

EXOCET SILVER

USER INTERFACE



DASHBOARDS



Navigation

Wind

TWA	TWS	TWD
118°	35.4 kn	24°T
AWA	AWS	
103°	32.0 kn	

[Wind Settings](#)

Heading & Speed

Heading	Boat Speed	Leeway
266°T	9.7 kn	-0.0°
COG	SOG	VMG
266°T	9.7 kn	-4.6 kn

[Leeway Settings](#)

Performance

	Polar	Polar Ratio
Boat Speed	17.0 kn	95%
VMG	10.5 kn	87%

Polar Target (VMG)	
Boat Speed	15.0 kn
TWA	53°

[Performance Settings](#)

Position

Latitude
47.607697°
Longitude
-2.498813°

Attitude

Heel
-20.0°
Trim
0.0°

Navigation Waypoint

BTW	DTW	ETA Date
3°T	5.1 NM	2023-10-05
WP ID	TTW	ETA Time
WP13	15:06:50	01:27:17

Environment

CURD	Depth	Baro Pressure
90°T	10.2 m	1018.6 hPa
CURS	Sea Temp	Air Temp
0.0 kn	18.5 °C	24.5 °C

[Current Settings](#)

NAVIGATION

Wind settings



Wind Correction - Tables

	Original	Correction	Corrected
TWD	31°		27°
TWA	> 22°	-3.4°	> 26°
TWS	22.5 kn	-0.0 kn	22.5 kn

Averaging time for display (s)

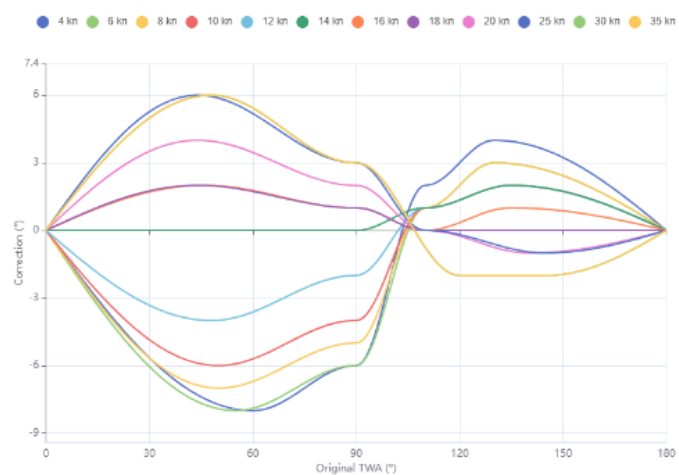
Enable table correction:

Correction tables selection:

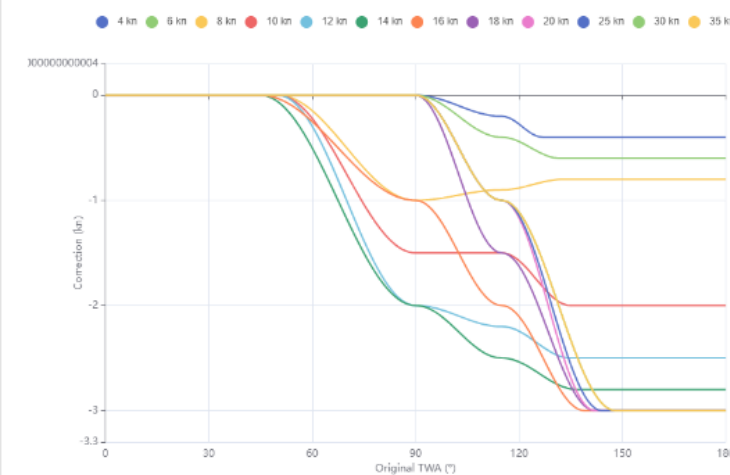
OnBoardAssistant automatic selection:

The OnBoardAssistant automatic selection option allows you to automatically select the wind table that corresponds to the sail selection entered in OnBoardAssistant software. To use this option, you must have configured the communication between the Exocet and the software and have implemented the table selection logic in manta.

Correction table - TWA



Correction table - TWS



Wind Correction - User offsets

	Calculated	Corrected
TWD	28°	28°
TWS	21.6 kn	21.6 kn

TWD Offset (°)

TWS Factor

These parameters allow the calculated true wind to be adjusted. They compensate for the wind gradient and the wind shear. "Offset TWD" is added to the calculated TWD.

