FLY is FUN

Starter Guide

www.flyisfun.com

Summary

1. Welcome

Congratulation and thank you for your interest in “FLY is FUN”.

FLY is FUN is an extremely powerful moving map application with hundred of advanced features.

FLY is FUN allows route planning, provides GPS and ILS approach, simulation of VOR, NDB, DME, Marker beacons, RNAV navigation and Marker beacons warnings, this without ILS/VOR/NDB/RNAV equipment on board.

Using FLY is FUN, in just a few minutes you will be able preparing navigation and using it.

Aim of this starter Guide is helping you discovering the 4 main screens of FLY is FUN and how to use it:

- How to configure FLY is FUN:
  - Selecting your favorite measure units;
  - Importing elements of the **World navigation database;**
  - Importing terrain elevation information;
  - Importing and selecting a topographic map.

- How to plan and modify a route:
  - Using items of the world navigation database;
  - Using the moving map;
  - Distance calculation, flying time and consummation evaluation.

- How to navigate with FLY is FUN:
  - Using a route;
  - Using Waypoints.

- How to follow-up after a fly
  - Logbook;
  - Trace exportation.

This guide is only a starter guide.

FLY is FUN has many other functions that you will discovers exploring the application.
All functionalities are explained and described in FLY is FUN User guide
http://funair.cz/forum/viewforum.php?f=11.

Have Fun and Fly Safe!

2. Hardware and OS configuration – requirement

All Android devices are not equal

To use FLY is FUN it is highly recommended having a device (smartphone or tablet) with at least

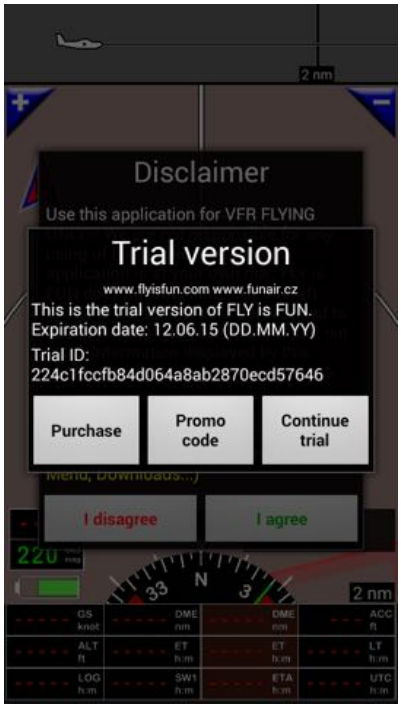
- Processor — Quad core
- RAM — 2Go or more
- GPS — A-GPS. If you device has also GLONASS, position, especially the altitude is much more precise. Also the initial fix time is shorter.
- Sensors — Accelerometer, compass, barometer. If you want to calculate the density altitude, you need the temperature and humidity sensor
- Android — 2.3 and above

3. Starting FLY is FUN

Starting FLY is FUN, you will get the following screens

3.1. Trial version screen

first time



later on during trial

FLY is FUN requested years of development.

The free version / trial version of FLY is FUN allows discovering what FLY is FUN can offer.

Main limitations of the free version / trial version are that:

- After 10 minutes, application stop and the user is invited to start again the application
- Valid for 30 days

This allows you discovering FLY is FUN, prior purchasing the unlocker "FLY is FUN unlocker" on the play store. The unlocker remove here above limitations, making from FLY is FUN a full version.

3.2. Warning info and disclaimer screens

Welcome warning and information

Disclaimer screen with status of navigation database, terrain data and maps

The warning and welcome screen (left) display:

- Alert message on GPS and various sensors that could be used, here “GPS warning”.
- Storage advice. Google introduced lot of limitation with Android Kitkat 4.4 preventing usage of application from the SD card. This limitation, that doesn’t apply with Android 4.2, 4.3 or 5.0, can be bypassed as described at the User guide.

Disclaimer screen and data status.

Data status concerns:

- World navigation database:
  - The world navigation database contain all information needed for IFR/VFR navigation items, reporting points, airport info, airspace …
- Terrain data:
  - Terrain elevation data concern all information regarding elevation.
- Topographic maps:
  - Topographic maps is/are the map you will use as moving map.

Those data are regularly up-dated, or user dependent, that’s why they are not embedded in the application. At first launch of FLY is FUN, any items of world navigation database, terrain data topographic maps have been installed. That’s why “not found” message are displayed.

Green arrows are allowing getting selection criteria used for data download.

4. Four main screens

Having validated clicking on OK, and agreed with the disclaimer, FLY is FUN is launched!!!

FLY is FUN provide you with 4 main screens, which are available in portrait or in landscape mode.

To go from one screen to the other, you will need to **swipe rapidly with one finger placed on the center of the screen** from “right to left” or from “left to right”.

For efficiency purposes, FLY is FUN use intensively multi-touch capacity allowed by Android.

Using FLY is FUN, you will see that:

- ***Short press*** *or* ***long press****;*
- *Places were you are touching the screen;*
- *Way of swiping;*
- *Number of finger used (one finger, two fingers);*
- *…*

produce different results, calls various functions, acceding to most of functions with only one or 2 actions.

Initially, as FLY is FUN provide lot of possibilities, it could be surprising.

You need to train a little bit to become familiar and then it’s just great!!!

4.1. Topographic map screen – Moving map screen

The moving map - topographic map screen display navigation items and airspace, route info and the aircraft on topographical map used in background.

First time you start FLY is FUN, world navigation database and topographical map are not installed.

As long data of the world navigation database won't be downloaded, airspace info, Waypoints info, reporting info, airport info…. won't be displayed.
As long topographical map won't be downloaded and activated, background will remain grey.

In the above part of the screen, we see a vertical cut allowing displaying aircraft position above ground and regarding airspace.
In the central part of the screen in portrait mode, or in the right part of the screen in landscape mode, we see the aircraft above the topographical map.

As soon data will be downloaded, we will see all points, airspace information, navigation item, airport, … As soon a topographical will be downloaded and activated, we will see the map in background and our position on it.

To use this screen will need to download and install:

- Data from the "world navigation database":
  -> Main menu (short press on the compass rose) -> Downloads -> The World nav database.

and

- Topographical map:
  -> Main menu (short press on the compass rose) -> Downloads -> Topographical map.

On this screen we have to, buttons that you can customize:

- 8 buttons on the left of the screen (landscape mode)

and

- 12 buttons on the bottom of the screen (portrait mode)

To do modify or customize buttons -> ***Long press*** *on top of the compass rose*

On the screen, by default button are:

- GS - Ground speed:
  - *Knots could be changed for kilometers per hour.*
- ALT – GPS Man See Level altitude:
  - *Feet could be changed for meters.*
- DME – Distance to next Waypoints:
  - *Nautical mile could be changed for kilometers.*
- ET – Estimated time to next Waypoints;
- ET – Brawn button for estimated time to End of the route:
  - *Short press on this button calls the route windows.*
  - *ET is underlined if a route is active*
- UTC – Zulu time;
- LOG - Logbook data and elapsed time since departure:
  - *Long press on this button calls logbook info.*
- ACC ft. – GPS accuracy;
  - *Feet could be changed for meters.*

Additional button displayed in portrait mode

- DME – Brawn button for distance to End of the Route:
  - *Nautical mile could be changed for kilometers;*
  - *Short press on this button calls the route windows.*
  - *DME is underlined if a route is active*
- ETA – Brawn button for estimated time of Arrival:
  - *Short press on this button calls the route windows.*
  - *ETA is underlined if a route is active*
- SW1 – Stop Watch chronometer;
- LT – Local time.

We have then:

- Compass:
  - *Short press on the compass rose calls main menu;*
  - *Long press on the compass rose calls customization screen.*
- BRG - Bearing of next Waypoints:
  - *Magnetic data could be changed for geographic data.*
- TRK – Ground course:
  - *Magnetic data could be changed for geographic data.*
- Waypoint windows:
  - In this windows active route name and “direct to” waypoints are displayed;
  - *Short press this button calls the navigation item database.*

- Scale indication:
  - *Miles could be replaced by kilometers.*

Note: All buttons are customizable allowing displaying what the pilot like to see.
To do modify or customize buttons **long press** on top of the compass rose.

4.2. Terrain elevation screen

Terrain elevation screen display the elevation of the aircraft above ground. Ground color vary according elevation AGL “Above Ground Level

First time you start FLY is FUN, terrain data have not downloaded. That’s why Elevation screen is in blue and no information displayed.

As long terrain elevation data won’t be downloaded, this screen will remain blue.

In the above part of the screen, we see a vertical cut allowing visualizing the position of the aircraft above ground and within airspace.

In the central part, in portrait mode, or in the right part, in landscape mode, we see the aircraft above the terrain.

As soon data will be downloaded, ground color will change according measured “AGL” Altitude above Ground Level.

To use this screen you need to download:

- Data from the “**world navigation database**”;
  *-> **Main menu** (**short press** on the compass rose) -> **Downloads** -> **The World nav database***

and

- Terrain data;
  -> Main menu** (**short press** on the compass rose) -> **Downloads** -> **Terrain data manager

On the left and on the right side of the screen, in portrait mode, or on top and on the left of the screen, in landscape mode, you have buttons that you can modify and customize.
To do modify or customize buttons ***long press** on top of the compass rose*

By default button, for this screen, are

Left side

- DME – Distance to next Waypoints
    - *nautical mile could be changed for kilometers*
- AGL – GPS Altitude Above Ground Level
    - *feet could be changed for meters*
- LOG - Logbook data and elapsed time since departure
    - *Long press on this button calls logbook info*

Right side

- ET – Estimated time to next Waypoints
- UTC – Zulu time
- ACC ft. – GPS accuracy
    - *feet could be changed for meters*

Then, we have

- a Compass.
    - *short press on the compass rose calls the main menu;*
    - *long press on the top of compass rose calls customization screen*
    - *long press on the compass rose calls turning indicator calibration*

- BRG - Bearing to next Waypoints
    - *magnetic data could be changed for geographic data*

- TRK – Ground course
    - *magnetic data could be changed for geographic data*

- Ground speed strips
    - *knots could be changed for kilometers per hour*

- Altitude strips in MSL – Mean Sea Level GPS altitude
    - *feet could be changed for meters*

All button are fully customizable and could be changed via the customization screen

- *long press on the top of compass rose calls customization screen*

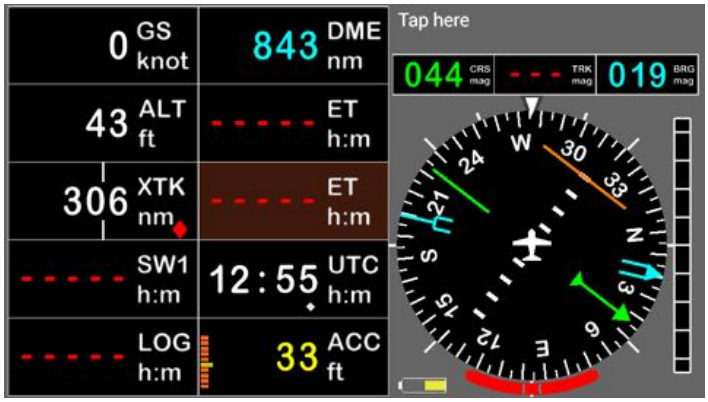
Selection of favorite measure units could be set via the preference menu

*-> **Main menu** (**short press** on the compass rose) -> **App Settings** -> **Preferences** -> **Units Select***
-> Distance and speed
-> Strips and info box GS unit
-> Strips and info box ALT unit
-> Direction unit
-> ….

4.3. Two set of EFIS screens

One set with 6 buttons EFIS screen

One set with 8 buttons EFIS screen



Note: All buttons are customizable allowing displaying what the pilot like to see.

