



Introduction to EasyCockpit for APPLE iOS

EasyCockpit

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EasyCockpit

EasyCockpit is a comprehensive aviation navigation tool for mobile devices and has for many years assisted pilots in improving their situational awareness when flying in Southern Africa. This GPS moving map software with detailed information will make your flying experience in this part of the African continent a safer one. The high-resolution clear vector map is offering an extensive airfields database including communication and navigation frequencies, runway information, fuel availability, cautionary notes, and sunrise/sunset times. Full airspace information, including special VFR routings and reporting points around congested areas, makes this GPS moving map a must for pilots flying in Southern Africa.

Regular updates are provided on all aeronautical and airfield information and new software features will be included as they become available.

EasyCockpit is the MOVING MAP extension of EasyPlan, a popular flight planning program for Windows. In time, many features of the EasyPlan will be included in EasyCockpit.

Hardware Requirements:

☐ Mobile Device = iPhone 3G iOS Vers 5.0/iPad 3G/WiFi iOS Vers 5.0

Please familiarize yourself with your iPhone and iPad and its manual.

Location Services (GPS): All iPhones as from 2nd Generation 3G have Assisted GPS "A-GPS" which use cellphone network, WiFi and a GPS (Global Positioning System) chip. From iPhone 4S and iPad 3rd Generation 4G, GPS coverage is combined with the Russian GLONASS system (Global Navigation Satellite System).

Software Installation & Licensing

EasyCockpit will be available on the iStore as a FREE application. To activate the FULL use of the program, you need to subscribe to EasyCockpit IOS via our website.

Before installing EasyCockpit, please read the Licence Agreement. If you do not agree to the terms, do not install the software.

We have a pricing structure available on our website:

www.aviationdirect.co.za - Latest Updates - EasyCockpit for iPhone and iPad.

The fees include activation and a 1-year subscription to updates.

A new Program ID which is the Unlock ID, will be issued to users for the EasyCockpit IOS application.

What you need to do:

Email us with your name and Program ID (EasyPlan or EasyCockpit), we will then check on your current status and send you an invoice. On receipt of payment we will issue and register you on the new Program ID and you will be able to use that ID to unlock the full database on your iPhone or iPad.

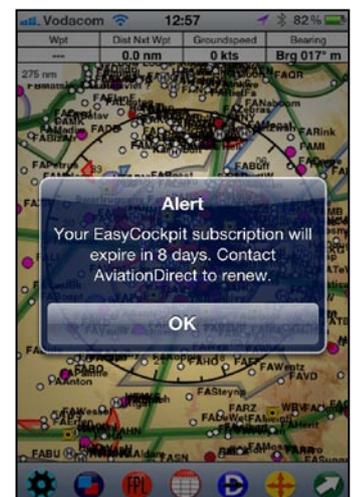
Should you have any trouble with the activation process, please don't hesitate to contact us.

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UPDATING EASYCOCKPIT

You will be advised when an update is available.

You will also be advised when your subscription is about to expire.



Important

EasyCockpit is intended to assist the pilot in the cockpit but should not be used as the only method of navigation. The use of EasyCockpit does not absolve the pilot from his responsibilities in terms of safely operating an aircraft.

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It is the pilots' responsibility to verify the accuracy of all information and subsequent flight plans with official sources and information before flight.

EasyCockpit Helpline

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Like any flight, the more thorough the preparation before a flight, the less work there will be in the air. EasyCockpit is a very comprehensive, but still user friendly navigational tool and can be customized to suit specific requirements.

Setting Your Preferences - SETTINGS & TOOLS

DISPLAY FEATURES

Select:  > Display Features > **General**

The Auto-de-clutter and Auto Zoom functions can be turned ON/OFF here.

Auto-Declutter - if selected, the program will remove map features like rivers, roads, dams and obstacles when the screen display is zoomed out to 40nm or more. This reduces the amount of clutter on the display.

Auto-Zoom - when approaching Final Destination, the moving map display is automatically zoomed in, thus providing more detailed mapping ahead of the aircraft, e.g. when the aircraft is 6nm from destination, the zoom range changes to 10nm, 4nm away from destination zooms to a 6nm range, 2nm to 4nm range.

Fast Zoom and Pan - if selected, the Zoom and Pan facility is sped up.



Terrain Display



While flying, there are two options on how the terrain and/or Elevation is displayed:

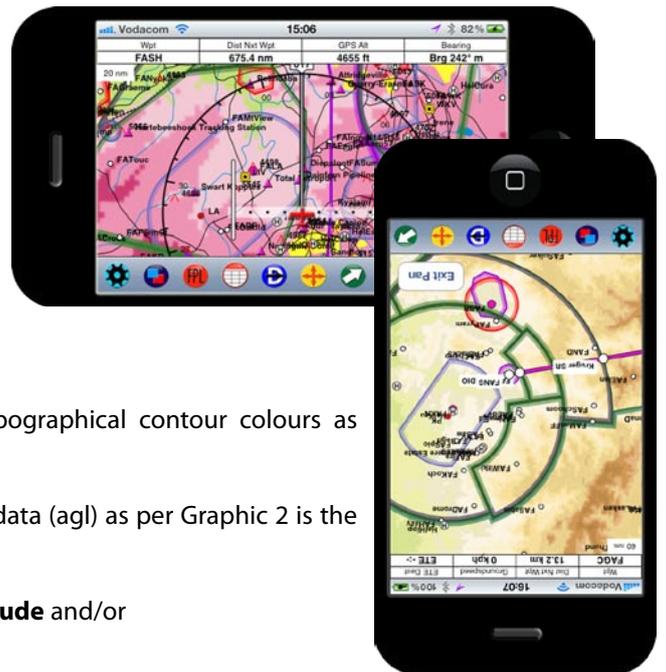
- 1. Ground elevation data or
- 2. Aircraft Height Above Ground data (agl)

The *Background Colours* differentiate these two options. See Graphics 1 & 2.

Ground Elevation is shown by topographical contour colours as shown in Graphic 1.

The Aircraft Height Above Ground data (agl) as per Graphic 2 is the **GPS** height above Ground/Terrain.

EasyCockpit works on the **GPS Altitude** and/or aircraft **GPS height** above ground



Disable screen lock

If an iOS-based device does not receive touch events for a specified period of time, the system turns off the screen and disables the touch sensor. Locking the screen is an important way to save power. Disable screen lock ON stops the iPhone to close the program and go into sleep mode.

