[NAPULEVOLA FLIGHT OPERATIONS DEPARTMENT]

PMDG B777-200LR CONFIGURATION FILES

[edition 1.0]

1. INTRODUCTION

Like the real aircraft the PMDG B772 comes with a variety of customizable options. Every airline or operator has the possibility to change these options to best fulfill their operational needs.

The objective of this document is to guide you through the configuration process of the PMDG B772 for the purpose of:

a) implement standardization among the NapuleVola B777 fleet.
b) achieve the most realistic simulation experience.

2. WHAT CAN YOU MODIFY?

Most of the options Boeing allows you to customize are related to the information displayed on the PFD/ND. However some of these variables directly affect the flight guidance system and may have a significant impact on the aircraft operation.

3. THE PMDG OPERATIONS CENTER

The first step in customizing our aircraft is to open the *PMDG Operations Center* software.

The configuration software is installed together with the aircraft and can be found in the *Windows Start menu.*
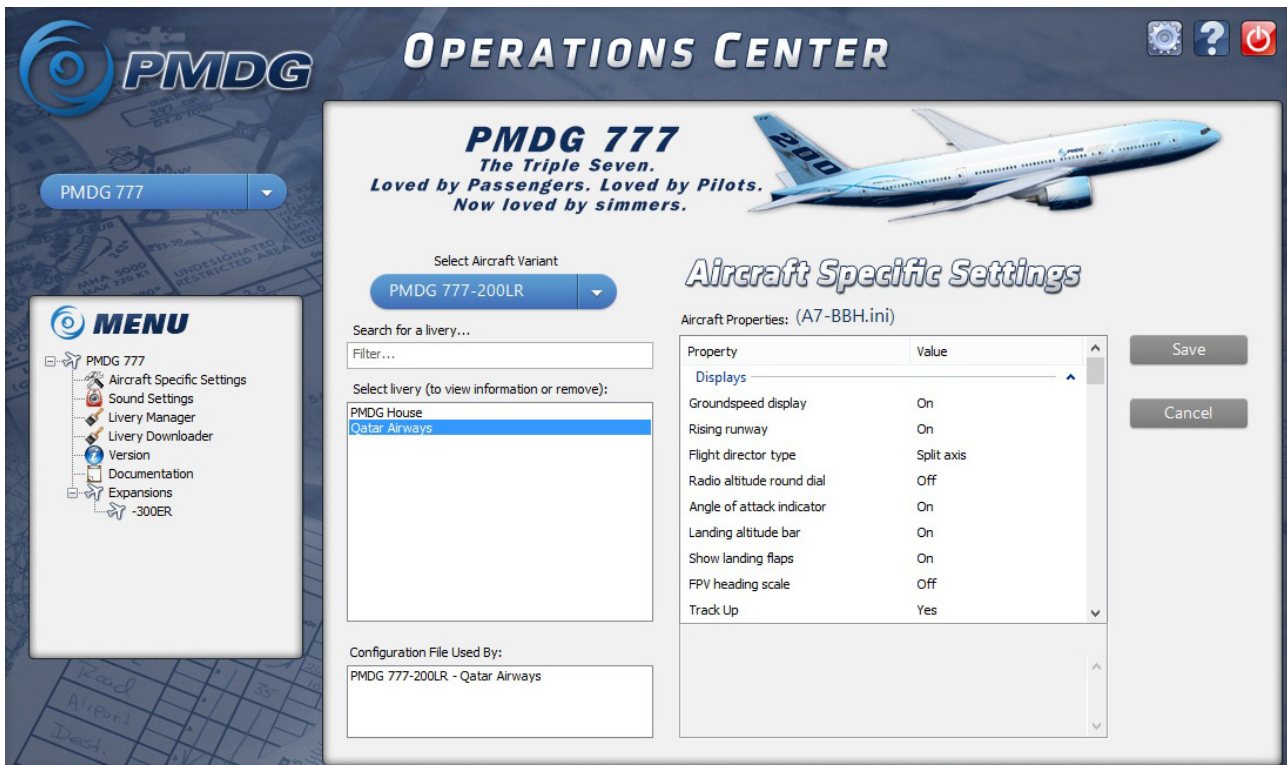
From the cascade menu on the upper left select the "PMDG 777" and from the bottom left menu select "AIRCRAFT SPECIFIC SETTINGS".

