

syride®

EN

SYS'Evolution

User manual



Foreword

*Welcome to Syride community! You are maybe owning the best instrument of Syride range!
Your SYS'Evolution belongs to a new generation of flying instrument, we call it a "flight computer".*

*Let's move on and stop reading this boring preamble! If you want to take benefit of all the
features of your instrument, read this user manual!*

Syride team wishes you great flights...

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I. Setup Syride communication software

This software is strongly suggested. It is called the « SYS PC Tool », and enables you to update your instrument, fine-tune the settings, download your flights (and optionally send them to Syride online flightbook), upload routes, waypoints, etc...

Please be aware that the SYS'Evolution is also compatible with GPSDump software (Please make sure to use the latest version available on <http://www.gpsdump.no/>).

1. **Download the latest version of the SYS PC Tool** by checking the following webpage :
<http://www.syride.com/en/logiciel>
2. Follow the instructions to install it on your computer
3. Once installed, an icon shows in the task bar. It detects when your instrument is connected.
4. The software will automatically start with your operating system.



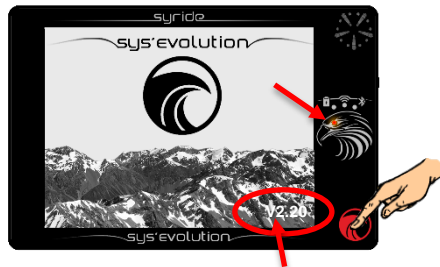
II. Turn ON and OFF the flight computer

It is important to know that compared to other displays, the one the SYS'Evolution is using does not require any power to keep an image displayed. This is why when you received it, some information may already be displayed on the screen!

1. To turn ON your flight computer, press the START button once. **A small red light turns-on in the eye of the eagle to indicate that the instrument is ON.**

The boot sequence lasts a few seconds to initialize all the sensors. The "**GPS booster**" is then activated to minimize the time of reception of the GPS signal. As soon as the reception is sufficient, the instrument will automatically switch to the flight screen.

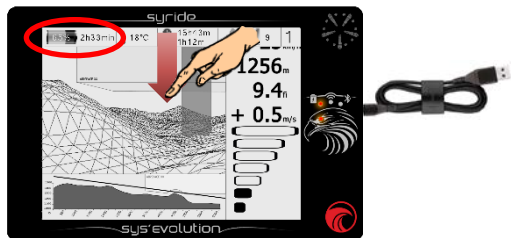
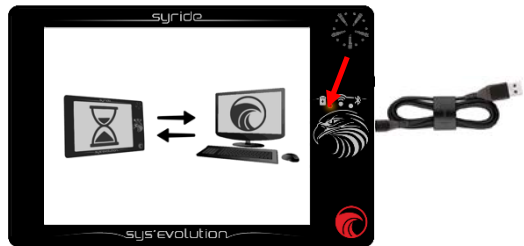
2. The instrument will be automatically turned OFF after **20 minutes** of inactivity (no ground speed nor vario). To manually turn it OFF, press the START button during 2 seconds, until the display wipes out.



Instrument software version
(Also visible in the Info menu, see page 9)

III. Charge the battery

1. In order to charge the instrument, just use any mini-USB cable that you could connect to any power supply (computer, phone charger, cigarette lighter..). A red light on the battery icon indicates the flight computer is charging. A full charge from an empty battery takes up to 8 hours. It is NOT recommended to charge through a USB hub device.
2. If the instrument is connected to a computer a screen symbolizes it. You can disconnect it at any time.
3. In running mod, draw a “slide-down” movement on the screen with your finger in order to display the top banner during a few seconds.
4. Disconnect the instrument to stop charging it. The Li-ion battery isn't affected by a memory effect.



IV. Place the instrument in flight

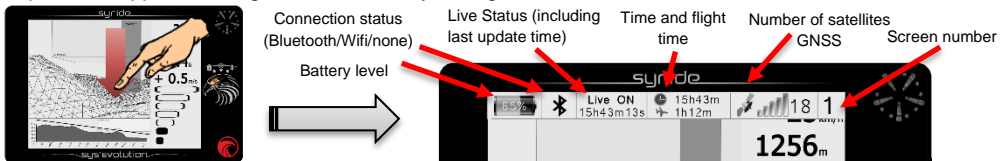
1. Syride suggest to place the SYS'Evolution on a cockpit. Two adhesive velcro bands are included and can be stuck on the back of the instrument.
Please take care not to obstruct the Reboot hole with the velcro.
2. The size of the flight computer permits to place it on a ventral rescue parachute.
3. You can secure the SYS'Evolution using the lanyard.
4. For more comfort, a neoprene protection housing with velcros is sold separately.



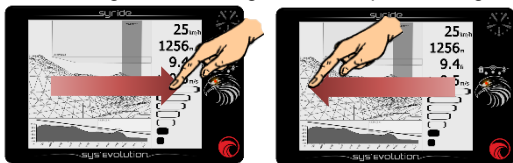
V. General ergonomics

While the instrument is running, the whole display is dedicated to flight items. In order to make the menus appear, draw a slide-down or slide-up movement with your finger, **By applying a slight pressure on the screen** :

- The top banner appears during a few seconds by sliding down :

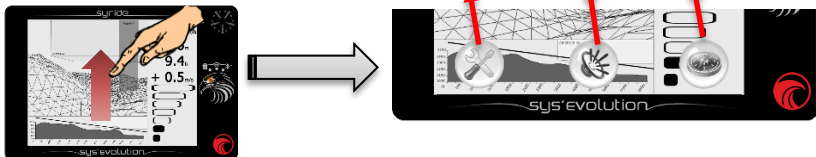


- Slide left or right in order to go to next or previous flight screen :



You can also add previous/next screen shortcuts on your flight screens when customizing them.

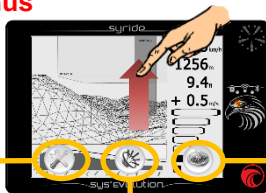
- Slide UP to display menus :



For your information :

- **A slight pressure must be applied to use the SYS'Evolution touchscreen.** This technology allows to use this instrument with gloves
- The take-off is automatically detected and starts the log. The flight time in the top banner appears after take-off.
- The touch-screen is designed to be used with or without gloves.
- Any flight item that requires GPS needs at least 3 satellites. Otherwise, a "NO GPS" message may show up instead of the item.
- **The first GPS fix can take several minutes in case of long power-off or in case of significant change in position. Any first GPS fix should be done outside. We recommend you to turn ON the instrument a few minutes before taking-off.**
- The temperature only indicates the temperature of the electronics. This cannot be used as a reference for ambient temperature.
- A 3.5mm jack socket is available on the right side of the device. Plugging a headset automatically transfers any sound from the speaker to the headset (and cuts-off the speaker).

VI. The 3 main menus



Parameters menu

System information

Online features

Wifi / Bluetooth setup

GNSS setup



Forced track recording

Advanced parameters

Flightbook

Back to flight screens

Audio menu

Volume

Touch sounds

Sound ON/OFF

Vario thresholds



Airspace alarm ON/OFF

Back to flight screens

Lifty-air ON/OFF

Navigation menu

GO TO waypoint

Add/Edit Waypoints

Add/Edit Routes

Load a route



Skip next waypoint

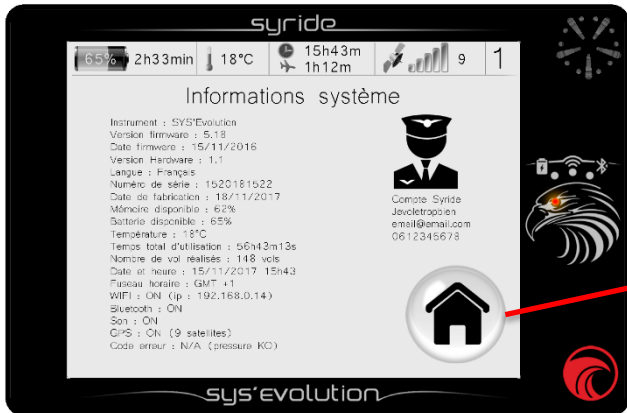
Airspaces list

View the map

Back to flight screens

VII. Parameters : System information

To reach this page, slide up from a flight screen to make the menus appear, then click the « Parameters menu » button, then click the « System information » button.