To customize information displayed on the screen during flight:

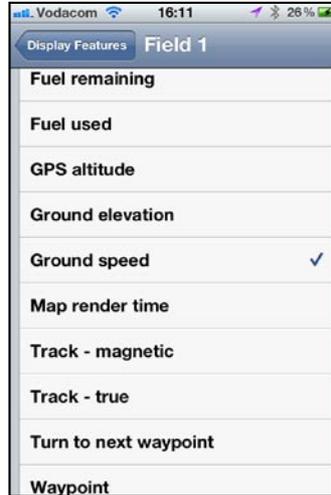
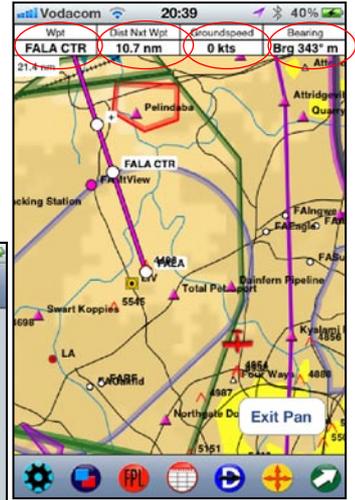
Go to:  Display Features >

Nav Stats

'Nav Stats' enables the user to select and/or change the type of Navigation Data displayed in each of the four different screen display boxes (Field 1, 2, 3 or 4). These can be chosen from 20 options by scrolling down the list and selecting the data. Although this should be set up before flight, the data display boxes can be changed at any time.

Options:

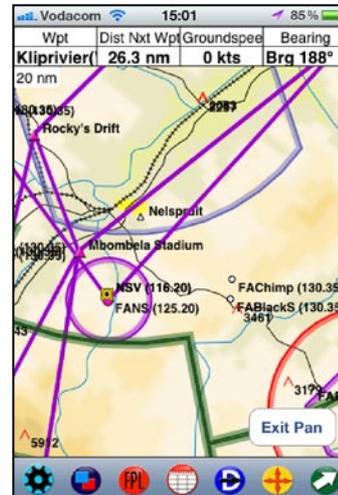
- AGL height
- Bearing to next waypoint - magnetic
- Bearing to next waypoint - true
- Distance off track
- Distance to destination
- Distance to next waypoint
- ETA at destination
- ETA at next waypoint
- ETE to destination
- ETE to next waypoint
- Flight time
- Fuel remaining
- Fuel used
- GPS altitude
- Ground elevation
- Track - magnetic
- Track - true
- Turn to next waypoint
- Waypoint



**T
|
P** The Magnetic Track is also highlighted in the Box below the top middle NavStat field..

Fonts

The size of fonts can be changed here : Nav Stats' fonts on top of the screen can me increased by selecting Normal +1 or +2 or +3 or +4, however on the smaller iPhone screens the bigger fonts might not fit into the Nav Stats Box. Fonts on the MAP display can be increased in the same way.



AIRCRAFT

Select:  ▷ Aircraft ▷ **GENERAL**

Enter the **Aircraft Registration**, **Aircraft Type**, the **Taxi Speed (which is the Flight Activation Speed)** and the **Glide Ratio**, by changing the Default data "Zx-xxx" under General, with your registration and other details as required.

Select NEXT to move to the next items on the list, then CLOSE SETTINGS & TOOLS

Before entering data on the aircraft specifications, select the preferred units of measurement, particularly the Fuel measurements, as this will define the input data in the Fuel Consumption Menu. *These figures do not automatically update when the units of measurement are changed.*

TAXI SPEED: = *Flight Activation Speed* which is the speed at which the start of flight is activated.

Enter a speed which is **above** your Taxi Speed and **just below** your Take-Off Speed. The Flight Timer automatically starts when this speed is reached. It counts your flying time but also plays a role in reminding the pilot to Switch Fuel Tanks.

GLIDE RATIO: (*feature not yet available)

*By entering the Glide Ratio (as per the aircraft handbook) the glide range rings around airfields on the map display are calculated, taking the 'agl' into account, to show how far the aircraft can glide with engine out. This glide ratio should be chosen conservatively, as winds are not taken into account.

FUEL CONSUMPTION:

In the **FUEL** menu, add in your aircraft's consumption figures during the different stages of flight, i.e. consumption during taxi, climb, cruise and descent.

Add the amounts for *Fuel onboard* and *Fuel density* in kgs/litre.

The fuel calculations in EasyCockpit are calculated from the Performance data and the flight details in the Flight Log.

Note: *This data will only assist in general fuel management but does not measure actual fuel consumption.*

FUEL :

Enter Fuel Onboard and the Fuel Density

FLIGHT PLANNING

For **Flight Planning**, enter the average *Cruise Speed* and *Descent Speed*.

UNITS

There are 5 different types of measurements which are configurable:

- Speed:** Kilometres, Knots or Miles
- Distance:** Kilometres, Nautical Miles or Statutory Miles
- Altitude:** Feet or Metres
- Fuel:** Gallons, Litres, Pounds or Kilograms
- Temp.:** Celsius or Fahrenheit
- Lat/Long:** Degrees : Minutes : Seconds or Degrees : Decimal Minutes

**T
I
P** Select your preferred types of measurements BEFORE entering your Fuel Consumption and Speeds



You can add different aircraft onto EasyCockpit.

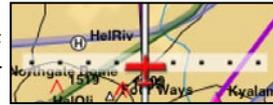
Select Add Aircraft: this will default to Zx-xxx. In GENERAL, you can now edit these details and change the figures according to your aircraft details. Select NEXT on your keypad to go the the next item.

THEN, to save the entry, leave the page by tapping Settings & Tools.

Select:  **GPS** Turn Simulation Mode ON/OFF

Select:  **HSI SENSITIVITY**

Sensitivity of the HSI needle can be set here. This determines the distance OFF TRACK. Each dot of displacement of the HSI needle represents either 0.1nm or 0.5nm per dot, left or right of the trackline.



Select:  **REMINDERS**

Used with discretion, these Reminders can be of great assistance during flight. Bright Red Alert Boxes appear on screen with Warning Messages according to your selection.



TERRAIN WARNINGS

Warning will come up when the aircraft is approaching high terrain. Terrain elevation is checked **20°** either side of the aircraft and triggers the Alert **2** minutes flying time ahead based on current ground speed and if the height between the aircraft and the top of the terrain is 500ft or less.