To do modify or customize buttons -> ***Long press*** *on top of the compass rose.*

5. Importing and installing data

FLY is FUN being installed, to use it you need to import and to install data.

You need downloading:

- Data of the World navigation database;
- Terrain elevation information;
- Topographic map and activate it.

Before doing it make sure having a good Wi-Fi data connection. Data to download are hundreds of Mo…

Note: Call of selection criteria used to select data to import could be done directly from the Disclaimer screen using **green arrows**

5.1. Main menu

To call the main menu:

- ***Short press*** *on the compass rose;*
  Long press on the compass rose calls customization windows.

Main menu

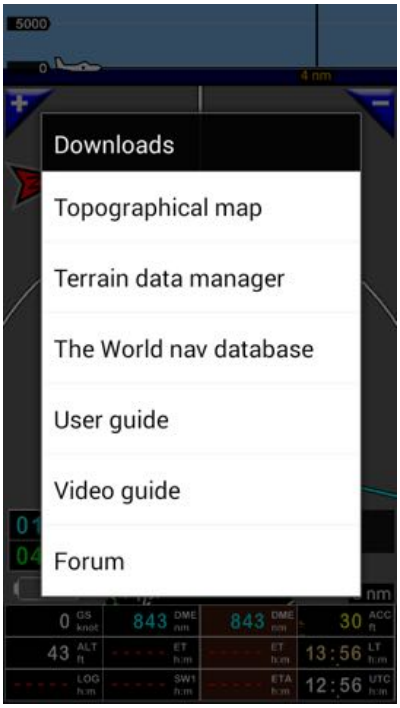
Main menu choices

Navigate	Flying settings	Tools and Info
App Settings	Downloads	Close

5.2. Downloads menu

- ***Main menu** (**short press** on the compass rose) **-> Downloads***

Selecting Downloads calls a menu that pop-up. It allows choosing operation to perform:



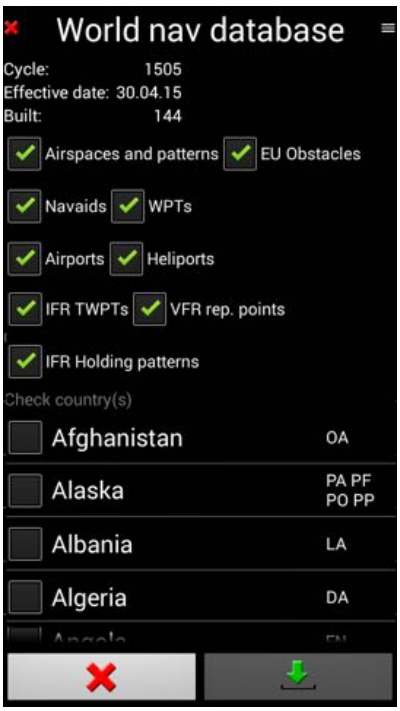
Downloads windows

Using **green arrows** from Disclaimer screen, you by-pass these steps, jumping directly to the selection critria od data to download

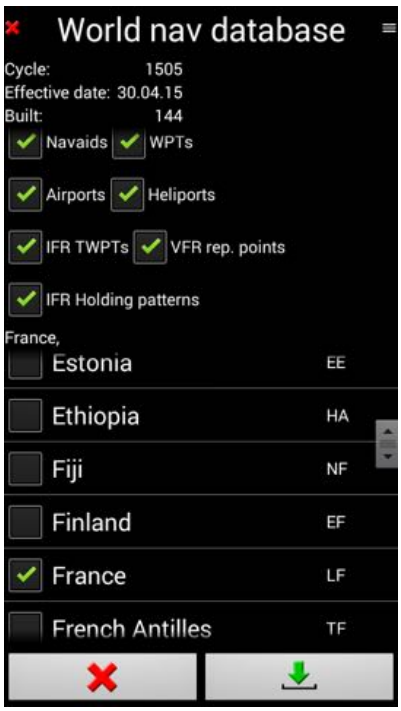
Green arrows

5.3. Download data of the World navigation database

Select the green **arrow** on the Disclaimer screen
or
Main menu** (**short press** on the compass rose) **-> Downloads -> The World nav database.



Selecting items type to download



Selecting countries

Select the type of data you would like to import:

- Airspace and patterns;
- European Obstacle;
- Navaids;
- Waypoints;
- Airports;
- Heliports;
- IFR turning Waypoints;
- VFR reporting points;
- IFR holding patterns.

Chose the country for which you need to download data.

Multiple selections are possible.

Warning if you whish downloading the whole world nav, make sure having several Giga-octets of free capacity available.
Downloading data could take hours, for example whole USA alone takes about 2 hours with a good connection.

We suggest you starting only with countries for which you really need the data.

If you fly VFR only, there is no need importing IFR data.

Once you are ready, start downloading the data pressing on the green arrows.

Download in progress

Data update follows AIRAC cycle.

Every month, a warning message, will invite you updating your data.

Update will be performed according the latest selection you did.

If you have already downloaded data from the World navigation database:

- **Data of selected countries will be deleted before importing new data;**
- Data of unselected countries, that were previously downloaded, won't be suppressed. But those data won't be updated to.

Be careful, amount of data to download could be huge. Downloading data could take hours.

Make sure having a reliable and fast connection, enough free space to store the data and that you device is well charged or connected.

5.4. Download topographic map and upload it

5.4.1. Topograhic maps downloaded and installed from FLY IS FUN server

Make sure your device is well connected to Internet

Select the green  **arrow** on the Disclaimer screen
or
Main menu** (**short press** on the compass rose) **-> Downloads -> Topographical map

A windows appear allowing selecting you requested map

Topographical map database

World map selected

As soon map(s) is(are) selected, you get prompted with the available space on your device and the requested space to download the map.

If you don't find a specific map of your own country, select the world map that cover the world.

Already installed maps are highlighted with their name in green.

Once map(s) is(are) selected, then initiate download and importation, validating on the green arrow.

Download start

Download in progress

Be careful, amount of data to download could be huge. Downloading data could take hours.

Make sure having a reliable and fast connection, enough free space to store the data and that you device is well charged or connected.

5.4.2. Creation and installation of own customized maps

With FLY IS FUN, pilots can use their own customized top maps. Only constraint those maps should be in “RMapSQlite” format as requested by FLY is FUN, with “.sqlitedb” file extension.

Several application on Windows, OSx, Linux, as SAS Planet, Mobac, Global Mapper,… are allowing generation maps using the appropriate “RMapSQlite” format. Data could come from online sources as well existing files that need to be transcoded.

Some more details are in FLY is FUN User guide
http://funair.cz/forum/viewforum.php?f=11

As soon you get your own customized topo map in “RMapSQlite” format, installing it is easy:

- Import on Android device the customized map, ex “customizedtopomap.sqlitedb”
- Than drag and drop “customizedtopomap.sqlitedb into « RMapSQlite » folder. This folder is within « Maps » folder and “Maps” folder is located into « GPS_IL_VOR » folder.

5.5. Selecting a topographical map

Once (the) map(s) has (have) been downloaded, if the background of the moving map topographical map screen remain grey, the screen will look as that:

Moving map - Topographical map screen without map

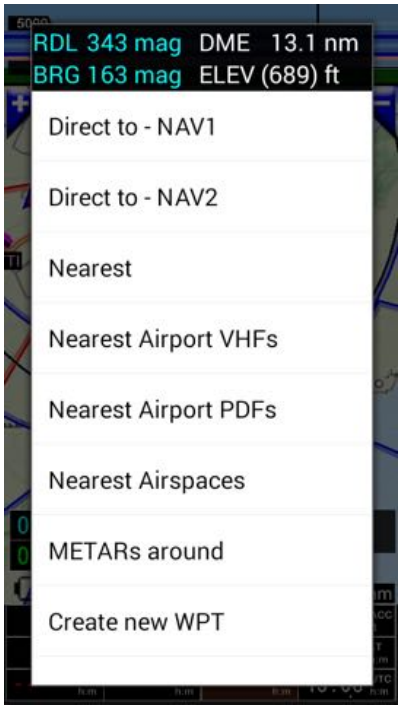
This will indicate that no map has yet been selected, or that the selected map doesn't cover the place where you are, shown by the GPS fix.

To select a map:

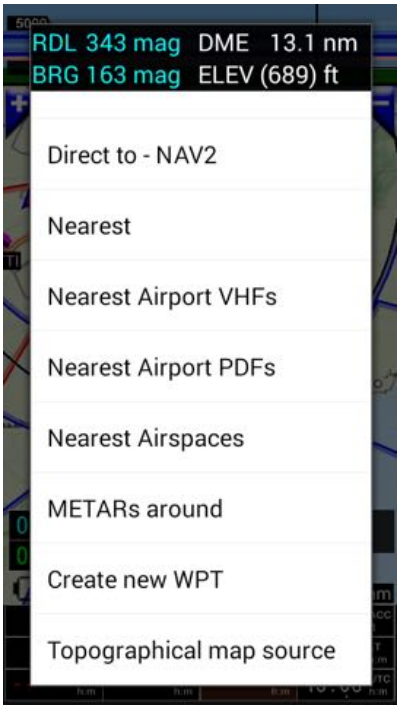
- ***"Long press"** on the center of the moving map - topographic map screen*
  - A pop-up menu will appear,
  - scroll down and select
  - ***-> Topographical map source***

or

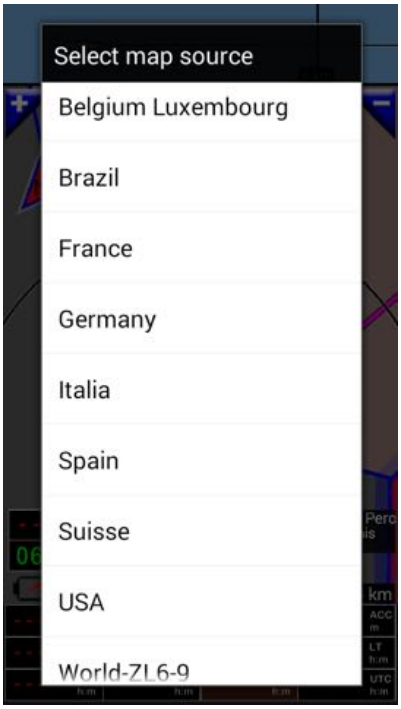
- ***Main menu -> App Settings -> Topographical map source***



Scroll down menu



Select topographical map source

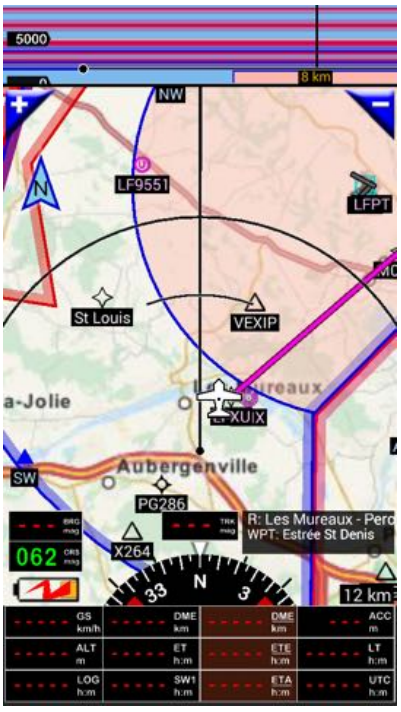


Maps available on the device

The windows "*select your map source"* display all available maps installed on the Android device, for FLY is FUN.

Select the map you like to use.

Once the map is selected, if it covers the area, where you are, and if you got the GPS position, then you should see it appearing in background of the moving map - topographical screen.



