

Here's a full run down of the items covered in each of the 10 parts of the course:

- **Part 1 – Pilot fact file** – Meet Josh, a real world First Officer for a large European Q400 operator. He will be your training Captain for the entire course. In this short film we find out a bit about him, the Q400 itself and what lies in store over the next 9 hours of training.
- **Part 2 – Flight deck tour** – Before we get in the air, let's take a complete tour of the Q400 flight deck. We won't go into too much detail about the finer points of the aircraft systems here, as we'll be demonstrating them once we get going. This is to get you around the auto-flight system, the overhead panel, the engine controls, fire protection and understanding the layout of the Q400 flight deck so you're less likely to accidentally flick a switch that might ruin your day.
- **Part 3 – Initial base training** - Now that we've learned a bit about how to operate the Q400, it's time to put our skills into practice and meet our training pilot Josh for our initial base training. Here, just as in the real world, we fly an empty aircraft with no passengers from a quiet airfield for a number of take-offs and landings so that we can get used to dealing with the various flows and check-lists involved. We also learn how to start the engines, taxi safely, understand charts and how to tune navigation aids.
- **Part 4 – Initial base training** - Having started up and taxied to the holding point for runway 27 at East Midlands Airport, we're now ready to launch off into the sky for our very first take-off in the Q400. Over the following 50 minutes, we perform four take-offs and landings in the Q400 in a variety of different flap configurations and you'll see how even with a rated Q400 pilot calling out instructions, speeds and power settings, the workload in this fast moving environment is incredibly high.
- **Part 5 – Planning and loading** - Here's one area where real pilots have it easier than us in the Flight Simulator world – flight planning. Most pilots don't have a clue which airway they're on or care which SID or STAR they're going to use because it's all given to them either by ATC or the airline's flight planning department. In Flight Simulator, you need to do all this yourself. Not only do you need to worry about flight planning, but you also need to make sure you've got enough fuel and then load your Q400 properly so it actually takes off! Don't worry, we've got it covered. With this detailed run through, you'll see how to prepare a full flight briefing for any city pairing in the world.
- **Part 6 – Crew room briefing** – Real crews meet up at their home base and often have time for a quick coffee whilst checking over their pilots' briefing package (or PLOG, as it's called in the UK) at the airline's crew room. We're no different and with a long day ahead of flying the Q400 to almost every corner of the British Isles, there's a lot for real world pilot Josh and our sim guy Ben to cover. Josh talks us in detail through our briefing for the first sector from IOM to BHX and looks at the weather, the NOTAMS, our fuel requirements and possible diversion airports in case of a problem. With that complete, we grab our pilot's hat and head for the ramp!

- **Part 7 – Line flight 1: IOM-BHX** Flight Deck set up – After a lot of talking, it's time to get in the air as Josh and Ben take over from another crew and setup the flight deck at the Isle of Man airport for the first of four planned sectors around the British Isles in the Q400. First is a flight deck safety check, which is needed because we soon discover that maintenance have come along and moved some of the switches around! Following this is a busy period of flight deck preparation against the clock as our departure time is 15.00Z, so in just 31 minutes we board passengers, setup the FMS, tune the navigation aids for a noise abatement departure, make a full takeoff briefing and set up the autopilot modes, managing to get it all done to call for pushback at 15.01Z...
- **Part 8 – Line flight 1: IOM-BHX** - With our flight deck preparation complete, it's time to push back, start up and launch off from the Isle of Man across the Irish Sea on our short sector to Birmingham International. You'll see how to fly the noise abatement procedure, how crews communicate with the cabin and some really useful hints from Josh on how to give your passengers in the back a nice smooth ride! Once established in the cruise we are heading into the busy airspace surrounding Liverpool and Manchester airports and there is little time to rest as we need to set the Q400 up for an ILS arrival into Birmingham airport. The STAR involves a level off which we need to plan for, so Josh tells you all you need to know about descent planning. Our landing into Birmingham is a little firmer than ideal, and you find out why!
- **Part 9 – Line flight 2 BHX – GCI** - With our first sector complete having crossed the Irish Sea, Ben and Josh face a quick turnaround at Birmingham International Airport. We've just time to refuel, disembark the passengers and embark some more and also set the aircraft up for our next sector – a 55 minute hop down to brush the coast of France, arriving at the tiny airport of Guernsey. Watch the crew set up the SID for the departure, run the loading and fuel figures for a new traffic load and depart off into the sunshine! You'll learn more advanced features of the FMS and navigation radios, plus you'll learn how to fly the Q400 flat out to make up time on the schedule! On arrival at Guernsey, the ILS Localiser is out of action so we are forced to perform a challenging LOC DME approach into the short 1400m runway and you'll see just how fast a Q400 stops when you really want it to!
- **Part 10 – Line flight 3 GCI-LGW** - With two sectors complete, darkness falls as our crew heads back across the English Channel under a beautiful golden sunset for another short sector to London Gatwick Airport. After a short field take off from Guernsey, Josh briefs us for a potential go-around and a complicated STAR arrival for the busy single runway airport that lays ahead. With several different level offs in the STAR, we learn how to set them up in the FMS and later Josh shows us how to work a descent rate out in our heads, useful for those times when the VNAV does unexpected things. Later in the descent we are given speed control by ATC and finally once established on the ILS, a nasty surprise awaits which makes our day somewhat longer and then a potentially serious but not uncommon Q400 technical malfunction develops which means we do not get to return to our home base tonight.