

Podcast 1 – Type Transition

Hello everyone and welcome to the Boeing 737 Talk where Mark and I will look to bring you knowledge about this great jet on a regular basis. As well as in depth systems episodes we will also take a look at the latest training thinking, as well as any other subject that we believe will help us, and hopefully you, understand this great workhorse of our skies. Each episode is written and presented by 737 trainers, with pilots in mind but may also be of interest to enthusiasts. You can carry on the conversation on our social media pages and if you feel we deserve it leave us a glowing review and why not let your colleagues know about us too. That said, let's start today's episode.

Hi everyone, you've just heard Ian's silky Celtic drawl introducing us, so now it's my turn. I'm Mark, and together with Ian we hope to help increase your and our knowledge of the 737 whether it's for an initial type rating, recurrent, upgrade or just general interest. Together we have 50 years experience in aviation as well as over 20,000 hours in the skies and many more in the simulator including training to TRI/TRE level. We've flown various types between us, the most recent being the Airbus 320/330, Boeings 757 and now the 737. Following the demise of large legacy charter carrier, Ian and I both converted from the A320 to the 737 and when we were on the Airbus we both regularly listened to a range Airbus Podcasts finding them very useful to keep our technical knowledge up to date as well as well as for its interviews and crash investigation topics. We hope to bring this across to our new type as when we were doing our type rating, we quickly realised there was nothing like it to help us on the 737.

We thought that as an introduction we'd look at some of the difficulties we found in changing type. So, lets take it away.

So, Ian, Apart from the tray table, What did you find the main difference to be between the A320 and the 737?

Firstly, I have to confess as has been mentioned that I've previously flown the Boeing before. Not the 737 itself but my first commercial Airliner was the 757 which I still think is the queen of the skies. Saying that I'd been on the Airbus for 5 years previous to the 737 and as I generally can't remember what happened yesterday most of the knowledge was gone! So, for me, actually flying wise it has to be the manual trim use. You get so used to the Airbus doing it for you that I think I'm correct in saying that your scan, if not slows down, then it certainly becomes different. Flying your first raw data ILS back on the Boeing can be quite tricky if you don't have the thing in trim and your scan working properly!

I too have had some experience of Seattle's offerings, having flown the 757 for a couple of enjoyable seasons, but having most of my career being on one Airbus or another, a type (and philosophy) change was indeed a challenge. As Ian mentioned, getting the aircraft in trim is a required skill that is needed, but after a few sim sessions practice, didn't prove too troublesome.

The flight deck is a little smaller and more intimate too, which is a positive as makes sharing the cheese board on long Mediterranean sectors more of a cosy dining experience.

How did you find that infamous 737 pitch/power couple Ian?

Indeed, the pitch power couple is certainly more pronounced than the Airbus in Direct law, and even more than that on the 757. It makes manoeuvres where a large change of thrust particularly challenging, for example in the 2 engine go around, you need to be very aware that you may need to apply a forward control column input to maintain your required pitch datum.

That said, Boeing were years ahead in their thinking to limit the amount of thrust given during the go around manoeuvre, with Airbus only recently catching up with their 'soft G/A function'.

Mark, The Airbus has a very ingrained Dark Cockpit philosophy. Can you still see what cheese you're eating in the Boeing flight deck at night over the Aegean Sea?

The concept is similar but Maybe not quite to the degree of the Airbus but yes, the philosophy is there. It should be a quiet or dark flight deck during normal operations. Like the Airbus there are minimal indications of normal status. You have your Warnings and Cautions but identifying them is a bit different as there's no ECAM to help you.

For failure identification there are system annunciator lights up on the glareshield. These, along with the Master Caution lights direct you as to where to look on the Overhead Panel or Fire Control Panel. The philosophy there is that these panels are not in direct view of the pilots, so we need an attention grabber. The way the annunciator panel is set out gives you a clue as to which part of the Overhead, or Fire Panel you should be looking at and this becomes intuitive quite quickly. It's then a case of using a bit of system knowledge and identifying the problem as a team and referring to the correct QRH procedure. There is also a way of finding out if a part of the system has failed through recall, but I think we'll leave that for another Podcast.

Ian, you're quite a technically minded sort of chap, almost being of the Xbox generation, how did you find the ground school and technical side to the 737 compared to the 320?

What type is an Xbox? I have to say I admit to being a bit strange and quite enjoying the tech side of things. Like all ratings these days there is an element of death by CBT. However, we were quite lucky in that we had a very enthusiastic instructor who interrupted the clicking with some good lectures and brought it all more to life. In comparison to the 320 I'd say it's a more logical process but the blending of new technology with old has its challenges as far as some technical nuances go.

And what about the differences in how the 737 handles in an Engine Failure Scenario, especially at takeoff as we know we still have to show we can do this regularly.

I think the biggest difference is how powerful the Rudder is on the 737. I think of the aircraft as a bit of a T-Rex with these tiny almost pointless arms in relation to the 737 Ailerons and then this enormous tail of a Rudder. This means that you have to be careful not to over control the thing. The secret to flying the 737 one engine seems to be to make as little pitch and power changes as you can as they are very destabilising to the flight path and can

induce oscillations often made worse by the pilot trying to correct them! A lot of anticipation is vital.

To continue and develop your rather interesting dinosaur analogy Ian, the 737 will bite you rather hard unless you fly the engine failure manoeuvre using the correct techniques, whereas the Airbus is a bit more of a plant eating stegosaurus, with the yaw damper automatically putting a good chunk of required rudder in for you in the case of an engine failure. That said, with the correct techniques, you can tame a T-Rex...

The thrust lever design and Philosophy is markedly different too. Whilst I understand why Airbus went to static levers in most phases of flight there is a lot to be said for understanding what inputs the AFDS/A/thrust system or indeed your colleague is doing to the aircraft. I can imagine it gives the PM additional cues to the PFs actions, and naturally helps during line training.

Yes, I have to say it was one of the things when I converted to the Airbus originally that I found slightly disconcerting after the 757 so I like seeing the thrust levers move although I'm not sure the autothrottle is quite as accurate as on the A320 so they need careful guarding. Now I've flown both, the most common question I get asked walking the around Barry Island in my uniform is which do I prefer, the Airbus or the 737. Well, I'm not sure I have enough 737 time yet to give the definitive answer so I'm going to sit firmly on the fence for now! I will say though my initial impressions are the Airbus is nicer to operate but the 737 is more fun to actually fly. I'll leave it at that.

Ian has mentioned it above, but I feel the Airbus is to be 'managed' (a bad Dad joke which our Airbus drivers & listeners will understand but not appreciate) whereas the 737 definitely needs to be flown. Without wanting to fall out with our listeners I too will reserve judgment until I have had the pleasure of a few more hours on the aircraft.

Well thanks for listening to the inaugural 737 podcast. We really hope you enjoyed it and will continue with us into some more technical subjects as well as a quick look into what we can expect from the return to service of the 737 MAX.

Thanks for being involved today and we look forward to welcoming you back on our next episode soon. Until then why not sign up to the newsletter at B737talk.com for extra info, or, simply join us on social media and keep those sectors with us going.