Moving map – Topographical map screen with map in background

5.6. Download elevation data - terrain map

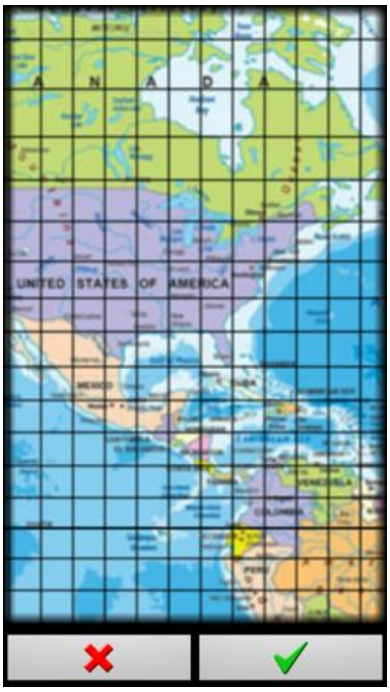
Terrain elevation data are allowing calculating altitude above “natural” ground. Data concerning artificial obstacle are downloaded via the “World Nav database” as seen previously

The elevation data files are large and they are downloaded in 5x5 degrees blocks. Each 5x5 degrees rectangle requires approximately 72MB of memory and 250 MB during installation phase.

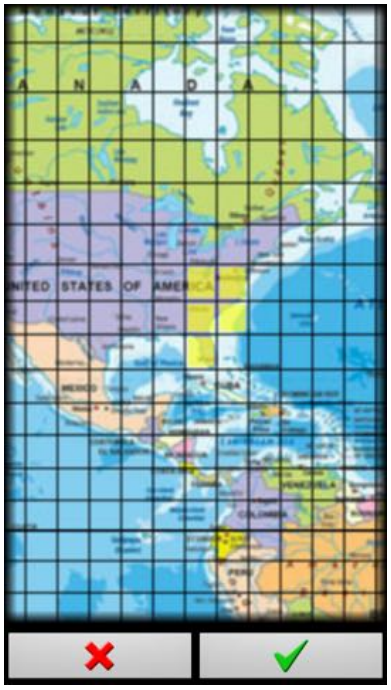
Prior performing the selection make sure your Internet connection is up and running.

Select the green **arrow** on the Disclaimer screen
or
Main menu** (**short press** on the compass rose) **-> Downloads -> Terrain data manager.

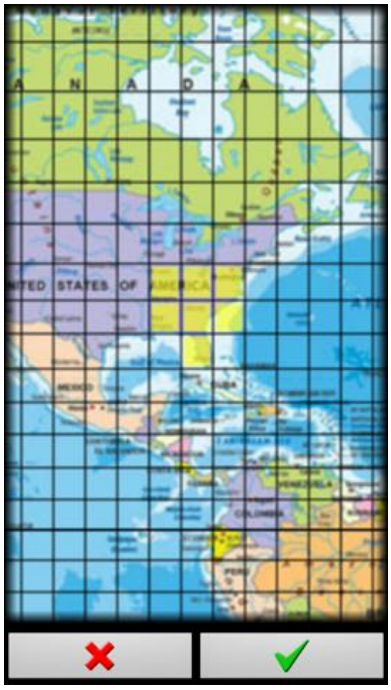
The worldwide map allows choosing the area



Long press on square select elevation data to download. Selected areas are then highlighted in yellow.

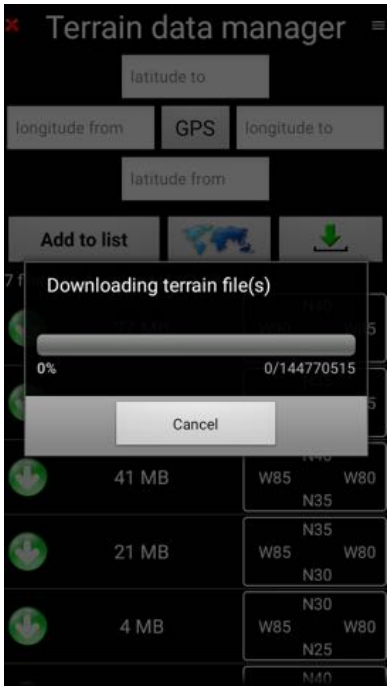


Long press on a square to select data
"Yellow" = selected data to download

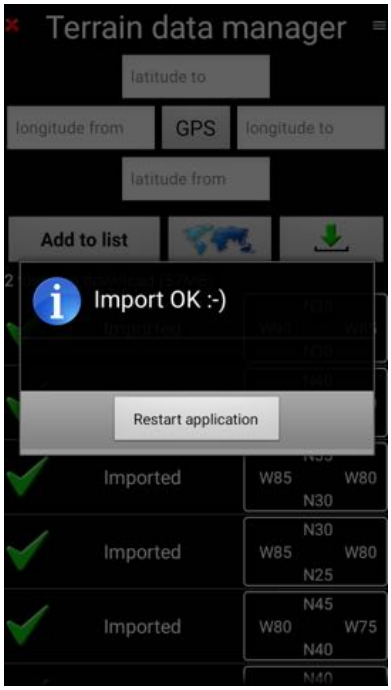


Long press on a square to select data
"Yellow" = selected data to download

then Select green arrows to download them.



Downloading process



Import done

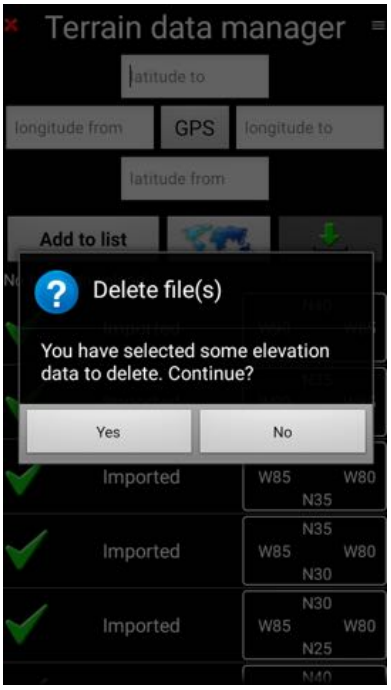
Once data have been imported, application needs to be restarted

Calling back the worldwide terrain elevation map, areas which terrain elevation data are installed appears highlighted in green..

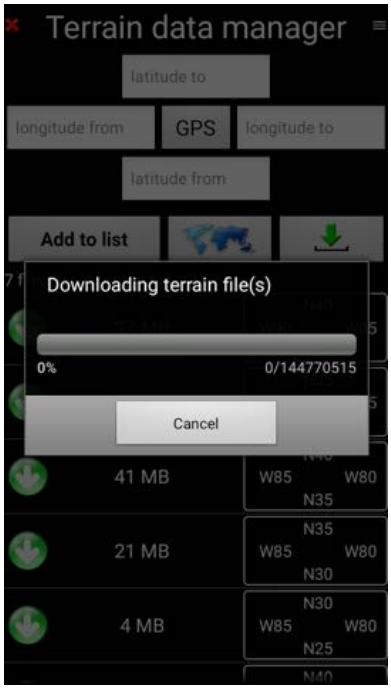
Green = installed terrain elevation data

Red = elevation data to suppress
Yellow = Elevation data to download

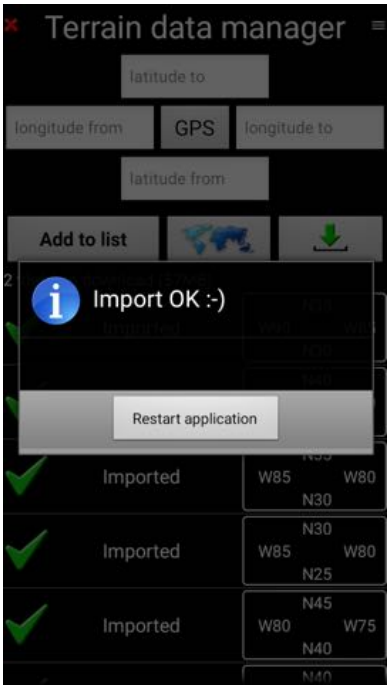
To add add some more, long press on non-highlighted square. It will become yellow
To delete some data and free up space, long press on green-highlighted square. It become red
Selecting green arrows launch the operation.



Confirm requested data suppression



Downloading process



Importation done
Restart requested

5.7. Checking configuration

Data being downloaded, restarting FLY is FUN, you should now get green messages in the data information part of Disclaimer screen:

- World navigation database: found
- Terrain data: found
- Topographical map: found

Disclaimer

All data being downloaded and installed, having agreed with the disclaimer message, the first screen you get is the terrain elevation screen

5.8. GPS status

To use FLY is FUN, you need active GPS, good signal and to get the position

GPS doesn't work indoor; GPS need clear sky view to get the "satellite signal.
To get a GPS fix, the GPS need to be outside or at least close of a windows with clear sky view.

terrain elevation

Moving map - topographical map screen

"ACC" button display GPS accuracy.

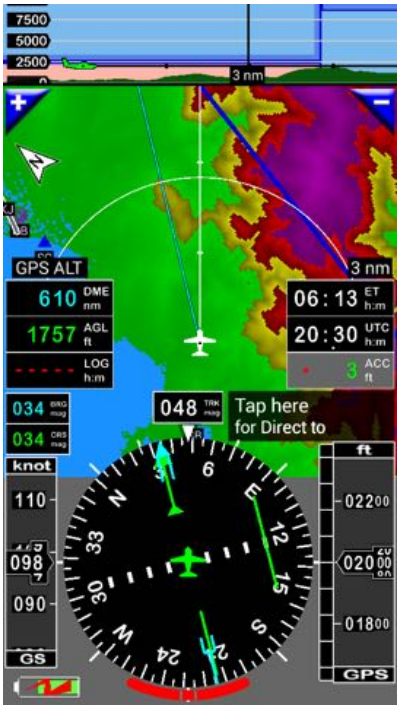
- If the accuracy is good data displayed in ACC button are in green

If the GPS isn't activated, you need to do it via the standard setting of your Android device.

6. Terrain elevation screen

Terrain elevation screen display the elevation of the aircraft above ground. Ground color vary according elevation AGL “Above Ground Level

When data are installed and your GPS is on with a position, starting FLY is FUN, you should get „Terrain Elevation Screen“ similar to this one, but with your own data in background



Terrain elevation screen

Terrain elevation colors depend of AGL aircraft altitude

- ***short press** on **AGL*** displays information on colors signification

  - Purple elevation above aircraft
  - Red aircraft AGL altitude is between 0 and 1 000 ft. AGL
  - Green aircraft AGL altitude is more than 1 000 ft. AGL
  - Blue no data available or zero elevation

If GPS is on with GPS fix:

- GPS status is displayed in ACC button :
  - green (good), yellow value (not so good), …

In the above part of the screen, the vertical cut shows the aircraft positioned above ground and regarding airspace.

“+” and “-“ button allows zooming in and out, you can as well doing it with 2 fingers

- ***Long press** on **“+”** or **“-“** calls direct scale selection*

Later on, while flying, you will see how colors change dynamically, following you altitude above ground…

Ex: below, final approach in DTTA airport

Final DTTA

Short final DTTA

Very short final DTTA

7. Moving map - Topographical map screen

Moving map - topographical map screen display navigation items and airspace, route info and the aircraft above a map used in background.

Airspace and terrain elevation are also displayed in the upper part of the screen

Top map screen

Once the topographical map is displayed in background, you can easily use it.

7.1. Getting used with the gesture

Touching the screen produce various results depending ”where” and “how” you touch the screen

7.1.1. Getting information on items and or airspace

Short pressing on any item or airspace displayed on the topographical map, or on the vertical cut call an info box related to the selected item or airspace.

