User Guide



Version 1.0 (May 2016)



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	A 1		

4 About Great-Circle

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Introduction

Squid Desktop is a software designed to help users download and manage weather forecasts (GRIB files). Squid Desktop also provides observational data such as satellite images or data from weather stations (SYNOP and METAR). Finally, it allows the user to compute weather routing. These routes are an estimation of the shortest path (minimum time) necessary to sail to a given destination depending on weather conditions (see section 2).

Squid offers a panel of functionalities:

- Overlay visualization of GRIB files from different models;
- Visualize of synoptic maps (Bracknell, DWD, NOAA, ..);
- Choose from a wide choice of models, global and regional (high resolution) ¹ for different variables (weather, sea conditions, tidal currents);
- Download probabilistic models to assess the uncertainty of a forecast through the superposition of weather scenarios;
- Download near real time météosat satellite images available in HD;
- Compute of isochronous routings;
- Overlay visualization of satellite images, GRIB files and routings for a posteriori checks;
- Compression GRIB files with rates up to 90 % (depending on the density and variability of an estimate).

 $^{^1\}mathrm{Great}\text{-}\mathrm{Circle}$ is actively working to improve GCWF fine meshes based on feedback from our users.

1 The Squid interface

The Squid interface is divided into 5 zones:

- The central map;
- The top menu bar;
- The toolbar (located on the left with pictograms);
- The results panel, deployable in 4 tabs;
- The triple line of chronology, synchronized to the GRIB, the SAT and iso roads.

These zones will be explored in more detail in the following sections.



1.1 The Central Map

Squid gathers and overlay the query results (GRIB and SAT) and solutions of iso roads (Routing) on the central map. To edit the appearance (colors, resolution, ..):

open the configuration settings (see section 2.5.4).

You have three options to zoom into the map:

- $\bullet\,$ the mouse wheel
- right click to select an area, then "Zoom to see the selection"
- the scale rule in the top left corner. Left clicking on "+" or "-" to zoom in and out of the map (see image below).

You can always view the world map by clicking on "1: 1" (see image below).



1.2 The Top Menu

<u>a</u>						Squid 8.4.2 - mathilde.millour@gmail.com - Hires	- 0 ×
🌎 File	Weather Routing	g Route	Race	Config To	ols Help		15°07'08"N; 5°13'19"W
		A 🔀					
S) /* 2						Character Control - Contro	Torshaph
						Rew York City Section 2010	Delgada Funchal Addema Funchal Addema Agadar Las Palma Agadar Las Palmas de Gran Canaria Ad Delata
	Var/Source) Source/Va	ar			Cancún Service Carnando de Morte Cristi Chetunal Honsign W/Santo Domingo Sugtema City Largeno Sugtema City Willemsted Sugtema Cartagena Caraces	Suédhiba ele raia Bakar Bakar Bakar Bamako Ouagadougou
G S R Ste	p:	:			~	as 5 5 5 5 5 5	еер ——— — Zoom — 1:1 —
F1 tr	inelp 📝	w	x∎	N	or () 📀 🎍 💽 💁 🚾 🧭 📕 50 🚍 in 33 Character 25	H1 UTF 🔆 📲 👔 🌘 🔐 FENG UF N12:36

The top menu bar offers more tools and functionalities than those presented with pictograms on the left panel.

These tools and functionalities include:

- File: to open, saved or transferred GRIB from your USB key.
- \bullet Weather: to convert your GRIB1 files <-> GRIB2 files and check following runtimes available

- Routing: to compute a routing solution.
- Route: to edit the route.
- Configuration: to encode your preferences and personal data.
- Tools: for connection of a USB GPS (useful back-up or last resort if your usual routing software has crashed...)

1.3 The toolbar on the left with pictograms

The toolbar on the left of the screen, includes all the main features of Squid:



: the general parameters of Squid

1.4 The result panel, deployable in 4 tabs

The panel on the left of your screen is used to manage the GRIB files, roads iso, Best-Start solutions and satellite images. Results are grouped by a tab. On each tab, you find the same icons:

- Open File
- Check to see a variable charge on the map
- Uncheck to remove it
- Unload file. NB: This file will still be available on your hard disk, directory SQUID / or SQUID GRIB / ROUTE, etc.

<u>Résultats</u>			4
Prévision	Observation	Routage	Best Start
2		8	
Var/S	ource 🔾 S	ource/Var	

Results panel with 4 different tabs.

You can hide this results panel and increase board space with the arrow at the top right of the pane.

1.5 The triple line of the time

The timeline has been designed to be as dynamic and flexible as possible. It has 5 levels:

- level 1: date lines
- level 2: (symbol G) line of GRIB files
- level 3: (symbol S) satellite images line
- level 4: (symbol R) isoline routing
- level 5: shows the display settings and animation steps

Click on the eye, the square preceded by a letter to view the GRIB: G, satellite images: S or routings: R. Depending on the case, these three levels can be overlayed and the timeline will adjust itself regarding the duration of each level shown.



It is interesting to explore level 5 because it contains a lot of information:

• The first item on the left indicates the time step that is currently selected (displayed) on the screen. This information can also be found on lines 2, 3 and 4 shown as a vertical yellow line. This line extends to form a rectangle when we stretch the timeline by zooming with the wheel when the cursor is on the line;



Example of a time steps on the timeline

• All time steps are available from the drop-down list: date - time - tracking G, S and/or R



- The following 6 buttons allows you to navigate from one time step to another:
 - **I**: First time step
 - 🖪: Previous time step
 - 🛃: Start animation
 - 🔛: Next time step
 - 🔛: Last time step

– S: Time step matching the computer time. Warning: your Windows computer time might differ from UTC time.

• To zoom in/out in the timeline, just click on the symbols. To return to the initial setup, click the "1:1".



1.6 Routing Window

When routing is displayed, a small floating window opens. This "routing panel" includes some valuable information on the requested routing. For example in the image bellow:

- The estimated navigation time is 15h33min
- The start of the route, Monday, October 21, 2013 at 12:15 UTC
- The expected arrival Tuesday, October 22, 2013 at 3:48 UTC
- The model used is GFS
- The total distance: 266.8 MN



Example of a routing window.

The top of the window displays 5 icons that provide the following actions:

- 💴: Display roadbook
- Chief: Display the requested route (Great Circle route)
- 🔍: Zoom on the road
- View previous route (if it exists)
- P: View next route (if it exists)

2 Tutorials

In this section, we explore some of the most useful application of Squid in detail. We advise you to read the following steps:

- Create an account on the site
- Download and install Squid
- Choose the working mode
- log in Squid

Finally, if you want, you can change the display settings.

