

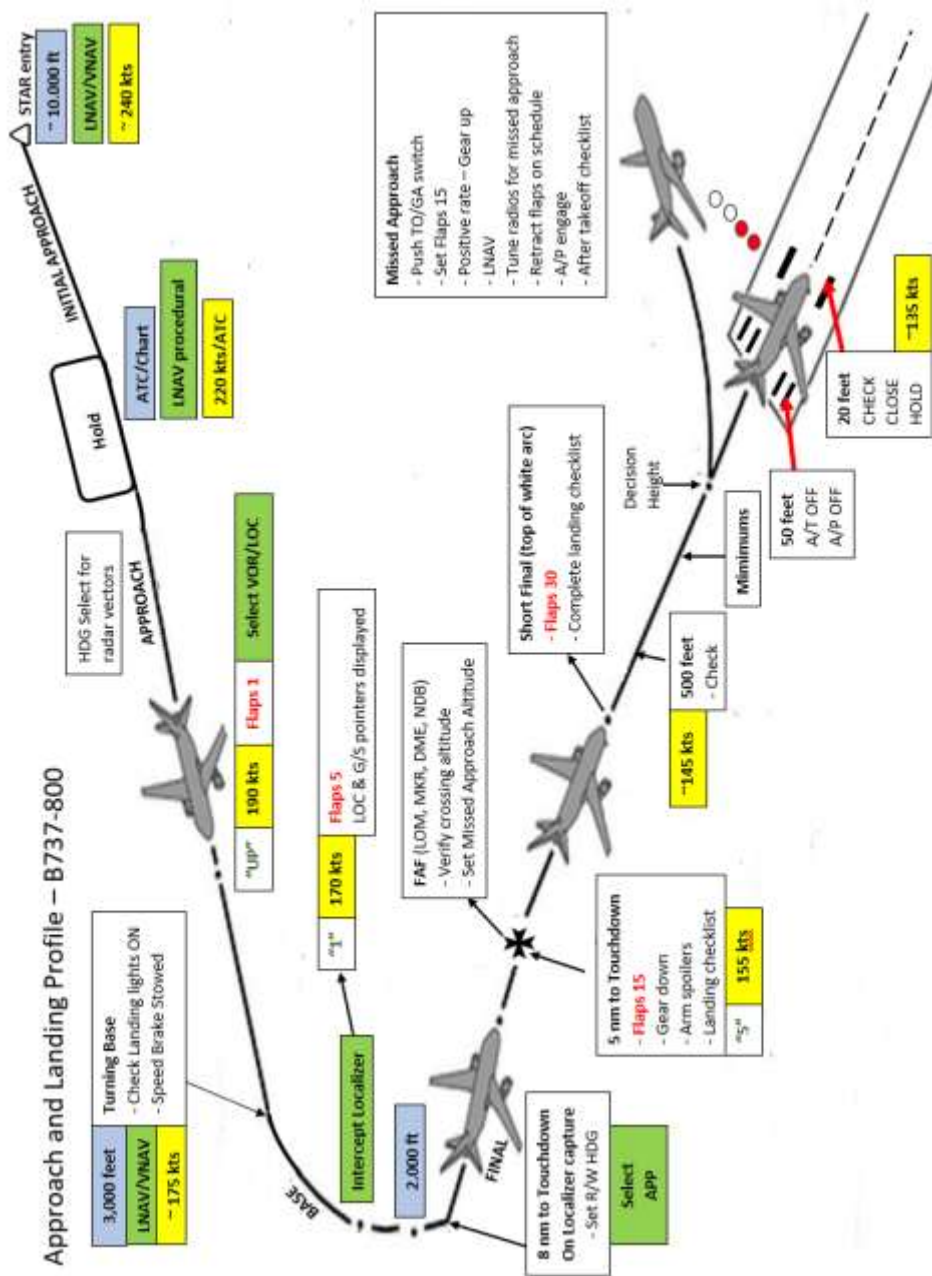


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## Beginners Guide to Flying the Boeing 737-800

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- Set Window & Engine Anti-ice to ON (Overhead panel)
- Request Taxi IFR Clearance (note taxi instructions)
- Acknowledge Taxi Clearance.
- Turn on Progressive Taxi if required
- Push ScrLck to close ATC window.