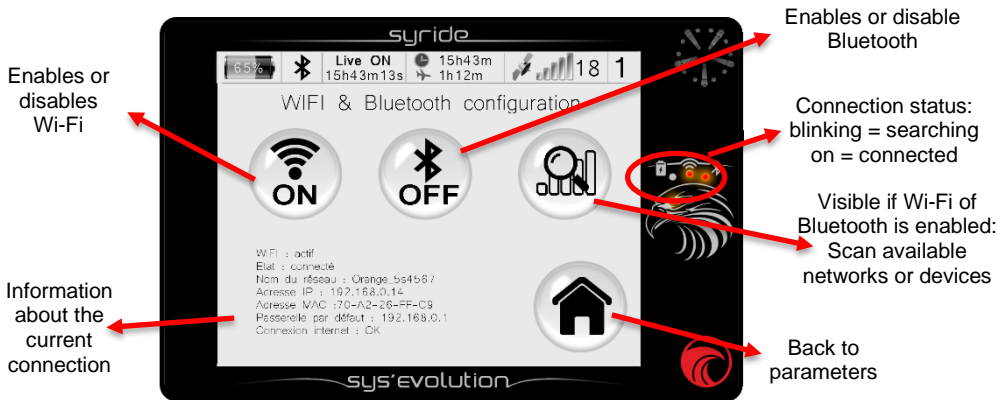


Back to
« Parameters menu »

This pages displays all information about your SYS'Evolution. If a Syride account has been associated, these information also display.

VIII. Parameters : Wi-Fi and Bluetooth setup

To reach this page, slide up from any flight screen to make menus appear, then click « Parameters menu » button, then click the « Wi-Fi/Bluetooth setup » button.



About connectivity:

- Online connectivity brings new features: Live Tracking, Real time wind reports, SMS messaging... (For more info, please read chapter “Parameters: Online Functions”)
- IMPORTANT: For Bluetooth connection to work properly with your phone, you must enable both **Bluetooth** AND **Bluetooth Internet connection sharing** (“Bluetooth tethering” on some phones): See [this tutorial video](#).
- Whereas Wifi significantly reduces battery life and therefore should only be used on the ground, **Bluetooth is highly energy efficient and should be the connectivity used in flight.**
(Standby weather forecast only use Wifi to update its data)
- After your flight, if you have filled your credentials in the Sys’Evolution (Parameters > Advanced Parameters > Pilot credentials), the flight will automatically be uploaded to your Syride online profile.
- WIFI with WEP keys are currently not supported by the Sys’Evolution (Most Wifi networks use WPA/WPA2 keys nowadays).
- Wifi and Bluetooth cannot be used simultaneously. Activating Bluetooth will disable the wifi and vice versa.
- On most phones, you will have to be on a specific page to be visible by other devices (including the Sys’Evolution) on Bluetooth (That’s usually the Bluetooth scan page).

IX. Parameters : Online functions

To reach this page, slide up from any flight screen to make menus appear, click « Parameters menu » button, then click the « Online functions » button. **These functions will only work if your instrument is connected (see previous chapter).**

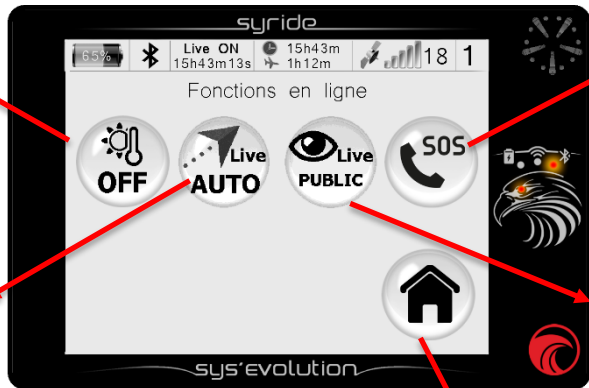
Stand-by mode
Weather station
(ON/OFF)

Activate live tracking
(Only works if you've
entered your credentials
and if the instrument is
online)

Auto: Live tracking only
while a flight is detected

ON: Live tracking
always on

OFF: Live tracking
always off



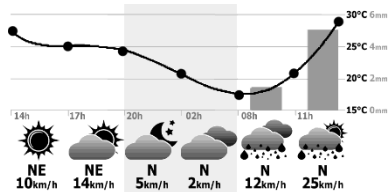
SMS Alerts menu
(see next page)

Live tracking
Public: visible by all.
Private: only visible when
connected on the website
or by users who have
your private link (see
« My account » page on
Syride.com).

Back to Parameters

About the standby mode weather station:

This screen, available in stand-by mode, displays weather forecasts updated on a regular basis. Wifi must be set up to use this feature.



stage.

- The weather station show data using your last GPS position.
- Syride use its subscription to openweathermap.org to download weather forecasts.
- Weather forecasts only use energy to update. Display doesn't use any energy.
- Customization of this screen will come at a later

About emergency messages:

The emergency icon only appears if:

- Your instrument is connected with your smartphone and has Internet access.
- You have a Syride account on www.syride.com and typed your credentials in the instrument (See chapter XIII).
- You have setup the messages and a list of recipients on the “My account” page on Syride.com

You are entitled to a free 10 SMS credit over a rolling 30 days period (remaining credits can be checked on “My account” page on Syride.com).

An SMS will be sent (if data connection is available) as soon as you press an emergency button. You can add shortcuts on your flight screens for a quicker access to this function.

Send an SMS

View on the instrument :

« My account » page on Syride.com :

Messages d'alerte (SYS'Evolution)

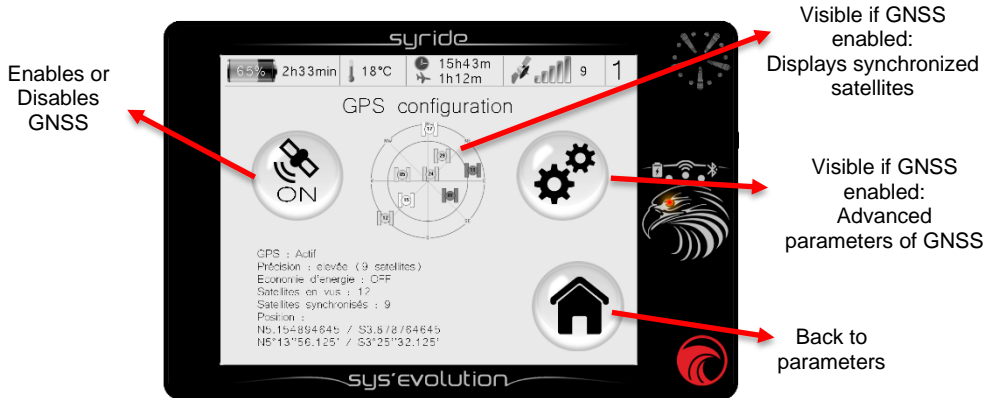
Quota SMS (30 derniers jours) : 6/10

Niveau :	1	2	3
Téléphone :	<input type="text" value="003266666666"/>	<input type="text" value="003266666666"/>	<input type="text" value="003266666666"/>
Message :	<input type="text" value="Je suis en l'air tout va bien"/>	<input type="text" value="Je rentre tard je suis au bar"/>	<input type="text" value="Demande secours immédiat"/>
Lien Google map :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="button" value="Enregistrer"/>	



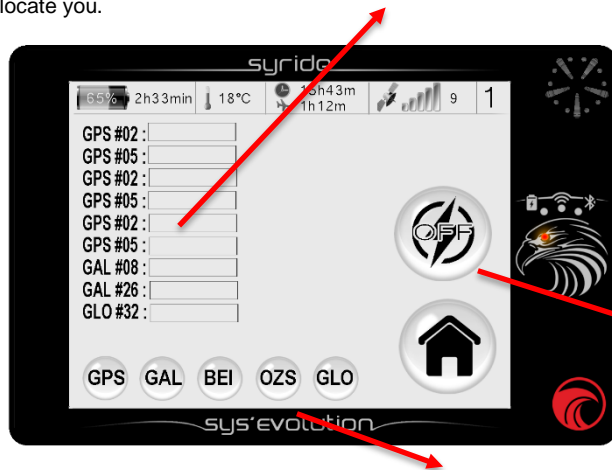
X. Parameters : GNSS setup

To reach this page, slide up from any flight screen to make menus appear, then click « Parameters menu » button, then click the « GPS setup » button.