2.1 First use

2.1.1 Create an account on the site

• Go to the Squid Sailing web page: https://www.squid-sailing.com/en/authentication?back=my-account

€ EUR 🗱 English (English) →	Login Sign Up
sque	South here Q Search Car 0,00 €
SQUID + SQUID MOBILE + SQUID DIRECT + SUBSCRIPTIONS + Home + Authentication	NEWS + TOOLS + MY ACCOUNT INFOSICONTACT + PRESS FAQ
AUTHENTICATION) Cat
CREATE AN ACCOUNT	ALREADY REGISTERED?
Please enter your email address to create an account. Email address -	if you have an account with us, please log in. Email address *
	Password -
	* Required Fields Forgol your password?
CREATE AN ACCOUNT	AUTHENTICATION

- Enter your email address in the left rectangle
- Click on "Create Account"
- Fill the different text fields offered

6 EUR 📰 English (English) +							L	agin SignUp
					Search here		Q Search	2 0,00 € Carl
🗍 SQUID + SQUID MOBILE +	SQUID DIRECT +	SUBSCRIPTIONS -	NEWS -	TOOLS +	MY ACCOUNT	INFOS/CONTACT -	PRESS	FAQ
Home > Authentication								
CREATE AN ACCOUNT								
YOUR PERSONAL INFORMATION								
Title	⊙ Mr. ⊙ Ms. ⊙ Mis	s						
First name "								
Last name "								
Email	exemple@squid.com							
Password	(Five characters minimum)							
Date of Birth		* . *						
	 Sign up for our neeslette Receive special offers (m) 	d m our melmenel						
YOUR COMPANY INFORMATION								
Company								
SIRET								
APE								
website								
YOUR VAT								
VAT Number	Country *							
			_	_		_	_	
Colored envil	I, OPENPORI, FLEET E	38 ₈₀₀)						
Unouard email								
"Perparent field								Register

- It is possible to key your VAT here
- Click on "Register"

2.1.2 Installation

- Go to http://www.squid-sailing.com/
- Click on "Download Squid"



- OPTION 1: Download the software in 3G or WiFi and save it directly on PC
- OPTION 2: Download the software in 3G or WiFi and store it on your USB stick, smartphone or other mobile memory for later installation on the PC board
- Run the installation file previously downloaded
- Follow the steps of the installation package

2.1.3 Update Squid

- Click on "Help" in the top menu
- Click on "Check for updates"



• The window opens and offers you to upgrade if you do not have the latest version

Check Update – 🗆 🗙
Update Channel : Release Your version : 8.4.2 build 2698 Available : 8.4.2 build 2698
Your version is up to date !
Change Log :
Note #1: It is not necessary to uninstall the previous version before installing the new one. Note #2: If you have installation problems, please retry without your antivirus. Version 8.4.2 (build 2698) *
DOWNLOAD & INSTALL (the software will close)
Skip but remind me later Ignore and wait next update

2.1.4 Modify your password

• Go to Great-Circle web page: https://www.squid-sailing.com/en/authentication?back=my-account

€ EUR III English (English) -	Login Sign Up
SQUID	Search here
AUTHENTICATION CREATE AN ACCOUNT Please enter your email address to create an account. Email address -	ALREADY REGISTERED? If you have an account with us, please log in. Email address - test@squid.com Password -
CREATE AN ACCOUNT	AUTHENTICATION

- Enter the email address and password in the right rectangle
- Click on "sign in"
- Click on "My Personal Information"
- Edit your password
- Click on "Submit"

2.1.5 The two launching modes available

Squid is installed, and two icons are created on the desktop:

- On-line: Designed for a stable and permanent internet connection.
- Off-line: Designed if you do not want, or can't work with a currently open connection.

Just click on the icon that suits your situation and Squid will open. Off shore, with a laptop and a data kit iridium, imperatively use the OFF-LINE mode, with a 'fleet' the ON-LINE mode is possible.

2.1.6 Test of connexion

An upper left icon (next to the "File" menu) is displayed and can display 3 different states:

- 🦃 : you have an internet connection and you have a license Squid
- U: you don't have an internet connection
- *v*: you have an internet connection, but you have not saved a Squid license yet.

By clicking on these icons there, you will get the detailed status of your account and your connection. In the example below you have internet access but are not yet recognized by the server.



2.1.7 Login

- Open the top menu "Configuration"
- Click on "User Account"



• Put your email and password. If you didn't register on the site, you can do so by following the step described in section 2.1.1.

Lo	ig in	
Email		
1		
Password		
Continue offline	Continue online	
I don't have a GreatCircle a	account	
I will do it later	<u>and an</u>	
Problems? Send an email at : souid@r	meatoirde be	
Sona an onial dt : Squider	protor or or or	

- Click on "Log in"
- If your license is valid, the window disappears

2.2 GRIB

2.2.1 GRIB request

- Select an area by moving your mouse (holding right click)
- Option 1: A context menu pops up, click "download GRIB"
- Option 2: Open the download window by clicking on the button below in the tool bar.



• Select the desired variables by clicking the icons

h 🙏	GRIB Request - Dire	ct Downloa	d			- 🗆 ×
GribMail Advanced Request Runtimes						
Variables	Models and Steps					Options
Dillon Dillon	Atmosphère				^	Duration
9256	ECMWF 0.125*	0.125*	10 days	ON	3h ∨	7 days ∨
Itind Wind at Mind out	ECMWF 0.25°	0.25°	10 days	OFF	3h 🗸	From
925hPa	ECMWF 0.5°	0.5°	10 days	OFF	3h ∨	Now
	ECMWF 1.0*	1.0*	10 days	OFF	3h ♥	O Model Runtime
	ECMWF Hirlam	0.1°	2 days	OFF	1h 🗸	Format
Cloud cover Precinitations Humidia	GCWF	0.1*	4 days	ON	1h ¥	O GRIB 1
	GCWF +	0.0333*	4 days	OFF	1h ¥	GRIB 2
	GCWF-Ultra	0.011°	2 days	OFF	1h 🗸	Compression
	GEM	0.6*	6 days	OFF	3h ∀	Bz2
Wave Swell Wave height	GFS 0.25°	0.25°	10 days	OFF	1h ¥	⊖ Gz
direction direction	GFS 0.5°	0.5°	10 days	ON	3h v	GC High Compression
	GES 1.0"	1.0*	16 days	OFF	3h ⊻	
	Hamonia	0.033*	2 dave	OFF	1h Y	
Current SST Temperature	LiDes Ch. Laurensen	0.029	2 days		1b ¥	
	Hines St. Lawrence	0.03	2 days		10 4	
	Meteo-France Arome	0.025*	2 days	OFF	in V	
	Météo-France Arome HD	0.01°	1 days	OFF	lh ∨	
	Météo-France Arpege 0.1*	0.1°	4 days	OFF	1h ∨	Estimated Size : 57.7 Mb (159.92 Mb uncompressed)
	Météo-France Arpege 0.5°	0.5*	4 days	ON	3h ∨	Developed CDIP
	NAM	0.1°	3 days	OFF	3h ~ ~	Lownodd GRIB

• Select / models by clicking on the ON / OFF button



- Select the desired time step
- Choose the first time step GRIB: Now? Runtime or Model?
- Select the compression ratio, GZ, BZ2 or GreatCircle High Compression
- Finish by clicking on "Download GRIB"
- Once downloaded, the file opens automatically

2.2.2 GRIB Requests by mail(iridium mode)

- Select an area by moving your mouse (holding right click)
- Option 1: A context menu appears, then click "GRIBMAIL for selecting"
- Option 2: Open GRIBMAIL window by clicking the button below in the toolbar



• Select the desired variables by clicking on the icons

<u>.</u>	GRIB Request -	GribMail				- 🗆 🗙
Direct Download Advanced Request Runt	imes					
Variables	Models and Steps					Options
Milen Milen	Atmosphère				î	Duration
9255	ECMWF 0.125°	0.125°	10 days	ON	3h 🗸	7 days ∽
Wind Wind at Wind oust	ECMWF 0.25*	0.25*	10 days	OFF	3h ¥	From
925hPa	ECMWF 0.5°	0.5°	10 days	OFF	3h ♥	Now
	ECMWF 1.0*	1.0*	10 days	OFF	3h ¥	O Model Runtime
	ECMWF Hirlam	0.1°	2 days	OFF	1h ⊻	Format
Cloud cover Precipitations Humidity	GCWF	0.1*	4 days	ON	1h ¥	O GRIB 1
	GCWF +	0.0333°	4 days	OFF	1h 🗸	GRIB 2
	GCWF-Ultra	0.011*	2 days	OFF	1h 🗸	Compression
	GEM	0.6°	6 days	OFF	3h 🗸	Bz2
Wave Swell Wave height	GFS 0.25*	0.25*	10 days	OFF	1h ¥	GC High Compression
direction direction	GFS 0.5°	0.5°	10 days	ON	3h ¥	
	GFS 1.0°	1.0°	16 days	OFF	3h 🗸	
	Harmonie	0.033°	2 days	OFF	1h ¥	
Current SST Temperature	HiRes St. Lawrence	0.03°	2 days	OFF	1h ¥	
	Météo-France Arome	0.025*	2 days	OFF	1h ¥	
	Météo-France Arome HD	0.01°	1 days	OFF	1h ¥	
	Météo-France Arpege 0.1*	0.1*	4 days	OFF	1h ♥	Estimated Size : 57.7 Mb (159.92 Mb uncompressed)
MSLP	Météo-France Arpege 0.5°	0.5°	4 days	ON	3h ♥	
	NAM	0.1*	3 days	OFF	3h ¥ ¥	Send to SquidMail

