MGL Avionics

iEFIS

Plates from PocketFMS

User manual

Manual dated 12 December 2017

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General

This manual describes the plates functionality found in the iEFIS system from firmware version G3 1.0.3.9 onwards.

About plates

PocketFMS plates are exported from a PocketFMS EasyVFR FFM application supported on Android, Apple Mac, Apple IOS and Windows platforms.

Plates are exported onto an SD micro card and used from this card in the EFIS, there is no need to install plates into the EFIS.

EasyVFR creates the following folder structure on the SD card:
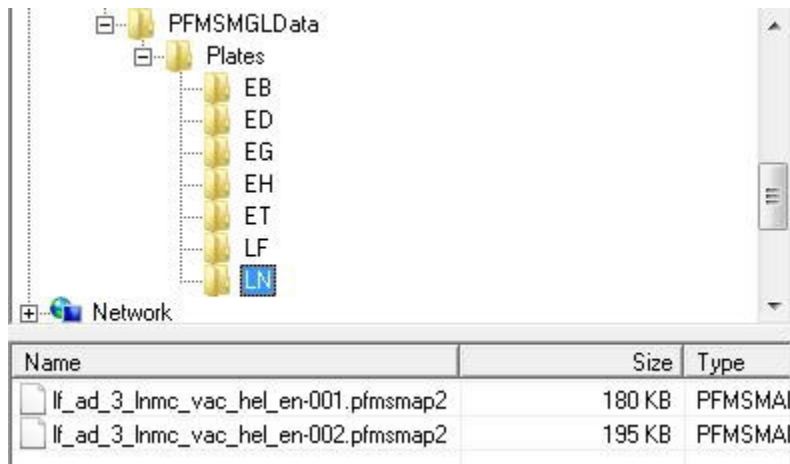
The top level folder "PFMSMGLData" contains the folder "Plates". Below this you may find a number of folders identifying an ICAO region.

Inside the ICAO region folder you will find the plate files for that region. Each plate file contains the image for one plate.

Under the plates folder you should find the file "PFMSMGLPlates.xml". This file is important. It contains one entry for each plate on the SD card identifying the ICAO code, a plate description and a path to the location on the SD card.

The first time you use the SD card and want to load a plate, the EFIS will ask you to create a index file. If you answer yes, it will create the file "PFMSPLT.IDX" under the "plates" folder.

The index file contains information on where to locate plate information for a given ICAO code in the "PFMSMGLPlates.xml" file. This index file is then used by the system to look up plate location information much faster than otherwise possible. Should you update your SD card with new plates information the index file will be recreated.