Every variant/livery can be associated with different configuration file. Select the aircraft variant/livery you want to customize to begin.

4. <u>THE SETTINGS</u>

Here you will find the list of the NapuleVola recommended settings. A brief explanation of every variable will appear in the software itself.

Note: items in **bold** are different from the PMDG default values.

SETTING	VALUE	NOTES
GROUNDSPEED DISPLAY	ON	
RISING RUNWAY	ON	
FLIGHT DIRECTOR TYPE	SPLIT AXIS	
RADIO ALTITUTE ROUND DIAL	OFF	
ANGLE OF ATTACK INDICATOR	**OFF**	Put it ON **only** if you know how to use it!
LANDING ALTITUDE BAR	ON	
SHOW LANDING FLAPS	ON	
FPV HEADING SCALE	OFF	
TRACK UP	ON	
VOR COURSE LINES	ON	
MINIMUM RUNWAY LENGHT	7000	Unit in feet
RANGE ARCS	ON	
TCAS 3NM RANGE RING	**ON**	
SHOW ACTIVE ALTITUDE CONSTRAINT	ON	
GRID HEADING	ON	
NAVIGATION PERFORMANCE SCALE	ON	
EGT COLOR CHANGE INHIBIT TIME	5 MIN	
LOW OIL QUANTITY INVERSE VIDEO	ON	
HIGH VIBRATION ALERT	ON	
SHOW REFERENCE N1	ALWAYS	
MAXIMUM CONTINUOUS THRUST BUG	ON	
777-200LR AUX FUEL TANKS	NONE	
MDF DOOR ARMING INDICATIONS	ON	
ALLOW GS CAPTURE BEFORE LOC	DENY	
AUTO LNAV ON GO-AROUND	ENABLED	
FMS CRUISE PHASE THRUST LIMIT	**CLB**	
DEFAULT ENG OUT ACC. ALTITUDE	**1500**	Unit in feet
DEFAULT ACCELERATION ALTITUDE	1500	Unit in feet
DEFAULT THRUST REDUCTION ALT.	**800**	Unit in feet
DEFAULT TRANSITION ALTITUDE	**7000**	Unit in feet
CLIMB DERATE WASHOUT ALTITUDE	12000	Unit in feet
COMPANY ENG-OUT CLIMB, CRUISE…	**320**	Unit in knots

GROSS WEIGHT ENTRY ALLOWED	YES	
TAKEOFF FIXED THRUST DERATES	ENABLED	
CLIMB FIXED THRUST DERATES	ENABLED	
COMPANY COST INDEX	**100**	
AUTOMATED PREFLIGHT REQUESTS	**NO**	Check off to correctly follow NPV NOPs
AUTOMATIC ALTN LIST UPLINK	NO	
AUTOMATIC DES FORECAST UPLINKS	YES	
AUTOMATIC POS REPORT DOWNLINKS	YES	
ALT UPLINK RUNWAY MINIMUM LENGH	8500	Unit in feet
ALT UPLINK ILS REQUIRED	YES	
ALTITUDE CALLOUTS	ON	
2500 CALLOUT TYPE	2500	
2500 CALLOUT	YES	
1000 CALLOUT	YES	
500 CALLOUT	SMART	
400 - 300 - 200 CALLOUT	OFF	
100 CALLOUT	ON	
50 CALLOUT	ON	
40 CALLOUT	**ON**	
30 - 20 - 10 CALLOUT	ON	
MINIMUMS CALLOUT TYPE	MINIMUNS	
APPRACHING MINIMUMS CALLOUT T.	APP. MINIMUNS	
BANK ANGLE CALLOUT	**ON**	
EGPWS TERRAIN SHOW WATER IN C.	NO	
V1 CALLOUT	ON	
ALTITUDE ALERT SETTING	900 APP / 200 DEV	Unit in feet
ALTITUDE APPROACH SOUND	**YES**	
CREW ALERTNESS MONITOR	NO	
RESETTABLE SIREN	**YES**	
AUTOPILOT DISCONNECT SOUND	WAILER	
AP DISCONNECT SCHEME	2 PRESSES	
RAAS INSTALLED	YES	(see later)

TCAS OTHER TRAFFIC	FILTER	
TCAS FILTER RANGE	40	Unit in NM
TCAS FILTER ALTITUDE SEPARATION	2800	Unit in feet
APU TO PACK TAKEOFF	**NO**	
FLIGHT TEST PACKAGE	NO	
LEFT PASSENGER SIGN CONFIG.	**NOT INSTALLED**	
TAIL SKID INSTALLED	YES	
STANDBY INSTRUMENT TYPE	ISFD	
ADF INSTALLED	YES	
CLOCK TYPE	ANALOG	
WEIGHT UNITS	KGS	
AIR CONDITIONING TEMP UNITS	C	

The remaining part of the settings should be modified inside the simulator itself.