OBSTACLE WARNINGS

An alert box pops up when obstacles are coming up on the flightpath. Only man-made obstacles higher than 200ft are included in EasyCockpit. The warning appears when approaching an obstacle **20°** on either side of the aircraft, when the obstacle is less than **2** minutes flying time ahead based on current ground speed, and when the height between the aircraft and the top of the obstacle is 500ft or less.

A This symbol displays the obstacles on the screen.

The obstacles database at this stage only covers South Africa and some other countries. More information will be added when available. Although the database will be updated regularly there is no guarantee that the details are accurate and up-to-date. All information must be used with caution.

START DESCENT - A reminder is triggered **1** minute before the required rate of descent will equal 500ft per minute, to arrive 1000ft above the destination airfield. Descent speed is used when performing the calculation.

***SWITCH FUEL TANKS** - a prompt which can be set to *REMIN* to switch fuel tanks. Set the time interval for changes, e.g. every 30 minutes. Uncheck if this function is not required.

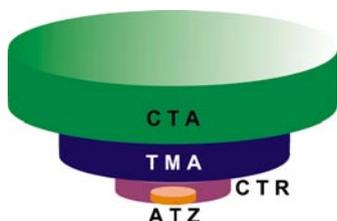
AIRSPACE - tick this box to display an Alert which is activated 2 minutes before an Airspace is entered. Select the relevant Airspace Boxes for Airspace Warning. Airspaces appear on the screen display, for example Prohibited and Danger Areas are highlighted with a thick red line, Restricted Areas with a blue line. On the screen display, tap on an airspace border to view more information.

In Map View, you will also find the various airspaces in front of you with frequencies, the vertical levels and the calculated distance to that boundary.

In FlightLog View, the upcoming Airspaces are also shown



TIP To avoid unnecessary Alerts, untick airspaces that are well above your cruising level.



Select:  **TOOLS**

E6B CALCULATOR

This digital Flight Calculator calculates Density Altitude, True Airspeed, Winds and Wind Direction.

Figures can be entered by using the keyboard display. First calculate the Density Altitude by entering the Temperature and the Pressure Altitude. True Airspeed is calculated by adding the Indicated Air Speed. Add the Magnetic Heading to obtain the True Wind Direction and Wind Speed.



WEIGHT & BALANCE

EasyCockpit has a basic weight & balance calculation. In order to calculate Weight & Balance, the relevant information must be obtained from your Aircraft Manual's Weight & Balance section.

The ARM values, i.e. the distance from the reference point, can be entered in centimetres or inches.

Select EDIT ARM values:

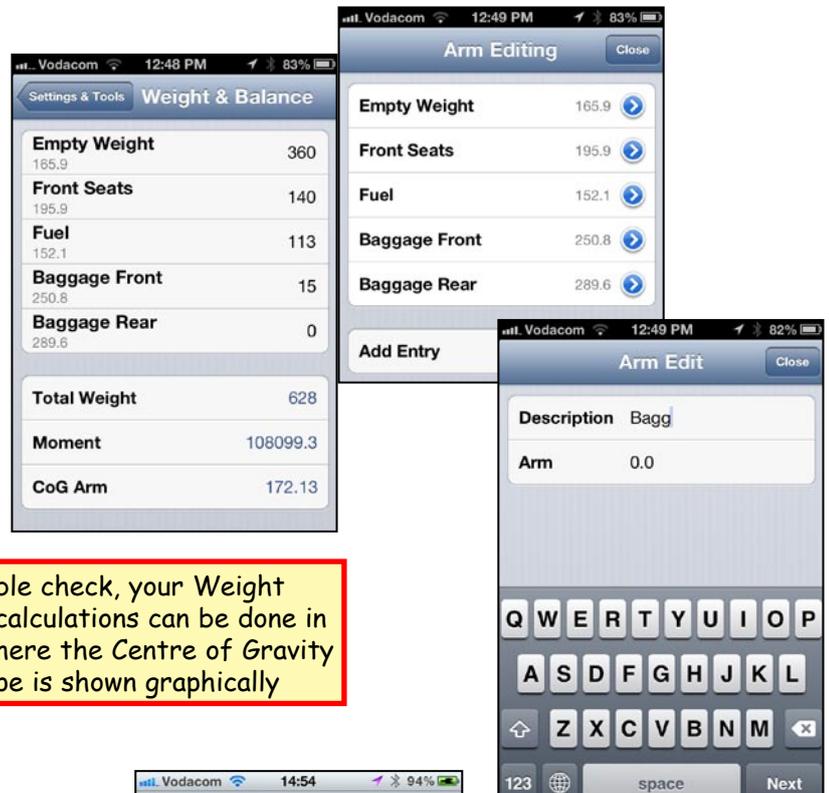
- you can edit an existing entry,
- you can edit a Description,
- you can ADD another ARM value

Then Add the Aircraft Empty Weight.

Add the relevant weights for a particular flight in kg or Pounds, but NEVER mix these units of measurements.

Ensure that the ARM figures linked to the weights are entered correctly.

The Ramp Weight, Centre of Gravity Arm and -Moment is then calculated. Check that the weight and CoG falls within the Aircraft Weight & Balance limits.



**T
I
P** To double check, your Weight & Balance calculations can be done in EasyPlan where the Centre of Gravity Envelope is shown graphically

Select:  **LICENCING**

In order to obtain the full use and full database of EasyCockpit, an activation fee and a license /subscription fee has to be paid. Once activated you will receive a new Program ID. Insert this ID and Select "Update Subscription Info."

Further details can be obtained from our website www.aviationdirect.co.za - Latest Updates - EasyCockpit for iPhone/iPad

Select:  **ABOUT**

This window shows the current EasyCockpit version installed as well as data currency.



Select:  MAP OPTIONS

RANGE

The scale of the map display can be selected here which ranges from 2nm to 140nm. The range from the aircraft symbol to the compass rose is displayed on the top left corner of the screen. The range can also be altered by pinching or stretching the map on the screen.

During flight the range automatically zooms in when descending for landing, if Auto Zoom is selected.

DISPLAY MODE

You can select to fly in Track Up Mode or in North Up Mode



Track Up Mode

In Track Up mode the map display is rotated to the aircraft's current Track. A 90° arc of the compass is displayed, always facing Magnetic Track Up.



North Up Mode

North up mode shows the map display in a TRUE NORTH orientation. A 360° compass rose is displayed.



COMPASS ROSE

when selected, a compass rose is displayed on the screen. The compass display shows a 90° arc in Track-Up Mode and a 360° circle in North Up mode (see images).