Enabling GNSS is mandatory for track recording and displaying a lot of items (like the Route, the drift, GPS altitude, etc...). Your current GPS position is displayed in the status area on the bottom of the page.

Advanced settings let you know the signal strength of each satellite. The gray bars show the signals received by the SYS'Evolution but not used for the calculation. The black bars show a signal used to locate you.



Energy saving mode allows you to limit the consumption of the GPS receiver when you have a good reception.

Choose the GNSS you want to use with the SYS'Evolution. At most 3 can be activated simultaneously: **GPS** : Navstar (USA), **GAL** : Galileo (European), **BEI** : Beidou (Chinese), **QZS** : Quasi-Zenith Satellite (Japanese), **GLO** : Glonass (Russian).

The satellite-based augmentation ([SBAS](#)) of the SYS'Evolution GNSS chip is active by default.

XI. Parameters : flightbook

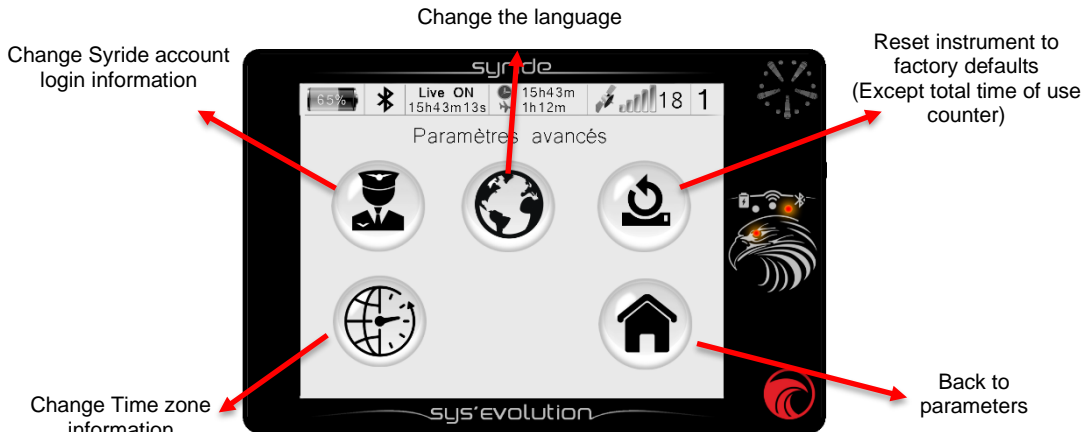
To reach this page, slide up from any flight screen to make menus appear, then click « Parameters menu » button, then click « flightbook » button. On this page, you will find all information about your flights. In case you enabled the synchronisation with Syride online flightbook, removing a flight from the instrument will not remove it from the website.

The « cloud » icon indicates this flight has been synchronised with Syride Online Flightbook (through SYS PC Tool, Wi-Fi or Bluetooth).



XII. Parameters : advanced parameters (instrument)

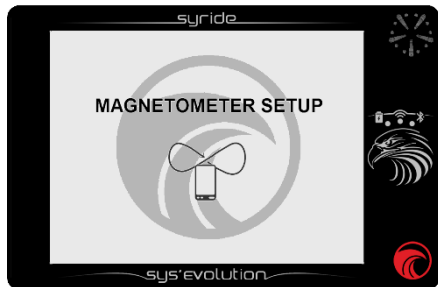
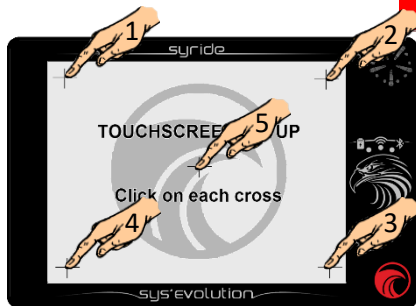
To reach this page, slide up from any flight screen to make menus appear, then click « Parameters menu » button, then click « advanced parameters » button.



About the « reset to factory defaults » button:

The first step after a reset to factory defaults consists in calibrating the touchscreen. This is done by clicking on each of the 5 crosses.

See a [video explaining a touchscreen reset](#).



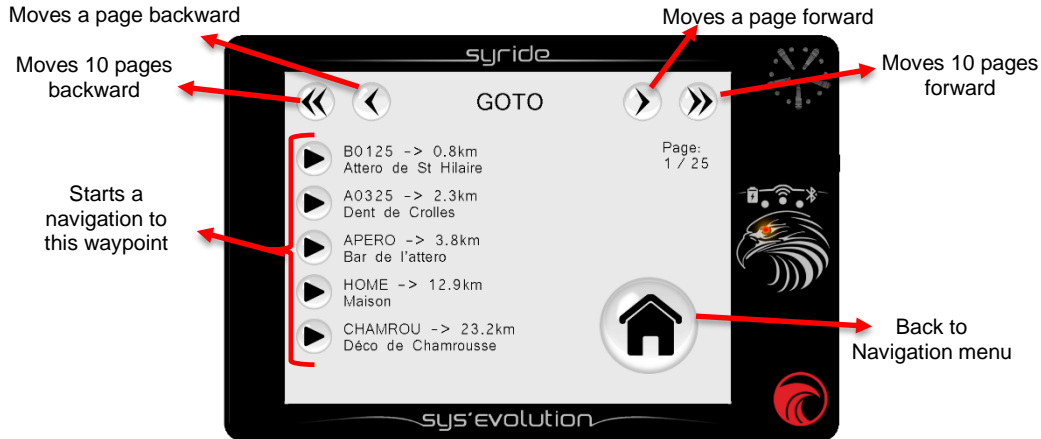
Then comes the calibration of the magnetometer. This is done by turning the instrument in all possible directions (360° vertically and horizontally). Click anywhere on the screen once done.

This step is important because it will highly influence the precision of the magnetometer.

See a [video explaining the magnetometer reset](#).

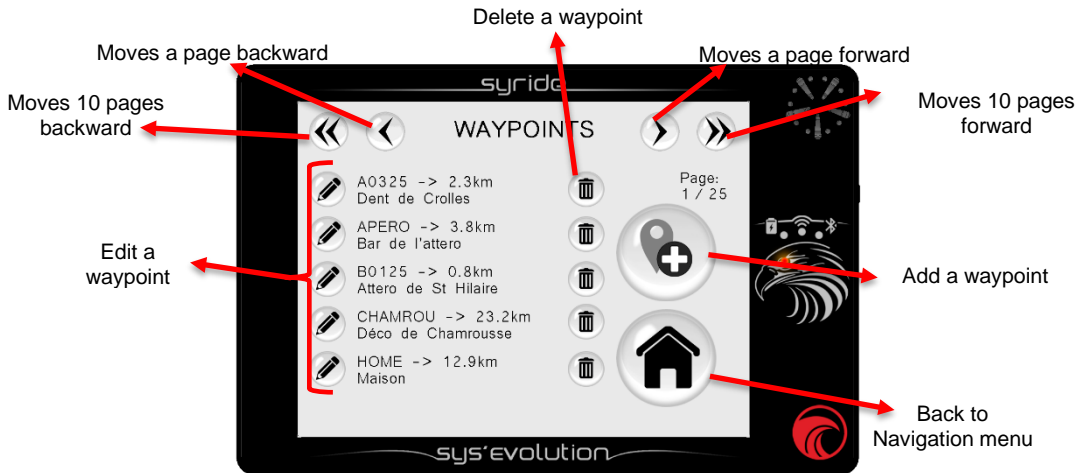
XIII. Navigation : GOTO Menu

To reach this page, slide up from any flight screen to make menus appear, then click « Navigation menu » button, then click « GOTO » button. This feature allows the pilot to easily create a one-waypoint route. The waypoints are ordered by distance from the current position. Please note that activating a GOTO waypoint instantly stops the previous route, if ever one was activated.