CDU
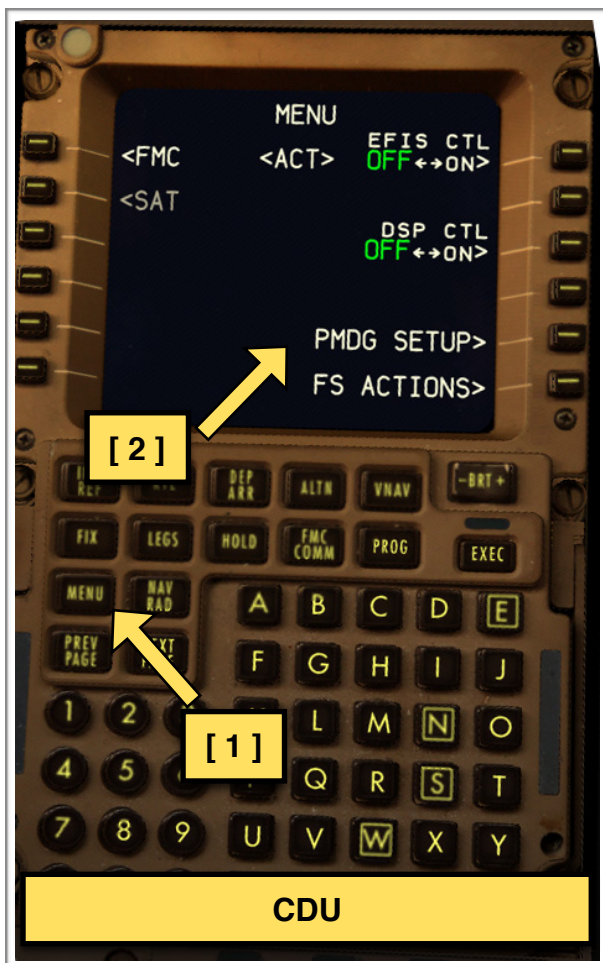
To do so open the Flight Simulator, select the PMDG 777 and power up the aircraft.

On the CDU (seen on the left) press the **MENU** key **[1]**, followed by

> "PMDG SETUP **[2]**"
> "OPTIONS"
> "SIMULATION"

A new set of options will appear. These settings allows you to change the way you interact with the simulator, and again to enhance realism.

Here the list of the settings:

SETTING	VALUE	NOTES
CORRECT LOC CRS TO FSX	ON	
REALISTIC AP ENGAGEMENT	ON	Aircraft should not be in any significant out of trim condition before engaging the autopilot. Leave it ON for maximum realism.
SHOW THRUST LEVER POS	WHEN MOVING	This setting allow you to see the current position of your joystick throttle on the N1 gauge. It will be visible only when moving the joystick throttle. Not present on the real aircraft but very useful during the simulation.
SHOW FBW TRIM REF SPEED	NO	Leave this option off as not present on the real aircraft.
A/T MANUAL OVERRIDE	ALWAYS	Set this option to "always" for maximum realism. As in the reality the pilot can always override the auto-throttles servos. This is a very important characteristic of the A/THR system.
A/T FLARE IDLE OVERRIDE	ON	As on the real aircraft the pilot can override the auto-throttle IDLE function during the FLARE. This is done to fine-tune the thrust during landing especially during tailwind or gusty condition. Be aware that overriding the IDLE function may result in an A/THR disconnect.
CTL COLUM NULL ZONE	1.0%	Or as needed
CTL WHEEL NULL ZONE	1.0%	Or as needed
AP/AT TURN MODE TRIGGER	1.0 KT	The autopilot/auto-throttle will enter in turbulence mode after a sudden change in airspeed of more than 1 kts. This value can be adjusted as needed from 0.5 kt to 5 kt.
SERVICE-BASED FAILURES	ON	Turn ON for max realism.
DISPLAY UNITS POWERUPS	As required	Set REALISTIC for max realism. However the FAST option may save you some time when powering up a cold and dark aircraft.
TAB KEY FOR CDU INPUT	As required	
MINIMUNS E BARO KNOBS	REALISTIC	Unless you can't get used to it
SYNC CAPT AND F/O BARO	YES	Unrealistic but very helpful.
SYNC CAPT AND STBY BARO	NO	Set to NO for max realism. Just remember to set the standby altimeter too :-)
PNF CALLS OUT V1	NO	No need, the callout is made by the aircraft
PNF CALLS OUT VR	YES	
PNF CALLS OUT V2	NO	NapuleVola doesn't require this callout to be made.

