

EPISODE 31

[INTERVIEW]

[0:00:05.3] IP: On this episode of AvTalk, aerospace journalist, John Walton joins us for a wide-ranging discussion about aircraft and airlines new and old, and we speak with Joe Duval, the chief test pilot at Honeywell Aerospace about what it's like to fly a 757 with an engine attached to the fuselage and some of the other interesting projects he's working on.

Hello and welcome to a very special episode 31 of AvTalk. I am Ian Petchenik, here as always with Jason Rabinowitz and – Well, I guess sometimes, because it's not your first time on this show, John Walton. Welcome, gentleman, from Central France.

[0:00:40.9] JR: Say hello, John.

[0:00:40.6] JW: Bonjour.

[0:00:42.0] IP: Jason, I don't know how you manage this, but you wandered your way from New York to John's house in Central France and I assume you're both enjoying yourselves mightily while I sit here and record in Chicago. A, I'm jealous; and B, thanks for making the time.

[0:00:58.8] JR: Yeah, the struggle is real right now. I just have to put my glass of wine down, but I got here, I left Friday afternoon. Got here Saturday afternoon, I guess, after almost 20 full hours of travel. But miraculously I made it to France without one hiccup. There was no strike by the airline. There was no strike by air traffic control. No strike by the trains for the most part, and here I am, knee-deep in cheese bread and wine.

[0:01:27.6] JW: And the reason why you can hear some outside noise is, and even possibly a chicken is that my house is under one of the entrances to the French version of the Machynlleth Loop, which is the low-altitude high-speed training zone.

[0:01:39.8] JR: And yet I have not seen one low-altitude high-speed airplane go by.

[0:01:44.7] JW: So if you hear a plane noise, that's what that is. If it's other noises, it's because we're trying to get all the plane noises.

[0:01:49.2] JR: Yeah. It was a goat or – What is that? Not a goat.

[0:01:52.8] JW: There's a goat, there's a donkey.

[0:01:53.9] JR: Somewhere, a donkey, chicken, cat, apparently.

[0:01:58.6] IP: This is, I guess, the most stereotypical Central France location. There's some sort of casting involved.

[0:02:07.3] JW: There was not. No.

[0:02:08.4] IP: We need a donkey. We need a goat. We need a chicken. We need planes.

[0:02:11.1] JW: Yes. These are the assumptions. We need plenty of cheese and bread and –

[0:02:15.5] IP: When John was buying the house, he was like – The realtor just goes, “How many bedrooms? How many –” He goes, “No. No. No. I want to be close to planes and we need a goat.

[0:02:22.7] JW: Pretty much. I wanted to be half over between Paris and Toulouse, right? I want to be able to step up to Paris first, for various aviation things, then to Toulouse to go see Airbus whenever I need to. So I picked a spot in the middle of where I knew and liked. What's not to like?

[0:02:34.5] IP: I can think of nothing that is there that I do not like. So I'm jealous and let's just move on. Shall we move on to introducing who John is and why he happens to be joining us for the podcast?

[0:02:45.6] JR: Probably a good idea. Yeah, this is John Walton with us here today. He is the deputy editor of Runway Girl Network, which covers old things airplane, passenger experience related. Say hi, John.

[0:02:59.0] JW: Hello, John.

[0:02:59.4] JR: Okay. That was very literal, but I'll take it. Welcome back.

[0:03:03.3] JW: Thank you. I believe last time we were sitting in a hotel room in Japan.

[0:03:07.8] JR: This is very different.

[0:03:08.7] JW: With no windows. This is much better.

[0:03:10.0] JR: Yes. It had a window, but it looked at a brick wall.

[0:03:12.6] JW: Here, we have a 50 kilometer view over the Valley of [inaudible 0:03:15.0].

[0:03:15.2] JR: Which is pretty nice.

[0:03:16.7] JW: A little nicer.

[0:03:17.4] JR: Yeah.

[0:03:19.3] IP: Since the last time we spoke, John, you were on last time and you were visiting the MRJ program, and we can safely say that there's no real update to the MRJ program.

[0:03:27.3] JW: Well, some management has been shuffled around, because that happens like hourly. Oh, I got that PDF too.

[0:03:33.3] JR: Yeah, no changes in the MRJ program since we last visited Japan.

[0:03:37.5] JW: No, which is impressive.

[0:03:38.2] IP: So that's been our MRJ update.

[0:03:39.6] JW: I'm impressed that they have not lost customers since the last time [inaudible 0:03:42.2].

[0:03:43.0] JR: Do they have many to lose?

[0:03:44.6] JW: They've got a few hundred planes [inaudible 0:03:46.0].

[0:03:49.1] IP: Jason, your excitement about the MRJ program is palpable.

[0:03:51.2] JR: Palpable, yeah.

[0:03:52.1] JW: Look. I'm excited about the MRJ program. I'm always excited when more [inaudible 0:03:55.0] regional jets enter the fleet, because my closest example here is Lyon, which is a nest pit of Bombardier CRJ's. It's wherever they go to breed apparently, because every time I try and fly somewhere, I end up on one of those.

My particular recent favorite was the time the outsourced local ground handling company failed to mentioned in anyway at any point before people were lining up on the tarmac for the CRJ, that it was a CRJ, and so no one could bring on a hard-sided luggage, which was less than ideal.

[0:04:27.1] IP: French efficiency.

[0:04:28.1] JW: Well, there's a lot of efficiencies about France. I live in the middle of the countryside and I'm able to get fiber, but the ground handling at Lyon Airport is not one of those things, leaving the Lufthansa flight attendant to bellow in three separate languages, which was quite impressive, that if you had a hard-sided luggage, you will have gate check it. Yes, anytime that we get a promise, a mere sniff of a nicer regional jet, that might in fact have somewhere for me to put my luggage, I am thrilled, overjoyed.