Example approach plate
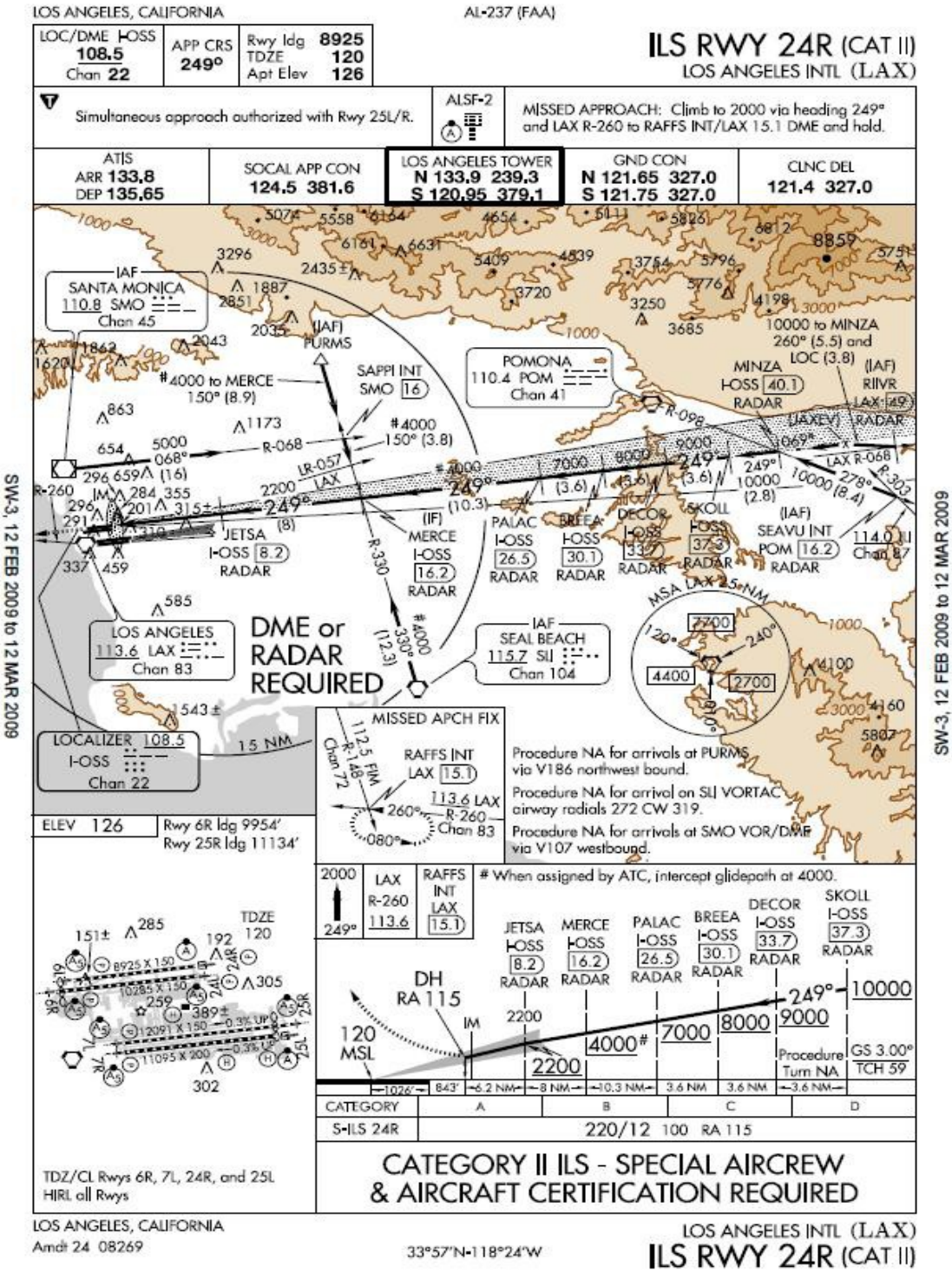
Plates and the iEFIS

Plates are generally viewed as a type of map even if not georeferenced.

The EFIS knows two basic types of map: The vector map and the raster map. You can switch between either map type using the Map Menu (provided you have maps that cover your area installed). Vector maps are drawn by the EFIS based on navigation data, cultural data and terrain data. Raster maps are images taken from published maps, usually aviation charts.

You can create your own raster maps using the MapMaker 2 application from MGL Avionics if you have maps available in a digital image format.

Regardless if you have raster or vector maps active on a page, you will have the option to activate a plates viewer. This option is only available on an EFIS page that has a map.