• Select / models by clicking on the ON / OFF button



- Select the desired time step
- Choose the first time step GRIB: Now? or Runtime Model?
- Finish by clicking on "Send GRIBMAIL"
- "Launch your email client" will launch your default email software (Skyfile, Outlook, ...)
- "Copy email body" allows you to perform the operation manually. So be sure to send your email to gribmail@greatcircle.be, copy the body of the text (do not change the syntax of the query!). The subject of the message may be blank.

	SquidMail		×	
Please send this email to :	squidmail@greatcircle.be			
Launch your email client	Copy email body			
Here is the text to be copied	into the body of your email:			
<gribmail> <request <="" model="ecmwf_0_125" step_dt="3" step_from="now" step_to="168" td=""></request></gribmail>				
var="10u,10v,pmsl" ll="57.032 -71. <request model="arpege_0_5" st<="" td=""><td>6597 26.4315 9.189301" compres ep_from="now" step_to="168" ste</td><td>s="bz2" grib_version="2"/> p_dt="3"</td><td></td></request>	6597 26.4315 9.189301" compres ep_from="now" step_to="168" ste	s="bz2" grib_version="2"/> p_dt="3"		
var="10u,10v,r,apcp,tcc,2t,pmsl,ca grib_version="2"/>	pe" II="57.032 -71.6597 26.4315	9.189301" compress="bz2"		
<request model="ww3_glo" step_<br="">var="wvdir,swdir,swh" II="57.032 -7</request>	from="now" step_to="168" step_t 1.6597 26.4315 9.189301" compression	ess="bz2"	~	

- Send mail to our server via the address gribmail@greatcircle.be
- The mail back arrives within 5 minutes max as an attachment with the requested GRIB

2.2.3 Load a GRIB file previously downloaded

- Click on "File" in the top menu
- Click "Open GRIB file"



2.2.4 Download a GRIB file

• Click on the button the left window (see below)

2.2.5 View more than one GRIB at same time

- Load / Upload multiple GRIB
- Files open automatically, and an editable window appears on the left



• In the forecast's tab appears all the variables that you have chosen. For our example, we downloaded the wind at 10 meters, the temperature, the pressure at to sea level and total cloud cover.



• To view a variable, click on the square on the left of the variable name

• For some variables, you have different types of performances. For example, the wind variable gives the choice between the Plotted winds ("10m barb") and a color gradient ("10m color gradient wind"). Multiple representations can be displayed simultaneously.



• To change the description of a variable, click on the square to the left of the representation of this variable

• To stop displaying a variable, clear the square next to the variable name

• Select several same variables in different models to compare models and you might discover spatial or temporal offsets.

2.3 Observations

2.3.1 Requests for satellite images

- Select an area by moving your mouse (holding right click)
- Option 1: A context menu appears, and click "download satellite image to the selection"
- Option 2: Open the download window by clicking the button below available in the toolbar



• Select the satellite

•		Sattelite R	Request – 🗆 🗙
Satelite	Variable		Steps
METEOSAT Euro	IR	VIS	Select 1/3 1/6 1/9 1/12 All None
METEOSAT Full Disk		2	From step V Select by 0 - Select
METEOSAT 7	Infrared	Visible	Show live steps
Himawari 8 OFF	COL	COL	
GOES East CONUS			
GOES West CONUS	IR Color	VIS Color	
GOES East Full Disk		VIS	Show Source Area
GOES West Full Disk	HD	3	Send request
Scatterometry	<u> </u>		Download Size: 0.0 bytes The download sized depend on the weather complexity and day/night. The
ASCAT OFF	IR VIS Color	Water vapor	estimated accurency is about 80-100%
SST	COL	- [] <i>HD</i>	
JPL OFF	<u>×</u>)
	Air mass	SST	¥

- Select the necessary variables
- Select the desired image number (from 1 to 15 steps or images)
- Finish by clicking on "Send Request"
- Once downloaded, the file opens automatically
- WARNING! 15 steps of a full disk on the entire Atlantic exceed 100 MB !!! In navigation, to limit the "'damage"', reduce the area and select only the last SAT image (number of steps: 1, IR or VIS)

2.3.2 Synoptic maps queries

• Open the synoptic maps by clicking the toolbar button (see below)



• Choose the geographical area



- Select the source
- Select the time step
- Start query by clicking "Download and Display the selected time step"
- The general map pop-up



• Get other time steps by clicking on the arrow buttons or below



2.4 Display

2.4.1 Make a meteogram

- Open or download a GRIB file
- The GRIB file is displayed on the map

<u>b</u>										Squ	Jic
3	File	Weather	Routing	Route	Race	Config	Tools	Help			
		Results		1							
					20	- \					
R	0))	_ ⊡ ∕ Wir	nd at 10m							^	
	Z		10m barb (ed 10m barb (ge	mwf_0_12 fs00_2010	25_2016-0 6-06-29_1	06-29_11-38 1-38-42.grb	2) 2)				ŀ
/	-		10m barb (gf 10m barb (na 10m Streamli 10m Streamli	spara_1_0 am_2016-0 ines (ecmw ines (gefs0	_2016-06 6-29_11-3 f_0_125_ 0_2016-0	-29_11-38-2 38-28.grb2) _2016-06-29 6-29 11-38	263(mb2) 9_11-38-15 -42.cm2)	ō.grb2)			
	F		10m Streamli 10m Streamli 10m wind co	nes (gfspa nes (nam_ lor gradien	ra_1_0_2 2016-06-2 t (ecmwf_	016-06-29_ 29_11-38-28 0_125_201	11-33-26.g 8.grb () 6-06 29_1	grb2) 1-38-15.g	њ2)		
			10m wind co 10m wind co 10m wind co	lor gradien lor gradien lor gradien	t (gefs00 <u></u> t (gfspara t (nam_2(2016-06-29 _1_0_2016)16-06-29_1)_11+88-42 -06-2)_11 1-38-28.g	2.grb2) -38-26.grb rb2)	2)		ŀ
E			nd at 925hPa 925hPa barb 925hPa barb) (gefs00_2 (gfspara_	2016-06-2	9_11-38-42 6-06-29_11-3	.grb. () 38-16.grb2	2)			0
J			925hPa Stre 925hPa Stre 925hPa wind	amlines (ge amlines (gf 1 color grad	efs00_20 spara_1_ dient (gefs	16-06-29_11 0_2016-06-3 00_2016-06	I-31-42.grb 29_11-38- 6_29_11-3	o2) 26.grb2) 8-42.grb2)			
0	5	□ 	925hPa wind nd gust	d color grad	dient (gfsp	ara_1_0_2	16-06-29	_11-38-26	.grb2)	~	
4		Var/S	urce 🔿 :	Source/Va	r				>		1
¢											

• Select the variables you want to display by checking / unchecking the boxes



- Option 1: Double click quick left at the desired Lat/Long meteogram
- Option 2: Right click and select "Meteogram here"
- The meteogram opens



• You can change 'the number of visible days', 'the vertical scale' and 'the first day to display' with the 3 sliders at the bottom of the window

First Day: 1	Visibles Days: 1	Y Scale
	Print preview	

2.4.2 Interpret a meteogram with all scenarios of a model

- Download the whole GRIB
- Check all scenarios in the retractable component to be visible on the map
- Make a meteogram



- For the wind direction, Great-Circle aggregated all scenarios. The result comes in a "pie-chart". The value at the top right of each pie gives the probability of the greatest sector.
- \bullet In the example below, the first sector, 80 % of the GEFS scenarios give a North-West area and 20 %westerly sector
- In the second example, there is a probability of 35 % to have Noth-West wind and 35 % to have a West wind, 25 % of South-West wind and only 5 % of North wind.