[0:04:55.6] JR: Still waiting on that Delta C-series, any day now.

[0:04:58.7] JW: Yeah. You know me, I love the C-series. Well, I'm just three hours from Geneva Airport here and I've flown that to [inaudible] a couple of times, and that is a nice trip on a C-series. That's a pleasant ride.

[0:05:10.1] IP: Speaking of Swiss, let's talk about Lufthansa's group new — recently, yesterday, their new order for — Let's see what we've got here. We've got a few 777-300ERs for Swiss.

[0:05:22.4] JW: Two of them, I believe. Yup.

[0:05:23.5] IP: Yup, two for Swiss. Two 777 freighters for Lufthansa Cargo, and about a dozen Airbus A320 families, six CEOs and six options for NEOs.

[0:05:36.9] JW: Well, no. They converted the options to six orders, I believe. Yes, that's the way I believe.

[0:05:39.4] IP: Yes. Correct.

[0:05:41.9] JW: It's one of those sort of slightly mealy-worded press releases, if I'm right. Up to 12 of which six. So what's happening the remaining six? You count to 12, but are those other six actually going to happen? It seems to be a little bit questionable, but anyway.

[0:05:56.3] IP: Yes, six A320s that will be delivered depending on availability this year. Basically, if they have extra planes sitting around, Lufthansa group will take them.

[0:06:05.4] JW: Yes. The Toulouse Gliding Club or the Hamburg Sailplane Facility.

[0:06:10.9] JR: Well, Austrian, another part of the Lufthansa Group, just took another 777-200 leftover from Aeromexico, which just retired its entire 777 fleet, and it's got a special livery. Got 60 painted on the back for celebrating the 60th anniversary of, I guess, the airline. I don't know. I'm just reading this tweet as I see it. But, hey, that's good.

[0:06:33.3] JW: Right. Look. If anyway follows them on Twitter, I have not been a greatest fan of the Lufthansa livery. I actually don't mind this new Austrian Livery.

[0:06:41.4] JR: The new one, because I'm pretty sure they weren't even done painting the fleet to the old new livery.

[0:06:45.7] JW: Yeah, the old new livery was the one where they just took away the blue engines, right? [inaudible 0:06:48.5]. This one, they put my Austrian –

[0:06:51.2] IP: It became much more red.

[0:06:52.0] JW: Right. Well, I'm a quiet socialist in the middle of France. So anytime there's a red paint going around, that makes me happy. But you put letters on the side of a plane, and I'm delighted. I'm always a fan of that Finnair livery and I don't mind the Swiss one. The bigger the letters, the better, as far as I'm concerned.

[0:07:13.6] IP: Yeah. The new new livery goes back to white engines with a bit of more of a splash of red on the tail, and then the letters are quite big, but it also has – And I don't know, and I haven't seen any information from the airline yet about what is the makeup – There are people dancing on this particular plane. The registration for anyone who wants to look it up, and we'll put a pictures in the show notes, is OE-LPF.

[0:07:39.9] JW: Papa Fox

[0:07:41.8] IP: Yes, as they're calling it. And so there's people dancing and it looks like the image of the people is made up perhaps of smaller images, and I forget exactly what you call that where you take like a bunch of mosaic images and they make one big image.

[0:07:56.0] JR: I think it's called a mosaic.

[0:07:57.4] JW: Yeah.

[0:07:58.3] IP: There's a special name for it, but we're like –

[0:07:59.9] JW: Right. The real question of course is, what does the papa fox say?

[0:08:04.6] IP: Yes. So that will be interesting to get a closer picture of. The only picture I think we have right now is the one from Hong Kong where it was in for reword and test flights. So hopefully we'll get some closer images soon.

[0:08:20.0] JW: Yeah. I mean, I think the solution context order by the Lufthansa group, right? Which there's profitability going on at Swiss. I think both Swiss and Lufthansa Cargo are about 10% profitability or something, which – Look, there are lots of airlines in North America minting money right now, but in Europe it's been a little less, I guess rosier picture and not just because Air France keeps going on strike. So hats off to the Lufthansa group and they're doing some smart top up orders of these – I guess, sort of end of line last season model aircraft right before the new ones that's released. Before the 777-X arrives. You know, Boeing is still trying to fill that production gap, and Airbus also wants to produce some A320neos to avoid producing A320-NEO gliders. Yeah, it's an interesting time.

If you happen to be an airline, Delta, that loves taking some very cheap, late model last generation aircraft that you plan to fly for 40, 50 years.

[0:09:24.4] JR: And if you put the right amount of money into it and the right amount of planning, your passengers will never know that it's actually a 20-year-old 777. They'll go onboard and say, "Wow! This plane is brand new." Again, Delta.

[0:09:35.7] IP: I forget somebody was on Twitter this week and they said that their mom had flown this brand new A320 on Delta and he told his mom, "No, mom. That plane is 20-years-old."

[0:09:46.0] JW: That was Ben Bearup, who is here in – Well, not quite in France. He's in Monaco at the moment, but bonjour, Ben. I think we keep hearing this from people who fly these refitted Delta aircrafts. That's a Zodiac Aerospace product. If memory serves it, it's originally called product Amber, was then folded into the product that they called ISIS. For obvious reasons, that was renamed. For obvious reasons, for anyone who watches the news.

Yeah, it looks super futuristic, right? Those overhead pods with the call button and the lights and everything. It looks very Star Trek. Delta does a great job with this and should be commended for investing in the passenger experience in that way.

[0:10:24.4] JR: You mentioned Air France. I'm going to make a shoddy attempt with the transition here.

[0:10:28.6] JW: France is in the air.

[0:10:29.4] JR: There is a lot going on with Air France this week. Isn't there?

[0:10:33.2] JW: Sure is.

[0:10:33.5] IP: I think that's an understatement, if we want to call it that.