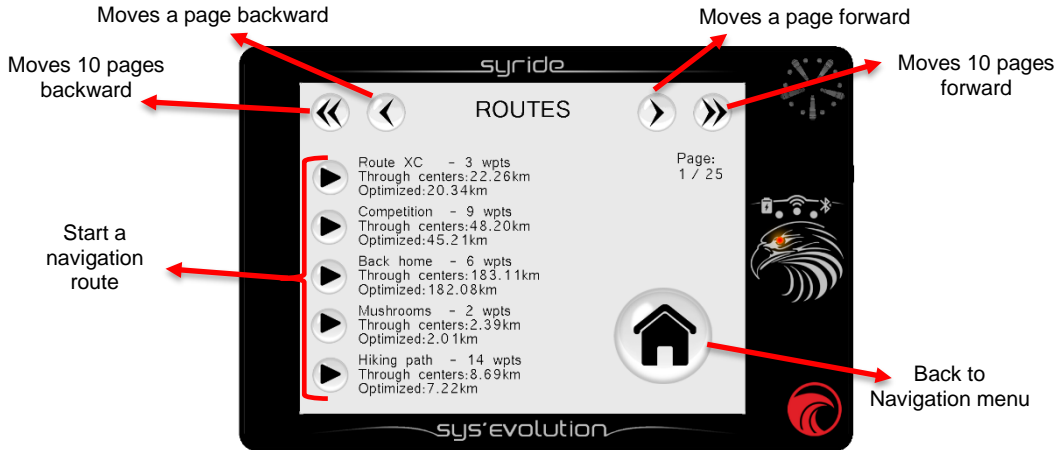
XIV. Navigation : Add/Edit/Delete waypoints menu

To reach this page, slide up from any flight screen to make menus appear, then click « Navigation menu » button, then click “Add/Edit/Delete Waypoints” icon. Waypoints are ordered alphabetically.



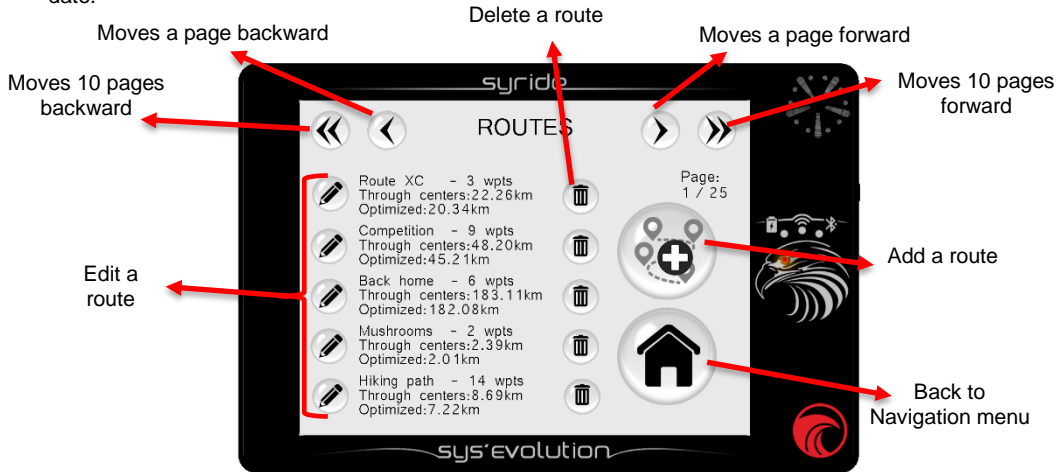
XV. Navigation : Load a route Menu

To reach this page, slide up from any flight screen to make menus appear, then click « Navigation menu » button, then click « Load a Route » button. Routes are ordered by last modification date.



XVI. Navigation : Add/Edit/Delete a route Menu

To reach this page, slide up from any flight screen to make menus appear, then click « Navigation menu » button, then click « Add/Edit/Delete a route » button. Routes are ordered by last modification date.



Notes about navigation routes:

- Creating a route is only possible if at least 1 waypoint is available in the instrument.
- Creating a waypoint requires a name, its GPS coordinates, and its altitude. The altitude is not mandatory, but is required to display the “glide ratio to waypoint” item.
- If you already have a waypoints file, it is possible to send this file with the SYS PC Tool by clicking the “**Send a file to the instrument**” icon. Waypoint files should be in Oziexplorer or CompeGPS .wpt format.
- Using [GPSDump software](#) (above versions 5.28 for PC, 0.52 for Mac and 0.24 for Linux) is also an alternative solution. GPSDump supports more waypoints file formats, and handles waypoints more efficiently. Please note that GPSDump will not erase existing waypoints in the instruments whereas SYS PC Tool will.
- To skip a waypoint before reaching it, and switch to the next one, you can click one the “**Switch to the next waypoint**” icon in the navigation menu (only visible when a route is active)
- To be able to follow your route, you must insert dedicated items, such as “**waypoint information**” in your screen configuration file (See “Customize the flight screen and vario”)



About the online “Route Maker” tool:

Out of competition, the simplest way to create a route or a list of waypoints is to use our online tool, called « **Route maker** ». Simple, fast and efficient, you can create a route in a few minutes.

To build a route with the online tool « **Route maker** » :

- 1) Go to the webpage <http://www.syride.com/fr/route> or click on the **Syride Tools** menu in SYS PC TOOL .
- 2) This online tool allows to define waypoints, cylinders... When your route is ready, click on the **Download the route file** button to save it on your computer, or on the **Directly upload the route to your instrument** button to send it to your instrument which should be connected and turned on).



Please note that only the first method will allow you to keep a backup of your route file on your computer. Direct upload might not be available on all Operating System and browsers.

- 3) If you've downloaded the route file to your computer, turn on your SYS'Evolution and connect it to your computer, then click on the **“send a file to the instrument”** icon in SYS PC TOOL

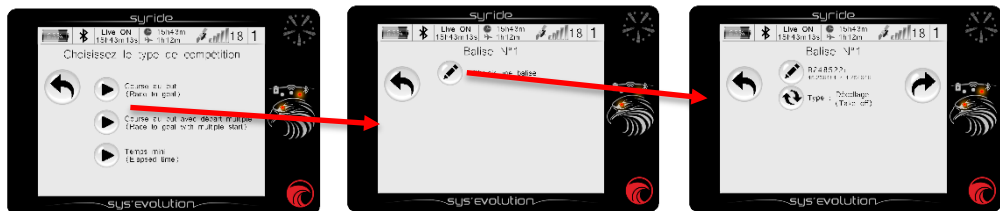


Here are the steps to create a route in the instrument :

First you will have to give your route a name, and define if it is a Competition route or not. This choice is important as it will allow specific waypoint types for competition, such as ESS, SSS, Goal...



For a competition route, you will be asked the kind of task. This choice will impact the start validation conditions.



Here are the waypoint types available in competition mode:

Take-Off: This waypoint is optional and can only be set as the first waypoint of the route. It's not used for navigation, but allows to display the full length of the task.

Start of Speed Section (SSS): This waypoint is mandatory in a competition route creation. It can be validated by entering it (enter) or exiting it (exit). A start time must be defined.