2.4.3 Check Models arrival time (runtimes) available on the Squid server

- Click on "Weather" in the top menu
- Click "Check next runtimes available"



• A new window opens with the available runtime, following runtimes and the estimated time of arrival.

2.4.4 How to view the exclusion zones in Squid?

• Open Squid, and move to the geographical area concerned by the exclusion zones or coming from Adrena and Expédition



• Go to the "Tools" menu and open "Import exclusion zones (Adrena/Expedition)"

2								Squid 8.4.2 - mathilde@gr	e
🄇 File	Weather	Routing	Route	Race	Config	Tools	Help		
LI I	- **	1200	5 .		,	Ma	ap Scree	nshot	
		~	6	· •	77 8	Sh	ow Boat	- GPS	Γ
	• (1	1:1 🕨	2	6	1 T.	lm	port Exc	lusion Areas (Adrena/Expedition)	L
		•		-12	-	Lo	cal Data	Counter	L
	¥.	Ð		4	- 1.5	-	hibougan	nau Marina Sept-Iles Ha	Vn

• Click on "Import"



• Select the appropriate files



• Check the information

8	Squid 8.4.2 - Racing CEP World Wave	- 8 ×
File Weather Routing Route Race Config Tools He	P	66°49'10"N; 18°18'10"W
Exclusion Areas		Same Same
		14 25
	A second se	Con Mao 1 Avro
Percov selected		* Augus do Marchana Teores Rolegado
0	्र जिस्तान ज्ञा	8 SPEED

• The exclusion zones are displayed in Squid

2.5 Parameters

2.5.1 Edit the destination directory of GRIB, routes, waypoints, polar or satellite images

- Open the top menu "Configuration"
- Click on "User Folder"



• Edit Destinations files by clicking the "..." button

User Paths -	×
C:\Users\GreatCirclePc\Documents\squid\grib	
C:\Users\GreatCirclePc\Documents\squid\route	
C:\Users\GreatCirclePc\Documents\squid\waypoint	
C:\Users\GreatCirclePc\Documents\squid\polar	
C:\Users\GreatCirclePc\Documents\squid\other	
efault	Save
	C:\Users\GreatCirclePc\Documents\squid\grib C:\Users\GreatCirclePc\Documents\squid\voute C:\Users\GreatCirclePc\Documents\squid\voute C:\Users\GreatCirclePc\Documents\squid\voute C:\Users\GreatCirclePc\Documents\squid\voute C:\Users\GreatCirclePc\Documents\squid\voute C:\Users\GreatCirclePc\Documents\squid\voute C:\Users\GreatCirclePc\Documents\squid\vother

• Save

2.5.2 View the geographic coverage of each model

• Open the "Display option" window by clicking the toolbar button below



- Select "Zones" tab
- Check / uncheck models to see area covered by the model

Display options - Forecast Map Observation Areas GRIB areas Satellite areas ECMWF 0.125* NAM nest CONUS METEOSAT Euro ECMWF 0.25* NAM nest CONUS METEOSAT Full Obsk	×
Forecast Map Observation Areas GPS GRIB areas Satellite areas Satellite areas Satellite areas ECMWF 0.125* NAM METEOSAT Funo ECMWF 0.25* NAM nest CONUS METEOSAT Funo ECMWF 0.5* POSS METEOSAT TU Disk	
EchnWr 1.0* WAM 0.125* Himawari 8 ECMWF Hiftam WW3 GOES East CONUS GCWF WW3 EU GOES West CONUS GCWF / WW3 EU GOES West CONUS GEFS 0.5* (All) GOES Teast Full Disk GEFS 0.5* (Control) GOES Vest Full Disk GEFS 0.5* (Control) GOES Control) GEFS 0.5* GFS 0.5* GFS 0.58 GFS 0.5* GFS 0.59 GFS 0.5* GFS 0.50 GFS 0.5*	
This is an approximation. The actual areas may differ.	

2.5.3 Changing the gamma satellite images

- Select the box and download satellite images for selection.
- Go to settings
- Adjust the intensity of contrast and brightness (gammas) using the settings window

File Weather Routing Route Race Config Tools Help	nacing control of that		54°15'37"N; 13°41'24"W
Display options	×		
Forecast Map Observation Areas GPS			
Satellite Image		Tórshavn	and the second s
Gama:			
			Leveck argen
		a free	Stavar
Apply		· · · · · · · · · · · · · · · · · · ·	erness aserburgh
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		and the	Edinburgh
	4	Belfast	Carborough
	*	Survey Dublin	Liverpool Hull
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		· contro Phy	mouth
			Le Havre Paris
		Bre	st Marza
			Suga-Hilare-de-Riez
			Sent Gene
			La Teste-de-Buch Chbrg
		A Coruña Gijon	amargo San Sebastián
		1 a Rúa	Andora la Vella
Jun 30 - 07:45 Jun 30 - 08:00	Jur	a 30 - 08:15	Jun 30 - 08:30
	1	-	
Step: Jun 30 - 08:30 Thu, Jun 30 - 08:30 S 🗸	H I I I I I I I	🗿 by 1 🔄 SPEED	——— доом 🛨 🖬 🚍

2.5.4 Set up your maps appearance

• Click on the button below in the toolbar



- This window has 4 tabs: Map, Forecast, Observation and Zones.
- To change the appearance of the main map, click on the "Map" tab

C	Display options -	
orecast Map Observation Areas GPS		
Orofile Select Ught Blue Only 'User Defined' profile is edtable Save 'User Defined'	Color tuning Earth : Sea : Polar area : Lake :	
Mapping elements	Fonts	
Countries Capitals	Population > 1.000.000 Verdana,size : 8,Bold	
Coastslines Rivers	Population > 100.000 Verdana,size : 9,Regular	
✓ Coastal cities	Population > 10.000 Verdana,size : 7,Regular	
	Population > 1.000 Verdana, size : 7, Italic	
	Apply	

• To change the appearance of the weather elements (barbules, isobars, colors, ...), click on the GRIB's tab

Displ	ay options – 🗆 🗙
Forecast Map Observation Areas GPS	
Wind barbs management Granularity: - Size: -	+ Density: 5⊕ Color: OBy Strength O One color: OBy 1 + ♥ Show Arrows
Color depends on : Wind strength Model Black Isobars Step between lines in Hp : Color : Black Black By Model	Isotherms Step between lines in C*: 3:
Current - + Granularity: - + Color: Image: Black Display the numerical values	Color gradients Opacity: - Display mode:
My favourites display Select LastUsed v Save selected as Save	
	Apply

2.5.5 To make a screenshot

- Click on "Tools" in the top menu
- Click on "Make a screenshot"

4								Squid 8.4.2 - mathilde@gr
🄇 File	Weather	Routing	Route	Race	Config	Tools	Help	
ų į		-5		ى	=>	М	ap Scree	nshot
	22				<u></u>	Sh	ow Boat	- GPS
		1:1)			÷	Im	port Exc	lusion Areas (Adrena/Expedition)
		Ì	0	0	- Market	Lo	cal Data	Counter

• Select the file name.

