

virtualCondor

Operations Manual “Route”

Airbus A320/A321



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Airbus A320/A321

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1. Route Planning & Evaluation

1.1 Performance Calculation

virtualCondor fliegt ebenfalls wie das reale Vorbild anhand von wirtschaftlichen Rahmenbedingungen. Der Cost Index ist ein Ve

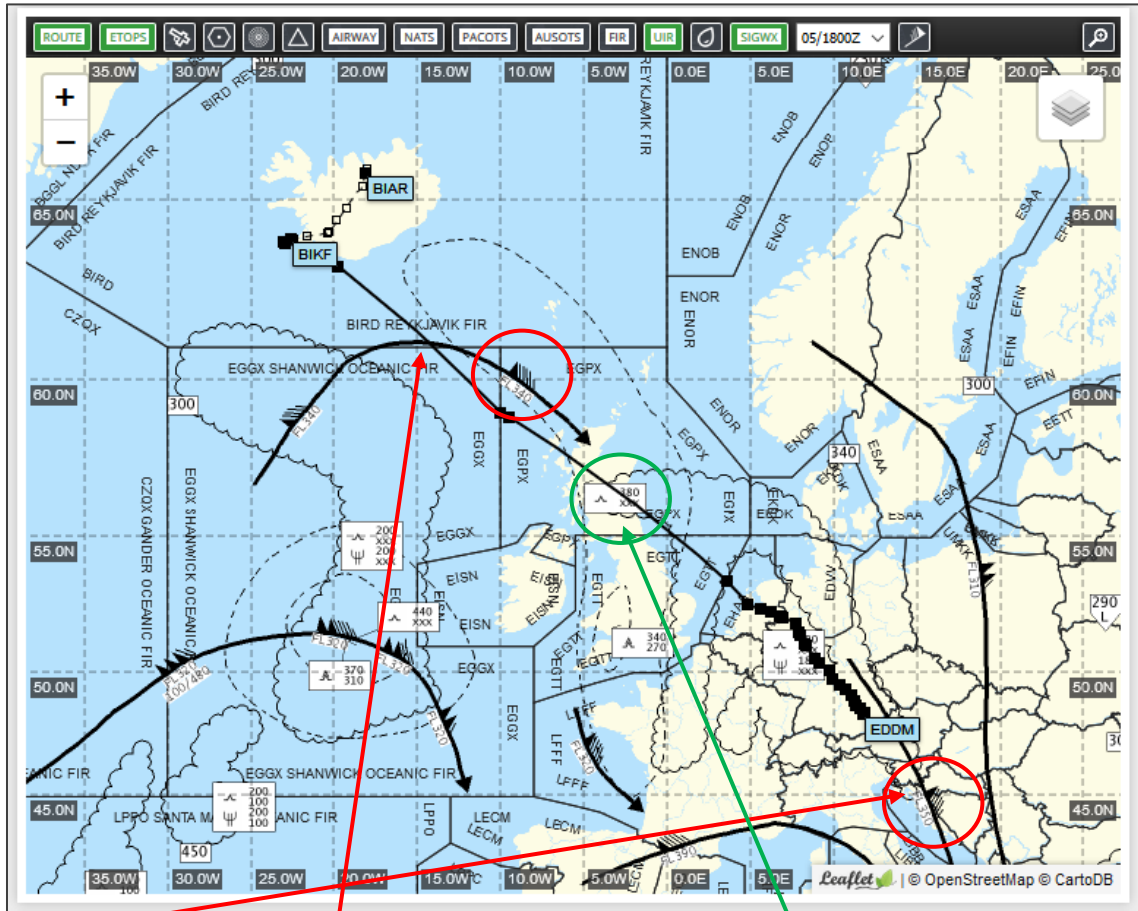
1.2 Route Planning and Weather Analysis

Ensure that **Route**, **ETOPS** and **SIGWX** is shown and selected.

As seen in the related map below, the routing is calculated as follows:

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GIVMI Y101 TALAL T159 PETIX Z744 WUR UL126 OSBIT Y101 TEKTU Z850 HMM UL602 SPY DCT TOPPA DCT NINEX UP59
BALIX/M076F360 DCT VM DCT ASRUN



(1) Jetstream with 90kts (2) Jetstream turning south of Keflavik [BIKF] (3) SIGWX XXX/380

Analysis:

Winds (1) We will encounter heavy headwinds up to 100kts when joining our cruising flightlevel over Germany until we will leave the *Scottish FIR (EGPX)* (2) and enter *Reykjavik FIR (BIRD)*, where we will leave the Jetstream towards North-East and Keflavik.

SIGWX (3) Europe, as well as the whole routing above *Scottish FIR (EGPX)* is covered in a significant weather (SIGWX) area. In the whole area, moderate turbulence should be expected.

1.3 Fuel Calculation

Fuel calculation is performed in accordance to EASA EU OPS 1 1.255 *Fuel Policy*).

