Bombardier Dash 8Q-400 Flight Tutorial

NOT FOR REAL LIFE USE

Work is currently in progress here



Flight Preparation

After setting up the tutorial route from San Diego to Los Angeles select the Bombardier Dash 8Q-400 (short Q400) in the fresh green or colorful celebration Horizon livery and use the location dialog to place the aircraft in San Diego on the ramp (white aircraft symbol).

In the control settings in the Autopilot section we need to assign a key/button to the TOGA button ("Take off / go around mode"), because we will need this button later.

Move the throttle to idle and if you have your condition levers assigned, move them all the way forward now. Then press "Start" to begin the flight.

Introduction To The Flightdeck

Take your time and look around the Cockpit for a bit. Directly in front of the pilot two monitors can be found. The left one is the primary flight display (PFD) and the right one is the navigation display (ND).

The PFD displays, left to right, the current airspeed, the attitude, the altitude and the vertical speed. In the lower half of the display you find the horizontal situation indicator (HSI)

Engine Start

You can skip this part if you don't want to do this, the engines should already be running at this point But if you want to start the engines for yourself go ahead and move your condition levers all the way down to FUEL OFF.

* Item should be completed by default

Eng	Engine Start procedure							
No.	Location	Panel Name	Action	Action				
1	Pedestal	Throttle Quadrant	PARKING BRAKE	ON	*			
2	Overhead	EXTERNAL LIGHTS	ANTI COLLISION	ON RED				
3	Overhead	Signs	EMERGENCY LIGHTS	ARM	*			
4	Overhead	Signs	FASTEN BELTS	ON	*			
5	Overhead	Signs	NO SMOKING	ON	*			
6	Overhead	ICE PROTECTION	ENGINE INTAKE 1&2	SET OPN	Press each button 1x			
6	Overhead	AIR CONDITIONING	RECIRC	ON				
7	Overhead	AIR CONDITIONING	BLEED 1&2	OFF	*			
8	Overhead	APU	PWR	ON	Wait for self test			
9	Overhead	APU	START	ON	Wait for green RUN			
10	Overhead	APU	GEN	ON				
11	Overhead	APU	BLEED AIR	OFF	*			
12	Overhead	DC CONTROL	MAIN BUS TIE	ON				
13	Overhead	ENGINE START	IGNITION L&R	NORM	*			
14	Overhead	ENGINE START	SELECT	1				
15	Overhead	ENGINE START	START	PUSH				
16	Pedestal	Throttle Quadrant	PROP LEVER 1	START & FEATHER	Wait for starter cut out (50% NH)			
17	Overhead	ENGINE START	SELECT	2				
18	Overhead	ENGINE START	START	PUSH				
19	Pedestal	Throttle Quadrant	PROP LEVER 2	START & FEATHER	Wait for starter cut out (50% NH)			

After Start procedure							
No.	Location	Panel Name	Action		Remarks		
1	Overhead	APU	GEN	OFF			
2	Overhead	APU	PWR	OFF			
3	Overhead	DC CONTROL	MAIN BUS TIE	OFF			

Taxi

We're now preparing the aircraft for taxi and takeoff.

Taxi preparations						
No.	Location	Panel Name	Action		Remarks	
1	Pedestal	Throttle Quadrant	PROP LEVER 1&2	MAX 1020		