Short press on airspace displays airspace info

Short press on airfield displays airfield info

7.1.1.1. Short press - Long press in the middle of the info box

Short press in the middle in the info box to close it

- If nothing is done, info box close automatically after few second

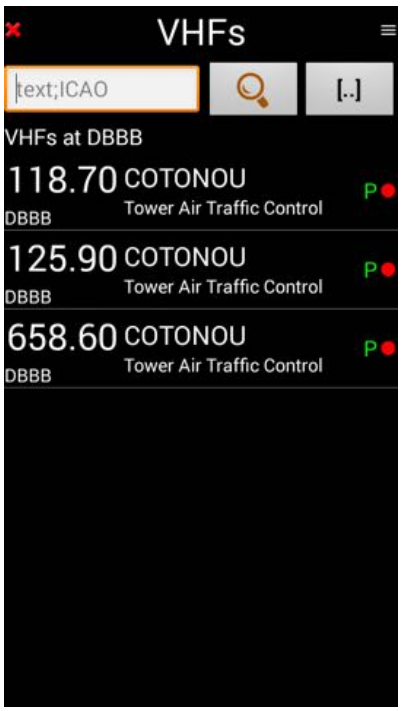
Long press in the middle of the info box to select the related item for *“Direct to”*

- These, if the info box is related to any other item, than airspace,

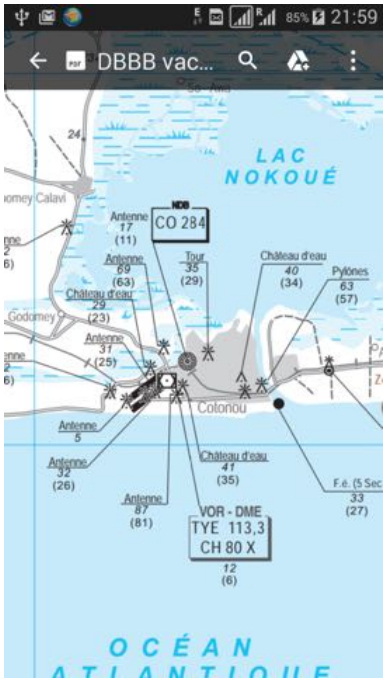
7.1.1.2. Pressing on button of the info box

Short press on:

- TWR ATI button
  - Open a VHFs windows
- NAV2 button
  - Select this item as another "Direct to"
  - FLY is FUN allows you to have 2 (two) items selected for "*Direct to*" usage.
    Long press on direct to button allows switching from "Direct to Nav" to "Direct to Nav2".
- PDF button
  - Calls PDF file attached to the related item
    - If PDF file is installed and if a PDF reader is on the device
  -



pressing on radio info button
displays further VHF info



pressing on PDF button
calls attached PDF files, if any

How to install PDF files is described in FLY is FUN User guide
http://funair.cz/forum/viewforum.php?f=11

7.1.2. Unlocking the map, zooming IN and OUT, moving around

7.1.2.1. Unlocking the map

To "unlock" the map, just touch it with two (2) fingers.

7.1.2.2. Zooming IN and OUT

You can easily Zoom IN or Zoom OUT, that for you have several possibilities

zooming

zooming

zooming

- Using **2 fingers**
  - If the north arrows isn't locked (***Long press*** on it*)*, you can as well rotate the map with your fingers

- Using "+" or "-" button
  - ***Short press*** or ***long press*** on of them

- Scrolling rapidly vertically a long the border of the screen
  - ***down up:*** *Zoom In*
  - ***top down:*** *zoom out*

Note: Depending of zoom level information, items can appear or bee hidden. This allows to display only relevant information.

Screen Customization and button setting could be done via *Customize screen*

- ***Long press*** *on the compass rose* to call it

More details in FLY is FUN User guide
http://funair.cz/forum/viewforum.php?f=11

7.1.2.3. Moving around on the map

As soon the map is unlocked, with one (1) finger you can move it in any direction

moving around

with

one finger

moving around with one finger

back to the aircraft

Note: As soon the aircraft is out of view, a blue bubble shows the direction of the aircraft.
Short press on the blue bubble sends back to the aircraft

8. Setting a “Direct to” and “Route” planning

This chapter explains:

- How to set a “Direct to”:
  - Selecting a point to fly directly to.

- How to create a Route:
  - Creating a route;
  - Modifying a route.

Getting around, you will discover many other nice features of FLY is FUN:

- Effect of “***long press***” or “***short press***”;
- Info message;
- Alerts, ….
- Impact of pressing on “North” arrows;
- Switching from a “Direct to Nav1” point to a “Direct to Nav2” point;
- Switching from a “route” to a “Direct to” point and then coming back the route;
- …

Many functions are not presented in this starter guide, but well documented in FLY is FUN “User guide” http://funair.cz/forum/viewforum.php?f=11

8.1. Direct to

An important and basic function is the ability to select points to fly directly to “Direct to”

It could be:

- Point on the map;
- Nearest airport;
- Item of the database;
- …

There are several ways of setting a “Direct to”

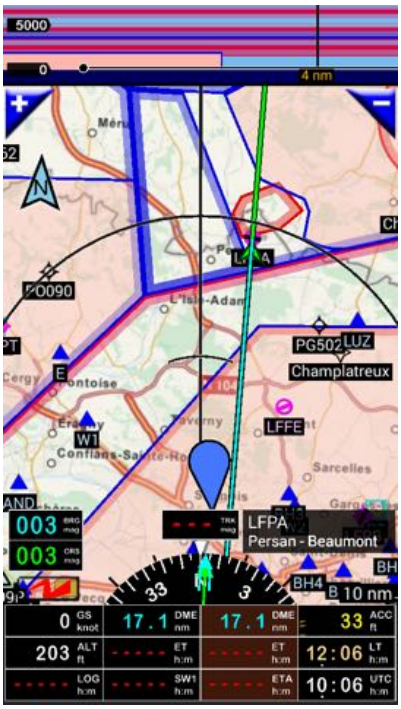
- Selecting point on the map;
- Selecting an item in the database.

8.1.1. Selecting an existing point / item on the map

-> ***Short press*** on the item displayed on moving map screen open the info box related to it

selecting LFPA

LFPA info box



LFPA selected for « Direct to »

-> ***Long Pres****s* in the middle of the info box

- The item is selected as “Direct to - NAV1”

Note: FLY is FUN allows two items selected simultaneously as Direct to “NAV1” and “NAV2”. NAV2 button allows selecting the point as second Direct To item. Switching from one to the other is done via ***long press*** on waypoint names windows.

As soon the item is selected,

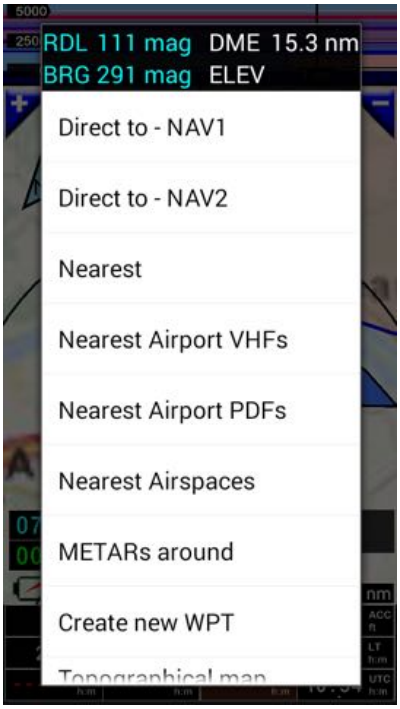
- Name *of the selected item* appears in the waypoints windows, right and bottom of screen;
- If you have a GPS fix:
    - Bearing is displayed in the BRG button;
    - Distance to is played in the DME button;
    - A vector appears on the map.
- If you have a GPS fix, you get a message:

    "Unable to set course because no GPS fix"

8.1.2. Selecting any point / item on the map

If you like to select on the map a point that isn't in the database, ***long press*** anywhere on the map and select "Direct to NAV1".

Long press on point on the map



Pop Up - select « Direct to Nav 1 »

Point Selected

As soon the item is selected,

- The name *"Tapped position"* appears in the waypoints windows, right and bottom of screen;
- If you have a GPS fix:
    - BRG displays the bearing;
    - DME displays the distance:
        - DME and DME are displaying the same value.
    - A vector appears on the map.
- If you do not have a GPS fix, you get a message:

    "Unable to set course because no GPS fix"

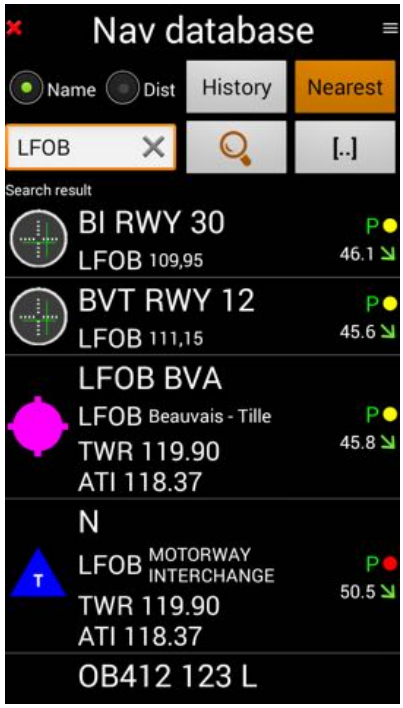
Note: selecting "Create new WPT" in the pop up menu, allows creating and inserting a new item in the database.

8.1.3. Selecting a point in the database

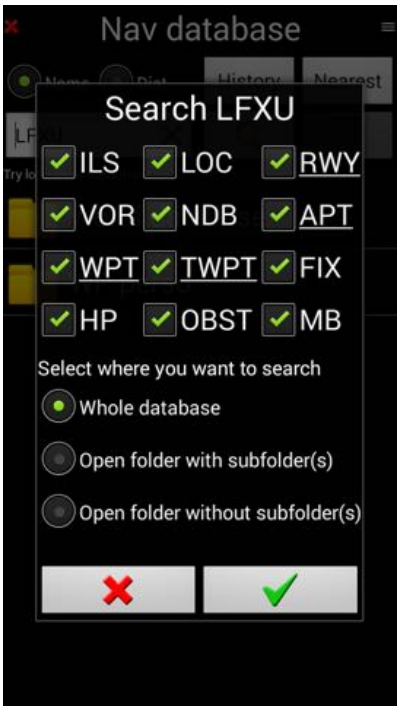
- ***Short press*** on the dark rectangle, where we have seen in the previous example “LFPA Persan Beaumont ” to call the database, where all navigation items are.
  Note: If a route is active, a pop-up menu appear, in the present case select “direct to”
  or
- ***Main menu*** *(**short press** on the compass rose)* ***-> Navigate -> Nav database (Direct to)***

Short press on the WPT windows where WPT name is displayed

In nav database windows enter LFOB and short press on the loupe



results for LFOB



Long Press on the loupe to fine tuning search criteria

You can select the airfield “LFOB” as such

LFOB selected

LFOB arrival point

A new ***short press*** on destination name allows fine tuning the selection

If you select runway, a green vector materialize runway axe and orientation

LFOB RWY 12 selected

Green vector materialize RWY axe
Arrival point is at beginning of RWY12

8.2. Route planning

You are becoming familiar with FLY is FUN. Creating a route is simple to

Calling the route library

Route library

To access the route library, where all routes are saved, there are two options:

- ***Short press*** on the "DME" – "ET" – "ETA" brawn buttons.
    - Those buttons are indicating:
        - DME: distance to the end of the route:
            - DME is underline is a route is active.
        - ET: estimated time to end of the route:
            - RT is underline is a route is active.
        - ETA: estimated arrival time:
            - ETA is underline is a route is active.
    - The **black button** "DME" and "ET" button, on the left, are indicating
        - DME: distance to the next waypoint
        - ET: estimated time the next waypoint

or

- ***-> Main menu (short press** on the compass rose) **-> Navigate -> Route***

8.2.1. Creating a route on the map

Short press on "**+W**" in the route library to create a new route

- You can attribute a route name, if not it will be automatically done, when saving the route

Route library

Empty window, as route isn't created

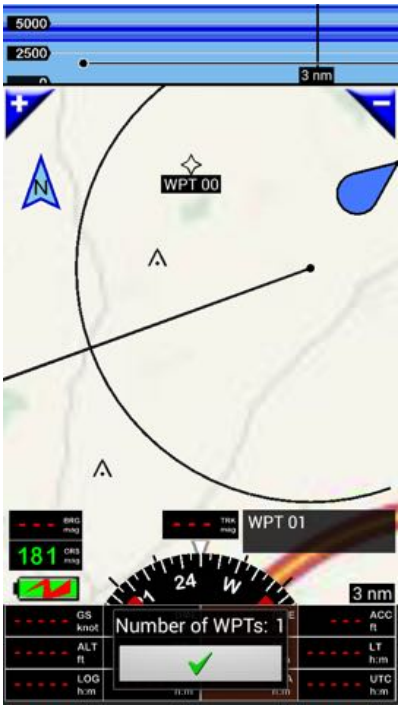
Route naming

Selecting World Map icon call the topographical map.

