



ONLINE FLIGHT PLANNER TUTORIAL

This is a short tutorial on how to use the Online Flight Planner (<http://www.ofplan.net>). As the program is continuously updated, this information may not be up to date.

TABLE OF CONTENTS

- HOW TO USE THE ROUTE MAKER
 - EXAMPLE 1 - EDDM-FAJS
 - EXAMPLE 2 - EGPD-KORD (VIA NORTH ATLANTIC TRACKS)

- HOW TO MAKE A FLIGHTPLAN
 - ACRONYMS
 - FLIGHTPLANNING TIPS
 - SAMPLE FLIGHTPLAN 1 (EDDM-FAJS)

BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. I PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. YOU SHALL NOT USE THIS PROGRAM FOR REAL-LIFE FLIGHTPLANNING.

This document was written by:

GRILL Christian
office@ofplan.net

and

BLASCHEGG Judith
judith.blaschegg@ofplan.net

This information is free. There is no copyright on any of the contents of this document

HOW TO USE THE ROUTE MAKER

EXAMPLE 1 – EDDM-FAJS

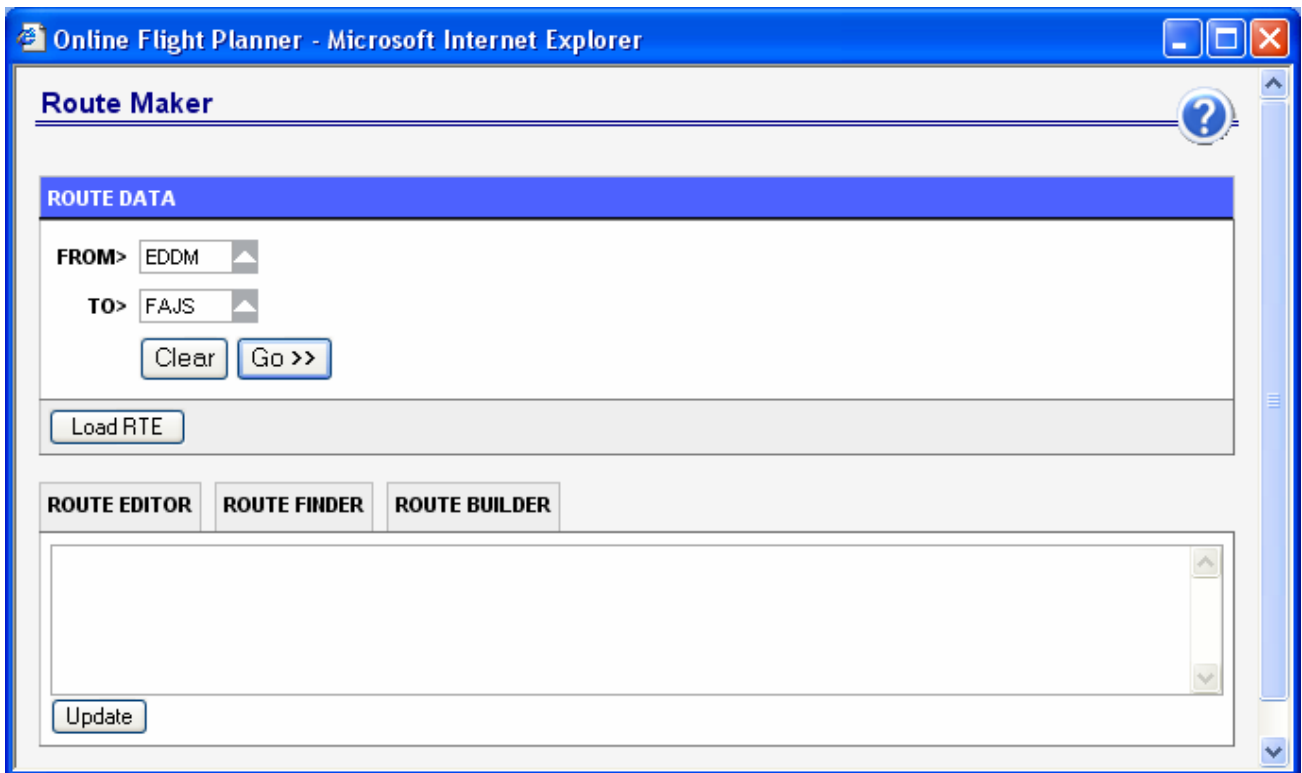
This example shows how to create a route from **EDDM** (MUNICH, GERMANY) to **FAJS** (JOHANNESBURG INTL, SOUTH AFRICA).