[0:10:36.3] JR: So as I mentioned, I'm in France now and I was strike free on my way inbound mostly because I flew Air Lingus and they weren't on strike, nor was the local airport. But Air France – I mean, the French culture in general is all about strikes, whether it'd be the airport, the trains, the airlines. What else go to strike around here, everything?

[0:10:58.4] JW: Well, look. The French corporate culture is not the same as the corporate cultures as elsewhere in the world, particularly in the Anglo-Saxon world. People here have terms and conditions and benefits to their jobs. We have a 37-1/2 hours standard work week, and there's a French perspective about quality of life. It certainly feels to people who are visiting from the US and from the UK and Australia and New Zealand, places where there's not a sort – I guess, a labor – Such a strength of labor unions, that the French are always on strike.

[0:11:28.2] JR: Because they are. There is literally a calendar of the entire summer with red dots of days when the French are on various strikes, and it is more days on than off.

[0:11:38.8] JW: No. It's two days of seven that the French were on the French SMCF, which is the Société nationale des chemins de fer, which is the French National Railway Company. The

Amtrak or British Rail of France is on strike, and part of that is that they are trying to draw a line in the sand and avoid the privatization problems that have been plaguing the UK. I mean, just this week – What was it? People were being advised not to travel to Gatwick Airport by train because of the overcapacity issues. It must be very frustrating if you're traveling to France as a non-French speaker in particular, and suddenly you're like, "What do you mean I can't know what trains are going to be on until 5:30 the night before?"

But there are people who are trying to preserve the infrastructure, which has been built over generations and do not want it to be destroyed in the same way that other infrastructures are destroyed.

[0:12:25.3] JR: To get back on track, Air France's CEO up and quit because he was so fed up with the lack of progress being made.

[0:12:32.1] JW: Well, both that and the fact that he called a referendum on his approach, or the union's approach, and he lost.

[0:12:39.2] JR: So he's gone. So right now Air France does not have a CEO. They are continually on strike seemingly going nowhere, and even though they do not have a CEO, they're still striking even though there are no negotiations going on. There's no CEO and they're just doing it at a principle?

[0:12:55.9] JW: Yes, that particular decision to continue to strike without a CEO did feel a little bit...

[0:13:02.3] JR: Yeah. Moral of the story, avoid Air France this summer. Avoid really – I don't want to say avoid France, because you shouldn't.

[0:13:10.2] JW: No. Do come to France.

[0:13:10.4] JR: Plan very, very carefully. I plan carefully by flying Air Lingus into smaller airport that doesn't have a history on going on strikes, but it's tough man. It's tough flying to France.

[0:13:23.3] JW: I think the larger problems in Europe is that there are very few hubs that make you think, “Oh, yes! I would like to fly into that.” Right? If I’m picking ones I like, I like Munich very much. Munich is very efficient. Vienna is good. Zurich is good. Geneva is a little hidden gem, especially if you’re coming from New York or connecting through New York.

[0:13:40.9] JR: Geneva is great.

[0:13:41.5] JW: That Geneva’s Swiss air operation is a real gem. But yeah, it can be very difficult in terms of figuring out which hub to connect through.

[0:13:48.9] IP: So I think the question now is where does Air France go from here? John, I know that you and Jason have been spending the week trying to figure out a new direction for Air France.

[0:13:59.2] JW: Yes. It has been a topic of much conversation and it’s one that I don’t think either of us have a magic answer to. You have complete interest – It is a legacy carrier with very high cost base. It is also partly government owned, which very rarely helps an airline in terms of being effective.

[0:14:22.7] IP: Speaking of which, Italy is on strike right now as well.

[0:14:24.1] JR: The entire country? Wow!

[0:14:27.9] IP: I mean, yes.

[0:14:29.9] JW: Yeah, but at the same time, the staff has not been remunerated in the way they want to remunerated, and they have the right to withdraw their labor. That is a right that you have here. Yeah, I don’t know what the answer is. I know the answer is not, and the answer is not a rooftop bar.

[0:14:47.1] JR: Oh, no. We were talking about this the other day and we’re both kind of shocked that there hasn’t been more demonstration or striking over the creation of June. It feels like the kind of thing that their employees on mainline Air France would be writing over.

[0:15:02.8] JW: It has surprised me, but [inaudible 0:15:04.4] “Oh, what you mean we [inaudible 0:15:06.3] behind the pushing back A320 and have lost the keys so that your June fight is delayed.”

[0:15:11.3] JR: You know what? They probably don’t think it’s an airline. You don’t strike against a rooftop bar.

[0:15:15.9] JW: It’s a way of life.

[0:15:16.7] JR: Yeah.

[0:15:18.3] JW: Okay. So I’m not sure if – Did you guys [inaudible 0:15:20.0] but June came to the passenger experience conference.

[0:15:24.1] JR: No, we did not talk about that.

[0:15:25.2] JW: Which was a little bit of someone being thrown in front of some lions of the assembled passenger experience journalists who – Or should we say did not receive the rooftop bar branding in the light, which I think it was enthusiastically received within Air France.

[0:15:38.8] IP: There was a very clear segment of journalists who received that well and none of them are in the aerospace industry.

[0:15:48.3] JW: Right. Yes.

[0:15:50.0] IP: I mean, if you’re writing for – We’ll call it popular kind of lifestyle or design press, it was well received.

[0:15:58.2] JW: Sure. I mean, I don’t know the uniform. No, the concept of June being – And I talked to the folks from June afterwards. There are some really arguments about June being basically the test bed for Air France, right? But then call it Air France lab or something, right? So

to make it basically on that rather than, “Oh, actually, it’s a lifestyle brand for millennials.” Look. I’m a millennial. Jason, are you officially a millennial?

[0:16:25.6] JR: Oh, yes.

[0:16:25.7] JW: Oh, yes. Yeah. We see through these airlines, right? We see you. We know that your random pandering to millennials is not particularly heartfelt.