### PUSHBACK & TAXI

- Taxi Light ON
- Rotating Beacon Light ON
- Release Parking Brake (Full stop key)
- Start Pushback:
  - Straight pushback back: Shift + P
  - Pushback tail left: Shift + P + 2
  - Pushback tail right: Shift + P + 1
- Start engines if not already running (Ctrl + E)
- Stop Pushback: Shift + P.
- Taxi to assigned runway (max speed 25 KIAS)
- Set takeoff FLAPS (usually Flaps 5)
- Stop at the line before entering runway. Park brake ON.
- Check runway HEADING & engage HDG SEL (push)
- Request takeoff clearance from Tower (ATC window – ScrLk)

### TAKEOFF & CLIMB

- Taxi Light OFF
- Landing Lights ON (Ctrl + L)
- Strobe Lights ON (O key)
- Set CLOCK to Start
- Taxi into position and line up with centre line
- Advance throttles to 50%
- Apply full thrust – maintain hand on throttles
- Maintain vision on instrument panel, not outside
- At V1 speed both hands on yoke
- At Vr speed rotate to 10° nose up.
- At positive rate of climb – Gear UP.

- At 1000 feet:
  - SPEED: engage SPEED (push)
  - ALTITUDE: Engage ALT HLD (push)
  - AUTOPILOT: Engage CMD A (push)
- Commence FLAP RETRACTION
- Increase SPEED to 250 KIAS
- Maintain runway heading until notified by ATC
- Command any ATC instructions via Autopilot as required
- When cleared to 'Maintain own navigation', engage NAV
- Maintain ATC listening watch for ATC instructions
- Increase SPEED to 280 KIAS
- At 10,000 feet, LANDING LIGHTS OFF
- At 18,000 feet, set ALTIMETER to STD 2992 (Press B).

### CRUISE

- At cruise altitude, increase speed to 320 KIAS (340 KIAS max)
- Maintain a listening watch for ATC instructions
- Monitor engine instruments for normal operation
- Change NAV 2 frequencies as required en route
- Reset HEADING to GPS track after each waypoint turn.

### DESCENT

At approximately 100 nm from the destination airport, ATC will give a 'descend to' altitude.

- Set assigned ALTITUDE with descent rate of 1800 feet per minute
- Reduce SPEED to 280 KIAS
- SPEED BRAKE as needed (Backslash key)
- At 10,000 feet: LANDING LIGHTS ON

### APPROACH

At approximately 70 nm from airport, ATC will provide initial vectors for approach to an assigned runway. Write down details.

- Change ALTIMETER to local setting
- Disengage VOR LOC & engage HDG SEL
- Tune in Localizer (LOC) frequency on NAV 1 radio & select
- Tune VOR/DME frequency for destination airport in NAV 2 radio
- Set assigned runway heading in COURSE
- Change NAV/GPS to NAV
- Continue commanding ATC vector instructions on approach
- Stow SPEED BRAKE
- Reduce SPEED incrementally (See Approach & Landing Profile)
- Set FLAPS incrementally:

Flaps	Max Speed	Approach	Approach Fix
0	340 KIAS		
1	250 KIAS	190 KIAS	Before turning Final
2	250 KIAS		
5	250 KIAS	170 KIAS	Upon capture of ILS
10	210 KIAS		
15	200 KIAS	150 KIAS	At FAF 4 nm out
25	190 KIAS		
30	175 KIAS	145 KIAS	Short Final 3 nm out
40	162 KIAS	145 KIAS	Short Final 3 nm out

### LANDING

- Maintain A/P & A/T to 50 feet then disengage
- At 30 & 40 feet DO NOTHING. Look at the end of the runway.
- At 20 feet CHECK (flare) CLOSE (Throttles) HOLD (Nose)
- On touchdown apply REVERSE THRUST (Press and hold F2)
- Apply BRAKES (Full Stop key)
- At 60 KIAS close reverse thrust
- Exit runway
- Contact ATC Ground for taxi to the gate
- Retract Flaps
- Landing Lights OFF & Taxi Lights ON.