In this particular case the departure airport (EDDM) has SIDs (Standard Instrument Departures) and the arrival airport has STARs (Standard Terminal Arrivals).

Click on „Route Maker“ in the main menu and enter **EDDM** in the **FROM>** box and **FAJS** in the **TO>** box.



If you don't know the ICAO identifier of the airport, click on the arrow next to the box to search the database.



You can also directly enter a route in the lower box without entering a departure or destination airport/fix. If you want to modify a route already stored in the database, click on **Load RTE**.

Now click on **GO>>**. The Route Maker should now look like the following screenshot



Route Maker

ROUTE DATA

FROM> MUNCHEN APT, GERMANY

TO> JOHANNESBURG INTL APT, SOUTH AFRICA

ROUTE> EDDM DCT FAJS

TO GO> FROM EDDM TO FAJS: 165° / 4556.5 NM

ROUTE EDITOR **ROUTE FINDER** **ROUTE BUILDER** **EDDM DEPARTURES (49)** **FAJS ARRIVALS (13)**

EDDM DCT FAJS

The **ROUTE>** section now shows the filed route. For the time it's **EDDM DCT FAJS**. EDDM is underlined and means that this is our active waypoint: The Route Builder and the Route Finder take the active waypoint as their starting point. The **TO GO>** section shows the TRUE TRACK and remaining Distance from our active waypoint to the destination.

As we don't want to fly directly from EDDM to FAJS we will plan a route now.

In this example our departure airport (**EDDM**) has 49 SIDs in the database and our destination (**FAJS**) has 13 STARs. As both airports have a SID and a STAR we can use the Route Finder to select the most suitable SID and STAR. Click on Route Finder. It should say: Find route from **EDDM APT** to **FAJS APT**. Now click **GO>>**

Route Maker

ROUTE DATA

FROM> MUNCHEN APT, GERMANY

TO> JOHANNESBURG INTL APT, SOUTH AFRICA

ROUTE> EDDM DCT FAJS

TO GO> FROM EDDM TO FAJS: 165° / 4556.5 NM

ROUTE EDITOR **ROUTE FINDER** **ROUTE BUILDER** **EDDM DEPARTURES (49)** **FAJS ARRIVALS (13)**

Find Route from **EDDM APT** to in Upper Lower Airspace

The Route Finder found the following routing:
EDDM TULS1S.26L TULSI UM736 LIZUM UZ907 VIC UL12 FER UZ902 VALEN UM738 AMTEL UM727 LPD UM740 SARKI
A403 SEB G655D GARIN UG655 TAYLA UQ1 OKLIN OKLI2B.21L FAJS
[Append](#) | [View](#)



Route Finder selected the **TULSI ONE SIERRA** (TULS1S) of runway 26L in EDDM as our departure route. The arrival is the **OKLIN TWO BRAVO** of runway 21L in FAJS. If you like this route click **Append**.