Advanced wind settings

Motion correction

Leeway correction

Tables correction - TWA reference

TWA & AWA reference

Correction table - TWA

TWS	v0	a0	v1	a1	v2	a2	v3	a3
4	-8	60	-6	90	2	110	4	130
6	-8	55	-6	90	1	110	3	130
8	-7	50	-5	90	1	110	3	130
10	-6	50	-4	90	1	110	2	135
12	-4	48	-2	90	1	110	2	135
14	0	46	0	90	1	110	2	135
16	2	46	1	90	0	110	1	135
18	2	44	1	90	0	110	0	135
20	4	44	2	90	0	110	-1	140
25	6	44	3	90	0	110	-1	145
30	6	48	3	90	-2	120	-2	145
35	6	48	3	90	-2	120	-2	145

Correction table - TWS

TWS	v0	a0	v1	a1	v2	a2	v3	a3
4	0	60	0	90	-0.2	115	-0.4	127
6	0	55	0	90	-0.4	115	-0.6	132
8	0	50	-1	90	-0.9	115	-0.8	133
10	0	50	-1.5	90	-1.5	115	-2	135
12	0	50	-2	90	-2.2	115	-2.5	135
14	0	45	-2	90	-2.5	115	-2.8	137
16	0	45	-1	90	-2	115	-3	139
18	0	45	0	90	-1.5	115	-3	142
20	0	45	0	90	-1	115	-3	142
25	0	45	0	90	-1	115	-3	144
30	0	45	0	90	-1	115	-3	148
35	0	45	0	90	-1	115	-3	148

Leeway Settings



Leeway Estimation

Calculation method selection :
 2 - Cog Heading

Leeway

Selected	0.0°
Damped	0.0°
Signed	0.0°

Leeway selected & damped :
 (-) Drift on port
 (+) Drift on starboard

Leeway signed :
 (-) Drift on windward
 (+) Drift on leeward

1 - Pedrick

Leeway

Calculated	0.0°
Average 30s	0.0°

Hull coef (K) :

Leeway max (°) :

*Leeway = K * Heel / BoatSpeed^2*

This is an empirical formula, defined by David Pedrick, especially valid for monohulls without daggerboard (class America type). The coefficient K is generally between 9 and 14.

2 - COG Heading

Leeway

Calculated	0.0°
Corrected	0.0°
Average 30s	0.0°

Current Correction :

Leeway max (°) :

Calculated leeway = COG - heading

The leeway calculated by this method is a ground leeway. The current (tide) correction provides a surface leeway. This leeway calculation is linked to the calculation of the Boat Speed GPS.

3 - Quadrans

Leeway

Calculated	-3.7°
Corrected	-3.7°
Average 30s	-4.4°

Current Correction :

Leeway max (°) :

The leeway calculated by this method is a ground leeway. The current (tide) correction provides a surface leeway. This leeway calculation is linked to the calculation of the Boat Speed Quadrans.

4 - SBG

Leeway

Calculated	0.0°
Corrected	0.0°
Average 30s	0.0°

Current Correction :

Leeway max (°) :

The leeway calculated by this method is a ground leeway. The current (tide) correction provides a surface leeway. This leeway calculation is linked to the calculation of the Boat Speed SBG.

Performance Settings



Performance Source

Source selection :

1 - Nav Software

Data

True wind

TWA: -32°
TWS: 14.2 kn

Speed

Boat speed: 16.0 kn
VMG: 13.5 kn

1 - Nav Software

	Polar	Polar Ratio
Boat Speed	17.0 kn	95%
VMG	10.5 kn	87%

Polar Target (VMG)	
Boat Speed	15.0 kn
TWA	53°

Receiving performance data from the Adrena navigation software. [Configuration](#)

2 - Exocet

	Polar	Polar Ratio
Boat Speed	9.1 kn	176%
VMG	8.7 kn	155%

Polar Target (VMG)	
Boat Speed	11.3 kn
TWA	-40°

Polar selection : Polar Perf

TWS	v0	a0	v1	a1	v2	a2	v3	a3	v4	a4
0.1	0	40	0	65	0	115	0	140	0	170
5	4	40	5	65	5	115	4	140	3	170
10	8	40	10	65	10	115	8	140	6	170
15	12	40	15	65	15	115	12	140	9	170
20	16	40	20	65	20	115	16	140	12	170
25	20	40	25	65	25	115	20	140	15	170
30	24	40	30	65	30	115	24	140	18	170
35	28	40	35	65	35	115	28	140	21	170
40	32	40	40	65	40	115	32	140	24	170

Documentation

Exocet - Polar table : The performance polar table uses the B&G WTP/Deckman file format. The v* and a* columns work in pairs. v* is the polar boat speed for the true wind angle (TWA) a*.