HSI

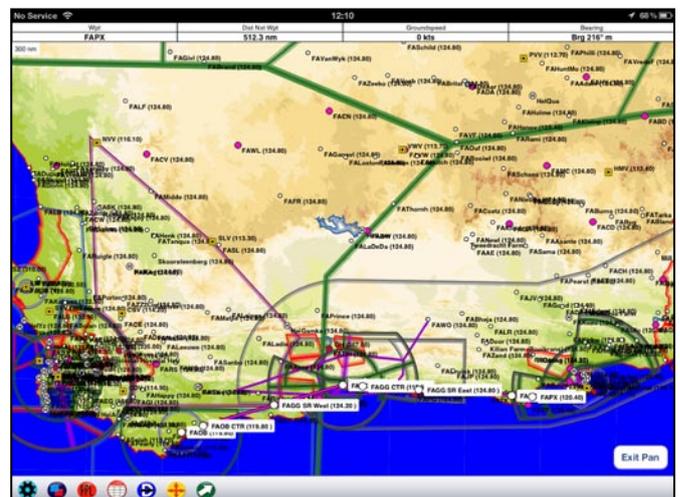
Switch HSI needle ON/OFF. EasyCockpit presently provides a simple HSI needle which shows the nautical miles Off Track according to the sensitivity setting. Each dot on the display screen represents either 0.1nm or 0.5nm (whichever value it has been set to) - left or right of the track-line.

TRACK LINE

Switch Track Line ON/OFF. The track line displays the actual track being flown.

DISPLAY FREQUENCIES

Switch ON/OFF to display frequencies on the Map Display



Adding / Creating / Editing / Deleting USER WAYPOINTS

User Waypoints can be created, edited, renamed, up-dated, or deleted in EasyCockpit.

1. You can do that by Tap & Hold on the screen. This will prompt you to add a User Waypoint at that position. At the same time it also shows the Distance to that Waypoint, the Bearing as well as ETA from your current position.

You can now insert a shortened ID for the Waypoint as well as a longer Name of your choice.

If you know the radio frequency, you can insert that as well.

If you don't insert any name, EasyCockpit will automatically create a name, i.e. WPT1 or WPT2 and so on.

You can later edit that Name.

You need to select "Add to Flight Plan" ON or OFF.

User Waypoints can also be added under Map Options:

Select User Waypoints - Add Waypoint

Insert an ID (abbreviation), a Name, and the co-ordinates.

or select "Current Position"

You can select "Add to Flight Plan" ON or OFF.

User Waypoints can also be copied from EasyPlan using iTunes File Sharing (see File Sharing in iTunes). Copy these over before you add user points on your iPad/iPhone as the files will overwrite what you have already on your iPad.

You can DELETE User Waypoints under the Edit function. Select Edit, then Delete.



EasyWeather Downloads

See Easy Weather section

Layers

The Layers which are displayed on the map, can be selected from a range of options, by switching Layers ON/OFF.

These can be added or removed at any time during flight.

- Political boundaries (borders between countries)
- Roads (Highways and Main Roads)
- Railway Lines
- Rivers (Rivers and Dams)
- Urban (built-up areas, i.e. cities,towns and townships)
- Obstacles (obstacles min. 200ft high)
- Terrain
- NDB
- VOR
- Reporting Points (some of these points can be used when crossing FIR boundaries)
- Reporting Points (VFR) (compulsory and non-compulsory reporting points within the Special Rules Areas, and through complex airspace)
- Airfields (registered)
- Airfields (unregistered)
- Airfields (microlights)
- Airfields (Helipad)
- Airspaces: FIR, CTR, ATZ, TMA, FAR, FAP FAD, CTA/UTA (to de-clutter, turn off airspaces which are above your normal VFR flight altitudes, for example CTA/UTA.)



EasyWeather

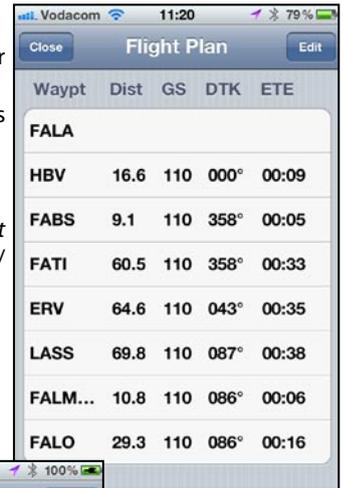
See Easy Weather section

Select:  **FLIGHT PLANNING**

Any number of waypoints can be entered in EasyCockpit, e.g. airfields, navigation aids, reporting points or abeam points.

Flight plan waypoints can also be entered on the display screen by tapping on a point: - a prompt appears "Select Feature" where either an airfield or a navaid or Airspaces can be selected..

The flight plan in EasyCockpit shows up to 6 digits of the names of your *Waypoints*, the *Distance to the next Waypoint*, your *Ground Speed* as per the *Cruise Speed* you entered in *Aircraft Settings*, the *Desired Track/Heading* and the *Lapse Time*.



Waypt	Dist	GS	DTK	ETE
FALA				
HBV	16.6	110	000°	00:09
FABS	9.1	110	358°	00:05
FATI	60.5	110	358°	00:33
ERV	64.6	110	043°	00:35
LASS	69.8	110	087°	00:38
FALM...	10.8	110	086°	00:06
FALO	29.3	110	086°	00:16

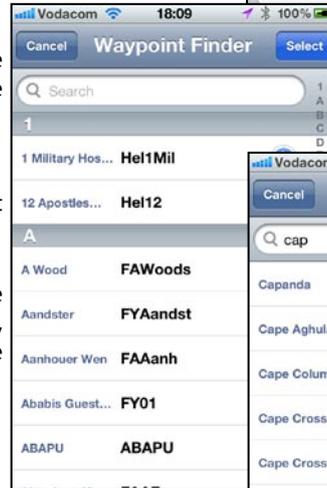
In Flight Plan View:

Add Waypoint: enter the departure airport.