Press the "Plates" button to activate the plates viewer.
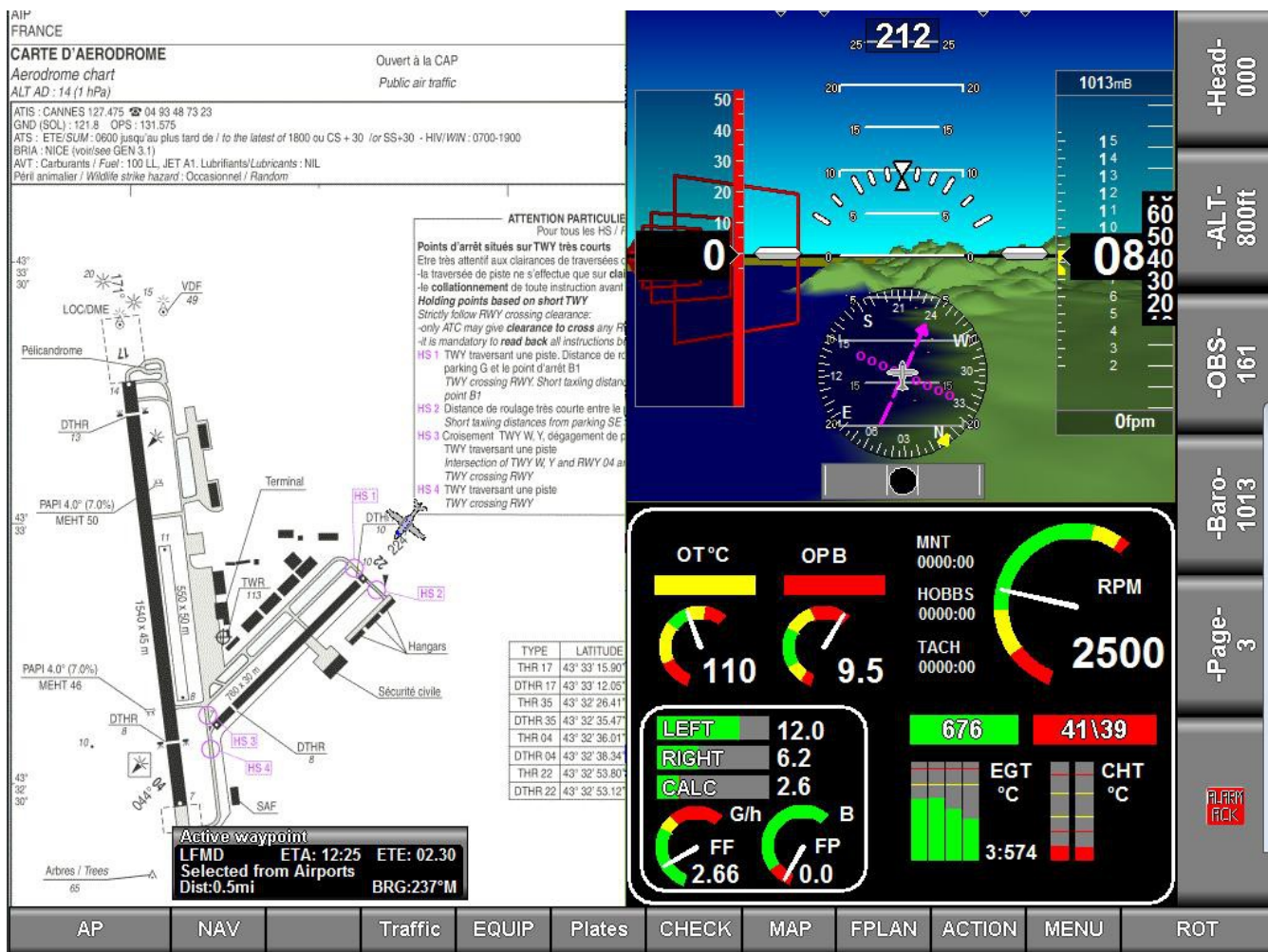
The plate viewer

The Plate viewer shown above has a plate loaded. This is an airport diagram plate and it shows the current aircraft position and heading – here on short final to runway 22. The plate viewer always shows the plate in "North up" orientation (it assumes the top of the image is "North".

The plate will be scaled to fit the available space but will retain the original aspect ratio. The available space is always equal to the size of the map on the chosen screen.

In order to see the map at actual resolution (i.e. remove the scaling), press the "fit" button. When you are in pixel perfect mode and the image is larger than the available space, you can easily move the image by tapping at any map location to center that location.

Use the "fit" button at any time to switch between scaled plate view and pixel perfect view.

Plates functions

The buttons allow you several functions while in plates mode. If you do not see these functions, simply tap on the plate. The plates functions will show for several seconds before the normal set of key functions will be shown again.

SD-Card / Internal

This function is not used for PocketFMS plates as these are always on the SD card. This function is applicable for MGL format plate files.

Airports

With PocketFMS plates selecting this function brings up the keyboard to allow you to enter the ICAO code of the desired airport from which you can select a plate.

Note: A second way to select plates for a given airport is to use the "nearest Airports" function, select an airport and then select "Plates".

Plate

If you have selected a plate previously (i.e. a plate is showing), using this function allows you to select another plate from the same airport.

Info

This function is not used for PocketFMS plates as these are always on the SD card. This function is applicable for MGL format plate files.

Recent

This contains a list of the most recent plates used. You can use this to quickly select a plate you have used before (you can choose from the most recent 10 plates).

Note: If there is at least one plate in this list, the most recent plate will automatically be loaded after a power cycle (provided the plate is accessible).

Favor

This contains a list of up to 10 "favorite" plates. Here you can recall plates that you often use quickly.

AddToF

If you have a current plate active in the viewer, selecting this adds the plate to your favorite list. If you have already 10 plates in this list, the oldest entry will be removed to make space.

Manage

This opens a menu allowing access to plate management functions described below.

MAP

This allows you to exit the plates viewer and return to the map view. If enabled, the current plate, if georeferenced, will be drawn on the map.

Clear

This clears the plates function buttons and returns to the normal function buttons (which also gives you access to the "MAP" menu which contains further plate related functions).