- SSS in a **Race to goal** task: With an Exit Start, if the pilot is inside the cylinder at the Start time, the Start is validated, and the Sys'Evolution switch the navigation to the next waypoint. With an Enter Start, if the pilot is inside the cylinder at the Start time, the waypoint will only be validated upon cylinder entry crossing after the start time. In both cases, the competition time will begin as of the start time (SSS validated or not).
- SSS in an **Elapsed time** task: unlike in race to goal tasks, the competition time will only start after crossing the Start cylinder (Enter or Exit direction) after the start time. It is possible to cross as many times as desired the start cylinder, the competition time being reset each time you cross it, as long as you haven't validated the next waypoint.
- SSS in **Race to Goal with multiple starts** tasks: In addition to classic Race to Goal tasks information, you will have to enter the number of gates and the time intervals between these gates. Here's an example of tasks using multiple starts: A task with 5

starts at 13:00 / 13:20 / 13:40 / 14:00 / 14:20 should be input with a 13:00 start time, 5 gates with 20 minutes interval. The time taken will be that of the start before your last crossing of the waypoint. If I cross the SSS cylinder at 13:25, the start will be 13:20 and your competition time will be 5min. If you cross the start again at 13:41, your competition time will be 1min.



End Speed Section (ESS) : ESS waypoint is only available after a SSS has been put in the route. It defines when your competition time ends. However, the task will only be finished if you make it to the goal. **Please note: you will not be able to end your competition route without defining an ESS.**

Conical End Speed Section (ESS) : Same as classic ESS except that you will have to enter the cone's incline instead of its radius (PWC rules define a 0.4 incline by default).

Goal cylinder : This is the last waypoint to put in a route. It's optional.

Goal line : Same as before, the goal line is a finish line (displayed as half a circle). The default virtual goal line (according to PWC rules) extends to 100 m each side of the GPS goal coordinates, to a total of 200 m, and is perpendicular to the line between the goal point and the previous turnpoint coordinates. The minimum length of the line is 50m.

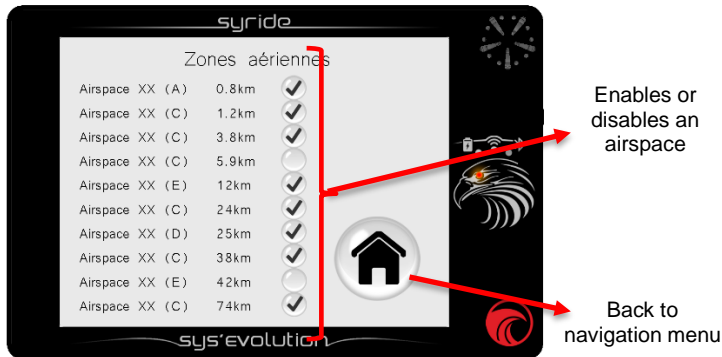


XVII. Navigation : airspaces menu

To reach this page, slide up from any flight screen to make menus appear, then click « Navigation menu » button, then click « Airspaces » button. When approaching an airspace, an audible and visual alarm appears : « **pre-violation + airspace name** » appears on the bottom of the. If you enter this airspace, a new alarm triggers and a message « **violation + airspace name** » displays. This menu allows the pilot to enable or disable an airspace alarm. A disabled airspace will be ignored in all airspace-related items, including the MAP item and audio warnings.



A shortcut is also available in the screen configuration tool and allow to deactivate in one click the closest restricted Airspace area.



Here's how to update airspaces in the SYS'Evolution :

- 1) Go to this page : <https://www.syride.com/en/airspace> or click on the **Syride Tools** menu in SYS PC TOOL
- 2) Select the countries you need from Syride online tool, then download the OpenAir file to your computer.
- 3) Turn-on and connect your SYS'Evolution to your computer.
- 4) On the SYS PC Tool, click on the “**send a file to the instrument**” icon.
- 5) Select the previously downloaded OpenAir file.



A few useful tips and informations about airspaces :

- **The data provided in the airspace files that you can download from Syride are not official**, and you should not use your SYS'Evolution as a main navigation reference. Please refer to the official sources of aeronautical information (for example: <http://www.sia.aviation-civile.gouv.fr/> for France). These files are usually provided free of charge by the federations, the information they contain is not guaranteed and we shall not be liable for the consequences of their uses
- We advise you to check the **version of the file** you intend to load. Airspace evolves on regular basis. In addition, **zones can change class depending on the time of the year and time of day** and may not be visible on the instrument (for example: Chambéry TMA which passes from a class D to a class E).
- A knowledge of **aeronautical rules** and a **flight briefing** are mandatory to correctly use the information given by the instrument.

- Some **temporary forbidden zones** may exist. They are signaled by NOTAM (Notice to Airmen) and cannot be handled by the instrument.
- **In France, VFR flights without radio contact are limited to Flight Level 115** (about 3450 m). It is allowed to fly above this limit in zones called Class E LTA (Vanoise, Bauges, Mont Blanc...). **You should consult each countries regulation to learn about local rules.**
- You can **add your own airspace files**, as long as they respect the Openair format.
- For ease of calculation and readability, **airspace that are 5000ft above your current altitude will not be listed in the menu nor displayed on the 3D and map.** The refresh of the list is done every 2 minutes.
- **Airspace with more than 150 polygon points** can not be technically represented on the 3d view.
- **Airspace that are based on altitude above ground (AGL)** can have a different representation than reality on the 3d view. However, violation alarms will be triggered correctly.

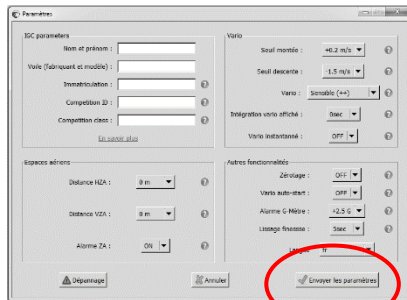
XVIII. Advanced setup (software)

Connect your SYS'Evolution to the SYS PC Tool in order to get access to advanced options. From these advanced options, you can, for example :

- Change the averaging time of the vario.
- Change the G-force alarm threshold value
- Change airspace pre-violation vertical and horizontal distances.

To access these advanced parameters :

- 1) Turn-on and connect your SYS'Evolution to your computer.
- 2) On the SYS PC Tool software, click on the "Parameters" icon
- 3) Modify any value.
- 4) Click on « **Send parameters** »



XIX. Customize the flight screen and the vario

With the SYS'Evolution, you can customize each flight screen, and the sound of the vario.

To customize your flight screens :

- 1) Go to this webpage : <http://www.syride.com/fr/ssctool/Evo>
- 2) Customize the flight screens by selecting an items and its unit, then selecting a text font and size. Drag and drop to change the item's position.
- 3) Turn-on and connect your instrument to your computer.
- 4) Download the screen setup file.
- 5) On the SYS PC Tool, click on the "**Send a file to my instrument**" icon.
- 6) Select the previously downloaded file and click Open



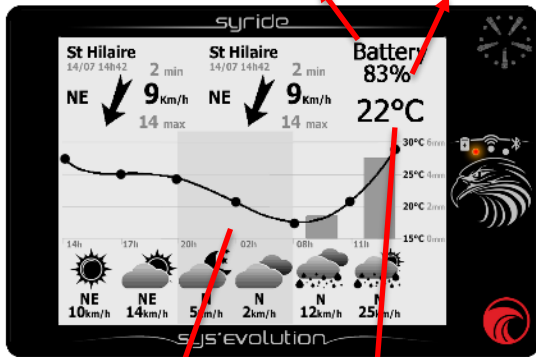
Don't hesitate to share your flight screen to your friends, or create a folder with different setups.