[0:16:35.6] JR: What pissed me off the most about it is if you’re flying from France or from Paris to Barcelona, you don’t have a choice. You end up on June, because Air France does not fly at mainline anymore. So it doesn’t matter who you are. You’re flying June whether you want to or not.

[0:16:50.2] JW: Precisely.

[0:16:50.8] JR: It’s not like the old days of Song where you could have flown Delta to West Palm Beach or you could have flown Song to West Palm Beach.

[0:16:58.9] JW: I would have flown Song.

[0:16:59.1] JR: Exactly.

[0:17:00.0] JW: They have television. That was a thing.

[0:17:02.4] JR: But no. If you want to fly to Barcelona or Lisbon or one of the other destinations they’ve expanded to. Too bad, you’re on June.

[0:17:09.1] JW: Yeah. Yes. All of which is to say there is no real answer for Air France. If you have to fly to or around France, my personal advice is to try and book a HOP! flight, which is of Air France Regional, and that’s coded A-5. Those are still running during the strikes. Alternatively, if you are traveling on a day that is not one of the railway strike days, you can travel by train. If you’re not familiar with the amount of high speed rail across Europe, that’s a very pleasant and effective way here on the rail talk podcast.

It's a tricky summer to be traveling around Europe especially if you're going anywhere near France. If you are a person who likes to cut it close in terms of connection timings in terms of unlinked ticket bookings, perhaps this is not the summer to do it. Perhaps this is a summer to try something else.

[0:17:59.1] IP: Yes, indeed. Let's take a break, and Jason and I sat down with Joe Duval, who is the chief test pilot for Honeywell Aerospace, and he talked to us about all sorts of things including flying directly at a mountain. So we'll take a quick break and Jason and I will be back with Joe and then we'll be back –

[0:18:16.8] JR: Chief test pilot and generally cool dude.

[0:18:19.4] IP: And generally cool dude. So we'll talk with him and then we'll be back in just a little bit. So stay with us.

Welcome back. Jason and I are joined by Joe Duval, who is the chief test pilot for Honeywell, and Joe gets probably some of the most exciting flying because he's done things like fly a 757 with an engine attached to the outside of the aircraft. He's with Jason in the plane has flown toward a mountain, but not into a mountain, which is a very important distinction, I am told.

[0:18:57.8] JR: Extremely important distinction.

[0:19:00.7] IP: Joe, thank you so much for joining us. We're really happy to talk to you, and we appreciate you taking the time.

[0:19:06.4] JD: Thanks for having me guys. Yeah, well I'm glad to be here. Thanks for having me on. I do appreciate it. Thank you.

[0:19:12.2] IP: I mentioned, you're the chief test pilot, and I would love a fuller explanation of what a chief test pilot does at Honeywell Aerospace.

[0:19:21.2] JD: Sure. Yeah. We have so many things that Honeywell offers in designs and builds and makes for aircraft. So one of the great things about job here is that we get to help develop and certify all of those products, which really, it runs the gamut from the front to the back of an airplane. We're not testing the airplanes. I mean, if you were talking to somebody that was at an airplane manufacturer that was a test pilot, they have a little bit different job when they're testing a brand new airplane, but what we get to do is test all the products that we make that go on to the airplanes.

In that, that provides a pretty diverse job. I mean, we get day-in and day-out, we're working on many different things. As you mentioned, we have the 757 with an engine on a – A test engine that gets mounted on the side of it, and that engine might vary. We have many different models of engines, so we can test any kind that we make. But we might also be traveling all over the world testing a satellite communication system or airborne weather radar or data link systems, which are pretty active right now. You can imagine that it varies from day to day and what we get to do.

The other part about it is because we – A lot of our work, I mentioned flying around the world, but a lot of work is done right here out of our home base, which I'm in Phoenix. So the difference – Again, difference between another pilot job is that I get to sleep in my own bed most nights.

[0:20:51.0] IP: That's a pretty big difference, isn't it?

[0:20:52.7] JD: It is, and I think once you compare the two – And I've done a lot of different other kinds of flying, and so yeah, I don't always have to take a suitcase with me when I go to work.

[0:21:02.6] JR: That's definitely a nice park. I know the Honeywell fleet is actually quite sizable. You have the Convair 580, which I think is the number two that ever came off the line from 1952.

[0:21:15.1] JD: Quite of the fleet.

[0:21:15.6] JR: Yeah. You have the 757 and you have a couple of other. How big is this fleet these days?

[0:21:21.7] JD: Right now, in the main Honeywell fleet, I'm counting, but I think there's 8 or 9 airplanes. There's two sites that we keep to the airplanes and operate the airplanes that are both in Phoenix. One is at the main airport here in Sky Harbor, which is where I sit. Then on the north side of town is at Deer Valley Airport.

Yeah, my site we have, you mentioned the Convair. We have the 757. We have two King Airs, a B200 and a 200. We have a Sabre65, which we're de-vesting currently or shortly, and we have a Citation V. So all of those aircraft or – Well, generally, all of the airplanes that we try to modify and then to make them be generic test beds – I mean, we have a 757, but we're not necessarily testing stuff that needs to go on a 757 with it, right? It's a test bed that can accept anything that we might want to put on it. Then up at the other side, we have an Embraer 170, we have a Falcon 900. There's a Pilatus PC-12. We have AStar 350 helicopter, and there's another King Air up there, a C90. I think that's all of them. Then we have the BendixKing fleet, which is all of our general aviation stuff.

[0:22:38.8] JR: If you had to pick one of them, as a test pilot, which would it be?

[0:22:43.3] JD: I'd have to say the 757. I mean, we've done so much with that airplane and we do – It has such a great, wide variety of jobs that it can do, plus it's – As you maybe know, it's a sports car. It's got a lot of power. We bought it because it has the kind of power and range that we needed to do some of the testing. It's just a joy to fly. Second to that, I think the Convair, which provides such a difference to the 757.