Add Waypoint: enter the next points (reporting point, VOR, NDB, airfield or *user point)

Add Waypoint: enter the destination airport

The **SEARCH** function allows you to search by *ID* or *NAME*. Searching is also possible by using the scroll bar on the right hand side of the screen selecting a letter from the alphabet or scrolling Highlight your selected waypoint and tap "OK"



Waypoint Finder

Search: 1

1 Military Hos... Hel1Mil

12 Apostles... Hel12

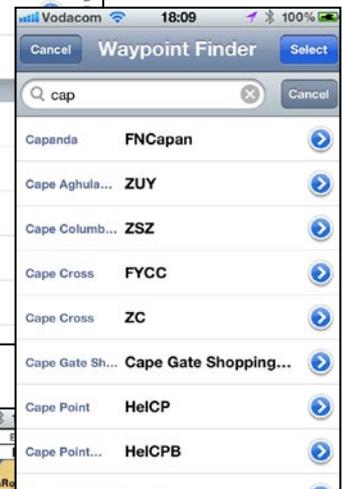
A Wood FAWoods

Aandster FYAandst

Aanhouer Wen FAAanh

Ababis Guest... FY01

ABAPU ABAPU



Waypoint Finder

Search: cap

Capanda FNCapan

Cape Aghula... ZUY

Cape Colum... ZSZ

Cape Cross FYCC

Cape Cross ZC

Cape Gate Sh... Cape Gate Shopping...

Cape Point HelCP

Cape Point... HelCPB



Waypt	Dist	GS	DTK	ETE
FALA				
FAMtV...	5.1	95	347°	
FALA...	6.0	95	336°	
FACove	1.0	95	345°	
FAJS...	3.3	95	008°	
FAAP	1.8	95	016°	
FAD 70	6.4	95	264°	
	9.3	95	263°	

To delete a Waypoint in the Flight Plan, select EDIT, then select the  symbol to delete.

To add a waypoint inbetween a LEG, or move Waypoints into the correct sequence, select EDIT, then select and HOLD on  and move the whole entry into the correct sequence.

ABEAM POINT

To add an *ABEAM POINT* in the flight plan, first select the Flight Plan LEG, then select an *ABEAM* Waypoint from the Waypoint Finder list.

TIP: the quickest way is to select an *Abeam* Waypoint in Mapview. Select a Point along your Route, and select "Add as ABEAM Point".

ABEAM POINTS are marked with a "+" plus 6 letters on the flight plan and flight log, and is shown as a white dot on the Flight Plan Line in Screen Display view.




Options

- Add Waypoint
- Add Abeam Waypoint
- Add Airspace Intersection
- Clear Flight Plan
- Invert Flight Plan
- Load Flight Plan
- Save Flight Plan
- Delete Flight Plan



Airspace Selection

Select Airspace	Distance
FAD 60	5.4nm
FAJS CTA	6.9nm
FAJS SIR	9.1nm
FAJS SIR	9.1nm
FAD 60	11.8nm
FAJS CTA	19.5nm
FAR 71	52.4nm
LASS	54.9nm

Adding an Airspace Intersection:

Select Airspace Intersection, then Select the Flight Plan Leg, then select the Airspace. The window will show you the distance to the Airspace from your current GPS location.

Airspace Reminder has to be selected to advise of approaching airspace boundary.

CLEAR FLIGHT PLAN

Tapping on this box will clear the currently active flight plan. A new flight plan can now be created.

INVERT FLIGHT PLAN

A flight plan can be inverted by selecting this button. Change waypoints, if necessary. This is a quick way to plan a return flight!

LOAD FLIGHT PLAN

An existing flight plan can be loaded from here. Tap **Load**, then select a previously saved flight plan from the Flight Plan Folder. Tap OK. The purple Flight Plan Line appears on the screen.

SAVE FLIGHT PLAN

After a flight plan has been created, **SAVE** the flight plan. If a FlightPlan with the same name already exists, it will prompt you to save under a different name.

DELETE FLIGHT PLAN

A flight plan no longer required can be deleted here.



SCREEN DISPLAY MAP VIEW

In Map View, information on airfields, airspace, nav aids, reporting points or airspace can be called up by tapping on a point. A screen appears: "Select Feature" with the name of various points, select a point. A new screen provides various options:



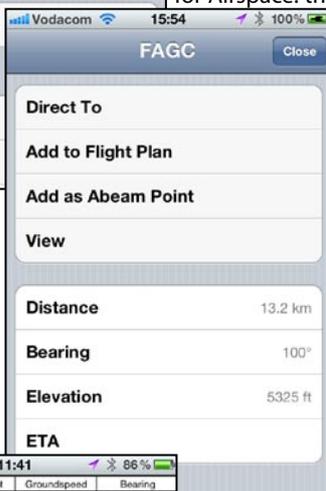
Direct To, Add to Flightplan, Add Abeam Point, or View.

The Direct To will clear all points in a flight plan and shows the line to the DirectTo point. **Add to Flightplan** option will add the selected point **at the end** of the currently OPEN Flightplan. **Use the Edit button to move that point into the correct Leg.**

Add as an Abeam point will prompt a new window to select the leg for the Abeam point.

View shows relevant information on the selected point, e.g. for an Airfield: elevation, co-ordinates, runway information, frequencies, etc. are displayed; for Airspace: the type of airspace, vertical bounds and frequencies.

Below, the Distance, Bearing and ETA is shown to that point from your current position.



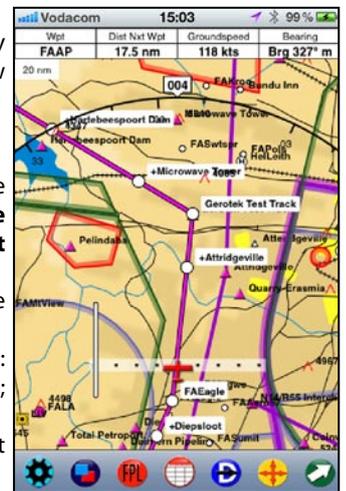
If **no** flight plan is open a new one is started.

GPS FIX

iPhones with A-GPS (Assisted GPS) (all phones from 2nd Generation 3G) receive data from satellites as well as cellphone networks and WiFi. This generally enhances the performance of the GPS and receives a quicker 1st Time Fix. In the aircraft the phone should be placed with clear view of the Sky to obtain satellite data, as the cell phone network might not be strong enough at some altitudes or in mountainous areas. However, even satellite connection can be lost for short periods.

In EasyCockpit, a warning appears on the screen, if no GPS fix is available. This normally happens only for a short period and should not affect your flight.

Later phones and iPads (iPhone 4S and iPad 3rd Generation 4G) the American GPS is combined with the Russian GLONASS system.