.8	Save an Image file	×
€ ∋ - ↑ 🎚	≪ Documents > squid > other > ⊄ C Search ot	her 🔎
Organize 🔻 New	folder	:== 🕶 🔞
This PC b-box 3 ac besktop Documents Downloads GreatCirclePc (c Music Pictures Videos Acer (C:)	 Name Date modified No items match your search. 	Туре
-	v <	>
File name:	squid - screenshot	~
Save as type: F	PNG Image	~
) Hide Folders	Sav	e Cancel

 \bullet "Save"

2.6 Routing

2.6.1 Draw a route

• Select "New Route" icon in the toolbar



- To add a Waypoint (WPT), just click right where you want to place it.
- To add an extra WPT, move the mouse cursor (without pressing the mouse button) to the desired location. An orange dotted line appears between the last point and your cursor. Then an additional click adds a WPT to the road.



• Once all points have been added to the route, you can exit the mode of adding points a pressing [ESC] on your keyboard. Safeguarding the road is not essential, unless you want to reuse the same road later.



• If you want to further define the coordinates of a point, right-click an item and choose "Edit WPT". You can then edit the WPT. It is also possible to add a tolerance for the mark (range 0 to 10 MN). This will allow a variable between the WPT and the computed route.



- To delete a WPT, right click on a WPT and choose "Delete WPT".
- To move a WPT, left click and you hold the mouse button down while moving the WPT, then release the mouse button.
- To start routing parameterization, click the "Routing" button (on the right in the routing window).

[Route	Designer		X			mariñas e Muros
	Route			_			/ i	Pontev
	₽ 🖓	\$ \$	- L	- -			,	Rosal Viana do
	Smart tool s	election			Routing	1		Esposen Vila do (
		New Ro	ute (4 WP)					Porte
					ς			Aveiro
						i		Figueira c
							Lour	Vieira de Le Vazaré aldas da Rai inhã
						•	Le contra la con	Vila Franca

2.6.2 Make a routing

• Open the routing window by clicking the icon below the toolbar



• Configure different elements (polar, date, routing parameter motor sailing, ...) of the window

New Routing Request Image: Constraint of the second se						
Polar parameters Polaire actuelle : 60ftmono Facteur de la polaire (%): 100 ♀ Plus de polaires Importer Polaire Start & Arrival Parameters Importer Polaire Routing Parameters Modèle Météo : CEP 0.125* ∨ Modèle Météo : CEP 0.125* ∨ Vitesse de vent max. (nd) : 40 ♀ Current Model: (Aucun) ∨ Min TWA (deg) : 35 ♀ Wave Model: (Aucun) ∨ Max TWA (deg) : 170 ♀ Facteur de vent (%) : 100 ♀ Tack/Uibe Penalty (min) : 3 ♀ Interval isochnones (min) : 90 ♦ Motor Sailing			New Rou	uting Request		
Polaire actuelle : 60ftmono ✓ Éditer la polaire Facteur de la polaire (%): 100 ÷ Plus de polaires Importer Polaire Start & Arrival Parameters Modèle 40 ÷ Modèle Météo : CEP 0.125* ✓ Vitesse de vent max. (nd) : 40 ÷ Current Model: (Aucun) ✓ Min TWA (deg) : 35 ÷ Wave Model: (Aucun) ✓ Max TWA (deg) : 170 ÷ Facteur de vent (%) : 100 ÷ Tack/Jibe Penalty (min) : 3 ÷ Interval isochnones (min) : 90 ÷ Activate when boat speed less than (kt) : 4 ÷ Vitesse du moteur (nd) : 6 ÷ Factuel : Default Sauvegarde automatique après chaque requête de routage. Profil actuel : Default Sauver	🕂 Polar param	neters —				
Facteur de la polaire (%): 100 • Plus de polaires Importer Polaire Start & Arrival Parameters -	Polaire actuelle :	60ftmo	ono	Ý		Éditer la polaire
Start & Arrival Parameters Routing Parameters Modèle Météo : CEP 0.125° v Current Model: (Aucun) v Min TWA (deg) : 35 ° Wave Model: (Aucun) v Max TWA (deg) : 170 ° Facteur de vent (%) : 100 ° Facteur de vent (%) : 100 ° Tack/Jibe Penalty (min) : 3 ° Motor Sailing	Facteur de la pol	laire (%): 100	PL	is de polaires		mporter Polaire
Start & Amva Parameters Routing Parameters Modèle Météo : CEP 0.125° v Vitesse de vent max. (nd) : 40 ÷ Current Model: (Aucun) v Min TWA (deg) : 35 ÷ Wave Model: (Aucun) v Max TWA (deg) : 170 ÷ Facteur de vent (%) : 100 ÷ Tack/Jibe Penalty (min) : 3 ÷ Interval isochrones 90 ÷ Motor Sailing Activate when boat speed less than (k1) : 4 ÷ Vtesse du moteur (nd) : 6 ÷ Fouting Profile (Load/Save) Sauvegarde automatique après chaque requête de routage. Profil actuel : Default v Sauver sous Default Sauver	0					
→ Routing Parameters Modèle Météo : CEP 0.125° ∨ Current Model: (Aucun) ∨ Min TWA (deg) : 35 ‡ Wave Model: (Aucun) ∨ Max TWA (deg) : 35 ‡ Wave Model: (Aucun) ∨ Max TWA (deg) : 170 ‡ Facteur de vent (%) : 100 ‡ Tack/Jibe Penalty (min) : 3 ‡ Interval isochnones (min) : 90 ‡ Motor Sailing	Start & Am	val Parameters	5			
Modèle Météo : CEP 0.125* ▼ Vitesse de vent max. (nd) : 40 € Current Model: (Aucun) ▼ Min TWA (deg) : 35 € Wave Model: (Aucun) ▼ Max TWA (deg) : 170 € Facteur de vent (%) : 100 € Tack./Libe Penalty (min) : 3 € Interval isochnones (min) : 90 € Tack./Libe Penalty (min) : 3 € Motor Sailing	- Routing Pa	rameters —				
Current Model: (Aucun) v Wave Model: (Aucun) v Facteur de vent (%): 100 Interval isochrones 90 Max TWA (deg): 35 Max TWA (deg): 170 Tack./Jibe Penaty (min): 3 Tack./Jibe Penaty (min): 3 Motor Sailing Activate when boat speed less than (kt): 4 Vitesse du moteur (nd): 6 Routing Profile (Load/Save) Sauvegarde automatique après chaque requête de routage. Profil actuel : Default Sauver	Modèle Météo :	CEP 0.1	125° 🗸 🗸	Vitesse de	vent max. (nd) :	40 🌲
Wave Model: (Aucun) ✓ Max TWA (deg): 170 € Facteur de vent (%): 100 € Tack/Uibe Penalty (min): 3 € Interval isochrones (min): 90 € Tack/Uibe Penalty (min): 3 € Motor Sailing Activate when boat speed less than (k1): 4 € Routing Profile (Load/Save) Sauvegarde automatique après chaque requête de routage. Profil actuel : Default Sauver sous Default Sauver	Current Model:	(Aucun)	· · · ·	Min TWA	(deg) :	35 🌲
Facteur de vent (%) : 100 ♀ Interval isochrones 90 ♀ Motor Sailing	Wave Model: (Au		v .	(deg) :	170 🜲	
Interval isochrones 90 + Motor Saling Motor Saling Activate when boat speed less than (kt): 4 + Vitesse du moteur (nd): 6 + Routing Profile (Load/Save) Sauvegarde automatique après chaque requête de routage. Profil actuel : Default Sauver sous Default Sauver	Facteur de vent ((%):	100 🚖	Tack/Jibe	Penalty (min) :	3 🛓
Motor Sating Activate when boat speed less than (kt): Activate when boat speed less than (kt):	Interval isochrone	es	90 🗘			
Routing Profile (Load/Save) Sauvegarde automatique après chaque requête de routage. Profil actuel : Default Default Sauver sous Default	Activate when	n boat speed less	s than (kt) : 4			
Sauvegarde automatique après chaque requête de routage. Profil actuel : Default Sauver sous Default Sauver	Vitesse du moteu	ur (nd) :	6			
Profil actuel : Default v Sauver sous Default Sauver	Vitesse du moteu	ur (nd) : ofile (Load/Sa	ve)			
Sauver sous Default Sauver	Vitesse du moteu	ur (nd) : ofile (Load/Sa	ve)	auvegarde automatiqu	e après chaque re	quête de routage.
	Vitesse du moteu Routing Pro Profil actuel :	ur (nd) : ofile (Load/Sa Default	ve)	auvegarde automatiqu	e après chaque re	quête de routage.
	Vitesse du moteu - Routing Pro Profil actuel : Sauver sous	ur (nd) : ofile (Load/Sa Default Default	ve)	auvegarde automatiqu	e après chaque re	quête de routage.
	Vitesse du moteu	ır (nd) : ofile (Load/Sa Default Default	ve)	auvegarde automatiqu Sauver	e après chaque re	quête de routage.
	Vitesse du moteu	ur (nd) : ofile (Load/Sa Default Default	ve)	auvegarde automatiqu Sauver Télécharger le	e après chaque re	quête de routage. au routage
Nom de routage :	Vitesse du moteu	rr (nd) : ofile (Load/Sa Default Default :	ve)	auvegarde automatiqu Sauver Télécharger le	e après chaque re	quête de routage. au routage []
Nom de routage :	Vitesse du moteu	rr (nd) : ofile (Load/Sa Default Default :	ve)	auvegarde automatiqu Sauver Télécharger le	e après chaque re	quête de routage. au routage
Nom de routage :	Vitesse du moteu Profil actuel : Sauver sous Nom de routage	rr (nd) : ofile (Load/Sa Default :	ve)	auvegarde automatiqu Sauver Télécharger le Ernail Request	e après chaque re fichier GRIB lié Start I	quête de routage. au routage 🗌 Routing 💕