Online Flight Planner - Microsoft Internet Explorer

Route Maker

ROUTE DATA

FROM> EDDM MUNCHEN APT, GERMANY

TO> FAJS JOHANNESBURG INTL APT, SOUTH AFRICA

ROUTE> EDDM TULS1S.26L TULSI UM736 LIZUM UZ907 VIC UL12 FER UZ902 VALEN UM738 AMTEL UM727 LPD UM740 SARKI A403 SEB G655D GARIN UG655 TAVLA UQ1 OKLIN OKLI2B.21L FAJS

TO GO> N/A

Direct To Delete Last Save RTE View RTE Clear RTE New RTE Continue >>

ROUTE EDITOR ROUTE FINDER ROUTE BUILDER EDDM DEPARTURES (49) FAJS ARRIVALS (13)

Find Route from **FAJS APT** to FAJS APT in Upper Lower Airspace Go>>

The route would be complete now. If you like to change the departure runway for any reason, click on **EDDM DEPARTURES**. As we already planned a route, the Route Maker only shows **EDDM** departures to **TULSI INT**. If desired you can now select another departure route. The present departure route is replaced automatically.

Online Flight Planner - Microsoft Internet Explorer

Route Maker

ROUTE DATA

FROM> EDDM MUNCHEN APT, GERMANY


TO> FAJS JOHANNESBURG INTL APT, SOUTH AFRICA

ROUTE> EDDM TULS1S.26L TULSI UM736 LIZUM UZ907 VIC UL12 FER UZ902 VALEN UM738 AMTEL UM727 LPD UM740 SARKI A403 SEB G655D GARIN UG655 TAVLA UQ1 OKLIN OKLI2B.21L FAJS

TO GO> N/A

Direct To Delete Last Save RTE View RTE Clear RTE New RTE Continue >>

ROUTE EDITOR ROUTE FINDER ROUTE BUILDER EDDM DEPARTURES (49) FAJS ARRIVALS (13)

 A route is already planned. Only showing **EDDM** Departures to **TULSI** (TULSI INT, GERMANY)

TULSI 180° TULS1S.26L TULS5Q.08L TULS6E.08R TULS7N.26R TULS7W.26L



You can now click **Dispatch>>** (or **Continue>>** if you chose EDIT in the dispatch menu) to use this route for your flightplan.



You can add the route to your stored routes by clicking **Save RTE**

EXAMPLE 2 – EGPD-KORD (VIA NORTH ATLANTIC TRACKS)

This example shows how to plan a route from **EGPD** (LECHA WALESY APT, POLAND) to **KORD** (CHICAGO OHARE INTL APT, UNITED STATES) via a **NORTH ATLANTIC TRACK** (NAT). As these tracks change daily, we have to enter them manually. Tracks are available for example at: <http://www.natroutes.gldeslope.de/html/nats.php3>
In this example we take the following NAT C from DEC26:

```
C SOMAX 49/20 47/30 45/40 44/50 BOBTU JAROM  
EAST LVLS NIL  
WEST LVLS 310 320 330 340 350 360 370 380 390  
EUR RTS WEST GIPER  
NAR N48E N54E-
```

In this particular case the departure airport (EGPD) has **NO** SIDs (Standard Instrument Departures) but the arrival airport has STARs (Standard Terminal Arrivals).

Click on „Route Maker“ in the main menu and enter **EGPD** in the **FROM>** box and **KORD** in the **TO>** box and click **GO>>**.

Online Flight Planner - Microsoft Internet Explorer

Route Maker

ROUTE DATA

FROM> EGPD LECHA WALESY APT, POLAND

TO> KORD CHICAGO OHARE INTL APT, UNITED STATES

ROUTE> EGPD DCT KORD

TO GO> FROM EGPD TO KORD: 253°/ 3903.7 NM

Direct To Delete Last Save RTE View RTE Clear RTE

ROUTE EDITOR **ROUTE FINDER** **ROUTE BUILDER** **EGPD DEPARTURES (0)** **KORD ARRIVALS (11)**

No Departure (SID) for **EGPD** (LECHA WALESY APT, POLAND) in database. Click 'Direct To' to plan to the initial fix after departure.

No EGPD departures in database

As the departure airport does not have any departure routes, you have to plan to the initial fix after departure. Click on **Direct To** and select a fix. As a reference you can use the shown track (253°) in the **TO GO>** section. In our example we select the **KRT VOR/DME** as our initial fix.