## COCKPIT SETUP (Non-operational)

- Set the view as desired:

Eyepoint – Move back	Ctrl + Enter
Eyepoint – Move down	Shift + Backspace
Eyepoint – Move forward	Ctrl + Backspace
Eyepoint – Move left	Ctrl + Shift + Backspace
Eyepoint – Move right	Ctrl + Shift + Enter
Eyepoint – Move up	Shift + Enter

- Set up windows for ATC and GPS as required

## COCKPIT PREPARATION (Operational)

- Flight Director – ON
- Auto throttle (A/T) – ARM
  - NAV/GSP switch to GPS
- Establish VRef Speeds & write them down (See Appendix)
- Set V2 + 15 KIAS in IAS/MACH [Do NOT set SPEED A/P]
- Set Trim for takeoff (in the green band)

## NAV RADIO

- Set Departure airport VOR/DME in NAV 1
- Tune first VOR waypoint frequency in NAV 2 & select
- Set following VOR waypoint in NAV 2 STANDBY

## ATC CLEARANCE

- Press ScrLk to open/close ATC window
- Tune and note ATIS information
- Set local Altimeter (Press B)
- Set active runway heading in HEADING
- Tune Ground and request IFR Clearance
- Write down Clearance information
- Acknowledge Clearance (Squawk will auto set)
- Set assigned altitude in ALTITUDE

## APPENDIX

### Takeoff V<sub>REF</sub> Speeds (dry runway)

V1: Takeoff Decision Speed	90,000 lbs (flaps 5)	98 KIAS
	180,000 lbs (flaps 5)	153 KIAS
Vr: Rotation Speed	90,000 lbs (flaps 5)	98 KIAS
	180,000 lbs (flaps 5)	156 KIAS
V2: Minimum Climb Speed	90,000 lbs (flaps 5)	111 KIAS
	180,000 lbs (flaps 5)	161 KIAS

### Gear Down %N1 for 3° Glideslope

FLAP POSITION VREF + INCREMENT		WEIGHT (1000 KG)				
		40	50	60	70	80
Flaps 15	<b>PITCH ATT</b>	<b>2.0</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>
VREF15+10	%N1	43	47	51	55	58
Flaps 30	<b>PITCH ATT</b>	<b>0.5</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>
VREF30+10	%N1	47	52	57	60	64
Flaps 40	<b>PITCH ATT</b>	<b>-0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
VREF40 + 15	%N1	53	58	63	67	70

## Useful Keyboard Shortcuts

### F Key Views

3D cockpit View	F9
2D cockpit View	F10
Locked Spot View	F11
Top Down View	F12

### Lights

Panel Lights On/Off	Shift + L
All Lights On/Off	L
Landing Lights On/Off	Ctrl + L
Strobe Lights On/Off	O

### Panel Views

View (next category)	S
View (next view in category)	A
View (previous category)	Shift + S
View (previous view in category)	Shift + A

### Ground Operations

Set Parking Brake	Ctrl + Full Stop (.)
Apply Braking	Full Stop (.)
Doors Open/Close	Shift + E
Request Fuel Truck	Shift + F
Jetway Attach/Detach	Ctrl + J
Pushback – Straight	Shift + P
Pushback – Tail Right	Shift + P + 1
Pushback – Tail Left	Shift + P + 2
Pushback Stop	Shift P
Engine Autostart	Ctrl + E

### Aircraft Operation

ATC Window_Open/Close	ScrLk
Radios Window Show/Hide	Shift +2
GPS Window Show/Hide	Shift 3
Autopilot Master On/Off	Z
Altimeter Reset	B
Heading Indicator Reset	D
Speed Brakes On/Off	Forward Slash (/)
Arm Spoilers	Shift + Forward Slash (/)
Yaw Damper	Ctrl + D
Pitot Heat On/Off	Shift + H
Autothrottle TOGA Engage	Ctrl + Shift + G
Kneeboard	Shift + F10
Engine Stop (idle cutoff)	Ctrl + Shift + F1
Altitude Hold On/Off	Ctrl + Z
Heading Hold On/Off	Ctrl + H
Airspeed Hold On/Off	Ctrl + R

### **About this Guide**

This guide provides step-by-step procedures to enable the beginner to learn the essential operations necessary to successfully fly the Boeing 737-800. Like any learning situation, regular practice and application of these procedures will assist you to be a proficient virtual airliner pilot.

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