It is saved in the "perfpol.d" file. It can be downloaded and uploaded from the user files manager accessible on the [status page](#).

Current Settings



Current Source

Source selection :
2 - Manual

Current

Direction / CURD	000 °T
Speed / CURS	0.0 kn

CURD : Current Direction
CURS : Current Speed

1 - Nav Software

Direction

From Software	000 °T
---------------	--------

Speed

From Software	0.0 kn
Corrected	0.0 kn

Correction Coef : - 1 +

Receiving current data from the navigation software. [Configuration](#)

Correction Coef: This coefficient is used to adjust the speed of the current (note that it is added to the coefficient applied in Adrena).

2 - Manual

Direction (°T)

- 0 +

Speed (kn)

- 0 +

Boat data



Battery

Service batteries

Voltage	13.1 V
Current	-5.4 A
Temperature	40.3 °C
State of charge	83 %
Time remaining	2.0 h

Engine battery

Voltage	-- V
---------	------

BOAT DATA

Pilot



B&G Pilot

Mode
User Target
Offset

< 10 10 >

< 1 1 >

Stby Mode Auto

Heading 039°T
TWA -13°
Rudder Angle 0.1°

[Advanced Settings](#)

Regulation Performance

On / Off

Awa regulation <input type="checkbox"/>	Heel regulation <input type="checkbox"/>	Speed regulation <input checked="" type="checkbox"/>
Target <input type="text" value="2"/>	Target <input type="text" value="9"/>	Target <input type="text" value="13,5"/>
Awa Signed 7° Offset Awa 0.0°	Heel Signed 10.3° Offset Heel 0.0°	BoatSpeed 15.0 kn Offset Speed 0.0°
Offset Range (°) <input type="text" value=""/>		Offset Signed 0° Alarm Offset Limit <input type="text" value=""/>
Upwind/Downwind TWA Limit (°) <input type="text" value="100"/>		TWA Corrected Target --° Alarm TWA Limit <input type="text" value=""/>
		Offset Historic 0.0°

[Advanced Settings](#)

Polar Tracking

On / Off

TWA mode

Speed mode

TWA reference --°
Speed reference --kn

[Advanced Settings](#)

Heel Safety

On / Off

Max heel upwind

Max heel downwind

Heel Signed 10.3°
Offset Signed 0°

[Advanced Settings](#)

Presets

New preset

Preset selection :
2024-07-25_06:01:34

Apply preset

[Advanced Settings](#)

PILOT

DAMPINGS

Dampings

Wind

	True Wind		Apparent Wind	
	Raw	Damped	Origin	Back-calculated
TWD	77°	084°	AWA 43°	48.4°
TWS	27.9 ^{kn}	26.9 ^{kn}	AWS 39.2 ^{kn}	35.8 ^{kn}

True Wind Damping (s): [8; 20]

The true wind is filtered on its speed (TWS) and its direction (TWD).
During tacks (TWA < 30°) and gybes (TWA > 160°), the damping of the true wind uses a time constant of 20s in order to have a more stable wind.
True Wind Angle (TWA) is calculated from TWD and boat course. It is then reactive to the change of course.
The apparent wind is back-calculated from the damped true wind. It thus takes into account the wind correction tables.

GPS

	Raw	Damped
COG	0°	0°
SOG	0.0 ^{kn}	0.0 ^{kn}

COG Damping (s): [0.5; 2]

SOG Damping (s): [0.5; 2]

Heading & Attitude

	Raw	Damped
Heading	000°	000°
Trim	1.1°	1.0°
Heel	-9.1°	-9.1°
Yaw Rate	-0.1°/s	0.4°/s

Heading Damping (s): [0.1; 0.3]

Trim Damping (s): [0.5; 1]

Heel Damping (s): [0.5; 2]

Yaw Rate Damping (s): [0.1; 0.3]

Documentation

This page groups together the filtering of Exocet piloting and navigation data. The data exported by the Exocet (NMEA2000, NMEA0183) is this filtered data. Wind, Heading, Heel, Yaw Rate and Boat Speed data is used by the pilot :

- B&G pilot - Heading mode: Heading, Yaw Rate, Boat Speed.
- B&G pilot - TWA mode: Wind.

