



# Guidelines to manage weight and balances when booking a NewSky Flight

## 1... Introduction

From time to time, we receive questions in terms of managing aircraft weight and balances, when booking a NewSky flight. This document aims to provide an overview (or summary) on how to book a NewSky flight, and where to obtain Weight and Balance information to properly load your aircraft.

This document by no means offers a comprehensive interpretation of aircraft weight and balances, nor does it provide detailed interpretations of an Operational Flight Plan (OFP). It's merely intended to provide basic guidelines to help our pilots to get started with booking a NewSky flight.

For generating and editing an Operational Flight Plan (OFP), we strongly suggest that you register for a SimBrief Username and password, which is a free service offered to the Flight Simulation community.

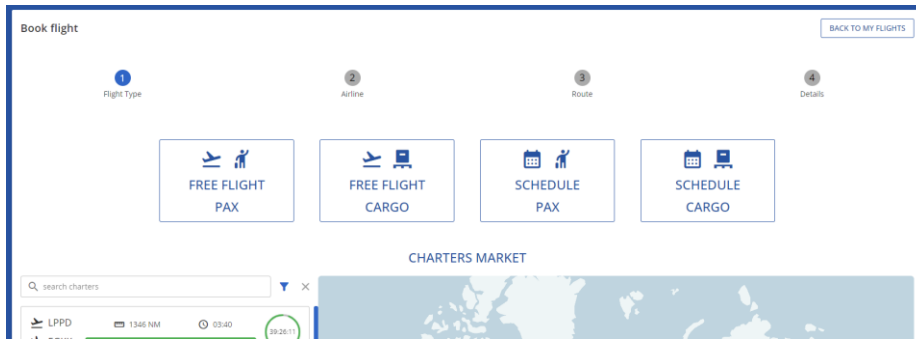
*Most importantly, the content of this document is focused on Flight Simulation only, which implies that no information contained in it may be applied to any real-life situations or operations.*



## 2... Booking your NewSky flight

NewSky offers numerous flight types which may be booked by pilots. This varies from scheduled Virtual Airline (VA) flights, to unscheduled, charter and tour flights. It's up to pilots to decide which flight type they'd like to embark on at any time.

**2.1...** To book a flight, simply click on the BOOK FLIGHT button within the Newsky Application, and select your airline, the flight type and other required information.



**2.2...** When you're ready to proceed, click the BOOK FLIGHT button, and your flight will be registered within the NewSky environment.

Flight #  
RFK 001

Search flight number (use button on the right to generate random one)

Departure  
FAOR - O'R Tambo International Airport  
Start typing airport name, city or ICAO code to search

Arrival  
FALE - King Shaka International Airport  
Start typing airport name, city or ICAO code to search

Aircraft  
B738 - 25-00N (Durbanite) - Boeing 737-800  
Search available aircraft by airframe code or name

Estimated payload

You can select lower payload using sliders if this flight requires reduced operational weights

PAX	161	CARGO	17	TOTAL	16087 KGS
PAX	12719 KGS	LUSGAGE	2095 KGS	CARGO	1275 KGS
OW	42263 KGS	ZFW	54350 / 42732 KGS	RTW FUEL	4006 / 20894 KGS
				TOW	42356 / 79333 KGS

Departure time UTC  
10:40  
Provide off block time

! Departure time is when you leave your gate/ramp and start your engines. Keep that in mind not to leave your gate too soon!

Duration  
01:00  
Provide time from departure to landing

**BOOK FLIGHT**



### 3... Generate and Edit your Operational Flight Plan (OFP)

3.1... Once you've successfully booked your flight, you'll find it in the list of flights under your name as indicated here:

Pax	Cargo	Balance	Rating	Status	Actions			
/ 161	17 U		N/A	scheduled				

3.2... Now click on the GENERATE OFP Button

Pax	Cargo	Balance	Rating	Status	Actions			
/ 161	17 U		N/A	scheduled				

3.3... Once the process has completed, you'll have the option to REVIEW your OFP by clicking on the indicated button:

Pax	Cargo	Balance	Rating	Status	Actions			
/ 161	17 U		N/A	scheduled				

3.4... If required, you may EDIT the generated OFP within the Simbrief environment.