Now we use the **ROUTE FINDER** to find the shortest route to our **OCEANIC ENTRY POINT** (SOMAX). Click on **ROUTE FINDER**, select **SOMAX** as your destination fix and click **GO>>**.

Your screen should look like the next screenshot.



If this route conforms to your expectation click **Append** to add it to the filed **ROUTE>**.

Now switch to the **ROUTE EDITOR** to enter the **NORTH ATLANTIC TRACK**. In order that the programm accepts the **NAT**, we have to modify it as shown below.

Original NAT:

C SOMAX 49/20 47/30 45/40 44/50 BOBTU JAROM

Modified NAT:

SOMAX DCT 4920N DCT 4730N DCT 4540N DCT 4450N DCT BOBTU DCT JAROM



It is very important to enter a **DCT** between every fix.



Now click **Update**. If all entries are correct, no error message should occur. Click **KORD ARRIVALS** to show all arrival routes (STARS) to **KORD**.

The screenshot shows the 'Route Maker' interface in a Microsoft Internet Explorer browser window. The 'ROUTE DATA' section contains the following information:

FROM> EPGD LECHA WALESY APT, POLAND
TO> KORD CHICAGO OHARE INTL APT, UNITED STATES
ROUTE> EPGD DCT KRT UL730 CHO UT705 BODLA UZ717 DLE UL980 ETEBO UG9 RKN UL480 GORLO UL980 LAM UL179 CPT UL9 DIKAS UP4 EVRIN UL607 CRK UL175 SOMAX DCT 4920N DCT 4730N DCT 4540N DCT 4450N DCT BOBTU DCT JAROM DCT KORD
TO GO> FROM JAROM TO KORD: 265°/1443.5 NM

Below the route data are buttons for 'Direct', 'Print', 'Save RTE', 'View RTE', 'Clear RTE', 'New RTE', and 'Continue >>'. A red callout box points to the 'Direct' button with the text: 'Fixes with arrival routes to KORD'.

The 'ROUTE ARRIVALS' section is active, showing a list of arrival routes to KORD. The list includes:

ROUTE	FROM	TRACK	FIX
BAYLIINT		046°	BDF3.ALL
BSV	VORD	284°	OXI3.ALL
DJB	VORD	278°	OXI3.ALL
FNT	VORD	252°	PMM4.ALL
FWA	VORD	296°	OXI3.ALL
IRK	VORD	062°	BDF3.ALL
MCW	VORD	105°	JVL4.ALL
OKK	VORD	317°	OKK1.ALL
SVM	VORD	262°	PMM4.ALL
TVC	VORD	213°	PMM4.ALL
VWV	VORD	279°	OXI3.ALL

Two red callout boxes provide additional information: one points to the 'BDF3.ALL' fix identifier with the text 'Name(s) of arrival route(s) to KORD', and another points to the 'JVL4.ALL' track with the text 'Track from fix to KORD'.



If you click on the fix identifier, the **ROUTE FINDER** shows up with that fix as destination.

As we want to arrive via the **FNT VOR/DME** click on **FNT**.

The screenshot shows the 'Route Maker' window in Microsoft Internet Explorer. The 'ROUTE DATA' section contains the following information:

- FROM>** EPGD LECHA WALESY APT, POLAND
- TO>** KORD CHICAGO OHARE INTL APT, UNITED STATES
- ROUTE>** EPGD DCT KRT UL730 CHO UT705 BODLA UZ717 DLE UL980 ETEBO UG9 RKN UL480 GORLO UL980 LAM UL179 CPT UL9 DIKAS UP4 EVRIN UL607 CRK UL175 SOMAX DCT 4920N DCT 4730N DCT 4540N DCT 4450N DCT BOBTU DCT JAROM DCT KORD
- TO GO>** FROM JAROM TO KORD: 265°/1443.5 NM

Below the route data are buttons: Direct To, Delete Last, Save RTE, View RTE (highlighted), Clear RTE, New RTE, and Continue >>. The 'ROUTE FINDER' tab is selected. The search criteria are: Find Route from **JAROM INT** to FNT VORD in Upper Airspace. A warning icon and message state: 'No outgoing airways from **JAROM** (JAROM INT, CANADA) in upper airspace. Use the 'Direct To' button to plan to a fix with outgoing airways.'