For ETOPS flights, another column is added named ETOPS/ETP.

(OPS)

Essential for fuel planning is the calculated routing (see above) and the related wind components / flight levels which are expected during the flight. For this flight, *Simbrief* calculated the following targets:

PLANNED FUEL			
FUEL	ARPT	FUEL	TIME
TRIP	KEF	12273	0404
CONT 5%		614	0012
ALTN	AEY	2162	0046
FINRES		2023	0045
MINIMUM T/OFF FUEL		17072	0548
EXTRA		700	0014
T/OFF FUEL		17772	0602
TAXI	MUC	238	0015
BLOCK FUEL	MUC	18010	
PIC EXTRA		.....
TOTAL FUEL		.....
REASON FOR PIC EXTRA		.....

TRIP	<i>MUC-KEF</i>	EU OPS 1.255 (ii) (B)
CONT 5%	5% of the TRIP	EU OPS 1.255 (ii) (C) 1
ALTN	Additional fuel for <i>KEF-AEY</i>	EU OPS 1.255 (ii) (D)
FINRES	Reserve fuel for <i>45 minutes</i>	EU OPS 1.255 (ii) (C) 2
MINIMUM T/O FUEL	Should not be exceeded <u>prior departure</u>	
EXTRA	Extra Fuel on PIC discretion (<i>Weather</i>)	EU OPS 1.255 (ii) (E)
TAXI	Fuel consumption <u>prior departure</u>	EU OPS 1.255 (ii) (A)
BLOCK FUEL	Summarization of all above mentioned items	

*Block fuel should be ordered + additional fuel for APU consumption prior taxi.
Every additional fuel above 1000kg has to be noticed and explained in Remarks.*

1.4 Weight and Balance

To convert kilogram [kg] to pounds [lbs]: multiply [kg] by 2,205.

Example:

*Grossweight [GW] 83.000kg *2,205 = ~ 183000 lbs*

	WEIGHTS		
	EST	MAX	ACTUAL
PAX	147		.....
CARGO	1.8		.....
PAYLOAD	17.1		.....
ZFW	77.3	83.5	.....
FUEL	18.0	25.1	..... POSS EXTRA 7.1
TOW	95.0	102.1	LDG.....
STAB TRIM			.....
LAW	82.8	89.8	.....

EST PAX	Actual amount of boarded <i>passengers (147)</i>	
EST CARGO	Actual weight of <i>cargo</i> in tons	(1800kg)
EST PAYLOAD	Actual weight of <i>Pax + cargo</i> in tons	(18900kg)
EST ZFW	Actual aircraft weight without fuel	(77300kg)

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EST TOW Actual Take-Off Weight (95000kg)

1.5 Enroute Alternates and Alternate Aerodromes

2. Flight Operation

2.1 Multipurpose Control and Display Unit (**MCDU**) Setup

This chapter describes, in relation to the information given above, how to set-up the **MCDU**.

2.1.1 MCDU Payload Menu

- (1) Insert *Fuel* in [kg] into RSK R4 [18.0]
- (2) Insert *Payload* [kg] into RSK R3 [18.9] [Cargo Weight + Payload Weight]

2.1.2 INIT Page

The *INIT Page* gives the basis for each Take-Off and Cruise Performance Calculation.

- (1) Insert *Zero Fuel Weight* (ZFW) in [kg] into **LSK 3L** [77.3}
- (2) Insert *Reserves* into **LSK 4L** (FINRES in Fuel Calculation) [2.0]
- (3) Insert *Cost Index* into **RSK 2L** [16]
- (4) Insert *CRZ ALT* into **RSK 1L** (see initial Flightlevel in OFP) [FL360]

2.1.3 PERF Page

Flaps should be set as required by *Take-Off Weight, Temperature, Pressure, Airfield Elevation* and *Take-Off Run Available (TORA)*. Usually we distinguish between **Flaps 1+F** or **Flaps 2**.

2.2 Enroute Alternates

2.2.1 **Canaries** Alternates

TFS, ACE, LPA, SPC, FUE

- Agadir (**GMAD**) Enroute Alternate
- Marrakesh (**GMMX**) Enroute Alternate
- Malaga (**LEMG**) Enroute Alternate

2.2.2 **Scandinavian** Alternates

ARN, OSL, HEL, CPH

- Bergen (**ENBR**) Enroute Alternate
- Halifax (**CYHZ**)

2.3 Enroute Alternate Inflight-Monitoring (FMS)



- (1) Select ICAO Code on LSK 1L (GARR)
- (2) Insert "100" on LSK 2L to show a radius of 100nm on your ND

The *Electronic Horizontal Situation Indicator* (EHSI) should show the situation as follows. You should not exceed the predefined area of a maximum of 400nm of your alternates while maintaining **non-ETOPS**.

GARR (Radial 1), GMAD (Radial 2), GMMX (Radial 3)