Operational Flight Plan from SimBrief (format: LIDO, units: KGS)

VATSIM IVAO PILOTEDGE POSCON

```
[ OFP ]
-----
RFK0001 13NOV2023 FAOR-FALE 8738 PMDG738 RELEASE 1028 13NOV23
OFP 1 O.R. TAMBO INTL-KING SHAKA INTL
WX PROG 1309 1312 1315 OBS 1306 1306 1306
ATC C/S RFK001 FAOR/JNB FALE/DUR CRZ SYS CI 80
```



3.5... When done, re-generate your OFP and then select the FETCH MODIFIED option to update the NewSky OFP:

The screenshot displays a flight planning application interface. At the top, there are navigation buttons: 'Generate Flight' (circled in red), 'Save Flight', 'Share Flight', 'New Flight', and 'Close Flight'. Below this is a flight summary section with fields for Airline (RFK), Flight Number (001), Depart (FAOR), Arrive (FALE), and Departure Time (13 Nov 2023 - 10:40). The 'Aircraft Info' section shows Aircraft Type (B738 - B737-800), Variant (PMDG (MSFS) - Economy Config), and Registration (PMDG738). The 'Selections' section includes options for OFF Layout (LIDO), AIRAC Cycle (2023 - 24Mar22 to 20Apr22), Units (Kilograms), and Flight Rules (IFR). On the right, a map shows a flight route from Johannesburg to Durban. At the bottom right, there are two buttons: 'CANCEL' and 'FETCH MODIFIED' (circled in red).



## 4... Review and Interpret your Operational Flight Plan (OFP)

The Operational Flight Plan (OFP) contains a wealth of information, which should be studied by the Pilot. For simplicity sake, we'll highlight the information that you'll need in order to load your aircraft properly.

### 4.1... Start by scrolling down to the WEIGHTS section:

-----			
WEIGHTS			
-----			
	EST	MAX	ACTUAL
PAX	170		-----
CARGO	5.5		-----
PAYLOAD	20.2		-----
ZFW	62.4	62.7	-----
FUEL	9.6	9.8	----- POSS EXTRA 0.2
TOW	71.8	72.0	LDG.-----
STAB TRIM			-----
LAW	66.2	66.4	-----

**(a)... PAX:** This is the number of passengers that you'll need to load into your aircraft, in the above example, 170.

**(b)... CARGO:** This is the cargo weight in thousands of kg that you need to load into your aircraft, in the above example, 5 500 kg.

**(c)... FUEL:** This is the amount of fuel in thousands of kg that you need to load into your aircraft, in the above example, 9 600 kg.



4.2... Now scroll up to the following section and note/review the following information:

[ OFP ]

```

-----
RFK0016 12NOV2023 FALE-FACT B738 PMDG738 RELEASE 0857 12NOV23
OFP 2 KING SHAKA INTL-CAPE TOWN INTL
WX PROG 1209 1212 1215 OBS 1200 1200 1200

ATC C/S RFK016 FALE/DUR FACT/CPT CRZ SYS CI 40
12NOV2023 PMDG738 0915/0935 1138/1146 GND DIST 714
B737-800 / CFM56-7B26 STA 1125 AIR DIST 835
CTOT:.... G/C DIST 690
AVG WIND 262/061
MAXIMUM TOW 79333 LAW 66361 ZFW 62732
ESTIMATED TOW 71782 LAW 66169 ZFW 62423
AVG W/C M059
AVG ISA P006
AVG FF KGS/HR 2720
FUEL BIAS P00.0
TKOF ALTN .....

ALTN FAGG
FL STEPS FALE/0340/
-----

```

(a)... **MAXIMUM TAKE OFF WEIGHT (TOW):** This is the maximum gross weight permitted for your aircraft at the time of departure. Do not exceed this value. In this case, it's 79 333 kg. You'll notice that the Estimated Take Off Weight indicates a departure gross weight of 71 782 kg, which is below the Maximum permitted weight, so all is in order here.

