



VIRTUAL BOEING 737
TRAINING EVENT

DAY 4: WORKBOOK



AIRLINE PILOT
PERFORMANCE



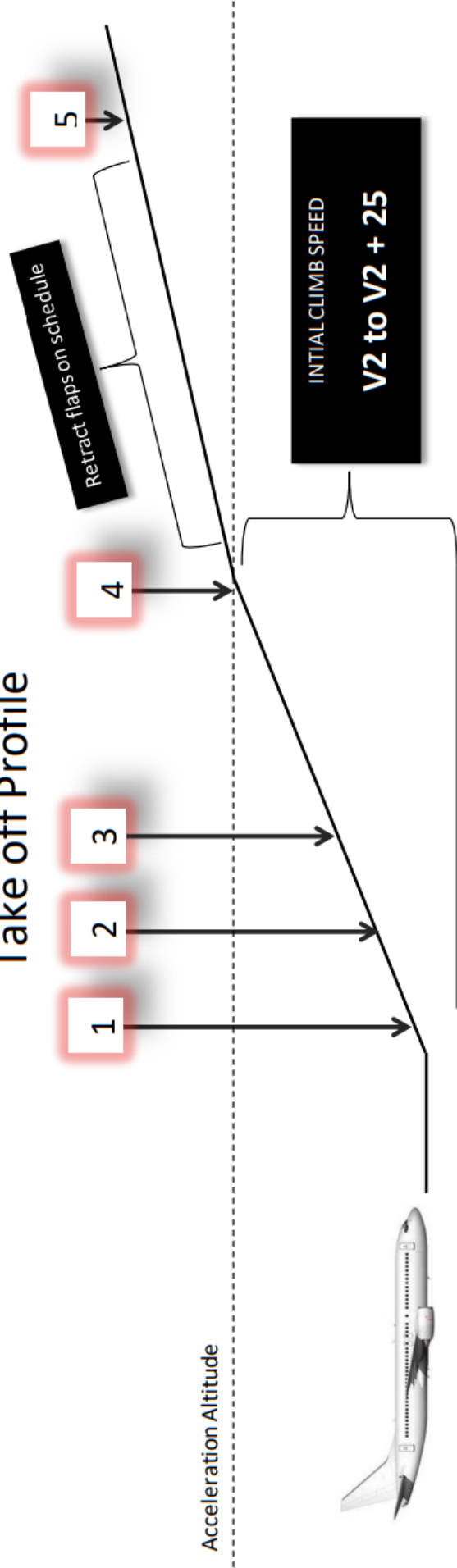
MENTOUR PILOT

BEFORE TAKEOFF CHECKLIST

CONFIGCHECKED
FLAPS__ GREEN LIGHT
STAB TRIM__ UNITS SET
TAKEOFF BRIEFINGREVIEWED
CABIN SECURE

MCP SET
TRANSPONDER TA/RA
STROBE LIGHTSON
LANDING LIGHTS.....ON

Take off Profile



Action/Altitude	Action	Pitch
1 P1 Rotate and pitch to around 15° (2 to 2.5° per second) P2 "Positive Rate"	P1 "Gear Up"	Initially 15°
2 Once climbing	Follow flight director guidance up to maximum pitch attitude of 20°	Follow FDs
3 400ft	<u>Verify Roll Mode</u> – LNAV or HDG SEL. Check FMA.	Follow FDs
4 1000ft – Top of white bar on altimeter	Acceleration Altitude – move speed bug to UP speed	F/D
5 3000' AAL (Above Aerodrome Level)	Check flaps are up with no lights illuminated and engage VNAV. Set STD on altimeter when cleared to a flight level.	F/D
Complete the After Take Off Checklist		

Take off Profile

Rotation and Liftoff

During a normal all engine takeoff, a smooth continuous rotation toward 15° of pitch is initiated at VR, at a rate of 2 – 2.5 degrees per second.

Once airborne, follow flight director guidance to maintain a speed of V2 to V2+25.

1 + 2 Initial Climb

The initial pitch attitude is 15 degrees and after liftoff, the flight director provides proper pitch guidance. Crosscheck indicated airspeed, vertical speed and other flight instruments. The flight director commands a minimum of V2, up to V2+25.

If the flight director is not used, attitude and indicated airspeed become the primary pitch references.

Retract the landing gear after a positive rate of climb is indicated on the altimeter.

The flight director roll mode commands ground track after liftoff until LNAV engagement or another roll mode is selected. If ground track is not consistent with desired flight path, use HDG SEL/LNAV to achieve the desired track. Confirmation or selection of an appropriate mode should be made at **400 feet AGL on the radio altimeter**.

3 400 feet (on RAD ALT)

Engage a roll mode. This is usually LNAV, which will provide guidance to accurately follow the lateral track as programmed in the FMC.

After completing the turn, and at or above acceleration height, accelerate and retract flaps.

4 1000 ft above aerodrome level – top of the white bar on the altimeter tape

At the top of the white bar, engage an autopilot and move the speed bug to the “Up” bug on the speed tape. This commences the acceleration process and the aircraft will pitch down to increase speed.

Take off Profile

Flap Retraction

As the airspeed accelerates and is above the white bug on the speed tape, select flap 1.

As the aircraft accelerates through the flap 1 speed bug, select flaps up.

Once flaps are retracted, maintain "UP" speed until we reach 3000 ft above aerodrome level (AAL)

5 Above 3000 ft with flaps up

Once we achieve an altitude of 3000 ft AAL with flaps up, we call "flaps up no lights", engage VNAV and set "STD" on the altimeter /F cleared to a Flight Level.

AFTER TAKEOFF CHECKLIST

- Airconditioning and pressurisation.....___/___set
- Start Switches Off
- Landing gear.....Up and off
- Autobrake Off
- Flaps.....Up, no lights
- Altimeters.....STD set