There you can select on the map, the starting point of the route

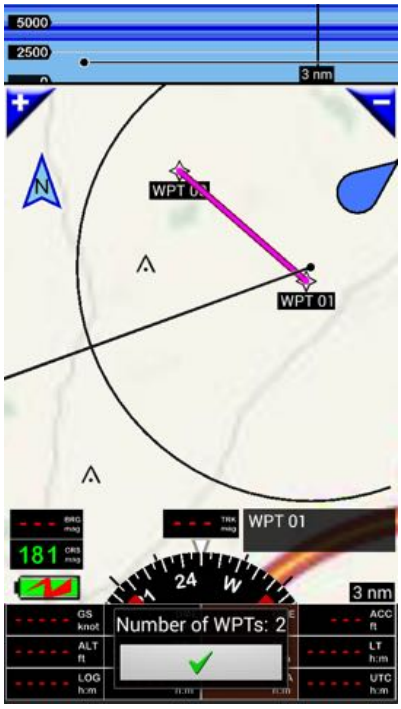
select on the map, the point to use as first WPT and long press on the map

Menu inviting to create and name the first WPT



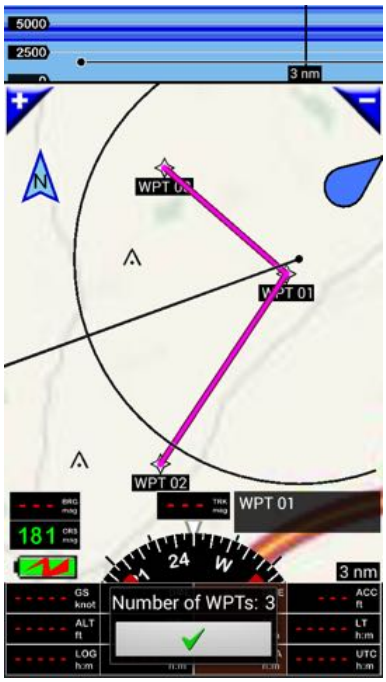
First point created on the map

select another place on the map
long press on it, a menu appears



after validation, second waypoint is created
the first route segment appears

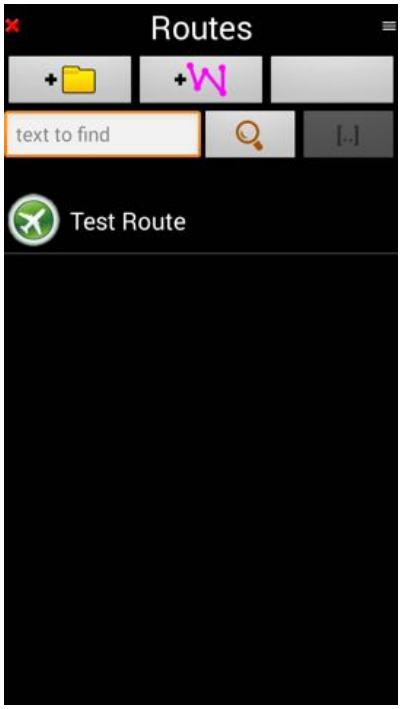
same for third point
… long press on it, a menu appears



after validation, third waypoint is created
the second route segment appears

Short press on the green arrow validates and calls the route details

Route detail, press on green arrows to save the route



Route created and saved

Note: if there is no active route, you can start creating a route directly from the map without having to start calling the route windows.

Select on the map the point to use ex LIPZ

Select « route » in Info Box

First WPT is created

The firs point being created, then proceed as describe above.

8.2.2. Adding waypoint, editing and modifying a route - Waypoint order

It's always possible editing and modifying a route.

- Note: to do it no route should not be active.
  If a route is active, you should first stop it

Call the route library:

- ***Short press*** on the "DME" – "ET" – "ETA"

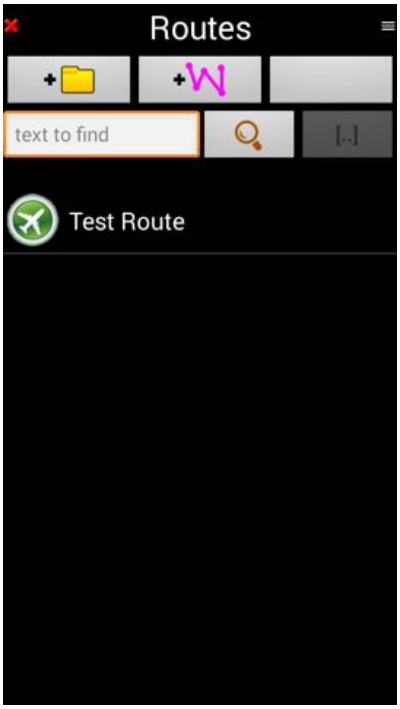
or

- ***-> Menu*** *(**short press** on the compass rose)* ***-> Navigate -> Route***

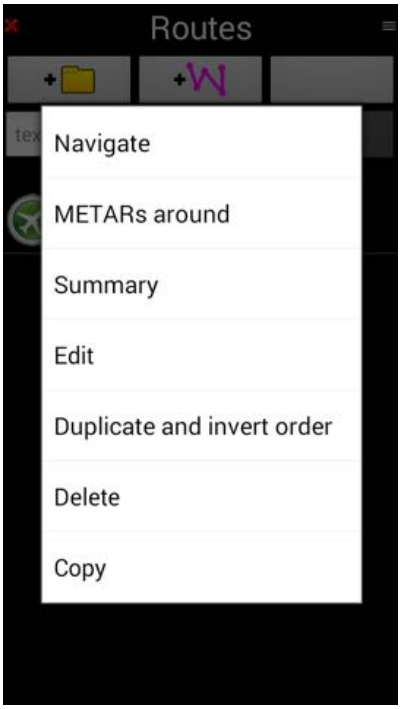
In the route library ***Long Press*** on the name of the route you would like to modify

- ***short press*** activate the route

Calling the route library



list of available route, select a route and long press on it



route menu select « Edit »

Via this menu, it is possible:

- To activate the route, selecting "Navigate"
  - Note: ***short press*** on the route name in the route library activate the route to
- To reverse a route, selecting "Duplicate and invert order"
- To get weather information along the route, selecting "METAR around"
- To modify a route, selecting "Edit"
- To see the summary of the route, selecting "Summary"
- To "Copy" a route
  - Note: You should then ***long press*** and then select "Paste"
- To "Delete" a route
- To "Paste" a route
  - Note: "Paste " shows only if a route has been copied.

8.2.2.1. Adding a point by “drag and drop” on one segment of the route

Having selected the route, where you would like adding a waypoint,

-> ***Long press*** on the route name, and

-> “Edit”, in the Pop up menu,

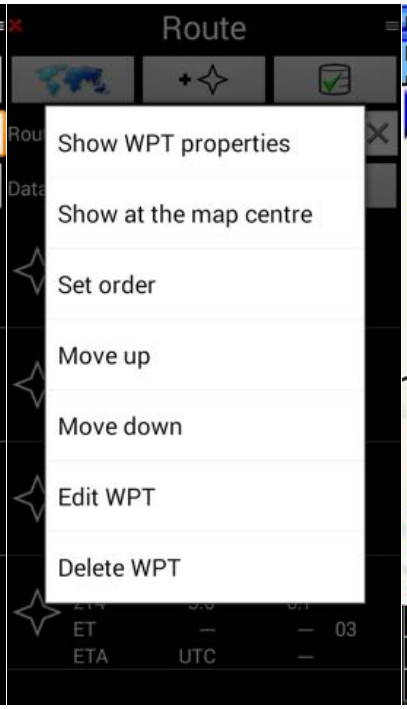
and seeing the route detail:

-> ***Long press*** on any waypoint, and

-> “Show at the map center” in the menu

route is drawn on the screen

Route detail



Long Press on a waypoint
« Show at the map center »

Route is drawn on the map

Select the route segment to modify

-> ***Long press*** on route segment to modify

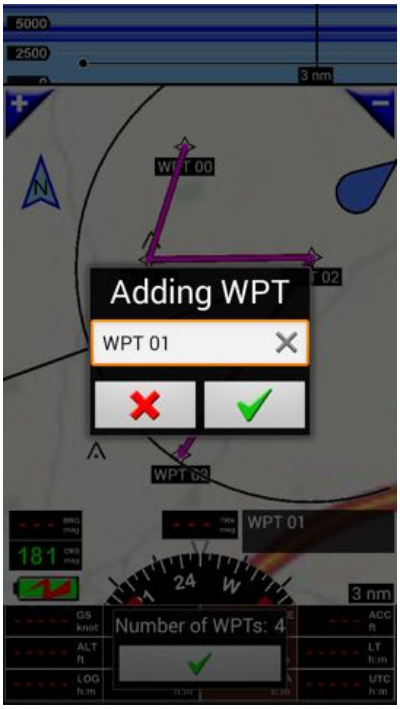
AND

-> *“Drag and drop”* it to the point to add

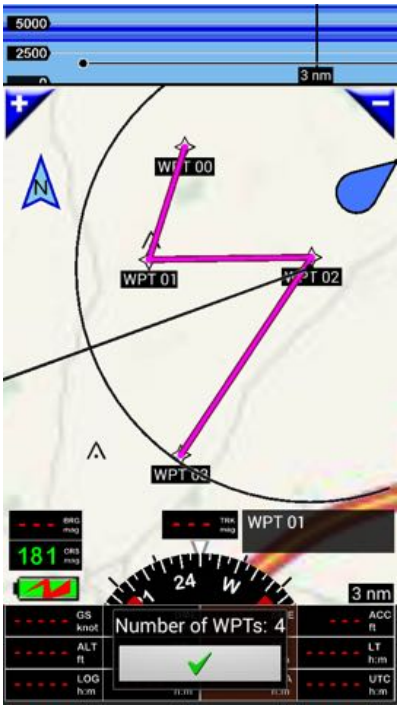
a new waypoint is then added to the route.

Short press on the green arrow to validate the add

Short press on the green arrow in the route detail to save the modification



select with 1 finger route segment to modify, drag it to the new point



new point added on the map …

… and in the route

Note: it's possible to, moving waypoints.