- Start routing request by clicking "Start"
- Routing is calculated on the servers of GreatCircle and will be returned within a few seconds, from 10 to 30 on average depending on the complexity and length of the route.



• For your communications or sharing in social media, it is possible to open a route Squid in Google Earth KML the file is located by default in My Documents / Squid / Route

2.6.3 Make a deterministic Best-Start

• Open the routing window by clicking on the following icon



• Select the polar

	New Best Start® Request	- 🗆 🛛
🗕 – Polar param	eters	
Current polar :	imoca60 🗸	Edit Current Polar
Polar factor (%):	100 Get More Polars	Import Polar
- Start & Arriv	al Parameters	
New Route	Open Route Edit Current Route	
Start :	Please select a Route with at least 2 WP	
Arrival :	Please select a Route with at least 2 WP	
First Departure :	Now 29/06/2016 🗐 🕶 14 h 🗸 00 min 🗸 UTC	
Last Departure :	Now 29/06/2016 , 14 h ✓ 00 min ✓ UTC	
Departure Step (r	nin) : 60 হ	
 Routing Par Motor Sailin Routing Pro 	ameters g file (Load/Save)	
	Download grib for	routing result
Routing Name:	Default_3	
	Sta	rt Routing 🛛 🧕

- Edit your road with the road manager, like you do for any simple routing
- In polar parameters, select/edit/import the polar.
- In Routing Parameters, select the weather and current models, limit factors TWA and TWS fibe, penalty, etc...
- Choose your time of earliest and latest departure

First Departure :	Now	29/06/2016	14 h	~	00 min	~	UTC
Last Departure :	Now	29/06/2016	14 h	~	00 min	~	UTC
Departure Step (mi	in) :	60 🜲	Total n	outin	g: 1		

- Start best-start computing. This operation can take a few seconds to a few tens of minutes depending on the distance and the number of requested routes. To request a BestStart with more than 100 consecutive routings, please contact us at squid@greatcircle.be.
- Squid shows the Best Start window summarizing graphically all departures and their ETA positioning.



- Double click on the "road book" pictogram in the routing window to display the minimum ETA roads in tabular form which you can export the form in Excel.
 - C
- Compare your alternatives.

2.6.4 Importing a polar

- You already have your polar form of a delimited text file: XXXYYY.pol. The extension ".pol" is essential to be recognized by SQUID
- Open this file with the command "Import Polar" in the routing query window in the upper right.

New Routing Request Polar parameters Polar parameters Polar esclusile: 2012:11-Polare-Imocs Editer la pol Polar de la polare (%): 100 Pus de colares Importer Po Control of the colores Polar de colares P	
Stati a vitiva ratanatas Nouvelle Route Ouvrir Route Éditer Route Courante Olgine : Lat: 48'13'39"N; Lon: 04'43'20"W	
Destination : Lat: 43'34'54''N; Lon: 08'24'43''W Premier Dépat : Now 22/10/2013 • 14h • 45min • UTC > Routing Parameters	Organiser ▼ Nouveau dossier
Motor Saling Routing Profile (Load/Save)	■ Bureau ■ Modifié le Nom ■ Emplacements récents ■ 10/03/2010 A lire.doc ■ VACHTS ■ 10/03/2010 AkiRC2surface.pol
Télécharger le fichier GRIB lié au routa Nom de routage : attantic_326 DÉMARRE	iii 18/04/2011. pola/Z4.csv fype:Fichier POL Taille: 683 loctes iii 18/04/2011. pola/Z2D.csv Taille: 683 loctes Modifie le: 10/03/2010 06:42 iii 18/04/2011. pola/Z2d4.csv VPPRC2409-Pour envoi ZED 4.sts
	Bonouneques Consents Consents Nom du fichier: All File (**)
	Ouvrir V Annuler

- Place your mouse over any value in the table, right click and follow the instructions
- Save the polar under a different name, if necessary. WARNING, an unsaved polar will not be taken into account when computing the routing



• You do not have your polar. So you can create the delimited text file with an extension .pol. Starting from an existing Excel file or OpenOffice containing all the speed values for each couple.