The vario sound setup works on the same basis. A video shows the process here : <https://www.youtube.com/watch?v=5Mom0qx6bgE>

Details about the default flight screens :

Standby (weather) screen (in progress) :

Weather of St Hilaire Free text « Battery » % Battery level

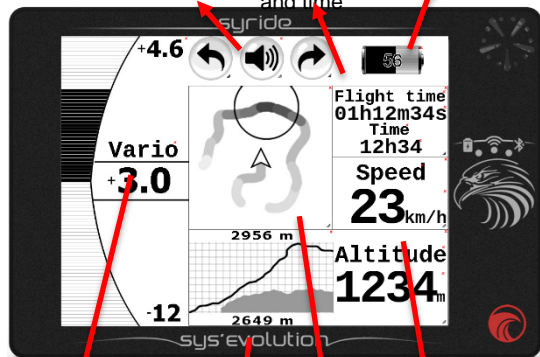


48h weather forecast

Instrument internal temperature

Flight screen N°1 :

Shortcuts : previous page / Mute / next page Flight time and time Battery status



Left dynamic vario graphbar

Altitude History

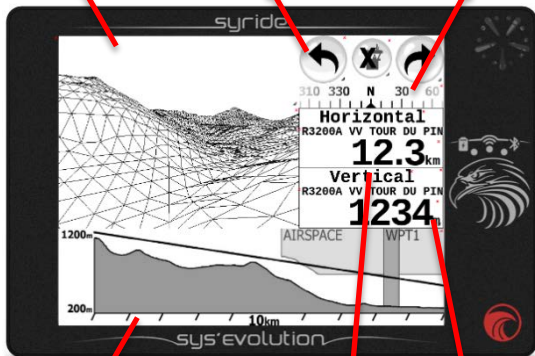
Thermal core

Groundspeed and altitude

Flight screen N°2 :

Shortcuts :

Augmented Reality previous page / Deactivate
 Reality closest airspace / next page Heading



Transition Assistant

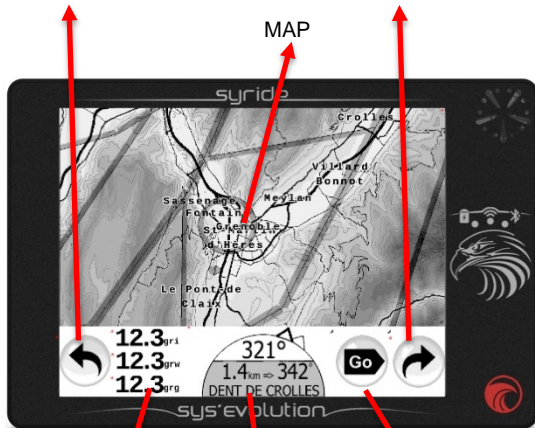
Name and distance to the horizontally closest airspace

Name and distance to the vertically closest airspace

Flight screen N°3 :

Previous page

Next page



MAP

Gri : instant
 Glide Ratio (GR)
 Grw : GR to
 waypoint
 GRG : GR to
 goal

Next Waypoint information

GOTO menu shortcut

Details about items of the SSCTool, Syride Screen Configuration Tool (**A "NO GPS" on an item means that it is waiting for GPS signal reception to display the information**) :

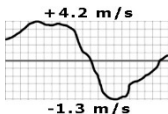
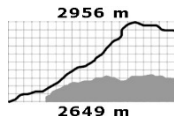
GNSS Altitude : is given by the GNSS. It is the vertical distance between you and the mean sea level. This is a reliable altitude but can be inaccurate in case of bad GPS signal reception (electromagnetic disturbance caused by radio, Phone relay antenna, other instruments...). International Aeronautical Federation (FAI) advocates the use of pressure altitude (QNH see below).

QNH altitude : This altitude initially uses the GPS signal until the vertical accuracy is less than 6m. Then it uses the ambient pressure to calculate your altitude. If you mount your instrument by one meter with your hand, the altitude will rise by one meter (which will not be necessarily the case with GPS altitude). This altitude is accurate, but may become less reliable if you are flying a long time or traveling a long distance.

QNE altitude : is your current pressure altitude, supposing the current pressure at mean sea level is 1013.25 hPa. This information is required for airspaces that are described in "flight level".

Vario : is your vertical speed (ascent or descent). Vario smoothing is possible by setting the filtering parameter when defining your screens in SSC Tool. 5 seconds filtering means the displayed vario will be an average of the varios of the last 5 seconds. You can put several varios with different filtering on the same screen.

Altitude history : is a graphic that shows the 2'30 last minutes of your altitude. The black curve is the recorded altitude, the gray area is the recorded topography at the recorded position.



Vario history : is a graphic that shows the 2'30 last minutes of your vario.

Graphical dynamic vario : is a graphic that shows your current vario. The termed “dynamic” refers to the fact that the MAX and MIN vario displayed is not fixed, and depends on the MAX and MIN vario of the last minutes.



Gmeter : displays the current force applied to your body. Without any movement, the G force is 1.0g.

Gain since takeoff : is the vertical distance between your current altitude and your takeoff altitude. A positive value means you are above takeoff, while a negative value indicates you are below takeoff.

Straight distance to take-off : This is the horizontal distance in a straight line separating you from the take-off.

Cumulative distance to take-off : This is the distance you have accumulated since your take-off. It corresponds to the length of your GPS track if you unfolded it and measured it. It does include all the turns in thermal.

Pressure : is the current pressure, in hPa.

Distance since takeoff : is the horizontal distance from your takeoff to your current position.

Heading to takeoff : This is the course you must take to return as quickly as possible to your takeoff point. It can be useful with PPG to find your takeoff as quickly as possible.

Instant glide ratio : is noted « GRI » for « Glide Ratio Instant ». This item shows your current glide ratio. $GRI = \text{Ground speed} / \text{Vario}$.

Heading : is your current instrument's magnetic orientation. Note that this indicator is corrected by the magnetic declination, which depends on your current position. As a consequence, this item displays the true heading instead of magnetic heading.

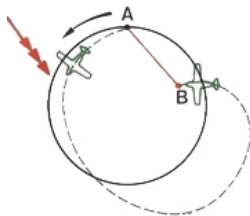
Course : is your current course. Without wind, the course equals the heading.

Drift angle : is the difference between your course and your heading. $\text{Drift angle} = \text{Course} - \text{Heading}$.

Temperature : gives the internal temperature of the instrument.



Wind - graphical : in order to get the speed and direction of the wind, fly a 360° turn at constant speed and glide ratio, within 10 to 30 seconds. The instrument will compute the drift and will be able to display the wind direction and speed. The wind direction represented by the arrow is dependent on your current course.



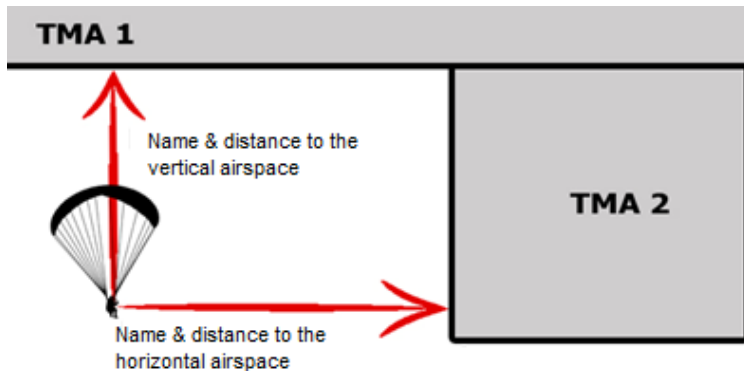
Wind direction : indicates where the wind comes from, using the cardinal points. It is displayed in letters, as N for North, NE for North-East, E for East, SE for South-East, S for South, SW for South-West, W for West and NW for North-West.

Cumulative resettable distance : This is the cumulative distance since last reset. It's stored in memory even after restarting the instrument. Just press on the item to reset it (the reset will be confirmed by a message).

GPS Coordinates : This is your current position. By clicking on the item, you can switch between the 3 commonly used formats.

Vertical airspace name and distance : these items show the name and distance to the nearest vertical airspace **at your current position**.

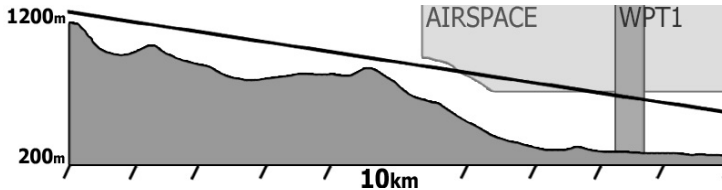
Horizontal airspace name and distance : these items show the name and distance to the nearest horizontal airspace **at your current altitude**.