8.2.2.2. Waypoint order modification

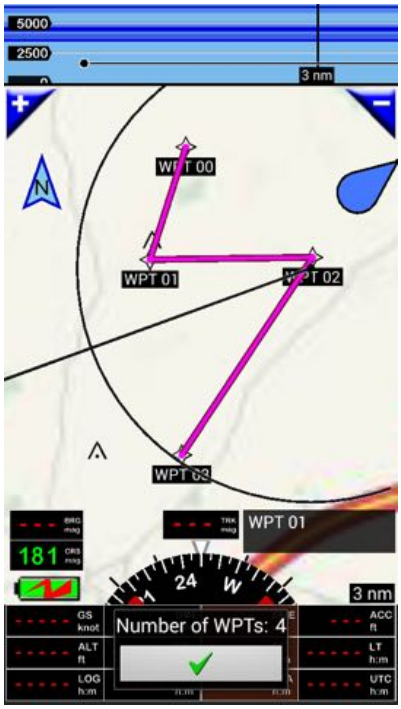
In the route library, select the route, in which you would like modifying the waypoint order

-> ***Long press*** on its name, then chose "Edit", in the Pop up menu
route detail appears.

-> Long press on the waypoint to move.
A menu Pop up, where it's possible selecting options related to the waypoint

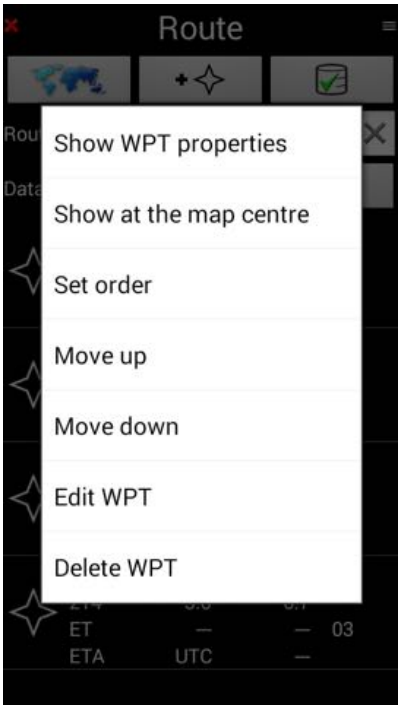
chose "*Move up*" or "*Move down*".

In our example we selected WPT 01 then "Move down", to reorganize our route.



Route before WPT order modification

Long press on WPT 01



Pop up menu appears
select "Move down"

WPT order is modified

WPT order modified
WPT 01 is now after WPT 02

route after WPT order modification
Save it

Short press on the green arrow to validate

Short press on the green arrow in the route detail to save the modification

8.2.3. Creating a route using the database

Short press on "**+W**" in the route library to create a new route

- You can attribute a route name, if not it will be automatically done, when saving the route

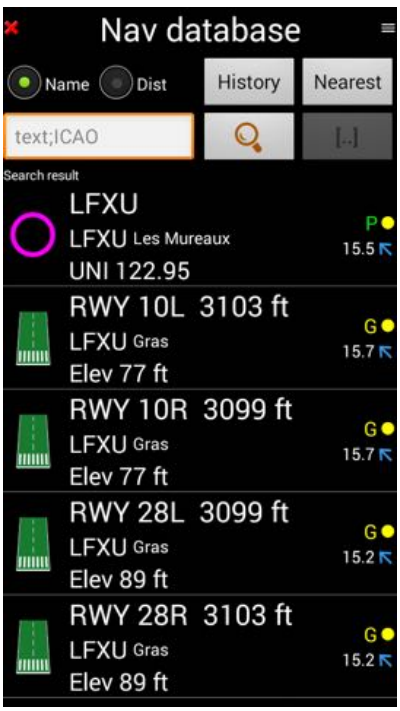
Route detail

Waypoints could be selected in the Waypoints database, searching on full name or on code name or directly on the map, as explained previously.

To search in the database, enter the whole name or the WPT code in the Database WPT search field.

We are looking for LFXU in our example

Searching for LFXU
Enter the name and long press the loupe



LFXU results

LFXU selected
First point of the route

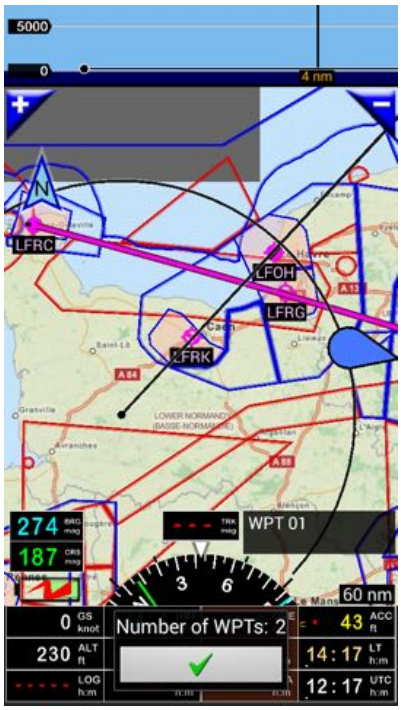
LFXU being now the first point of the route, we will search the destination, “Cherbourg”
We could as well entered LFRC.

Searching for Cherbourg
Enter the name and press the loupe

Cherbourg results

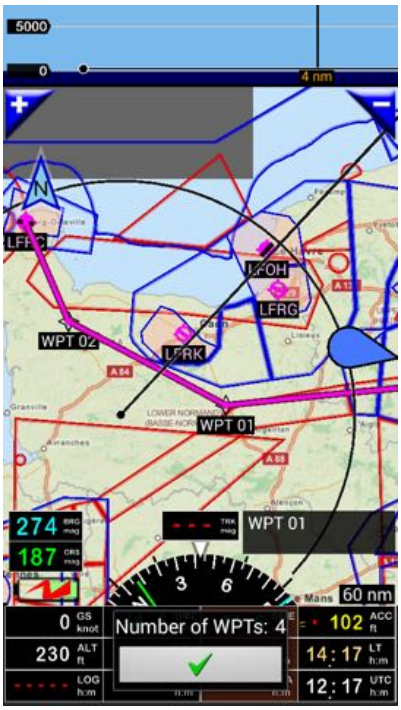
LFRC selected
Second point of the route

Calling the map ***short press*** on map button, we see that we will flight overs sea, crossing TMA and CTR of Deauville LFRG and Le Havre LFOH, that we won’t.
To avoid them we will drag and drop the route, as seen previously



To not fly over sea
drag the route back to earth

One point added



Same way – drag and drop
to avoid Deauville TMA and CTR

Zooming on “WPT 02”, we see that it’s nearby “LF5023” ULM airfield.

We will replace “WPT 02”, by “LF5023”, dragging “WPT 02” over “LF5023”

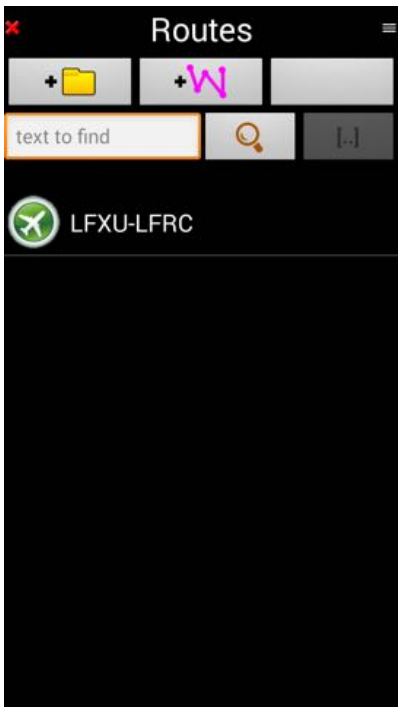
Zoom on WPT 02

LF5023 show up

WPT 02 moved to LF5023

Route is now ready, can be validate.
Short press on green arrow calls back the route detail
Short press on green arrow save the route

Route list
Press on green arrow save the route



Route in the route library

8.2.4. Advanced functions related to the route

From the route library, for each stored route, it's possible calling enhanced functions

- Call the route library

  - ***Short press*** on "DME" – "ET" – "ETA" brawn buttons.

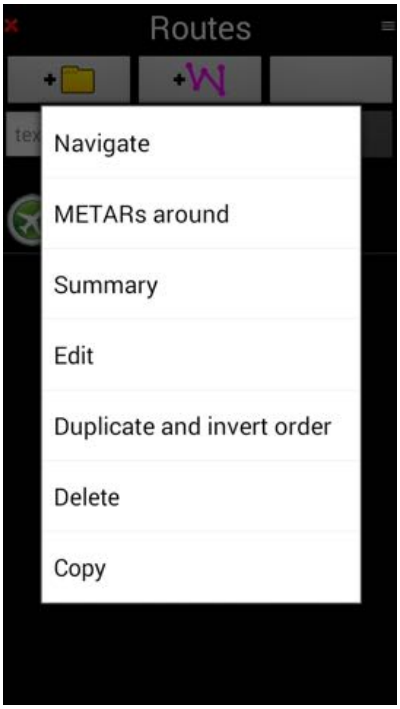
  or

  - ***-> Menu*** *(**short press** on the compass rose)* ***-> Navigate -> Route***

Then

- ***Long Press*** on the name of the route you would like to check call a Pop up menu
  Note; If you do a *short press* the route will be activated

Route menu pop up.



Menu related to the route

8.2.4.1. METARs around

If you have an Internet connection, you can get weather information from stations and airports being around the route.

METAR

METAR

Raw data

Raw data

METARs data could be saved for of line usage

Searching range is defined in -> **Main Menu -> App Settings -> Preferences -> Ranges and distances**

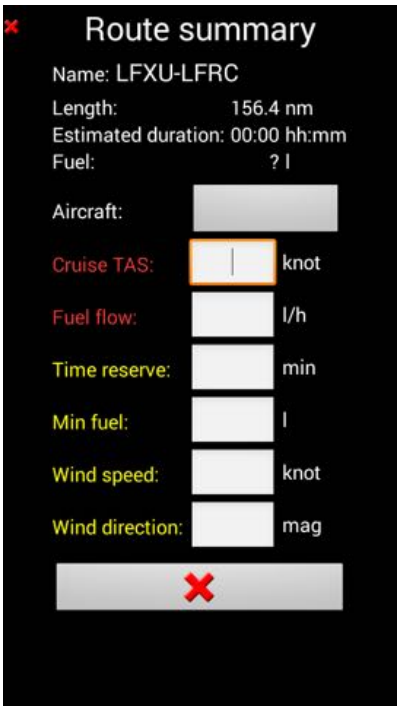
8.2.4.2. Route summary – flight duration – flight consumption

Route “Summary” allows:

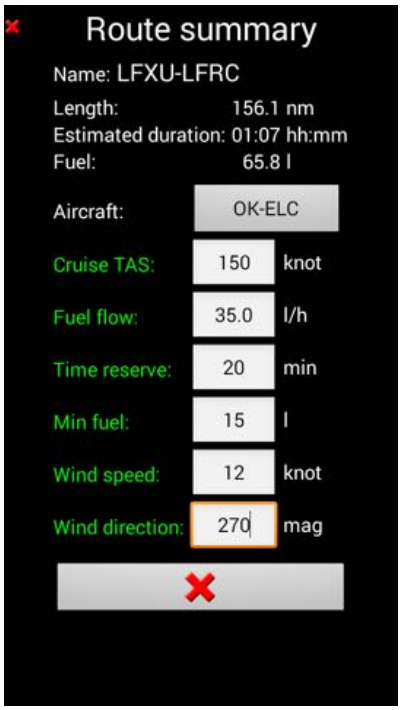
- To know length oh the route;
- To evaluate:
  - Flight duration;
  - Fuel that will be requested;
  - Wind impact on flight duration and fuel consumption
  - …

For evaluation, you need entering few parameters:

- Aircraft characteristics;
- Wind;
- Reserve;
- …



Route summary without aircraft, fuel and wind info



Route Summary with all info

You can select the aircraft and/ or set aircraft specification via the aircraft windows you can call, ***short press*** on “Aircraft” button.