(b)... **MAXIMUM LANDING WEIGHT (LAW):** This is the maximum gross weight permitted for your aircraft at the time of landing. Do not exceed this value. In this case, it's 66 361 kg. You'll notice that the Estimated Landing Weight indicates a landing gross weight of 66 169 kg, which is below the Maximum permitted weight, so all is in order here. When you're flying your approach and you find that your gross weight is higher than the permitted landing weight, simply circle until you've burned off enough fuel to land below the maximum permitted value.

(c)... **ZERO FUEL WEIGHT (ZFW):** This is the maximum permitted Zero Fuel weight for the flight. Do not exceed this value. In this case, it's 62 732 kg. You'll notice that the Estimated Zero Fuel Weight indicates a weight of 62 423 kg, which is below the Maximum permitted weight, so all is in order here.



**4.3... Some additional important information that you must note:**

[ OFF ]

```
-----  
RFK0016 12NOV2023 FALE-FACT B738 PMDG738 RELEASE 0857 12NOV23  
OFF 2 KING SHAKA INTL-CAPE TOWN INTL  
WX PROG 1209 1212 1215 OBS 1200 1200 1200  
  
ATC C/S RFK016 FALE/DUR FACT/CPT CRZ SYS CI 40  
12NOV2023 PMDG738 0915/0935 1138/1146 GND DIST 714  
B737-800 / CFM56-7B26 STA 1125 AIR DIST 835  
CTOT:..... G/C DIST 690  
AVG WIND 262/061  
MAXIMUM TOW 79333 LAW 66361 ZFW 62732 AVG W/C M059  
ESTIMATED TOW 71782 LAW 66169 ZFW 62423 AVG ISA P006  
AVG FF KGS/HR 2720  
FUEL BIAS P00.0  
TKOF ALTN .....
```

ALTN FAGG  
FL STEPS FALE/0340/

- (a)... Note the Cost Index (CI) for this flight, in this case, 40.
- (b)... Note that total flight distance in Nautical Miles (NM), in this case, 690.
- (c)... Note your alternative airport, in this case, George (FAGG)
- (d)... Note the Flight level that you will cruise at, in this case, FL 340. Note that you may not be able to climb to the final cruise altitude at the time of departure, you may have to plan to do step climbs.



**4.4... And finally, scroll down to this section:**

----- PLANNED FUEL -----			
FUEL	ARPT	FUEL	TIME
TRIP	CPT	5613	0203
CONT 15 MIN		680	0015
ALTN	GRJ	1942	0046
<b>FINRES</b>		<b>1124</b>	0030
-----			
MINIMUM T/OFF FUEL		9359	0335
-----			
EXTRA		0	0000
-----			
T/OFF FUEL		9359	0335
TAXI	DUR	227	0020
-----			
BLOCK FUEL	DUR	9586	
PIC EXTRA		-----	
TOTAL FUEL		-----	
REASON FOR PIC EXTRA		-----	

**(a)...** Note the Final Reserves value (FINRES). Do not land with less fuel than the value indicated here (in this case, 1 124 kg), as you will then be penalised. If you find that you're even slightly below this value at the time of landing, declare an emergency.





## 5... Conclusion

We hope that the information contained in this document will assist you with your flight planning insofar weight and balances are concerned. And once again, the OFP contains much more information that which has been documented here, so you're welcome to search for additional resources to assist you with more advanced flight planning, should you wish.

We wish you many safe and profitable flights.

**All African Airways, your gateway to the African continent.**



<https://allafricanairways.com/>