Augmented reality : represents the forward world in 3D, waypoints, airspaces, etc..



Transition assistant : is a side view of the topography (which is dependent of your current course), plus your current glide ratio. Click on the item to change its range.



Route summary : This is a summary of your navigation route. You can quickly know where you are in your navigation route or in your competition task.

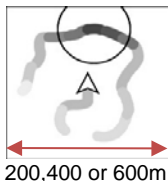
Task

Race to goal
Start time 10:00

TakeOFF (Auto)
Take Off

WPT1 (Exit)
SSS Cyl:400m

WPT10 (Exit)
Cyl:600m



Thermal core : This aims to show you quickly the most efficient ascent zone around your. As soon as you get a positive vario, it will show your path and its vario. The higher the vario, the darker the track. The circle indicates the position of the highest vario. [Click on the item to change its scale.](#)

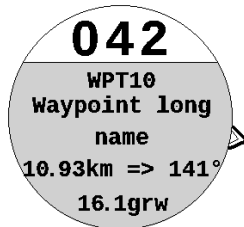
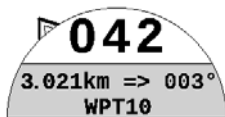
Back to the last thermal : an arrow will show you the heading to follow to go back to the last thermal automatically saved in the instrument. Distance is also displayed.

Waypoint information : is the most useful item to follow fly a path in a minimum time. As soon as a route is started, this item will display next waypoint's name, distance and optimum course, as well as your current course. The optimum course takes the 2nd next waypoint into account.

The **Full Waypoint Information** item is a 360 version of the Waypoint Information item. In addition, it displays the long name (description) of the waypoint as well as the Glide ratio needed to reach the next waypoint at the optimized point.

Black arrow shows the optimized route, white arrow shows the route to the center of the waypoint. On the example, you're currently flying towards 042°, and should fly towards 141° to make "WPT10" waypoint 10.93km ahead.

AGL at next Waypoint : this is the height relative to the ground when you'll reach the optimized point at the next waypoint. This is based on the topographic data at the optimized waypoint (not at the center of the waypoint). This can be useful in competition to know the height margin you will have when reaching a waypoint or the goal.

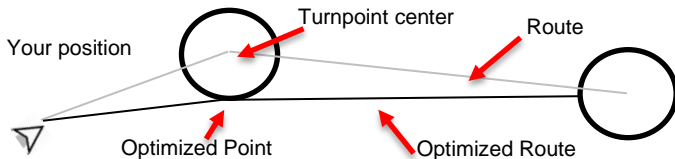


Competition Time: Elapsed time since the start of the competition task. In a Race to goal task, this starts counting at the start time. In an Elapsed time task, this starts counting when the SSS is crossed (if you cross the SSS again before crossing the next waypoint, competition time will be reset). On the map, SSS cylinder will blink as long as you haven't crossed the next waypoint to show you're still allowed to restart.

Remaining Competition Time : That's the remaining time before the end of the task. It's a countdown based on the optional ESS closing time you've entered to create the task.

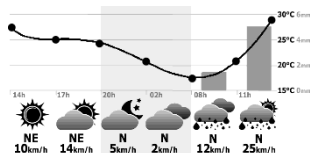
ETE / ETA to the next Waypoint / Goal : ETE (Estimated Time Enroute) is the time needed to reach the optimized point of the next waypoint/Goal. This estimation is computed using your ground speed and the distance left to this point. ETA (Estimated Time of Arrival) is the time of arrival at this point.

Glide ratio to waypoint : is noted « GRW » for « Glide Ratio to Waypoint ». This item indicates the required glide ratio to reach next waypoint's optimized point (see below). Altitude used for the glide ratio computation is altitude of the topography at the optimized point (not the one of the center of the waypoint).



Glide Ratio to Goal : is noted « GRG » for « Glide Ratio to Goal ». This item indicates the required glide ratio to reach the goal (i.e the last waypoint) of the current route, passing by the optimized points of the remaining waypoints (if any). Please be aware that wind could change and impact your ground glide ratio.

Graphical options : ables you to draw boxes, add text, etc..



Weather station : shows the next 24h weather forecast in standby mode.

NO DATA :(

Check Wifi
or Bluetooth
connection

St Hilaire

14/07 14h42

2 min

NE**9** Km/h

14 max

Wind reports: enables you to get in-flight wind reports. To get these informations, an internet connection is required (Wifi or Bluetooth with Internet sharing enabled and data coverage).

As soon as the data are available, you will have all the last wind report, including station name, altitude, time of report, wind speed and direction... When adding this item, you will have the choice between a list of weather stations, or “the nearest station”.

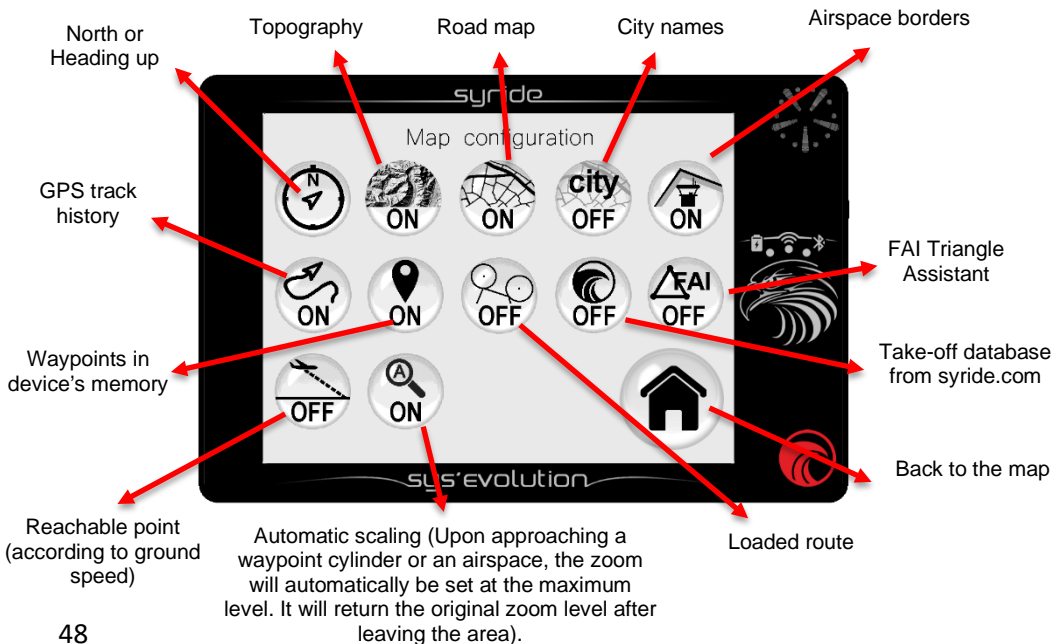


Settings

zoom

MAP : displays a top view of the map. This includes, depending on the level of the zoom and on your settings: Your position, your GPS track, cities names, roads, topography, airspaces, waypoints, loaded routes (including waypoints, cylinders, and optimized route), Syride takeoff sites... It is possible to have several maps with different settings in the instrument!

Clicking the "Settings" icon of the map will display the map settings menu:



Buttons : Take shortcuts by adding action buttons directly in your screen configurations ! Here are few examples :



Save your current position in a waypoint (named by the date and time of creation)



Display the GOTO menu



Activate or deactivate the sound



Activate or deactivate the airspace currently warning for pre-violation or violation



Turn the instrument off



Activate or deactivate thermal sniffer sound.



Skip next waypoint in the loaded route



Full screen refresh to clean the ghost displays

Using the **automatic screen change**: In order to avoid manipulations of the instrument during the flight, it is possible to automatize screen switches depending on the flight phase you are in. This can be set when you define your screens with SSC Tool: <http://www.syride.com/en/ssctool/Evo>

- Airspace: Displayed if the instrument triggers a pre-violation or violation Airspace alarm. Pre-violation limits can be set in Sys'PC Tool.
- Thermal: Displayed if your average vario is increasing and if you've started thermalling.
- Transition : If you are not thermalling, this screen will be displayed by default.
- Waypoint approach : Displayed when you are approaching the next waypoint within 200 meters of its cylinder.