[0:23:12.0] JR: Yeah, I think that's a polar opposites there. With the 75, it's not like you're hauling 205 seats around with passengers and bags. So this thing has got to be pretty light in comparison to pretty much every other 757 in the world.

[0:23:26.2] JD: Yeah, and I don't know exactly what they're flying around on with the weights, but even with our airplane, if we put as much as gas as we can put on it, we would still have 20 or a little over 20,000 pounds worth of room to get to our max takeoff weight. Yeah, it's got to be

lighter maybe by 20,000 pounds or so than the other planes that are – The other 757s that are flying, which, yeah, gives us a little bit more performance.

[0:23:53.2] JR: Right. So why don't you tell us a little about what you're testing now. You test everything from ground proximity warning systems, to Wi-Fi, to engines, to APUs. What do you have going on these days?

[0:24:04.3] JD: Yeah, right now we have – In fact, on the 757, we have installed a turbo prop, which is an engine – We've actually had a test facility, a flight test facility here for over 50 years starting out with that, basically, that engine model, the TP331. This is the first time we'd put that engine on the 757 and we're just kind of proving the capability. We don't have anything – I mean, we've just proven the capability of testing that on the airplane. But I'm working on that today, as well as I'm also working on planning a trip to Southeast Asia to do some weather radar testing, all kind of in the same day. That's the variability of what we're testing.

[0:24:46.0] JR: If I heard you right, you're putting a turbo prop no the side of a jet-powered 757. What does that even look like?

[0:24:54.7] JD: Yeah, it looks – Well, I think it looks cool. It's pretty fun. If you've seen the pictures of our airplanes, it's in the same place that we put a turbo fan engine. It just looks a different, obviously, with a propeller. It's just like I say, we're just kind of proving that technology at this point, or the capability that we have to go out and fly the plane with the turbo prop on. We've put, I think, two flights – We've done two flights so far and we're just taking like baby step approach to proving that we can go either so fast or so high and the maneuverability of the plane with the turbo prop on and those kinds of things.

[0:25:29.9] JR: Right. That turbo prop, it's not just spinning in the wind basically. It is actually turned on and powered and spinning.

[0:25:35.4] JD: Right. Yes, it is.

[0:25:36.7] JR: How does that impact the flight characteristics of a 757? To me, that just sounds kind of crazy.

[0:25:41.7] JD: Well, yeah. It's not quite a barn door out there, but it's a bit like having a barn door out there if the engines back at idle or something. The turbo fan installation is a little cleaner design and we get that question a lot, "How does that airplane operate or fly with the engine on the side?" It's design – Like I said, we've been doing this for a while. So it's designed so that we don't impact the operating envelope of the airplane at all. So we can go as high or as fast as a 757 was meant to. That's on purpose with the turbo fan, with a jet engine.

Then with the turbo prop, you just wouldn't – The planes that use the turbo props don't go as high or as fast as a jet. So we don't need to, but we want to prove out how it flies. Yeah, it's basically a little more drag out there than the turbo fan. We certainly have to consider that as we're doing these flights.

[0:26:39.3] IP: Joe, I would love to get back to – We're talking about what you're currently up to, but I'm always curious how people get into the work they do. I was wondering if you could talk a little bit about how you went from, "I'm going to become a pilot," to "I fly a 757 with engines mounted on the side of them."

[0:26:58.9] JD: I didn't start out thinking I'd want to be a test pilot. I went into the Air Force and certainly wanted to be a pilot, and I got to fly C130s and a VIP 707 in the Air Force, and I got out and flew some Gulfstreams in a corporate world and 707s in a corporate kind of capacity, and I was at American Airlines for a while. I got to train as a flight engineer. So I was riding sideways for a while in the 727.

But I think that diverse kind of background is what helps people or helps in the test pilot world. What I went to college for was on the software engineer by training, so I've been a bit of a geeky with the programming and networking and just being an engineer along the way. So as I got a little older and I'd seen of the things that were – Then I got to fly with some MIT, Lincoln Laboratories, their flight test facility as they were bringing on a 707 and got a little bit more of the taste of the test pilot world. I think that's what sold it for me.

Being able to combine the engineering skill and being kind of at the leading edge of some of the technology and getting to see some of these new stuff and helped develop it and helped make

airplane flying safer and more efficient and better with all the products that we make. That's what makes it exciting to come to work every day, and that's where I arrived, I guess.

[0:28:30.7] IP: You mentioned you're a software engineer as well as a pilot. So does that put you in an interesting or a kind of a unique position to not just – I mean, we've talked to pilots who just fly the plane, but you're also – I mean, how much work are you doing to test whatever, the new weather radar, or the ground proximity warning system, or whatever data links you're working on. How much work are you doing to test those systems as well as to just fly the planes so that it's up in the air and those tests can happen?

[0:29:01.5] JD: Yeah, there's kind of a unique balance, I think, with how you go between that. You can kind of think of ourselves and either we're kind of the end of the line when we're developing a product that it finally gets to us and we finally got to put it on the airplane, or you can maybe also think of us as Honeywell's first customer as we use this stuff. So we get to be the beta tester. Maybe that's for my software engineering background.

But we have to be – Maybe one way to put it is flying the airplane has to be kind of the – I hesitate to say, second nature, but you have to be good enough and comfortable enough at that, that you could manage that as well as participate effectively in the test, right? So when we're – You mentioned, weather radar. We're going to have to go and do things that pilots don't normally do. We actually have to fly toward the storms. We have to – Air traffic control doesn't – They're always trying to help us out by helping us get vectors to avoid something and we're saying, "No. No. No. We want to go toward this thing."

