. Delta won't be able to compete to flights to India, or some such nonsense.

Time has proven that to be false, to not be true. There's absolutely no impact, realistically speaking, to the US airlines. Delta really led that charge. United and American were in on it, but were spearheading it. I think, the quote from Oscar Munoz, at the time United CEO was Emirates is the marketing wing of the United Arab Emirates, or something along those lines. Not

all that long ago, maybe six or seven years ago, United flew to Dubai and even had the infamous DXB friendly amenity kit, where they printed that, and then immediately withdrew flights from Dubai.

Things seem to be on the mend and supposedly a coach, or maybe something deeper, or maybe it's something a lot more boring. But they are announcing those details in two weeks from today, so we'll see. It may just be an insignificant code share, but it's pretty significant that it really feels like, cooler heads have prevailed and these will work together, rather than go at each other's throats about some such nonsense about job losses that really didn't exist.

**[00:25:19] IP:** Yeah. I mean, if nothing else, it shows that the airlines are moving on, whatever that was.

**[00:25:26] JR:** Is over.

**[00:25:27] IP:** Is over. Now, we turn to something that is maybe moving towards resolution. But if history is any indication, it's just another chapter in a very, very long saga. I of course refer to the airline that will not die. It now, of course, goes by another name. Instead of Alitalia, it goes by ITA Airways. This week, Italy's Ministry of Finance said that they are moving forward with their plan to sell the carrier. Because remember, the state owns the carrier at the moment. They are planning to sell ITA, which used to be Alitalia, but is now a new airline, but not quite a new airline yet, in to an investor group that includes Sagittarius, Air France KLM and Delta.

They are beating out Lufthansa, which said that it was interested in it, which led to the whole idea of which airline won't Lufthansa own by the end of the decade. It turns out that the Italian Ministry decided that Lufthansa is not going to own ITA. They're moving forward in exclusive talks with the Sagittarius fronted Investment Fund. All that said, it could be for naught, because there are general elections coming up in Italy, and the leading candidate who may take over the premiership basically says, "No, this is a bad idea. We're not going to do it." We could be back to square one in a couple of months. It'll be very interesting to see what happens.

**[00:27:08] JR:** Yeah. You're going to have to keep your eye on this one for me. Let me know how it shakes out.

**[00:27:15] IP:** I think, we're going to be shaking for a very long time. I don't foresee any resolution to this in the next few months, maybe even in next year. It seems like this is going to be a very hot potato that no one wants to touch. I think we'll see this being kicked down the road over and over and over again.

**[00:27:36] JR:** Well, this new version of Alitalia has lasted longer than I think most people thought it would, so that's not nothing.

**[00:27:41] IP:** I don't think it's going anywhere. I think, it'll still be there. The Italian government will still be dealing with whatever it makes of this mess. It'll be interesting to see how much the political situation affects what happens to the airline, basically, how deep the government wants to dig its heels in.

Let's close out the show with some unfortunate news and some really great news. Unfortunately, because of Rolls Royce's not moving forward necessarily with the ultra-fan technology that they've been working on, in a large way, the engine manufacturer has decided to scrap its plans for a flying testbed. A former Qantas 747 had been acquired. It had been at the airport in Moses Lake, ready for conversion into a flying testbed, it will now unfortunately be scrapped, because Rolls Royce has decided against turning it into a testbed. I'm bummed by that.

**[00:28:43] JR:** Yeah. That's not great. If it weren't converted to a testbed, it probably would have been flying for a good number of years. That's too bad. Everyone loves a funky testbed aircraft with the normal engines and another one sprouting out the fuselage. Was this one off the fuselage, or off the wing?

**[00:29:00] IP:** This one would have been eventually off the wing.

**[00:29:02] JR:** With that weird fifth engine pod?

**[00:29:04] IP:** Either fifth engine pod, or the replacement fourth engine.

**[00:29:08] JR:** Right.

**[00:29:09] IP:** Will work its way through. But it won't be this time around. Who knows what? That'd be interesting. I mean, because when you think about it, the whole idea of the engine testbed is you have an aircraft that can carry these large engines, but also, has enough redundancy that when you're testing these things, you can do a lot with it. The 747 makes a particularly good platform for that. I wonder if we'll ever see a 747-8 flying testbed, eventually, when we're what? Three, four generations from now, when the 747-7 is basically coming into retirement, and new engines are still being developed. I wonder what we'll see then.

**[00:29:47] JR:** I don't know, but we're confident we're still going to see an A380 testbed with the hydrogen test Airbus is going to do in the future. We got that coming.