8.2.5. Importing a route

You may, all ready have routes you would love importing in to FLY is FUN.

With FLY is FUN you can import (and export) routes respecting the following format:

- GPX
- Kml, Kmz
- FLY is FUN own format

GPX, Kml, Kmz formats are widely used, with GPS as Garmin, Google Earth, PC planning software, iOS moving maps applications as ANP. Supporting them facilitates exchanges and, in some cases, migration to Android devices.

FLY is FUN is extremely open and flexible facilitating import of most of your existing assets

Call the route library

- ***Short press*** on "DME" – "ET" – "ETA"

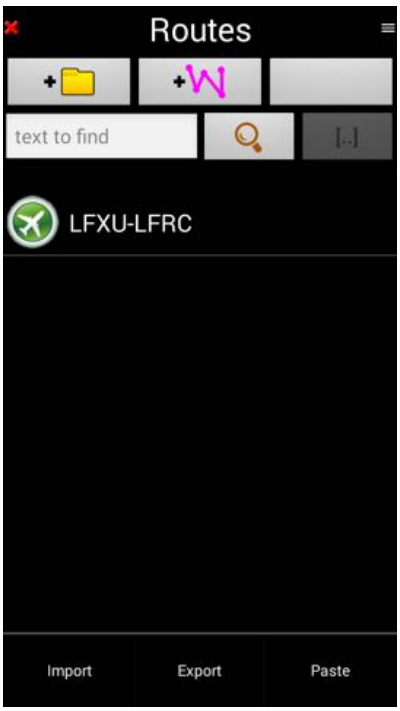
or

- ***Menu*** *(**short press** on the compass rose)* ***-> Navigate -> Route***

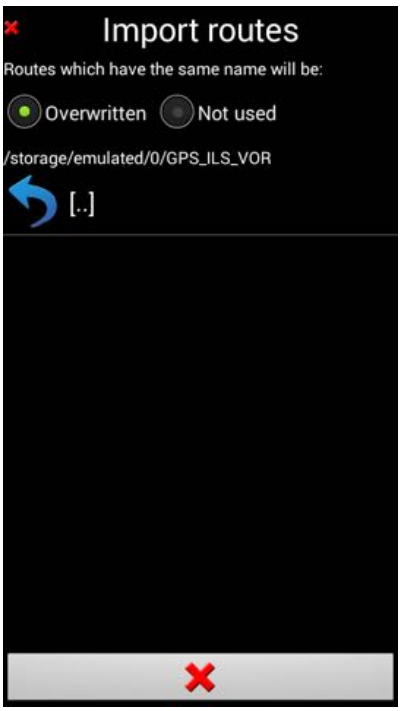
Then

- ***Short Press*** on the 3 small lines, on the upper corner right
    - "Import" – "Export" and "Paste" buttons appears

Route library

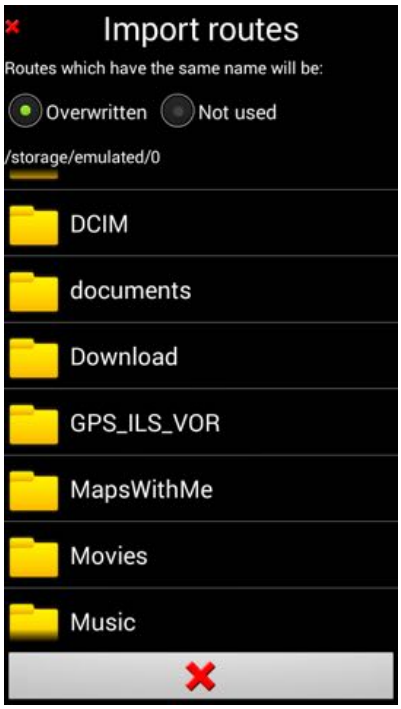


Import Export Past buttons



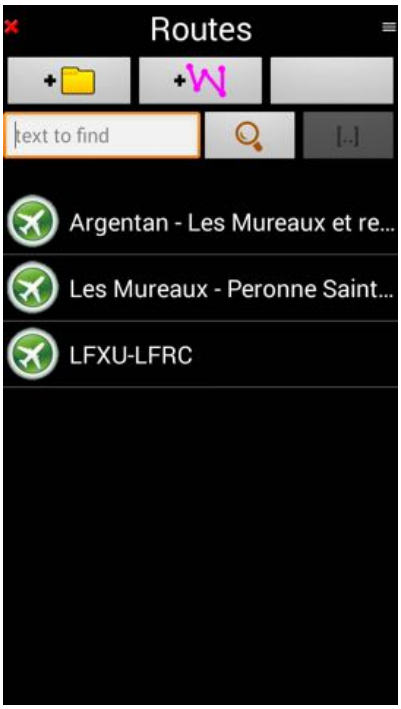
Selecting the folder

On your device, you should select the folder in which is located the route to import.



Selecting the folder

available routes to import



Imported routes

Note: for “Foufou Navigation” users.
“Foufou Navigation” http://francois.fouchet.free.fr/ is a fabulous and very powerful flight planning application, developed by M François Fouchet that works on Windows PC.

If you prepare your route with “Foufou Navigation”, once a route is uploaded, within “Foufou Navigation”, to use it with “FLY is FUN” chose “GPX (with waypoints)” as export format.

-> GPS -> Save route -> GPX (with waypoints)

Then transfer the saved file on your Android device and follows here above describe importation process.

9. Navigate

Now you know enough to use FLY is FUN navigate

Install you on board

Call the route library to select the route to use

- ***Short press*** on "DME" – "ET" – "ETA" brawn button

or

- ***Main Menu*** *(short press on the compass rose)* ***-> Navigate -> Route***
- ***Short Press*** on the name of the route you would like to use

For this first fly we chose Tunis_Douz entrance of Sahara desert

Available route in the library

Tunis_Douz route active

Having selected the route, we see that

- **DME** for next point DME is 21 miles
- **DME** for final destination DME is 253 mile
    - There is no indication for ET "estimate time" of arrival to the next waypoint or **ET "Estimated Time**" end of the route, as the plane isn't yet flying.

Note : you can set units value you like to use for distance (metric or imperial), speed (km/h or knots), altitude (meters or feet) via

- ***-> Main Menu*** *(short press on the compass rose)* ***-> App Settings -> Preferences -> Units select…***

Route being active, you see its name in the waypoint windows, with the name of the selected waypoint

As the route is active, if you ***Short press*** again on brawn button **"DME" – "ET" – "ETA"**, instead of reaching the Route Library, you get direct access to the route detail.

Detail of active route

You can scroll it up and down.
Active waypoint is in green

Note: Reaching a waypoint the application switch automatically to the next waypoint.

To select manually another waypoint, there are two (2) options

- ***Short press*** on one the waypoints of the list

or

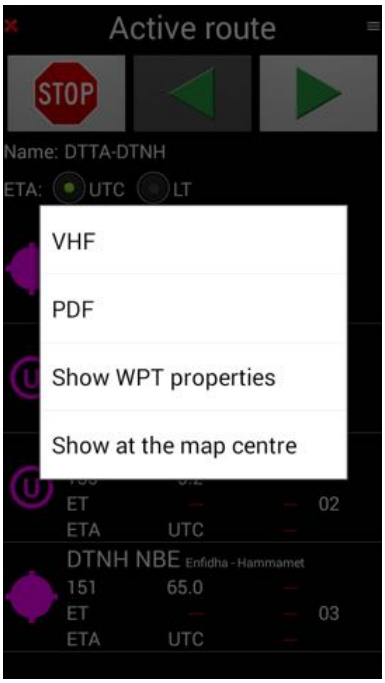
- ***Press the green arrows***

As soon a new waypoint is selected, manually or automatically, a message prompts on the moving map :

Next WPT selected, with its name

If instead a ***short press*** you do a:

- ***Long Press*** on one waypoints of the list a menu propose several possibilities



Specific action related to WPT selected

Using FLY is FUN, you will discover and enjoy many other functions…

10.Routes and “direct to”

In some cases, while following a route, it could be interesting to divert, to see some points that are not planned on the route, and then to come back to the route

Approaching St Benoît sur Loire waypoint, next waypoint “Castel of Chamerolles” is selected”

Approaching St Benoît

Next waypoint selected

Next waypoint selected

Approaching LFOZ, we would like to evaluate a direct to.

Short press on LFOZ on the moving map
Long press in the middle of info box

Direct to LFOZ established
5 miles in the 270

To come back to the route

Short Press on the waypoint windows
Select « Restore route navigation »

Route is reestablished

11.Logbook – Flight recording –Tracks

If activated, the **Logbook** could records:

- Length of the flight
- Departure and arrival airport
- Departure and arrival time
- Flight track
    - it is possible to export it to .kml file (Google Earth) or .gpx file
- Aircraft
- Pilot(s)
- …

Logbook works in automatic mode (by default) or in manual mode**.** In automatic mode, FLY is FUN starts recording when ground speed exceeds a define speed value. If speed drops below this value, application finalizes the record.

To call the Logbook

- ***Long press*** on the Log button

or

- ***Menu (short press** on the compass rose)* ***-> Tools and Info -> Logbook***

Main Logbook windows

"Pilot" button, "Aircraft" button, "To" button and "From" button allow filtering per Pilot, Aircraft or date.

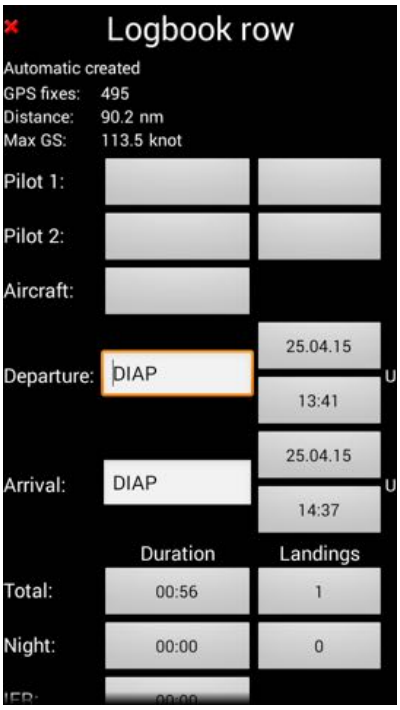
Long press on any log rows calls a Pop up menu:

Logbook main menu

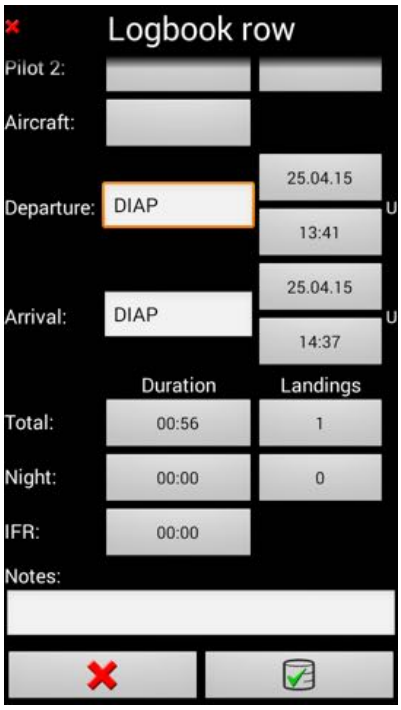
There you can chose several options

11.1.1. Logbook – "*Edit*" option

Edit calls a windows allowing association of pilots names, position and aircraft used, to the recorded row.