🛗 М	umm30test4	1.pol - OpenOffice.org	Calc	-		-							
Eichi	er É <u>d</u> ition	Affichage Insertion	Forma <u>t</u> O	utils Donnée	<u>s</u> Fe <u>n</u> être Aidg	<u>e</u>							
2		· 😕 🗟 👒 🛃	🔒 🖴 🖸	ABC ABC	🔀 🖏 🛱 🕶	🛷 崎 • 🥲	- 🍪 🛃	2 🏙 🏏	H 🖉 🧰	9 9 9	Recherc	her 💌 🕹	ŵ .
Rø	Arial	• 1	4 💌	<u>G</u> <u>I</u> <u>S</u>		≡ 📰 🦺 %	\$% \$ 0 0	\$ ∉∉	- • 🖄 • 🛓	<u>.</u> .			
A1		→ → → → → → → → → → → → → → → → → → →											
	A	В	С	D	E	F	G	Н	I	J	К	L	М
1		2	4	6	8	10	12	14	16	20	25	30	35
2	33	1,5	2,8	4,1	5,1	5,6	5,9	6,1	6,1	6,2	6,0	5,5	5,4
3	36	1,7	3,1	4,5	5,5	6,0	6,2	6,4	6,5	6,5	6,4	6,1	6,0
4	39	2,1		nregistrer sour		8.3	6.0		8.7	23	6,7	6,5	6,4
5	50	2,6			6.6	6.0	7.1	7.2	7.5	7.4	7,5	7,4	7,3
6	60	2,8		O <	Documents 🕨	VACHTS POI	LAIRES	▼ Recl	hercher dans : I	POLAIRES P	8,1	8,1	7,9
7	70	3,1		Nom du fichi	er: Mumm30N	EW.csv					8,7	8,8	8,5
8	80	3,2		Tva	ne · Texte CSV (cov) (* cov)					9,4	9,8	9,5
9	90	3,3		10		(1034)					10,4	11,0	10,8
10	105	3,4			Test Control						11,9	13,1	13,0
11	120	3,3			auto	matique du nom					13,5	15,4	15,0
12	135	3,2			de fi	chier					14,9	16,7	16,0
13	140	3,0			Enre	gistrer avec mot					15,3	17,1	16,5
14	150	2,3			Edite	r les paramètres					15,4	17,5	17,0
15	165	1,5			du fi	Itre					12,5	16,0	15,5
16	180	1,0									10,9	13,7	12,0
17				Parcourir les d	dossiers			Enre	egistrer	Annuler			
18													

2.6.5 Routing with Models Ensemble

• Start a routing, and select GEFS in the models menu.

		New Routing Request	- 🗆 ×
- Polar param	neters		
Current polar :	imoca60	¥	Edit Current Polar
Polar factor (%):	100 🜩	Get More Polars	Import Polar
🚽 - Start & Arriv	val Parameters —		
New Route	Open Route	Edit Current Route	
Start :	Lat: 55°52'22	"N; Lon: 09'44'12"W	
Arrival :	Lat: 50'16'13	"N; Lon: 07'20'37"W	
First Departure :	Now 30/06/2	2016 🔍 09 h 🗸 15 min 🗸 UT	c
Routing Pa	rameters		
Motor Sailin	g		
Routing Pro	file (Load/Save)		
		Download gr	ib for routing result
Routing Name:	Default_4		
		Email Request	Start Routing 🗜

• Read the results.

		New Routing Request	- 🗆 🗙
- Polar param	eters		
Current polar :	imoca60	¥	Edit Current Polar
Polar factor (%):	100 🜩	Get More Polars	Import Polar
- Start & Arriv	val Parameters —		
New Route	Open Route	Edit Current Route	
Start :	Lat: 55°52'22	"N; Lon: 09°44'12"W	
Amival :	Lat: 50°16'13	"N; Lon: 07°20'37"W	
First Departure :	Now 30/06/2	2016 🔍 🗸 09 h 🗸 15 min 🗸 UTC	
Routing Par Motor Sailin Routing Pro	rameters 19 ofile (Load/Save)		
		Download grib	for routing result
Routing Name:	Default_4		
		Email Request S	tart Routing 🗾

2.6.6 Routing Analysis Tool

• Select all routings.



• Click Routing -> Routing analysis

41			1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -						Squ	d
3	File	Weather	Routing	Route	Race	Config	Tools	Help		
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• Here is an example based on an example of probabilistic routing with the GEFS (ensemble of 20 scenari)

Distances		Misc		Slowest routing	
Average	858.2 nm	Unfinished Routing	0	Name	Default_3
Standard deviation	0.0 nm			Wind Model	GEFS00
		Durations		Distance	858.2 nm
Shortest routing		Average	3d 20h 14m	Start	29 Jun 15:15
Name	Default_3	Standard deviation	Od Oh Om	Arrival	03 Jul 11:29
Wind Model	GEFS00			Duration	3d 20h 14m
Distance	858.2 nm	Fastest routing			
Start	29 Jun 15:15	Name	Default_3	Overall Wind Rose Distri	bution (TWD - %)
Arrival	03 Jul 11:29	Wind Model	GEFS00		0
Duration	3d 20h 14m	Distance	858.2 nm	33	10 00
		Start	29 Jun 15:15	300	Xan
Longest routing		Arrival	03 Jul 11:29		(and)
Name	Default_3	Duration	3d 20h 14m	270	
Wind Model	GEFS00				ANY
Distance	858.2 nm			240	$\langle X X \rangle$
Start	29 Jun 15:15				XX
Antval	03 Jul 11:29			21	0
Duration	3d 20h 14m				180

Graphic tab of evolution:

- Each routing scenario, shows TWS changes (vertical axis) versus time (horizontal axis):
- Each line of the graph is an independent routing
- The more lines are close, the less the model includes uncertainties.
- Beware, for a given time, there are different values of TWS. This is quite logical since the geographical position of the point at the given time varies for each routing (weather scenario).
- The pie charts on the top represent the distribution of TWD. The value at the top right of the circle represents the highest probability of TWD.



Tab detailed statistics:

- For each routing scenario:
- The duration

- The start time
- The arrival time
- The different types of wind encountered along each routing
- Q10: 10
- Q50: Median of wind speed. 50
- Q90: 90



Tab wind speeds:

• For each routing, distribution of wind speeds clustered by 5 kts.



Tab wind direction:

• This table gives you detailed information about the different TWA (portside "P" and starboard "S").

s					Routing	Analysis				
Dvera	Statistics Evolution	on Chart Routing	Details Wind Speeds	Wind Directions						
	Routing Name	Wind Model	TWA 0-45° P	TWA 45-90° P	TWA 90-135* P	TWA 135-180° P	TWA 135-180° S	TWA 90-135* S	TWA 45-90° S	TWA 0-45° S
•	Default_3	GEFS00	0.0%	6.5%	0.0%	0.0%	0.0%	46.8%	46.8%	0.0%
		Average	0.0%	6.5%	0.0%	0.0%	0.0%	46.8%	46.8%	0.0%

2.7 Race

2.7.1 Add an entry list

- Click on Race
- Click on Race Entry List



• Click on Load



• Select your .dcc file



• Displaying of your file

	Number	Name	Skipper		Class	Color
•	1	100% Natural Energy	Conrad Colman		IMOCA	
	2	Banque Populaire VIII	Armel Le Cléac'h		IMOCA	
	3	Edmond De Rothschild	Sébastien Josse		IMOCA	
	4	Hugo Boss	Alex Thomso		Paga	×
	5	Initiatives Cœur	Tanguy de L		Nace	
	6	Maitre Coq	Jérémie Beyc	_		
	7	Newrest - Matmut	Fabrice Amé	Course	chargée: New York - Vendée 201	6
	8	No Way Back	Pieter Heerei			
	9	PRB	Vincent Riou			
	10	Queguiner - Leucémie Espoir	Yann Éliès		OK	
	11	Safran	Morgan Lagr			
	14	Saint-Michel Virbac	Jean-Pierre Dick		IMOCA	
	12	SMA	Paul Meilhat		IMOCA	
	13	Spirit of Yukoh	Kojiro Shiraishi		IMOCA	

2.7.2 Add a entry list for YB data

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	🕺 (23-02-15 14:38	Dossier de fi
				09-03-15 16:47	Dossier de fi
	r Ce PC			20-02-15 14:10	Dossier de fi
		. 💴		02-07-15 12:44	Dossier de fi
		. 🍱		25-05-16 11:59	Dossier de fi
				25-05-16 16:53	Dossier de fi
				24-05-16 11:03	Dossier de fi
		2 🏨		10-03-15 14:07	Dossier de fi
	8			25-03-15 10:13	Dossier de fi
	-			03-06-16 14:27	Dossier de fi
	•	🍶 test		13-02-15 13:57	Dossier de fi
Rokotek		~ <		k	
	-	Nom du fic LOAD .DCC	FILE	y List (*.d	lcc)

• Click on YB Tracking for YB data



• Fill race ID (see YB website)

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• Select/create a folder



## 2.7.3 Data reception configuration

- Click on "Race" > "Position reports"
- 3 possibilities to get position reports: File system, FTP or Yellowbrick
- Option 1 (File system): Fill the directory path where position report are saved + position report prefix
- Option 2 (FTP): Fill classical ftp informations (URL, Path, File, etc)

• Option 3 (Yellowbrick): FILL race ID (following YB website)

## 2.7.4 View ranking

• Click on "Race" - > "Ranking"

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## 2.7.5 Trace Settings

• Click on "Race" - > "Trace Settings"



# 3 Forecasts

In the section we describe in greater detail the weather data available in Squid (depending on your subscription).