Tax	Taxi preparations						
No.	Location	Panel Name	Action		Remarks		
2	Pedestal	Throttle Quadrant	ELEVATOR TRIM	SET T.O.	Within white TO Range		
3	Pedestal	TRIM	AILERON TRIM	SET NEUTRAL	*		
4	Pedestal	TRIM	RUDDER TRIM	SET	Slight right trim		
5	Overhead	AIR CONDITIONING	BLEEDS	ON/MIN			
6	Pedestal	PROPELLER CONTROL	AUTOFEATHER	SELECT			
7	Pedestal	Throttle Quadrant	FLAPS	FLAP 5°			
8	Pedestal	FUEL CONTROL	TANK 1&2 AUX PUMP	ON			
9	Front Panel	HYDRAULICS	STBY HYD PRESS	ON			
10	Front Panel	HYDRAULICS	PTU CTRL	ON			
11	Front Panel	HYDRAULICS	HYD #3 ISOL VLV	ON			
12	Pilot Panel	Switching Panel	STEERING	OFF			
13	Pedestal	Throttle Quadrant	CONTROL LOCK	OFF	*		
14	FLT-CTL	Rudder Pedals	RUDDER	FULL TRAVEL			
15	FLT-CTL	Control Column	ELEVATOR	FULL TRAVEL			
16	FLT-CTL	Control Wheel	AILERON	FULL TRAVEL			
17	Pedestal	Throttle Quadrant	CONTROL LOCK	ON			
18	Pilot Panel	Switching Panel	STEERING	ON			
19	Front Panel	HYDRAULICS	HYD #3 ISOL VLV	OFF			
20	Overhead	ICE PROTECTION	ENGINE INTAKE 1&2	SET OPN	Press each button 1x		
21	Overhead	ICE PROTECTION	PITOT STATIC	ON 3x	*		
22	Overhead	ICE PROTECTION	PITOT STATIC ISOLATION VALVE	ON (ISO)			
23	Glareshield	Right side	ANTI SKID	ON	*		

Release parking brake advance the power lever to start moving. Start taxiing to runway 27.

Dur	During Taxi							
No.	o. Location Panel Name Action		Remarks					
1	FLT-CTL	Pedals	BRAKES	TEST				
2	Pedestal	ENGINE CONTROL	RDC TOP TRQ	PRESS up to 5x	Optional for reduced power takeoff, recommended: 2x for 4% reduction			
3	Glareshield	Autopilot	YD (YAW DAMPER)	ON				
4	(assigned key/button)	Autopilot	TOGA button	PRESS				
5	Glareshield	Autopilot	ALT SEL	PRESS				
6	Glareshield	Autopilot	SELECTED ALTITUDE	SET INITIAL ALT	CRZ ALT 15000ft for this tutorial			
7	Glareshield	Autopilot	HDG	PRESS				
8	Glareshield	Autopilot	SELECTED HEADING	SET RWY	HDG 273° for this tutorial			
9	Glareshield	Autopilot	NAVIGATION SOURCE	SET FMS1	*			

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During Taxi						
No.	Location	Panel Name	Action		Remarks	
10	Front Panel	PFD	DH/MDA SELECTOR	SET TO MDA EDIT	Turn outer knob to the right	
11	Front Panel	PFD	DH/MDA INCREMENT	SET MDA (Elevation + 1500ft)	Turn inner knob to the left until the MDA on the PFD displays 1500 ft	
11	Front Panel	PFD	V-SPEEDS	SET	*	
12	Pilot Panel	Switching Panel	T/O WARN TEST	ON then OFF	No audible warning should sound	

Entering The Runway

Runway entry procedure						
No.	Location	Panel Name	Action		Remarks	
1	Pedestal	Throttle Quadrant	CONTROL LOCK	OFF	*	
2	Overhead	EXTERNAL LIGHTS	ANTI COLLISION	ON WHITE		
3	Overhead	EXTERNAL LIGHTS	LANDING	ON		
4	Overhead	EXTERNAL LIGHTS	FLARE	ON		
5	Overhead	AIR CONDITIONING	BLEEDS	AS REQUIRED	ON/MIN	
6	Front Panel	PFD	CHECK AFCS MODES: HDG SEL, GA + ALT SEL	SET/CHECKED	HDG 273° set, flight director visible and shows 9 deg pitch	

We have now reached the takeoff configuration. When you set the aircraft onto the runway using the location dialog in the main menu almost all the steps above will be completed already.

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