Logbook row



Logbook row

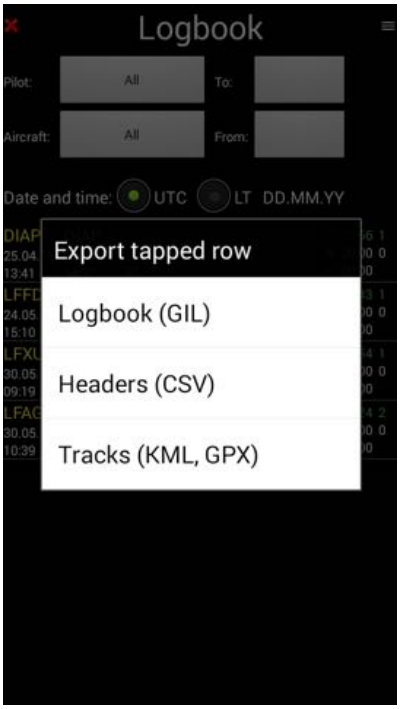
- To associate a Pilot, select pilot

- To associate an Aircraft, select aircraft

Do not forget saving modification ***pressing*** on **the green arrows**, at the bottom of the screen.

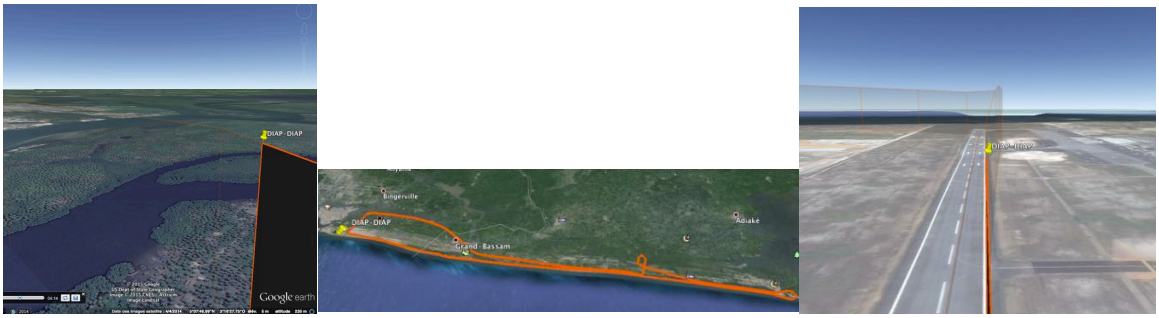
11.1.2. Logbook Export, flight track export

Export allows exporting the Logbook or tracks registered during flight



Logbook export menu

Recording tracks during flight allows to replay the flight and, if needed, to demonstrate that their were no penetration in prohibited airspace.



replaying a flight within Google Earth

12. Importing waypoints and PDF files

12.1. Importing items

You may, all ready have lot of items, point of interest, waypoints that you would love importing.

With FLY is FUN you can import (and export) Waypoints “Nav items” respecting the following format:

- GPX
- Kml, Kmz
- FLY is FUN own format

WARNING regarding waypoint creation and importation

First of all, you will have to create a folder outside of the World Nav Database to store your own Waypoints, point of interest of airfield.

This is very important, as within the World nav Database, data update start with suppression of all existing data, that are considered as outdated and then importation of the new data

Storing your own data in a folder that is outside of the World Database will allow avoiding bad surprises

To create a new folder

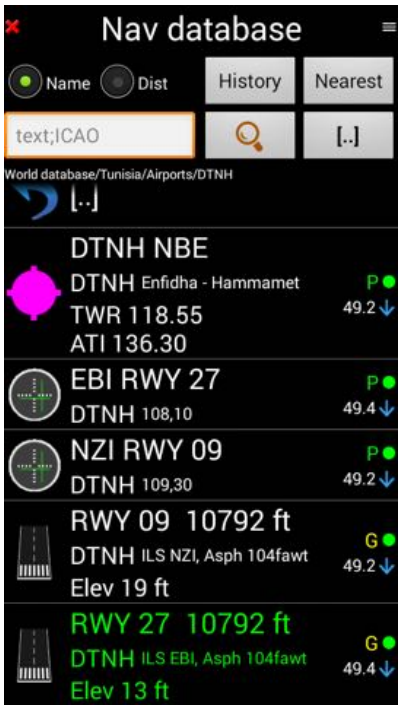
Call the “Nav database”

- ***Short press*** on the “WPT windows” on the right of moving map screen

or

- ***-> Menu*** *(**short press** on the compass rose)* ***-> Navigate -> Nav database (Direct to)***

Then move at the highest point of the data base three:



Moving to the top of the three

Moving to the top of the three

On top of the three

Create a folder for your own WPT

Menu « New folder »

Giving a name

Named

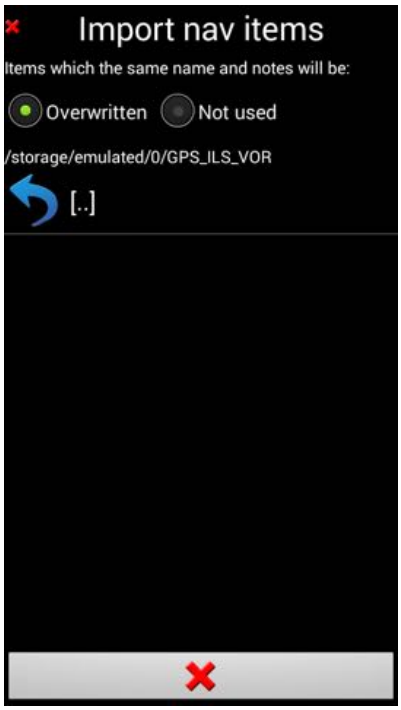
And select the WPT to import

New folder « My Waypoints »

Opening « My Waypoints »

Menu « Import »

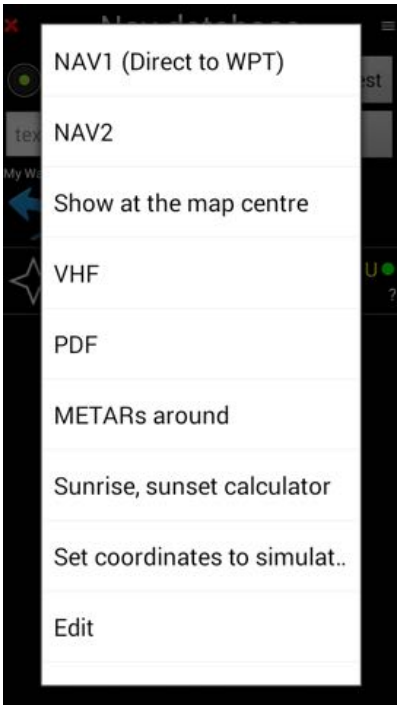
You should select the folder in which you saved the Waypoints to import



Waypoints selected in Download folder

Importing Waypoints

New Waypoints in My Waypoints folder



Ready for use « Long Press » on it

Have nice holidays

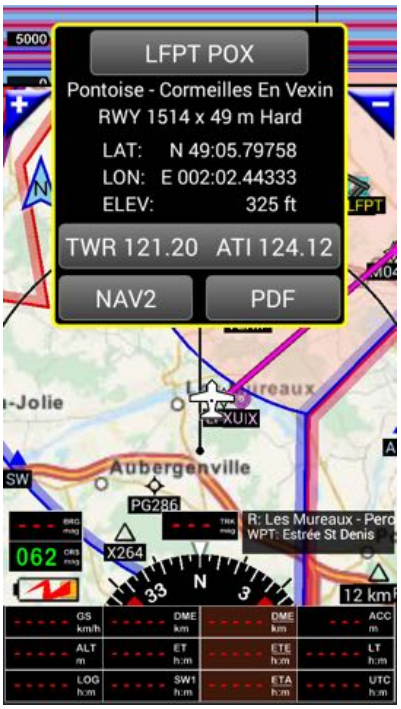
- Procedures for waypoints, airspace, airfield … importation from other applications and
- procedures for creation of waypoints, airspace, airfield, airstrip with Google Earth and importation

are described in FLY is FUN User guide
http://funair.cz/forum/viewforum.php?f=11

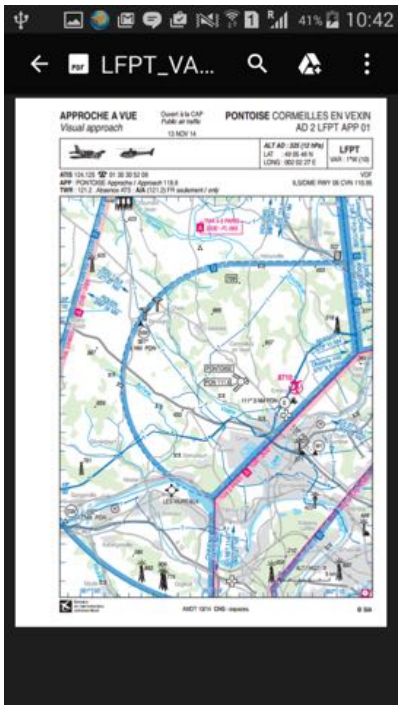
12.2. Using VACs and PDF files

It is possible storing PDF files in FLY is FUN directory and linking them to waypoints and nav items.

This allows consulting VACs and other information related to specific points during flight.



Short press on items
prompt info box



pressing on PDF button
calls attached PDF files, if any

How to proceed is described in FLY is FUN User guide
http://funair.cz/forum/viewforum.php?f=11

Note: Application as AeroVAC http://www.v2air.fr/page3.html or Foufou Navigation http://francois.fouchet.free.fr/ are very helpful for PDF VACs import. These applications are:

- Checking regularly, for some countries if VACs and some other documents are up to date;
- Importing automatically VACs on other documents, from official site;
- Able creating one folder per airstrip (airport / heliport / ULM field…);
- Able to put in the right folders all related PDF files VACs;

To do it, you can use the procedure they implemented for ANP iOS (Air Navigation Pro) export, as requested saving structure for FLY is FUN is similar

With Foufou Navigation, once document are up to date chose:

-> Tools -> Export -> Export VACs -> Air Nav Pro Format
Foufou Navigation create 1 folder with 1 subfolder per airstrip.
Each subfolder will contain PDF files related to the airstrip, if any.
All subfolders with there PDF files could then be transferred in one time to the Android device and FLY is FUN.

13. Using your own maps

Fly is Fun allows using maps that are free of right as well as commercial maps as long as they are complying with RMAps SQLite format. User can as well create its own customized maps.

France OpenStreetMap - free

World - free

CartaBossy - commercial map*

Corse OACI * - commercial map*

* CartaBossy and Corse OACI screen copies have been provided by a FLY is FUN user. They are reserved to its own usage.

14.Customizing FLY is FUN

If you like customizing FLY is FUN, we invite you exploring deeply all settings options

Most of the settings are accessible via

- ***-> Menu** (**short press** on the compass rose) **-> Application Setting -> Preferences***

Screen Customization and button setting could be done via:

- ***Long press** on the compass rose*

or

- ***-> Menu** (**short press** on the compass rose) **-> Application Setting -> Customize screen***

  Each screen could be totally customized

Detailed explanations are available in FLY is FUN User guide
http://funair.cz/forum/viewforum.php?f=11

15.More detail

To get more detail and more information, please consult:

- FLY is FUN User guide
  http://funair.cz/forum/viewforum.php?f=11

- FLY is FUN forum
  http://funair.cz/forum/

To unlock the trail version, install FLY is FUN unlocker

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