AUTO STEP CLIMBS	NO/ *As required*	Highly deprecated because the system is not smart enough to understand when NOT to climb… but in the end its up to you.
PAUSE AT TOP OF DESCENT	As required	
ALL OTHER SETTINGS	As required	There are a few more…

5. **THE RAAS**

The last step in customizing our aircraft is to change the settings of the **RAAS** system.

RAAS stands for R*unway Awareness and Advisory System*.

The system was develop by Honeywell and installed on many B777 aircrafts. All the NapuleVola B777 have this feature.

RAAS is meant to provide aural alters to pilots during taxi, takeoff, final approach and landing/roll-out operations. For example when approaching a runway you will hear a voice stating *"Approaching runway XX"*. This will enhance your situation awareness and reduce the risk of runway incursions and related accidents. Alerts from RAAS are triggered also when: attempting to takeoff or land on a taxiway and attempting to takeoff or land from a runway too short for the B777. Further details on RAAS operations can be found in the aircraft FCOM.

To change the RAAS settings open your Flight Simulator and select the ADD-ONS cascade menu (ALT + D). Select RAAS Professional to open the configuration tool.

Change the settings as shown on the screenshot in the next page. If you have other PMDG aircrafts installed make sure to create a specific profile for the B777 using the Profile menu.

RAAS Professional

Profiles   Systems Test   Updates   About

PMDG 777X

☑ Master Switch (On/Off)   Sound Set: US_English ▼   Master Volume

Advisories

☑ Approaching Runway (On Ground)	☑ Approaching Short Runway (In Air)	☐ Excessive Approach Angle
☑ Approaching Runway (In Air)	☑ Taxiway Landing	☐ Unstable Approach
☑ On Runway	☐ Take-off Flap Monitor	☐ Altimeter Setting (Above Transition)
☐ Runway End	☑ Landing Distance Remaining	☐ Altimeter Setting (Below Transition)
☑ Taxiway Take-off	☑ Distance Remaining (Rejected Take-off)	☑ Long Landing
☑ Insufficient Runway Length (On Ground)	☐ Landing Flap Monitor	☑ Caution Enabled
☐ Extended Holding on Runway	☐ Excessive Approach Speed	

Runways

Units of Measurement: Meters ▼   Minimum Take-off Length: 1600 Ru

☑ Exclude Short Runways   Minimum Landing Length: 1550 Ru

☑ Annunciate Units   Touchdown Zone Length: 25 %

Extended Hold (On Runway)

Set extended hold time periods:

INITIAL Time Period: 60 s

REPEAT Time Period: 30 s

Flaps Configurations

Minimum Take-off Flaps: 1   Minimum Landing Flaps: 3

Lower Flap Gate Alert: 600 ft   Upper Flap Gate Alert: 950 ft

Misc Settings

Max. Approach Speed: 200 kts

Transition Altitude: 18000 ft

○ Airbus Suppression Zone
◉ Boeing Suppression Zone
☑ Disable updates check

Close and Save Settings

6. ENROLL NOW!

More technical documents will be available on www.napulevola.it. Some of them will be available only to NapuleVola pilots. NapuleVola Virtual Airline is FREE ad OPEN to anyone with ANY level of experience. All the sceneries, aircrafts and documents will ALWAYS be available for free.
If you are not one of our pilot yet, register today and start flying with us!

7. __CONTACTS__

We encourage people to give us a feedback or report errors on all the technical publication. Also if you have any question of any kind (even stupid ones!) don't esitate to contact us.

The preferred way to get in touch with us is to use our on-line forum on www.napulevola.it. Questions regarding B777 fleet and operation can be addressed also to b777@napulevola.it.

Happy Landings :-)
Andrea Barbarano, NPV1208