As we can see now, **JAROM INT** has no outgoing airways. So we have to file another direct. File direct **MURLO**, then direct to **LOMPI**.

Now click **GO>>** to find a route from **LOMPI** to **FNT**. After a few seconds the **ROUTE FINDER** shows the shortest route between these two waypoints. Click **Append**.

The screenshot shows the 'Route Maker' window with the updated route data:

- FROM>** EPGD LECHA WALESY APT, POLAND
- TO>** KORD CHICAGO OHARE INTL APT, UNITED STATES
- ROUTE>** EPGD DCT KRT UL730 CHO UT705 BODLA UZ717 DLE UL980 ETEBO UG9 RKN UL480 GORLO UL980 LAM UL179 CPT UL9 DIKAS UP4 EVRIN UL607 CRK UL175 SOMAX DCT 4920N DCT 4730N DCT 4540N DCT 4450N DCT BOBTU DCT JAROM DCT MURLO DCT LOMPI A699 AKERS A632 SLATN J97 BOS J16 JOSSY J94 HANKK J16 YXU J547 FNT DCT KORD
- TO GO>** FROM FNT TO KORD: 252°/193.3 NM

The 'ROUTE FINDER' search criteria are now: Find Route from **FNT VORD 116.90** to FNT VORD in Upper Airspace. The 'KORD ARRIVALS (11)' tab is selected.

To select an arrival route, click **KORD ARRIVALS**, then **PMM4.ALL** next to **FNT**.

The route is complete now.

Please don't forget to save the route to make it available to other users.

**HOW TO MAKE A FLIGHTPLAN****ACRONYMS**

ACFT>	AIRCRAFT	Registration of the aircraft. Must be stored in your FLEET section.
ALT CTL>	ALTITUDE CONTROL	Either plan with step climbs (2000ft or 4000ft) or at a fixed flightlevel.
ALTN 1>	ALTERNATE 1	Primary destination ALTERNATE. Enter ,2HR' for island reserve planning
ALTN 2>	ALTERNATE 2	Secondary destination ALTERNATE.
ALTN1 FLPN>	ALTERNATE 1 FLIGHTPLAN	Route from the planned destination to the primary alternate
ALTN2 FLPN>	ALTERNATE 2 FLIGHTPLAN	Route from the planned destination to the secondary alternate
ATC FLPN>	ATC FLIGHTPLAN	The filed route
CARGO>	CARGO	Total weight of CARGO.
CLB>	CLIMB MODE	Planned CLIMB MODE.
CONT>	CONTINGENCY FUEL	Amount of CONTINGENCY FUEL in minutes.
CRZ>	CRUISE MODE	Planned CRUISE MODE.
DESC>	DESCEND MODE	Planned DESCEND MODE.
DISP NAME>	DISPATCHER'S NAME	
DIST>	DISTANCE	DISTANCE from origin airport to destination airport along the filed route.
DOW>	DRY OPERATING WEIGHT	Weight of aircraft without usable fuel and payload.
ETP>	EQUAL TIME POINT ALTERNATES	
FLIGHT>	FLIGHT NUMBER	Airline code plus number of the flight
FLPN RMKS>	FLIGHTPLAN REMARKS	
FTLVL>	FLIGHTLEVELS	Select either ODD or EVEN or AUTO.
FROM>	FROM	Origin airport.
HOLDTIME>	HOLDING TIME	Amount of holding fuel in minutes.
MLDW>	MAX LANDING WEIGHT	MAX LANDING WEIGHT at the destination airport
MTOW>	MAX TAKE-OFF WEIGHT	MAX TAKE-OFF WEIGHT at the origin airport
PAX>	NR OF PASSENGERS	NR OF PASSENGERS in first/business/economy class.
RD ALTN FLPN>	REDISPATCH ALTERNATE FLIGHTPLAN	Route from your initial release destination to the initial release alternate
RD ALTN>	REDISPATCH ALTERNATE	Initial release destination alternate
RD FLPN>	REDISPATCH FLIGHTPLAN	Route from the REDISPATC FIX to the initial release destination
RDA>	REDISPATCH AIRPORT	Initial release destination
RDF>	REDISPATCH FIX	
RLS FUEL>	RELEASE FUEL	Fuel on board before engine start
RRPCT>	ROUTE RESERVE IN PERCENT	Amount of ROUTE RESERVE FUEL in percent of trip fuel
RRTIME>	MINIMUM ROUTE RESERVE TIME	Minimum time to be able to fly with the ROUTE RESERVE
T/O ALTN>	TAKE-OFF ALTERNATE	
TAXITIME>	TAXI TIME	TAXI TIME in minutes
TO>	TO	Destination airport
TYPE>	TYPE	Aircraft type
UNITS>	UNITS	Either KG for kilograms or LB for pounds