You have to have enough capacity. I feel like I failed to mention, the cursors of the rest of the crew that's helping and doing all these, there're flight test engineers. Of course, there's the other pilot, there are technicians. There's a whole group of people that are involved in any of these flights. It's not just a pilot up a there or a couple of pilots. We've got a crew on there that have helped from day one to bring this to fruition. We've spent a lot of time on the ground trying to get intimate with or as intimate as we can with the product that we're testing.

Certainly not as much as like the systems engineers that design and develop the whole thing, but enough that we can provide feedback and help them make that product that much better

and safer and usable even to the point where the maintenance folks. If we've designed a new box that has to go on an airplane, you have to think about the maintenance folks that have to go – Maybe go replace or troubleshoot that device. We're involved in that level or at least people in my – The group that works here or involved in that level or maybe in analyzing it from that perspective and helping the design, maybe part of the industrial design, part of it or something like that to make the product even better and usable down the road for the end user.

[0:31:21.7] IP: We've talked about what your favorite planes to fly are, but what are some of the favorite projects that you've worked on and how those have kind of – Either they're coming out now if they're recent or you've seen them develop, if they're a little bit older.

[0:31:36.3] JD: Yeah, there's a couple that stand out. Some of my favorite projects – We just did the satcom with our jet wave system that provides high speed internet. With our 757, we were the first fuselage mounted antenna. So we have the first airborne terminal for that product ever. This job, anytime we're at the beginning of – I'll say the beginning of time within one of these products, that's the exciting – Some of the more exciting stuff that we do even if it's – I mean, we have to go up and test sat com. That just means I probably have to go fly in some air space. But just to see it work and mature and become a great product that it is, I feel like we've really accomplished and done our job to make that thing – That product robust and make it work well.

Some of the other exciting stuff is like weather radar, where like I've mentioned, we have to go fly toward storms to make sure the systems correctly seeing and displaying what a pilot needs to see in the front. We actually had to go fly, and we've done in both the Convair and 757. We go fly into wind shear conditions because the weather radar does some pretty – It has predictive wind shear and we have to ensure that we're predicting was there so it's accurate.

So we're doing that down in – Somewhere like the Everglades where it's flat and we can find an isolated storm that we might go through. We're not doing it at approach speed or anything like that. We've mitigated all the risk we can. We've thought about it, but it's pretty exciting to be down there kind of pointing at a storm and actually experiencing some wind shear that, again, some pilots would avoid by miles or days.

[0:33:20.3] IP: Would rather not fly through.

[0:33:21.8] JR: Right. I would say the ground proximity warning test we did when I was on the Convair with you guys was, as a typical passenger, was kind of amazing. I'm sitting there in the seat watching the screen slowly fill up with yellow and then a bit of red and then we're getting bounced around in the thermals with all that turbulence out in Phoenix in the middle of the summer, and there's the mountain where the computer said it would, and thankfully we turned and went a different direction. But I think we also played around with TCAS a bit. So seeing all those other traffic on the monitor around us on this little Convair, which is kind of amazing, but the stuff that you guys test out on these aircraft is just kind of mind blowing.

[0:34:02.3] JD: Yeah. I mean, it is a lot of fun. Like I said, we get to be a part of these products. You talk about TCAS, you can talk about ground proc. Obviously those are huge influences in the safety of aviation. We virtually limited control flight into terrain with the ground proc system. To have that legacy and to have that product out there, to know that it's doing exactly what it's supposed to be doing is pretty satisfying when you're part of that and the development and maturing of that product.

[0:34:31.7] IP: Joe, I want to thank you so much for joining us. It's been a real pleasure talking to you about what you've been working on and hearing about. Let me ask you one last question. How many pilots are with you in your test group?

[0:34:43.3] JD: We have six pilots here. I think there're 12 or 15 in total with the two sites, but there's a whole group of test engineers and mechanics and technicians and we have a quality department. There's a larger group that work together here to make the whole thing work.

[0:35:01.6] IP: Dozens of people, they get to see their first draft to some really cool technology. We've been speaking with Joe Duval, the chief test pilot for Honeywell Aerospace. Joe, thanks so much for joining us. We really appreciate talking to you.

[0:35:13.4] JD: Oh, thank you guys. Thanks. It was fun. Appreciate it.

[0:35:15.9] JR: Thanks so much, Joe.

[0:35:25.0] IP: And we are back to France, actually, with Jason and John. That was a fun conversation with Joe. Jason, I know you've been able to fly with him. John, have you ever flown with the Honeywell folks?

[0:35:37.5] JW: I have not. Yes, I really want.

[0:35:40.4] IP: I almost had the chance.

[0:35:42.1] JR: I won't say that flying an old Convair in the middle of an Arizona summer day after eating questionable Chinese food is a good idea, but it sure was fun.

[0:35:53.8] JW: I have flown one of those in revenue service.

[0:35:55.7] JR: What?

[0:35:56.9] JW: Yeah, between Wellington and the Chatham Islands in New Zealand.

[0:36:00.2] JR: Of course, New Zealand, yeah.

[0:36:01.3] JW: Yeah. Air Chatham still operates. I believe it still operates. There's old Convairs and I can't remember what the number is they have up there, but the number of the Convairs change about 240, 340 or 540 or something depending on the number of engines on. But that was a great tip.

[0:36:17.0] JR: All the stuff they do at Honeywell – Well, we tested with the EGPWS and –

[0:36:24.1] JW: OMG!

[0:36:24.5] JR: Yeah, and all the abbreviations you can imagine. It was a ton of fun.

[0:36:29.2] JW: Terrain!

[0:36:30.3] JR: Yeah, exactly. We predicted the terrain and we drove around it.

[0:36:33.7] JW: Which is, as you can tell by the fact that he's still here.

[0:36:36.1] JR: Yes. [inaudible 0:36:36.3].