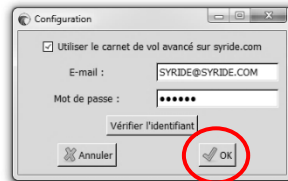
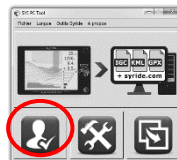
Note:

To avoid unwanted page switches, the automatic switch will be deactivated for 2 minutes after you've manually switched a screen.

It is possible to deactivate the automatic screens switch in flight using the dedicated button. If the switch is due to an Airspace, it is also possible to deactivate the closest airspace.

XX. Transfer your flights

1. Be sure you previously installed the SYS PC Tool on your computer.
2. Turn on and connect your instrument with the USB cable.
3. Click on the "**Account configuration**" icon.
4. The IGC/GPX and KML files are systematically duplicated on your computer. In order to use the flight logbook on syride.com, you must enter your email and password of your Syride account (you can create one on <https://www.syride.com/en/register>)
Check the login, and press OK to save.



5. Press the **“Download recorded flights”** button, and your flights will be sent from the instrument, to the online flight book. You can have access to the files on your computer by clicking on File/open local directory.



6. You can modify your flight information (e.g. name, used glide, take off site and the type of flight) by clicking on the red pen and validate your modification with the green arrow.



7. To watch your track, click on the picture.

8. You can make your flight invisible for the Syride community by clicking on the eye icon on the top right. It will stay on your profile but the Syride users won't be able to see it.



- 9. You can look at your personal evolution on the flight page through location and time. You can also compare your stats and performances to the other riders.

Displayed ranking : , since :

Distance

- 384 km**
wortex ★★★★★
Australia
Birchip Tow Paddock
- 290 km**
antoineg ★★★★★
France
Col Agnel
- 255 km**
guigublues ★★★★★
France
Col Agnel

Overall ranking

Top Altitude


- 8157 m**
antoineg ★★★★★
Pakistan
Paju
- 5908 m**
frek ★★★★★
Peru
Cerro Sacro
- 5406 m**
RezaFarokhpour ★★★★★
Iran, Islamic Republic of
Shahinshahr

Overall ranking

Flight time


- 10:49:56s**
antoineg ★★★★★
France
Col Agnel
- 10:28:43s**
polosky ★★★★★
France
Col Agnel
- 09:53:15s**
Ben.outters ★★★★★
France
Col Agnel

Overall ranking



A map of Europe and surrounding regions, including parts of North Africa, the Middle East, and Iceland. A red circle is drawn around the European continent. Labels for various countries and cities are visible, such as Royaume-Uni, France, Allemagne, Italie, Espagne, Portugal, Irlande, Pays-Bas, Belgique, Autriche, République tchèque, Slovaquie, Hongrie, Roumanie, Serbie, Bulgarie, Pologne, Biélorussie, Ukraine, Lituanie, Lettonie, Estonie, Mer du Nord, Danemark, Mer Baltique, Mer Noire, Mer Méditerranéenne, Moscou, Mécoua, Géorgie, Azerbaïdjan, Turquie, C.éc., and Israël.

More information about the online flightbook :

- The online flightbook is optional.
- Published flights can be automatically set to “private” (see « My account » webpage).
- Flights can be sent to your online flightbook through Wi-Fi or Bluetooth if your login information has been set correctly: you must have set your login details on the instrument in the “**Parameters / Advanced Parameters**” menu.
- If for any reason a flight hasn't been transferred to the website, and you'd like to add it manually, it is possible by following the answer to the questions *[Instrument] Some flights are missing on my online flightbook* and *[Instrument] Where are my flights on my computer ?* in our FAQ: <https://www.syride.com/en/support>
- It is not possible to send a flight from Syride website to your instrument. As a consequence, a deleted flight on your instrument cannot be recovered.
- The  picture in the instrument logbook means the flight has already been transferred to Syride online logbook.

XXI. Suggestion of use

- **We suggest you to turn-on your instrument while preparing your flight in order to be sure you get the GPS fix before starting your flight.**
- Polarized glasses and sun-glasses helps reducing the sun **reflection** on the display
- Use the lanyard in order to **secure** your SYS'Evolution while flying.
- Electromagnetic perturbations, **such as VHF (from radios antennas) and magnets (used for example in some harness)**, can disturb GPS signal and the magnetic compass.
- Internal protection automatically shuts down the instrument's battery power in case of **excessive temperature** (the instrument may not start if it is left too long in direct sunlight or in a vehicle). In flight the relative wind will allow the restart of the device.
- If the SYS'Evolution is very hot and you fly in very cold air, **fog** can appear on the screen. It will dissipate within a few minutes.
- Never turn ON the **Wi-Fi** if your don't use it, as it drastically reduces battery life.

- A **Factory Reset** from SYS PC Tool (menu Option → Advanced) allows you to get your instrument back to default state (every recorded flight will be deleted...). You can also use the **Parameters / Advanced Parameters** menu in the instrument (see XII)
- When you connect your instrument to a USB charger, the battery will start charging, even if the instrument is turned-off.

Notes

Important : Safety Notices and Warnings Precautions of use for the SYS'Evolution

Never leave your SYS'Evolution unattended

Take care of your equipment by cleaning with a soft cloth regularly. Do not open the product, the screws are tight with a certain degree which guarantees the seal of the unit. This action would cancel your guarantee. If water were introduced by inadvertency into your SYS, open the USB cache to air it and wait until it is dry before lighting it. Do not expose your device to too high or too low temperatures, which risk damaging it for good. Avoid leaving it in full sun as an ornament, or putting it in the freezer! The soaring in the Antarctic is not guaranteed!!

Ensure that the product is well in position before taking off. Syride cannot be held responsible for the loss of the product during the flight (takeoff included).

We give great importance to constantly improve the treatment results of sessions. We can provide an estimate of the indicators. If your results are not consistent with reality, please let us know so we can improve our data processing.

Battery

This product uses a lithium-ion battery. Do not expose to temperatures above 50 ° C (120 ° F). The SYS tells the user if it detects a temperature above 50 ° C (120 ° F) when in function. **Risk of fire, explosion or burning.**

If leakage and contact with liquid leaking from the battery, clean thoroughly with water and seek medical advice immediately. For safety reasons and to extend battery life, charging can be done in an ambient temperature range.

Temperatures: Standard operation: 0 ° C (32 ° F) to +45 ° C (113 ° F) short-term storage: -20 ° C (-4 ° F) at 60 ° C (140 ° F) Storage long term -20 ° C (-4 ° F) at 25 ° C (77 ° F).

Do not check out, or do not attempt to remove the battery, which is not user replaceable. If battery problem, please contact Syride support.



Notice to users regarding collection and disposal of batteries and electrical and electronic equipment.

LITHIUM-ION BATTERY AND ELECTRONIC CIRCUIT IN THIS PRODUCT CAN NOT BE ADDED TO THE HOUSEHOLD WASTE. To allow proper recycling, please bring it to a collection point for.

Directive 2002/96/EC applies within the European Union. For the procedure applicable in countries outside the European Union, please check with local authorities

DO NOT ATTEMPT RECHARGING THE DEVICE WITH A DIFFERENT USB CORD THAN THE ONE PROVIDED. RATING: 5VDC 500mA.

GPS (Global positioning System).

The GPS is a Global Positioning System satellite that is controlled by the Government of the United States of America. Syride not responsible for the availability and accuracy of GPS

CE Mark

This product meets the requirements of the CE mark as part of a residential, commercial or light industrial.

About this document

The greatest care was taken in the preparation of this document. However, due to the commercial development of the product, some information may not be quite up to date. The information in this document is subject to change without notice. Syride not responsible for any omissions or technical or editorial errors in this manual, in the event of incidental or consequential damages resulting from the content or use of this document.



www.syride.com