FLIGHTPLANNING TIPS

- You must at least enter an aircraft in the **ACFT>** section and a route in the **ATC FLPN>** section to enable the **Calculate** button.
- You can directly load a route without entering data in the **FROM>** or **TO>** section.



SAMPLE FLIGHTPLAN 1 (EDDM-FAJS)

In this sample we will plan a flight from **EDDM** (MUNICH, GERMANY) to **FAJS** (JOHANNESBURG INTL, SOUTH AFRICA) using the route from **EXAMPLE 1**.

Go to **STORED ROUTES**; enter: Select Flightplan # **729**

Online Flight Planner

Home | Account | Fleet | Stored Routes | Route Maker | Dispatch | Flight Briefing Bug Report | Contact | Logout

Dispatch Screen

FLIGHT DATA

FLIGHT> UAL1234 ACFT> TYPE> DOW> UUNITS>
 FROM> EDDM MTOW> 0 ALTH1> ALTH2> T/O ALTH> ISLND RSV
 TO> FAJS MLDW> 0 RDF> TULSI RDA> RD ALTH> ISLND RSV
 PAX> F/ C/ Y/ Random CARGO>
 DIST> N/A ETP>
 CLB> CRZ> DESC> FLTLVL> AUTO ALT CTL> STEP 4000 FIXED FL
 HOLDTIME> 30 RRPCT> 10 RRTIME> 10 COHT> 0 ICAO US DOM US FLAG
 TAXITIME> 15 RLSFUEL> MIN DISP NAME> GRILL CHRISTIAN
 FLPH RMKS>
 Update Calculate Summary Flightplan New

ROUTE DATA

ATC FLPN> EDDM TULS1S.26L TULSI UM736 LIZUM UZ907 VIC UL12 FER UZ902 VALEN UM738 A 27 LPD UM740 SARKI A403 SEB G655D GARIN UG655 TAVLA UG1 OKLIN
 OKLI2B.21L FAJS
[Edit](#) | [Clear](#) | [View](#) | [Load](#) | 0.0 NM
ALTH FLPN> N/A
[Edit](#) | [Clear](#) | [View](#) | [Load](#) | 0.0 NM

Now **ATC FLPN>** should show our route from **EDDM** to **FAJS**. The **FROM>** and **TO>** section are filled out automatically. As long as there is no aircraft specified in the **ACFT>** section (1) and no route in the **ATC FLPN>** section (2) the **Calculate** button (3) is disabled.

Now enter the registration of the aircraft you want to fly with. If you do not have an aircraft in the database, you can add one now. In this example the aircraft's registration is **D-ABCD** (1). All calculations are done in Kilograms (2).