[0:36:38.1] IP: So we've got some breaking news. We're recording on Tuesday, the 8th of May and we have some breaking news, the New York Times among others is reporting that President Trump has said that the US will withdraw from the Iran nuclear deal, which has some effect on aviation in the sense that it puts Iran Air's very large – Well, relatively large, order for Boeing jets in jeopardy. What I said? A hundred or 80 aircraft, 57 37s and 30 777s for Iran Air, and then an additional 30 firm plus 30 options for Aseman Airlines and the 737 MAX.

[0:37:22.4] JW: Yeah. That's a very useful order for Boeing, particularly the 777s, right? I mean, it's the same sort of thing as Lufthansa. Boeing needs to fill that gap between what they're currently building and what they're going to start building with 777X. Particularly if heaven offend, there might be some sort of engine issue with the production of an airliner. That doesn't sound likely at all.

[0:37:42.7] JR: There's precedent for that.

[0:37:43.4] JW: Yeah. Yeah, it's an interesting one and it's particularly interesting given how close Boeing has played it in supporting the current US regime. I think that – Well, I was going to say Seattle, but it's really Chicago. There'll be a little egg on some faces in Seattle and Chicago today about having perhaps compromised some of the principles of a modern forward-thinking international company in the hope of being thrown a few bones from the current occupant of the White House?

[0:38:15.0] JR: Who will take those planes now? That's the next question.

[0:38:18.3] JW: They won't build them.

[0:38:19.2] IP: That's my question. With that 777 – I mean, the 737 order is – Jason, I think you said this earlier, that's absorbable.

[0:38:26.9] JR: Yeah. The 73, they're going to fly somewhere. It doesn't matter where they go.

[0:38:30.6] JW: They will either end up slowing the line or it'd be amusing if they went to Delta, say.

[0:38:35.6] JR: I was thinking the same exact thing.

[0:38:37.4] JW: Delta, obviously not an operator presently of the 777-300ER. They have 200 LRs, which are – And ERs, but Boeing isn't presently producing ERs in the 200 model. Could they go to Delta? Sure. But Delta would love –

[0:38:52.1] JR: They could go to United or American. They both operate them.

[0:38:54.7] JW: Exactly. I'm sure that British Airways also would be interested in some late model 777-300ERs, perhaps an opportunity to retire some of those 747-400s earlier at a nice price.

[0:39:06.2] JR: As someone who's booked two of them later this year. Yes, please.

[0:39:09.6] JW: Look. I think that all of us present and most of our listeners jump at the chance to fly a 747 just for the 747 factor. But they're getting long in the proverbial tooth, and a new plane is often welcome, shall we say.

[0:39:25.8] IP: We will continue to see how this shakes out whether or not any of those orders actually get through and how it all – Is absorbed or mitigated by Boeing, but some late breaking news, I guess, as we finish up our recording.

Speaking of old planes though, Virgin America –

[0:39:41.8] JW: I'm sorry. I think you mean brilliant planes.

[0:39:44.3] JR: Stay calm, John. Stay calm.

[0:39:46.1] JW: Wonderful, beautiful planes with a right number of engines and the right proportions.

[0:39:51.5] JR: For those that may not know, John Walton here has an odd fascination and bordering on creepy love of the Airbus A34-600.

[0:40:02.2] JW: Yes. It is the ideal plane. It is a perfectly proportionate aircraft. A thing of beauty and joy.

[0:40:07.4] IP: We're sensing a lot of themes in this particular episode. One is older planes, newer planes and engine issues with newer planes, because we're dealing with engine issues with the Rolls Royce Trent 1000 on the 787s. Virgin Atlantic, which is a customer of the 787 with engine issues has been working on ways to mitigate that. A few of the ways is taking old Air Berlin A330s and another way is putting old A340s back into service.

So Virgin this week decided to take an old A340 that they had retired two months ago, pull it out of Tupelo, Mississippi –

[0:40:47.2] JR: Which apparently never happens.

[0:40:48.2] IP: And fly it to Manila to get it back into shape so they can fly it back to London and put it into service while they're waiting for all these Trent issues.

[0:40:58.4] JW: It must be very difficult for Virgin in terms of figuring out how that works, but it's a little ironic to me, from a passenger experience point of view, that they bring these older aircraft which were not upgraded with the latest refurbished seats, service, all that sort of thing. That first one, they paint it with a big Virgin Atlantic thank you to the staff and then anywhere on that plane have the staff apologizing to them for the fact that basically nothing really worked properly. I love the look of those aircrafts. Internally, they could do a little bit of a refurb, should we say.

But all these airlines who are having these 787 Rolls Royce issues are having to scramble to fix them. New Zealand is going Hi Fly. They're also looking to – I believe they said today they're looking to lease a 777-200ER on a long term basis. Now, that's a product consistency issue, right? If you book Air New Zealand, you expect to get Air New Zealand, and they have been very consistent in the product that they offer.

[0:42:00.9] IP: I suppose that Norwegian has this going for them and that when you book Norwegian, you don't necessarily expect to fly in a Norwegian plane.

[0:42:07.8] JW: Not if you're listening to this podcast, you don't.

[0:42:10.0] IP: Of course. I feel like anyone who's listened to more than three or four episodes of this podcast knows that it's a 50-50 shot whether or not you'll actually be on a Norwegian plane.

[0:42:17.5] JR: Maybe it will Hi Fly. Maybe it will be Euro Atlantic. Maybe it would be Privilege Style. Maybe it will be nothing at all.

[0:42:24.7] IP: This week, the Privilege Style 777 got a full season of service. I forget exactly which route it was, but instead of having a –

[0:42:31.4] JR: It's Rome to Newark, I believe.

[0:42:33.5] IP: Rome to Newark. So instead of having a Norwegian brand new 787, you get a middle-aged 777 from Privilege Style. I mean, it's one of those things where we continue to talk about how airlines are doing this, and it's got to be a terrible position to be in. I would hate to be any airline that says, "We're going to have this brand new planes," and then they don't work. But then how do you mitigate that? The answer, I guess, is that Hi Fly – And we talked about this before. Hi Fly becomes the ultimate winner in all of these.