The weaker the damping, the more the pilot follows the wind variations. The higher the damping, the straighter the trajectory.
Setting advice: Strong wind = 15s / Low wind = 10s.

- Exocet pilot overlay - Regulation Performance: Heel, Boat Speed, Wind
- Exocet pilot overlay - Heel Safety: Heel

Boat Speed & Leeway

	Raw	Damped
Boat Speed	20.5 ^{kn}	20.6 ^{kn}
Leeway	0.0°	0.0°

Boat Speed Damping (s): [0.5; 2]

Leeway Damping (s): [0.5; 2]

INPUTS / OUTPUTS

Inputs/Outputs

Compass

Source: **Quadrans**

Auto
 Quadrans
 SBG
 Compass 3
 Compass 4
 Compass 5

Heading **002 °T**
 Heel **-9.3 °**
 Trim **1.0 °**

[Configuration](#)

Boat speed

Source: **Quadrans**

Auto
 Quadrans
 SBG
 GPS
 Speedo

Boat speed **17.1 kn**

[Configuration](#)

GPS

Source: **GPS 1**

Auto
 GPS 1
 GPS 2
 GPS 3
 GPS 4
 GPS 5

COG **0 °**
 SOG **0.0 kn**
 Latitude **0.0 °**
 Longitude **0.0 °**

[Configuration](#)

MHU

Source: **MHU 1**

Auto
 MHU 1
 MHU 2
 MHU 3
 MHU 4

Angle **32 °**
 Speed **35.4 kn**

[Configuration](#)

Mast rotation

Source: **Mast Rot 1**

Auto
 Mast Rot 1
 Mast Rot 2

Rotation **17 °**

Manual

Mast rotation (°)

[Configuration](#)

Environment

Depth sensor
 Sea thermometer
 Air thermometer
 Barometer
 Magnetic variation

[Configuration](#)

Navigation software

Performance Data
 Navigation Waypoint
 Current

[Configuration](#)

Pilot

B&G H5000 pilot
 Exocet EXOS

[Configuration](#)

Appendages

Rudder angle sensor

[Configuration](#)

Battery

Battery monitor

Voltage **13.1 V**
 Current **-5.4 A**
 State of charge **83 %**

[Configuration](#)

Outputs

Alert buzzer
 NMEA0183 UDP
 NMEA0183 Serial
 NMEA2000

[Configuration](#)


EXTERNAL DEVICES

☰ EXOCET Silver

⏸ ⏻ 🔁 🇺🇸 107 5 📢 6 🇬🇧 1011 1 🌐 ☀️ 🗄️


External devices

H5000 analogue expansion




Configuration

H5000 serial expansion



Configuration

Blink keypad



Night mode


STATUS & SETTINGS




Status and settings

System

Hardware	Status and load	● ▾
Software	Health indicators	● ▾
Interfaces	Status and load	● ▾

Data extreme values (min and max): 

System logs: 

Alerts

Show icon in header:

Enable alert popup:

Date and time

Show in header:

System date and time: Jul 26, 2024 9:37:00 AM

GPSD sync: 8112

NTP sync: NO

Date and time format: UTC


Exocet administration


Product: EXOCET SILVER

Serial number: 2000020001910001

Hardware revision: 8

Software revision: exocet-silver-20240722-1756

Hardware interfaces : 

Activation keys: 

Network



IP Address: 192.168.30.30



Subnet mask: 255.255.255.0


Gateway: 192.168.30.1

Configuration

Loaded configuration: exocet-silver-20240722-1756.img

Configuration:  


Data settings:  


Manage user files: 

Default decimals for data display:

Manta

Display status in header:

Manta access control: 

Manage Manta libraries: 