Online Flight Planner

Home | Account | Fleet | Stored Routes | Route Maker | Dispatch | Flight Briefing Bug Report | Contact | Logout

Dispatch Screen

FLIGHT DATA

FLIGHT> DLH123 ACFT> D-ABCD TYPE> B744-CF6 DOW> 189000 UUNITS> KG
 FROM> EDDM MTOW> 396400 ALTH1> ALTH2> T/O ALTH> ISLND RSV
 TO> FAJS MLDW> 294200 RDF> TULSI RDA> RD ALTH> ISLND RSV
 PAX> F20/ C50/ Y355/ Random CARGO>
 DIST> N/A ETP>
 CLB> 340/84 CRZ> M.86 DESC> .84/290/2 FLTLVL> AUTO ALT CTL> STEP 4000 FIXED FL
 HOLDTIME> 30 RRPCT> 10 RRTIME> 10 COHT> 0 ICAO US DOM US FLAG
 TAXITIME> 15 RLSFUEL> MIN DISP NAME> GRILL CHRISTIAN
 FLPH RMKS>
 Update Calculate Summary Flightplan New

ROUTE DATA

ATC FLPN> EDDM TULS1S.26L TULSI UM736 LIZUM UZ907 VIC UL12 FER UZ902 VALEN UM738 AMTEL UM727 LPD UM740 SARKI A403 SEB G655D GARIN UG655 TAVLA UG1 OKLIN
 OKLI2B.21L FAJS
[Edit](#) | [Clear](#) | [View](#) | [Load](#) | 0.0 NM
ALTH FLPN> N/A
[Edit](#) | [Clear](#) | [View](#) | [Load](#) | 0.0 NM



Now we have to enter our alternate airport in the **ALTN1>** section. Let's take **FAWK** (WATERKLOOF AFB) as our primary alternate.



If you are not sure which alternate to take, click on the arrow next to the **ALTN1>** box to see all airports in the vicinity of your destination.

Let's also take some passengers (**PAX>**) and Cargo (**CARGO>**). Now we have to decide which planning rules we want to use:

ICAO	5%, but at least 5 minutes, ROUTE RESERVE of TRIP FUEL	30 minutes Holding Fuel
US DOM (US Domestic)	NO ROUTE RESERVE, 15 minutes CONTINGENY FUEL	45 minutes Holding Fuel
US FLAG	10% but at least 10 minutes, ROUTE RESERVE of TRIP FUEL	30 minutes Holding Fuel

In this example we use **ICAO** rules.

Click **Calculate**. The whole flightplan is calculated now (This may take some time). As soon as all calculations are completed, the **Summary** and the **Flightplan** buttons become enabled.

FLIGHT SUMMARY

```

FLIGHT PLAN SUMMARY DLH123

A/C D-ABCD   TYPE BOEING 747-400 / ENGINES CF6-80C2B1F   PL 059420
KG

DOW  189000  MAX
PZFW 248420  248500
PLDW 260440  294200
PTOW 361210  394970
FUEL 113915  177000

ROUTE
EDDM TULS1S.26L TULS1S.26L SARKI A403 SEB G655D GARIN UG655 TAVLA
UM738 AMTEL UM727 LPD SARKI A403 SEB G655D GARIN UG655 TAVLA
UQ1 OKLIN OKLI2B.21 FAJS

EDDM-FAJS 100770 0915
05 PCT 005039 0027
ETP ADD 000000 ----
ALTN FAWK 003000 0004
HOLD 003981 0030
CONT 000000 0000
EXTRA 000000 0000
ENDURANCE ----- 1017
TAXI 001125 0025
MIN BLK 113915 ---- 113915 KG
ARR FUEL ----- 013145 KG

FUEL BURN PER KG PAYLOAD: 1.696 KG
    
```

The flight summary shows us a flight time of **9:15** with a fuel burn of **100770** kilogram. We need at least **113915 KG** of fuel in our tanks before engine start. If we take the minimum fuel there will be approximately **13145 KG** of fuel remaining in Johannesburg (**FAJS**).

If you want to take more than the required minimum, enter the desired amount of fuel in the **RLS FUEL>** section and click **Calculate** again. All fuel in excess of the minimum fuel is regared as **EXTRA FUEL**.

If you are satisfied with all data click on **Flightplan** to show the final **OPERATIONAL FLIGHPLAN**.