[0:43:05.2] JW: They just got two brand new A330s delivered, didn't they?

[0:43:08.0] JR: About to be delivered.

[0:43:08.8] JW: About to – Yes.

[0:43:09.6] JR: Right up the road, I think.

[0:43:10.6] JW: It's this week. I feel that it seems like this is happening a lot at the moment, because we have a lot of re-engineing going on, we have a lot of – We have fewer people making engines. Fewer companies make the engines. So any impact is naturally going to be greater, right? Because of the world's fleet operates engine type-X. If engine type-X has 50% of the market, where in previous generations it had 25. You could back to the Lockheed L-1011, you know those Rolls Royce issues that they had where – What was it? Couldn't take sand? They flew it to Saudi Arabia to try the – Get into sand intake and it glassed the engine. That almost bankrupted Lockheed, that's why Lockheed hasn't created a passenger airline since the L-1011. It caused huge corporate issues to Rolls, if memory serves, it was some sort of government bailout. This is nothing new in aviation.

[0:44:02.5] JR: It's not a new issue. It's just a crappy issue to have.

[0:44:05.2] JW: Yeah, and it seems like it's happening a lot, because we are in – And you guys have talked about this with, I believe, Jon Ostrower, is that the – We've got lots of planes that have been delivered as new recently and are now in their teething problem phase and that sort of thing. We're seeing teething problems with these engines and it's a frustration if you're a passenger. I'm not sure it will be cause for me to book for or a way anywhere at present.

[0:44:30.3] JR: Well, away from Norwegian.

[0:44:31.7] JW: Well, but that's not really any change, is it?

[0:44:34.3] JR: No. I mean, the airline literally started without its own planes.

[0:44:38.1] JW: Right. What's in the back of that Privelige Style 777? Do know Jason?

[0:44:41.8] JR: Crap.

[0:44:43.4] JW: I mean, is it 10 abreast? Charter?

[0:44:44.9] JR: No. I think it's nine abreast. It used to belong to El Al, I think? Either El Al or Asiana or something, but it hasn't been well maintained.

[0:44:54.8] JW: But, in terms of pure passenger comfort, bring your iPads, bring your phone and download yourself some Netflix. At the very least, it's a passenger experience neutral.

[0:45:06.4] JR: Yeah. It's also compounded by the fact that I think that today fleets are so – It's so narrow. You're either on – If you're talking about new aircraft, you're either on a new Airbus or a new Boeing, and any of those new Airbus or Boeing –

[0:45:18.7] JW: Or you're flying Delta.

[0:45:19.3] IP: Right. We're going to have the same issues as they're all a new aircraft off the line as opposed to, in past decades, we had multiple air framers all creating multiple products. They don't exist anymore. You have A or B. Pick your poison.

[0:45:32.3] JW: Yeah, right. Anytime anyone tries to make a C, bombardier, they come back into A and B. Look, not to get too inside baseball in terms of the way that this industry works, but this is a big problem of the over consolidation in the industry, is that there's too many A or B options rather than A, B, C, D or E options.

[0:45:52.6] JR: Stay strong Embraer. Stay the course.

[0:45:57.2] JW: That has the E in this model, doesn't it. Yeah, it's a long term issue to be in a duopoly situation simply because you end up [inaudible 0:46:05.2]. As you guys were talking about recently, the entire problem of that CFM issue with the 737 is that half of the 737 fleets in the world is operated as engines right now, and if there are issues in terms of the way they operate, that's a huge impact and one that I don't think there's a capacity to fix in the same way that there was perhaps in previous years when you can stop in an MD-80 or some other sort of aircraft to make that change.

[0:46:37.3] IP: Yeah, and that's the thing that I keep thinking about with the CFM engine issues. If there was something that had grounded the fleet or there's something that comes out and grounds the A320 fleet or the 777 fleet, or a large segment of any of these. I mean, that's going to be a huge impact that I don't see how that's absorbable.

[0:46:57.8] JW: I don't either. I think the slight answer to that is probably around leasing companies, keeping the things on sort of warm readiness, where rather than it being a sort of three or four month call up of something that's parked, it's a three or four week call up. I think it's something around that, but if I were working on a leasing company that I'd be doing right now. Yeah, it is a huge problem and it's one that's not going to get any better. I don't have an answer to that. I don't that there's a solution to what happens when you get over reliance on a smaller number of supplies.

[0:47:29.9] IP: On that thoroughly cheery note, I'm going to –

[0:47:33.2] JW: We go to visit the COMAC 929.

[0:47:37.2] IP: I'm going to let you two gentleman get back to your wine, your cheese, your goats and your chickens and we will say goodbye for now.

[0:47:44.9] JW: There's actually a phrase in France, revenons a nos moutons, which just means let's get back to the subject. "Let's get back to our sheep."

[0:47:52.8] JR: What did he said?

[0:47:53.4] IP: I think we found our title for the episode. John, I want to say thank you for hosting Jason and getting him to the microphone today and thank you for joining us.

[0:48:01.2] JW: Always a pleasure.

[0:48:02.3] JR: Where can we find you, John?

[0:48:04.0] JW: You can find me on Twitter @thatjohn. You can find my writing at Runway Girl Network. I'm always excited to talk to people about aircraft, particularly lovers of the A340-600 and these beautiful plane in the skies.

[0:48:14.6] JR: All two of you will be so thrilled to find each other.

[0:48:17.1] JW: Your face will be so thrilled, Jason Rabinowitz. Yes, love to chat about planes and aircraft and flying.

[0:48:24.0] IP: Gentlemen, enjoy the rest time and we will talk to you all in a few weeks. Thanks for listening.

[END]