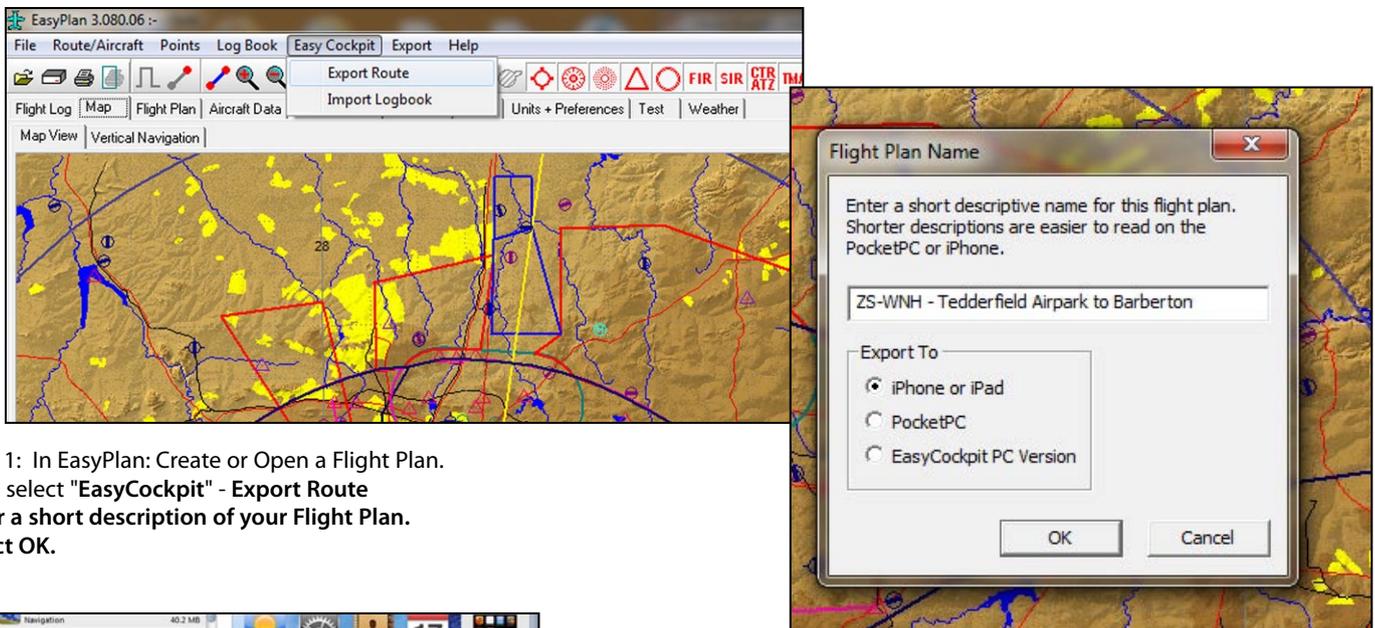
Airplane Mode - if Airplane Mode is switched on, the GPS or any other network data won't work.

TIP Sometimes it looks like there is no signal available on your iPhone or iPad. By turning ON Airplane Mode and then OFF again will restart the network circuitry.

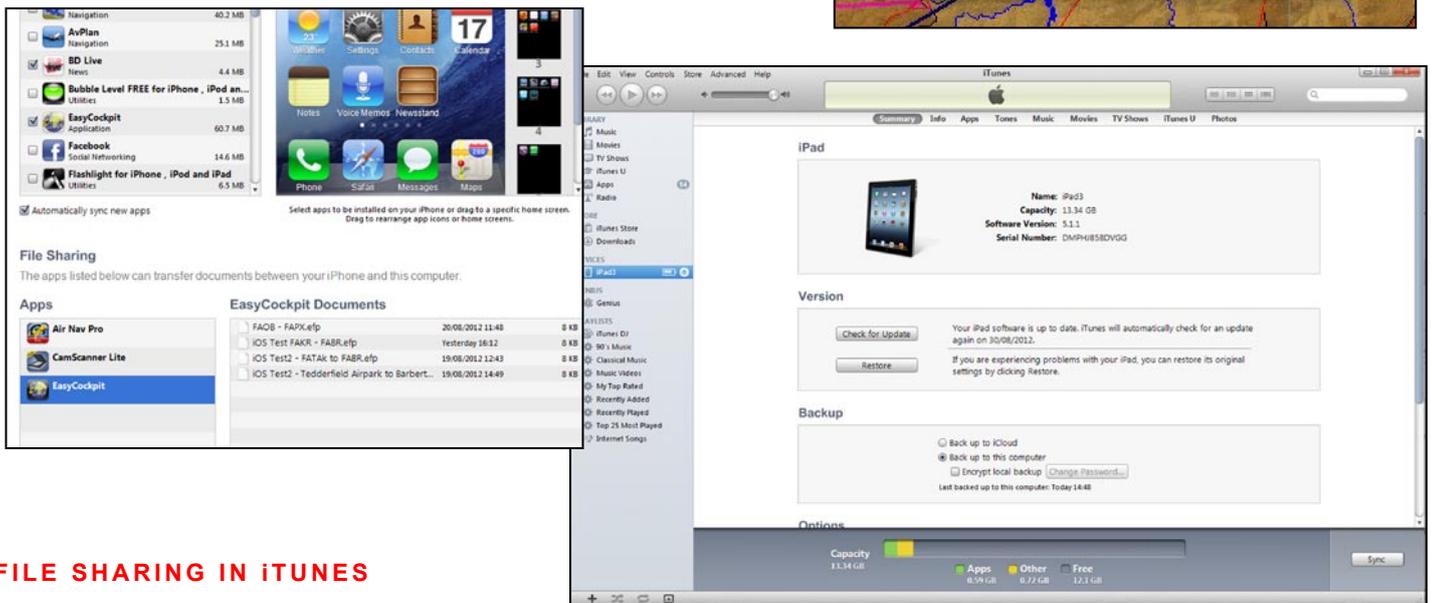
FLIGHT PLANNING IN EASYPLAN

Flight Plans created in EasyPlan can now be converted and exported into EasyCockpit on the iPad. At the moment we still have to use the iTunes File Sharing option. EasyPlan flight plans with the extension of .ep1 will be converted to .efp flight plans which will work on the iPhone/iPad.

Flight Plans created on your iPhone or iPad can also be SAVED onto your main computer.



STEP 1: In EasyPlan: Create or Open a Flight Plan.
Then select "EasyCockpit" - Export Route
Enter a short description of your Flight Plan.
Select OK.