Index PFMS Plates

You can use this file to create the index file for the PocketFMS plates. Note that this is optional as the EFIS will prompt you to create such a file the first time you attempt to load a plate.

## MAP menu additions with a plate active
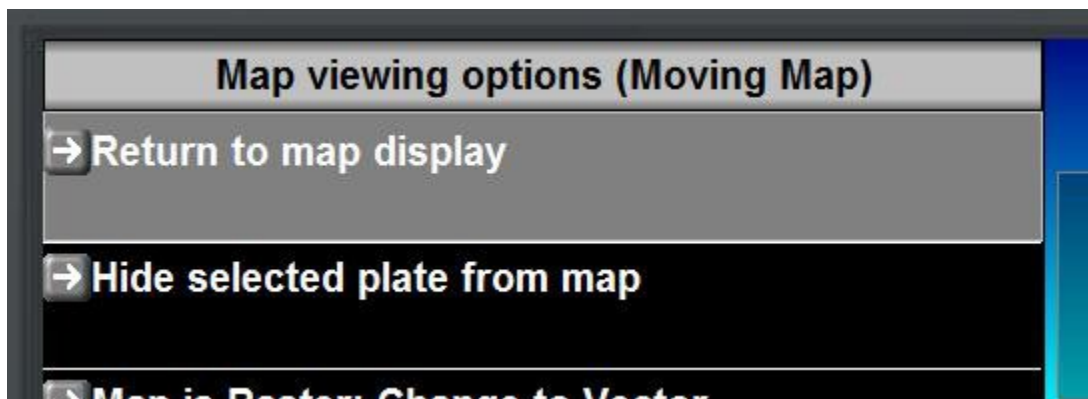
Return to map display

This is a duplicate of the function to exit the plates viewer and return to normal map display.

Hide selected plate from map

If you do not want the selected plate to be drawn on the map, you can select this here. Once the plate is hidden from map draw, you can enable the drawing again from the same entry.

Plates manager
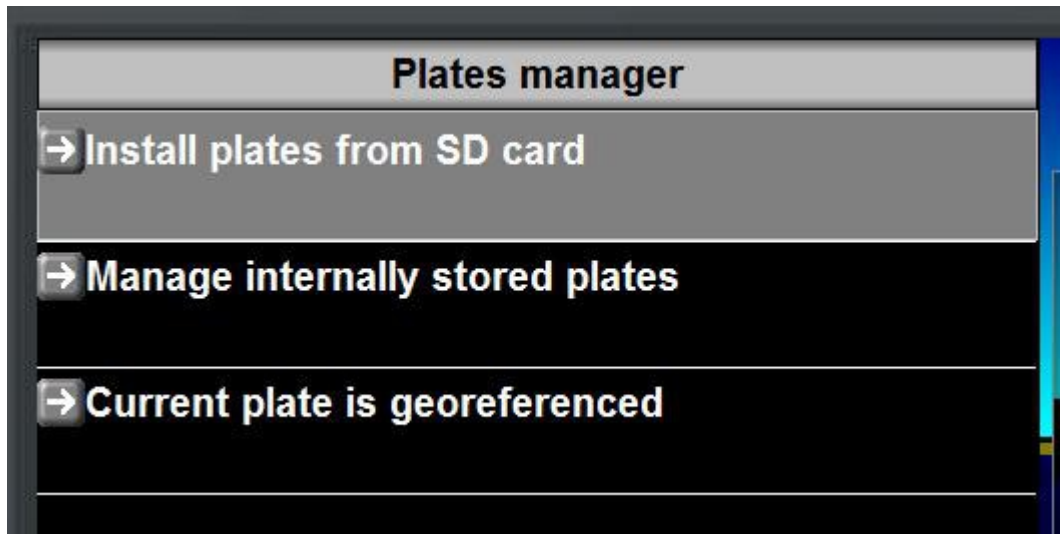
Install plates from SD card

**This function is not used for PocketFMS plates as these are always on the SD card.
This function is applicable for MGL format plate files.**