ALERTS



Alerts

Display: Detail Compact Table

Show levels: Alarm Warning Not triggered

1 Sensors integrity [Settings] [Eye] [Like]

2 Sensors difference [Settings] [Eye] [Like]

3 Pilot integrity [Settings] [Eye] [Like]

4 Navigation integrity [Settings] [Eye] [Like]

5 Battery [Settings] [Eye] [Like]

12 Exocet system [Settings] [Eye] [Like]

1 Compass [Settings] [Eye] [Like] [Toggle]

1 Boat Speed sensor [Settings] [Eye] [Like] [Toggle]

1 Battery monitor [Settings] [Eye] [Like] [Toggle]

1 Air thermometer [Settings] [Eye] [Like] [Toggle]

1 Barometer [Settings] [Eye] [Like] [Toggle]

1 Depth sensor [Settings] [Eye] [Like] [Toggle]

1 Magnetic variation [Settings] [Eye] [Like] [Toggle]

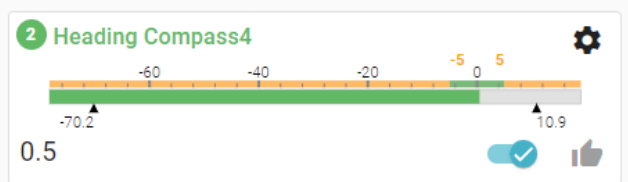
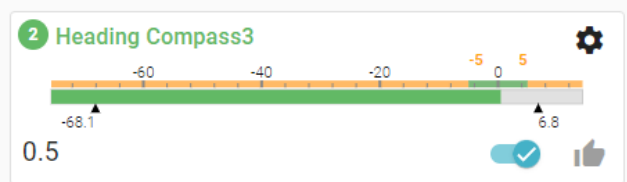
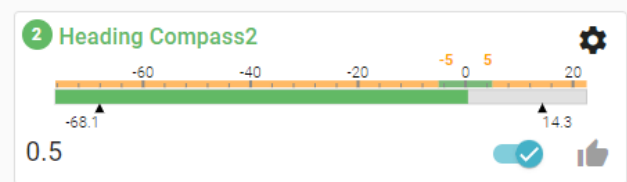
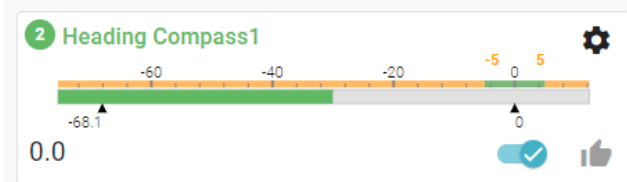
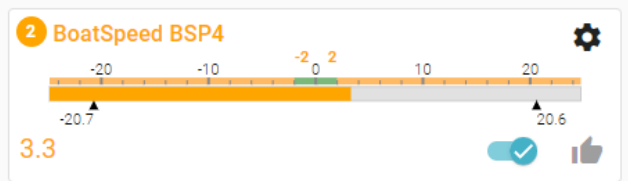
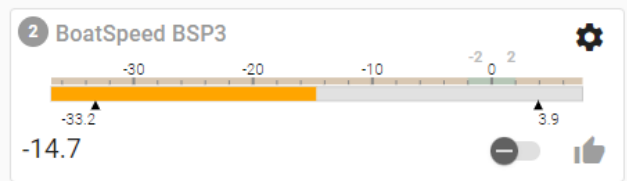
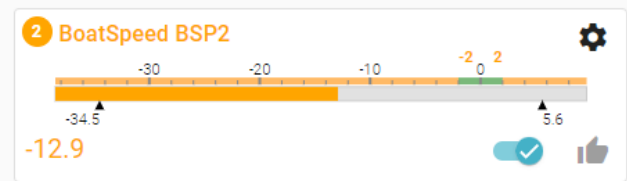
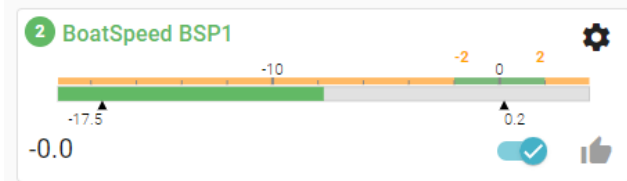
1 Sea thermometer [Settings] [Eye] [Like] [Toggle]

1 GPS [Settings] [Eye] [Like] [Toggle]

1 Mast Rotation [Settings] [Eye] [Like] [Toggle]

1 MHU [Settings] [Eye] [Like] [Toggle]

1 Rudder angle sensor [Settings] [Eye] [Like] [Toggle]





PIXEL SUR MER