FILE SHARING IN ITUNES

1. Connect your iPhone/iPad to your computer. The iTunes Window will open.
2. Under 'Summary' - Backup - make sure that 'Backup to this computer' is selected.
3. Then Select Apps and scroll down to File Transfer
4. Select EasyCockpit. You Flight Plans in EasyCockpit will show.
5. When you select a Flight Plan, you have the option: SAVE TO. This flight plan will be saved under My Documents - EasyPlan3
6. If you want to import a saved Flight Plan from EasyPlan, select ADD. It will open your 'My Documents - EasyPlan3' window.
7. Select your EXPORTED EasyCockpit flight plan with the file extension .efp - Click Open.
8. In iTunes select Apply or Sync. It will then sync your iPhone/iPad and include the new Flight Plan.
9. On your iPhone or iPad, select  and then LOAD flight plan. You can now use as is, or EDIT the Flight Plan.

You can now enjoy your full EasyPlan flight plan in EasyCockpit too.

Select:  ► **FLIGHT LOG**

- this button shows the current Flight Log if a flight plan is active. The Waypoints, Distances, current Ground Speed and Desired *Magnetic* Track are displayed, as well as ETE Elapse or ETA - Arrival Time. TOTALS of your Distance and FlightTime are showing at the bottom.

For quick reference or reporting purposes, the CURRENT POSITION as well as UTC TIME are also displayed in this window.

A helpful aid in flight is your POSITION in relation to other prominent VFR reporting points: e.g. "2nm SW of Monte Casino"

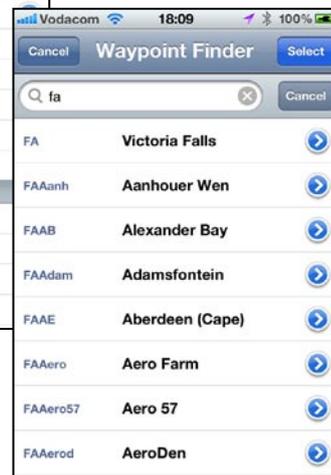
You have the choice of various reporting points nearest to your current position.

The Flight Time timer starts when the activation speed is reached and stops when the aircraft comes to a halt.



Select:  ► **DIRECT TO**

- this function allows the user to make **quick** changes to the flight plan if, for example, a diversion to a closer point is required, if a waypoint is skipped, if a new point has to be added and diverted to, if an alternate airfield has to be entered, or if a more direct route is selected.



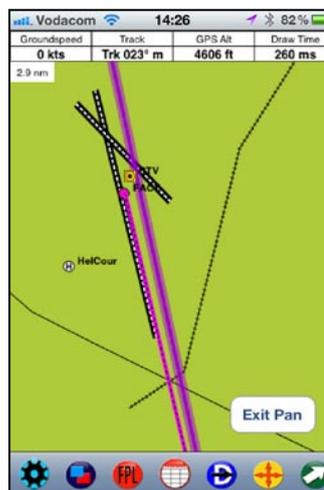
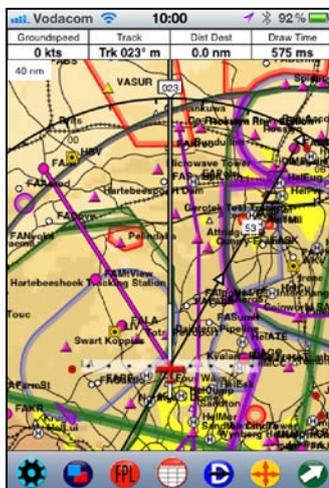
Select:  ► **MOVE TO**

- this function enables you to relocate the centre of the map to a specific point. Tap the button to open the Search window and select a point from the database to move to. Use this button to look at another airport or see the destination airfield which is off the map. To get back to current position - tap EXIT PAN.

Select:  ► **RMI**

With the RMI function one or two points can be selected, either waypoints, nav aids or airfields, to which the RMI needles will point to provide a bearing. Tap the icon - check Needle 1 and/or 2 and select relevant points. If two needles are selected, the needles are numbered 1 and 2 on the display.

In this menu you also have the option to set up an OBI radial or Track To. The radial can be selected to be displayed from any waypoint, nav aid or airfield. A feature of this could be to **assist** in joining on final for a runway for landing by inserting the runway direction.



EASYWEATHER(South Africa only)

EasyWeather provides a direct weather interface from SA Weather Services to EasyCockpit as overlays on your EasyCockpit map. By using your GPRS or 3G internet connection, real-time weather can be accessed before flight and even during flight if in cellphone reception range. The weather data is shown in easy-to-understand graphic images.

At a glance you can view Forecast weather data covering South Africa which is available for different flight levels. Weather symbols showing the wind direction, wind speed and cloud cover are displayed and by tapping on the symbol more detailed forecast data for that grid point can be viewed.

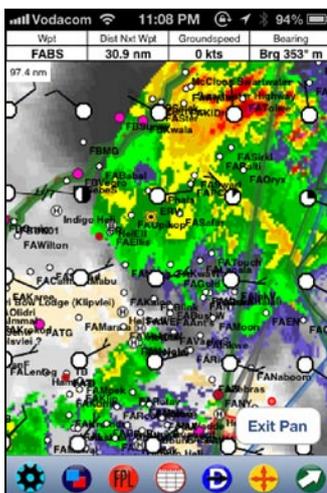
METARs and TAFs are shown in coded and decoded text format under the Airfield information where weather data is available.

Overlay radar images are displayed to show thunderstorm activities and are updated every 30 minutes.

Satellite images provide a general overview of weather conditions in Southern Africa, they are infra-red and updated every 30 minutes.

EasyWeather uses the following colour coding to indicate the strength of the radar return:

dbZ	Rain rate (mm/hr)	Comments
PINK	60 ~200	Extremely heavy rain, severe thunderstorm, hail likely
RED	50 ~50	Heavy rain, thundershowers, some hail possible
ORANGE	40 ~10	Moderate rain, showers
YELLOW	30 ~3	Light rain
GREEN	20 ~1	Drizzle, very light rain
BLUE	10 ~0.2	Significant but mostly non-precipitating clouds



Please take note that various atmospheric and environmental conditions can negatively affect radar data and caution should be exercised when interpreting the information.