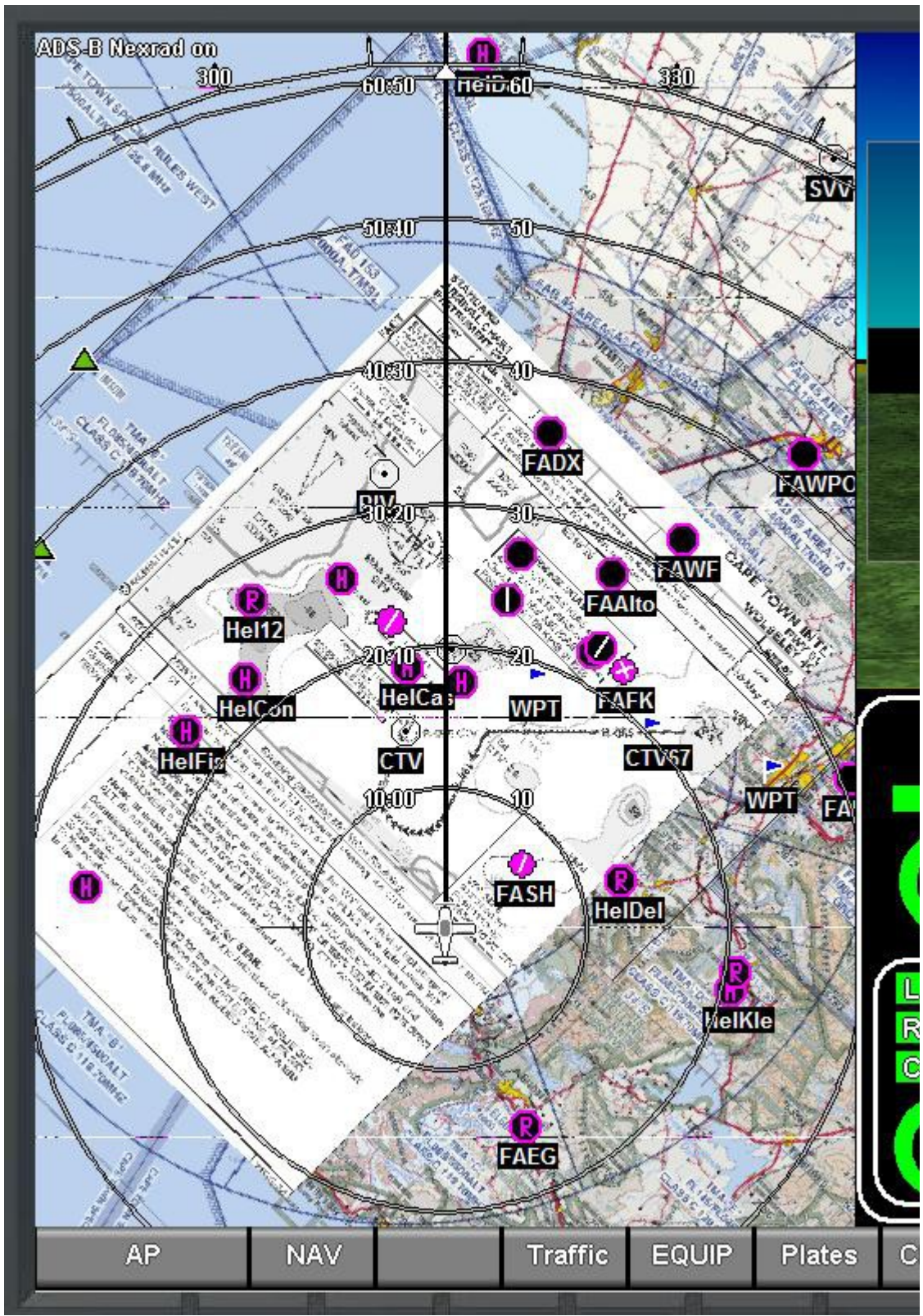## *Manage internally stored plates*

**This function is not used for PocketFMS plates as these are always on the SD card.
This function is applicable for MGL format plate files.**

Current plate is...

This is for information only, there is no function. It shows you whether or not the current plate has georeferencing information or not.

Showing a plate on the map

This picture shows the currently selected plate on a map that is using "track up" display. The plate is rotated into the correct orientation and obeys the current zoom level so you can zoom in and out of the plate.

The plate will be shown in either north up or track up mode as well as any vector or raster map mode.

Airspace and navigation information from the database will be drawn over the plate. If you are using raster maps – please note that you can enable or disable airspace drawing on top of a raster map in your Navigation setup menu (system setup menu).

Note: If you do not want the plate to show on the map, please disable it by using the relevant function offered after pressing the "MAP" button.

Selecting a plate from the airport information viewer

When you select the "Plates" button from the airport information display the EFIS will look for a plate file with the 4 letter ICAO designation (FACT in this case).