**[00:29:56] IP:** Yeah. That'll be a few years down the road. Then, who knows what comes after that? I never really thought about what aircraft you would need for testing all of these new engine types that are being developed.

**[00:30:10] JR:** Yeah. It's going to get increasingly difficult as the aircraft progresses in generations, because the 747-400 is by no means a digital aircraft. It's still a very analog mechanical aircraft. If you're moving over to the Dash 8, that thing is much more computerized, much more electronic-driven. I'd have to imagine changing out the engine for something you're doing out of tests, but it's probably a lot more difficult than new generation aircraft. I'm sure they could figure it out, but it's probably not as simple as what it would be on a 400. I'd have to imagine, but have no bearing on reality if that's true. But it just feels like the thing that's probably true.

**[00:30:51] IP:** I guess, what we're saying is long story short, the two, three generations from now, some hybrid hydrogen electric engine will be flying on some former KC-135.

**[00:31:04] JR:** Yeah, that sounds right.

**[00:31:09] IP:** Let's close out the show with a big congratulations to Mack Rutherford. He is the Belgian British young man, who flew around the world becoming the youngest person to fly solo

around the world in a small aircraft. Mack completed the journey, landing back in Sofia, Bulgaria, after five months and 52 countries. He's not alone in his family for holding some world records. His older sister, Zara is the youngest woman to have ever flown solo around the world. Breaking world records runs in the family.

**[00:31:45] JR:** That's awesome.

**[00:31:46] IP:** He completed that last week. His journey was complicated by the fact that Russia invaded Ukraine, and the country became closed off, and he couldn't fly through Russia. He basically spent a lot of time on the ground in the middle of his flight trying to figure out how to continue without flying to Russia. As it turns out, Japan came through and allowed him to fly through Japan. That's what made the around the world journey possible. One of the things that he mentioned as part of the journey is he spent a night on an uninhabited island in a shack next to this runway out in the Aleutian Islands in Alaska. I mean, I like going out into the woods and spending time by myself and camping and things like that. I'm not sure about flying around the world by myself and camping on an uninhabited island, where the other inhabitants could possibly be bears.

**[00:32:42] JR:** Could and probably are bears. There's not much else out there, is there?

**[00:32:46] IP:** Yeah. He made it, and who knows what they're up to next, but a brother and sister holding very similar world records, making it all the way around the world. Congratulations to Mack and his sister Zara on their accomplishments. We'll put a link to the show notes to more information about his journey in the show notes, because it's a really cool and inspiring story.

**[00:33:06] JR:** Awesome. Are we able to track much of his journey?

**[00:33:09] IP:** Yeah. Oh, yeah, yeah, yeah. We'll put a link to that for sure, and you can see some of the flights. Some very interesting flights based on – because the aircraft is a light, small aircraft, where he was flying, how fast and how high. Some very, very cool stuff.

This has been, I guess, a special episode, because we had to think very much on our feet. Thanks to the airline industry. We will talk with Mike in a future episode probably in a few weeks'

time. Next week, we'll have what I hope will be a very special episode, the beginnings of some of the interviews that I hopefully get to accomplish and cut together. But next week in Bordeaux, talking with the folks at Novespace about how they operate their A310. Some of the folks at the German Aerospace Center, the DLR, who are conducting these parabolic flight campaigns to test microgravity experiments, some of which will go on to fly in the International Space Station, some of which will go on to inform how astronauts are training and things like that. Some very cool stuff coming up in the next couple of weeks on this podcast.

If you're not already subscribed, may I humbly suggest you do so? I think it's a great idea. I think the podcast is worth subscribing to. It saves you from having to go search up the podcast and click the download button. To me, that's just almost a step too far. Save yourself a click, subscribe to the podcast, and then it's automatically downloaded every time we release a new episode. You don't have to do anything other than click play and start listening. It's right up Jason's alley.

**[00:34:43] JR:** Yup. One day I'm –

**[00:34:44] IP:** Laziness is the key.

**[00:34:45] JR:** Yeah. I'm going to get my dad's phone set up to do that, so he doesn't have to go hunting the URL every week.

**[00:34:52] IP:** Oh boy. If you enjoy hearing the podcast, if you enjoy listening to the podcast, if you are learning something, if you're just entertained, if it's a combination of both, great. Leave us a rating and review wherever you listen to your podcasts. It really helps other people find the show. It helps us keep doing what we're doing. We love doing this. We love getting together every week to put the show together. Thank you so much for listening.

This has been Episode 179 of AvTalk. I am Ian Petchenik, here, as always with –

**[00:35:25] JR:** Jason Rabinowitz. Thanks for listening.

[END]