Some of these effects include:

Returns from mountains and other non-meteorological targets

Attenuation of the radar signal when viewing weather echoes through areas of intense precipitation (with C-band radars)

Temperature inversions in the lower layers of the atmosphere which bend the radar beam in such a way that ground clutter is observed where normally not expected

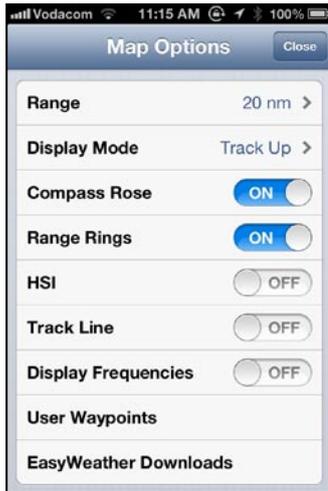
The "bright band" which is a layer of enhanced reflectivity caused by the melting of ice particles as they fall through the 0C level in the atmosphere and which can result in over-estimation of rainfall.

EasyWeather has been developed by Aviation.Direct cc in a joint venture with South African Weather Services. Downloads are subject to subscription. A valid EasyCockpit subscription is required before the weather module can be activated.

SUBSCRIBE TO EASYWEATHER NOW !

Go to our website: www.aviationdirect.co.za
"Order Now" under Subscriptions.

Steps how to download EASYWEATHER



Go to MAP OPTIONS or click on the Weather Download Symbol  (which on the iPhone is only available in Landscape mode)



Select EasyWeather Downloads.

A new window will show the available Weather Files: you have the various Forecast Files for a 48h period at different Zulu times: tick a few of them for the time and duration of your flight, select Radar, Satellite, Metars and TAFs and select DOWNLOAD.

When DOWNLOAD COMPLETE - CLOSE the EasyWeather Downloader

Then Scroll down to EasyWeather and select ON.

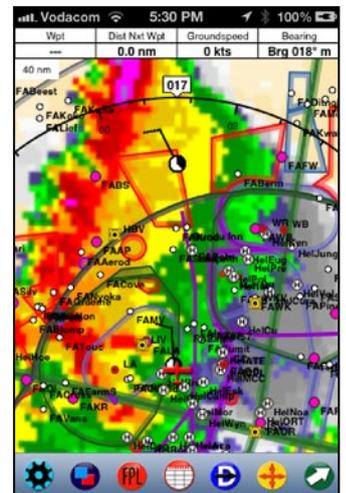
Then also select the downloaded **Forecast data** (the date and time required), Select a **Forecast Level** **Satellite Data** and the **Radar Data** come on automatically but they can be turned off.

Close Window

if you tap on any of the Weather Forecast symbols, the Weather Forecast data shows the following:

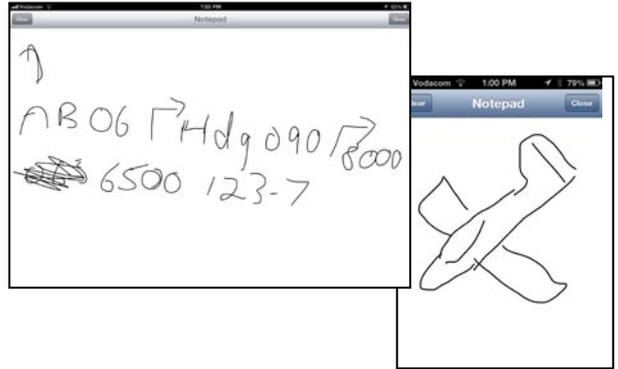
Metars and TAFs are available under the Airfield data for Airports with weather stations.

Select Airfield on Map, select Metars & TAFs



NOTEPAD

The iPad's/iPhone's Touch Interface made it a good tool to jot down notes or capture information or instructions from e.g. Air Traffic Controllers, So in this Notepad one can temporarily finger-write on the screen for the times when one needs to write down those instructions or frequencies or any other reminders, like defects to be attended to.



In the iPhone version, the Notepad icon is only visible in landscape mode, due to space constraints.

In portrait mode it can be accessed in the "Settings & Tools" menu.



Notes on the NotePad page are not saved, once the screen is cleared, or when EasyCockpit is closed.

NB: there is unfortunately a bug in vers 1.4 - when you clear Notepad without having written anything, EastCockpit closes, and the flight plan has to be reloaded again.

Tips

CLOSING APPS

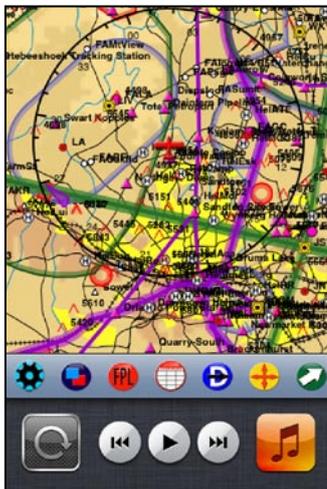
Multitasking on the iPhone means you can use various apps. Prior to iOS 4, apps would close automatically after a certain period, when leaving the app by pressing the Home button. Now when you select the Home button, the apps go into suspended or background state where some apps (like TomTom, Maps, Skype or Music) keep on running, also depleting battery life.

EasyCockpit will keep on running in the background while you have the opportunity to open other apps, and will carry on when you go back to the app.

However, once a flight is completed, you need to CLOSE the app (EasyCockpit) in order to re-set Flight time, close a Flight Plan and Flight Log, and save Battery Life.

The Fast App Switcher, or hidden dock, is a new task bar that slides up from the bottom of the screen when you double tap the Home button. The new dock doesn't just list your background state apps that are actually running, but contains ALL the apps you've opened no matter which state: closed, suspended, or background.

The apps are ordered left to right by most recently used, so you have quick access to the apps you use most.



To CLOSE programs **DOUBLE** click the HOME button, then **HOLD DOWN** one of the symbols until they start **SHAKING** and the  symbols show. You close the apps by selecting the .

ROTATION LOCK

You can lock the screen in the portrait orientation so it doesn't accidentally rotate. Double click the HOME button to open the multi-tasking bar and slide to the right. Here you can tap the Rotation Lock to the ON or OFF position.

MoreTips can be found from the free App - Tips & Tricks - iPhone Secrets (www.intelligenti.com)

Trouble Shooting

Problem:

EasyCockpit crashes on start up or when information on screen is selected.

Fix:

On your iPhone or iPad - Go to **SETTINGS - GENERAL - INTERNATIONAL - REGION FORMAT** - select **South Africa**.

Error Codes while Licensing:

Error Code -1 – Invalid ProgramID. Please type ID in again, with the '-'. Make use all numbers are entered correctly.

Error Code -2 – ProgramID not registered - please contact Aviation.Direct

Error Code -3 – Too many devices registered. The valid license allows 2 devices to be registered, i x iPhone and 1 x iPad - please contact Aviation.Direct