# 3.1 Atmosphere

## 3.1.1 Arôme

Resolution (deg)	0.01 ou 0.025
Time Step (hours)	1h,3h, 6h, 12h, 24h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, CAPE, relative humidity,
	rainfall
Number of days	2 days
Area	See image



## 3.1.2 Arpege 0.5

Resolution (deg)	0.5
Time Step (hours)	1h,3h, 6h, 12h, 24h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, CAPE, relative humidity,
	rainfall
Number of days	4 days
Area	Monde



# 3.1.3 Arpege 0.1

Resolution (deg)	0.1
Time Step (hours)	1h,3h, 6h, 12h, 24h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, CAPE, relative humidity,
	rainfall
Number of days	4 days
Area	See image



## 3.1.4 CEP

Resolution (deg)	$1^{\circ}, 0.5^{\circ}, 0.25^{\circ}, 0.125^{\circ}$
Time Step (hours)	3h, 6h, 12h, 24h
Time of arrival for the	00:00, 12:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level
Number of days	10 days
Area	See image



# 3.1.5 GEFS

Resolution (deg)	$0.5^{\circ}, 1^{\circ}$
Time Step (hours)	6h, 12h, 18h, 24h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, Wind at 925hPa, reduced pressure
	at sea level, temperature, cloud cover, relative hu-
	midity, rainfall
Number of days	16 days
Area	See image



## 3.1.6 GFS

Resolution (deg)	$0.25^{\circ},  0.5^{\circ},  1.0^{\circ}$
Time Step (hours)	3h, 6h, 12h, 24h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, Wind at 925hPa, reduced pressure
	at sea level, temperature, cloud cover, relative hu-
	midity, rainfall, Wind gusts, CAPE, height of the
	atmospheric boundary layer
Number of days	8 days
Area	See image



# 3.1.7 GEM

Resolution (deg)	0.6°
Time Step (hours)	3h, 6h, 12h, 24h
Time of arrival for the	00:00, 12:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, rainfall
Number of days	6 days
Area	See image



## 3.1.8 CEP Hirlam

Resolution (deg)	0.1°
Time Step (hours)	1h, 2h, 3h, 6h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, rainfall
Number of days	2 days
Area	See image



## 3.1.9 NAM

Resolution (deg)	0.1°
Time Step (hours)	3h, 6h, 12h, 24h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, relative humidity, rainfall,
	Wind gusts, CAPE
Number of days	3,5 days
Area	See image



## 3.1.10 NAM nest CONUS

Resolution (deg)	$0.05^{\circ}$
Time Step (hours)	0h, 1h, 2h, 3h, 6h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, relative humidity, rainfall,
	Wind gusts, CAPE
Number of days	2 days
Area	See image



## 3.1.11 GCWF

Resolution (deg)	0.1°
Time Step (hours)	1h, 2h, 3h, 6h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, relative humidity, rainfall,
	Wind gusts, CAPE
Number of days	4 days
Area	See image



## $3.1.12 \quad \mathrm{GCWF} \ +$

Resolution (deg)	0.03°
Time Step (hours)	1h, 2h, 3h, 6h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, relative humidity, rainfall,
	Wind gusts, CAPE
Number of days	4 days
Area	See image



## 3.1.13 Harmonie

Resolution (deg)	$0.025^{\circ}$
Time Step (hours)	1h, 2h, 3h, 6h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wind at 10m, reduced pressure at sea level, tem-
	perature, cloud cover, relative humidity, accumu-
	lated rainfall
Number of days	2 days
Area	See image



# 3.2 Sea State

# 3.2.1 WW3

Resolution (deg)	0.5°
Time Step (hours)	3h, 6h, 12h, 24h
Time of arrival for the	00:00, 06:00, 12:00, 18:00
model (Hour - UTC)	
Variables	Wave height (total, wind sea, houle1) direction (
	total, wind sea, houle1), period (total, sea wind
	, wave 1)
Number of days	7,5 days
Area	See image



## 3.2.2 WW3 EU

Resolution (deg)	0.2°
Time Step (hours)	6h, 12h, 18h, 24h
Time of arrival for the	00:00, 12:00
model (Hour - UTC)	
Variables	Wave height (total , wind sea, houle1 ) direction (
	total, wind sea, houle1), period (total, sea wind
	, wave 1)
Number of days	3 days
Area	See image



# 3.3 Currents

# 3.3.1 ROFS

Resolution (deg)	$0.26^{\circ}$
Time Step (hours)	1h, 2h, 3h, 6h
Time of arrival for the	00:00
model (Hour - UTC)	
Variables	Current tide, Temperature at sea surface
Number of days	6 days
Area	See image



# 3.3.2 MyOceanIBI

Resolution (deg)	0.03°
Time Step (hours)	1h, 2h, 3h, 6h
Time of arrival for the	00:00
model (Hour - UTC)	
Variables	Current tide
Number of days	3 days
Area	See image



## 3.4 Observation

# 3.4.1 METEOSAT Euro

Pas	de	5
$\operatorname{temps}(\operatorname{minutes})$		
Variables		Infrared, Visible, Colored Infrared, Water steam,
		Air masses, Visible Infrared coloris
Area		See image



## 3.4.2 METEOSAT Full Disk

Pas	de	15
$\operatorname{temps}(\operatorname{minutes})$		
Variables		Infrared, Visible, Colored Infrared, Water steam,
		Air masses, Visible Infrared coloris
Area		See image



## 3.4.3 METEOSAT 7

Pas	de	30
temps(minutes)		
Variables		Infrared, Visible, Colored Infrared, Water steam,
		Visible Infrared coloris
Area		See image



## 3.4.4 Himawari 8

Pas	de	60
temps(minutes)		
Variables		Infrared, Visible, Colored Infrared, Water steam,
		Visible Infrared coloris
Area		See image



## 3.4.5 GOES East CONUS

Pas	de	15
temps(minutes)		
Variables		Infrared, Visible
Area		See image



## 3.4.6 GOES East Full Disk

Time Step (hours)	3
Variables	Infrared, Visible
Area	See image



## 3.4.7 GOES West CONUS

Pas	de	15
temps(minutes)		
Variables		Infrared, Visible
Area		See image



## 3.4.8 GOES West Full Disk

Time Step (hours)	3
Variables	Infrared, Visible
Area	See image



# 3.5 Stations météo

# 3.5.1 SYNOP, METAR, bouées

types

Synop, Metar, Bouées



# 4 About Great-Circle

Initiated by passionate and experienced off-shore sailors, Great-Circle distribues raw and custom high resolution grib files produced or forced from the major global models available. In addition to SQUID, Grea-Circle also offers climatological studies that optimize the preparation for races and records including bringing statistical input based on early VPP testing with naval architects. Great-Circle has also developed a serie of decision making tools to help skippers, race and regatta organizers reach the best strategic choice when weather dependent planification matters. These include, for example, the probabilistic Best-Start (r) for determining the best time to launch a record attempt or a possible hazardous passage.