

# VelocitySail - Analytics

## Calculation of analytical data



### Sailing Location

Starting point of your trip (requires a connection to the internet while recording your track)

### GPS Data

Tracking position data via GPS signals is an inexact science. This process can often produce impressive accuracy. However, it relies on details and number of satellites that are not always consistent or are difficult to measure in real time without some degree of error.



### Average Speed

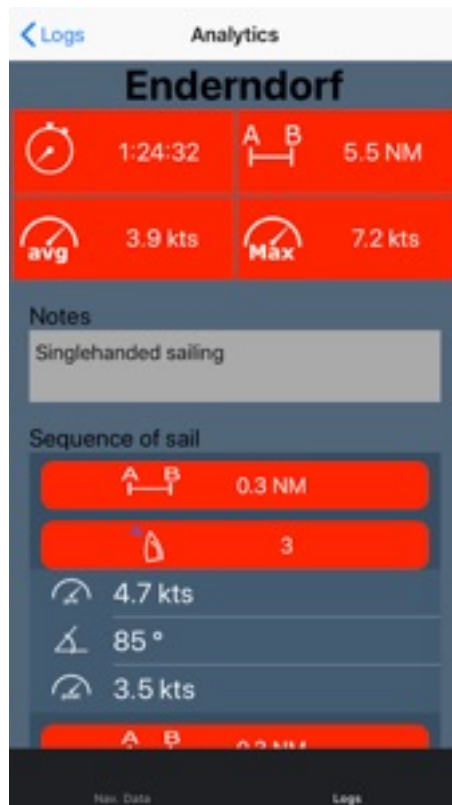
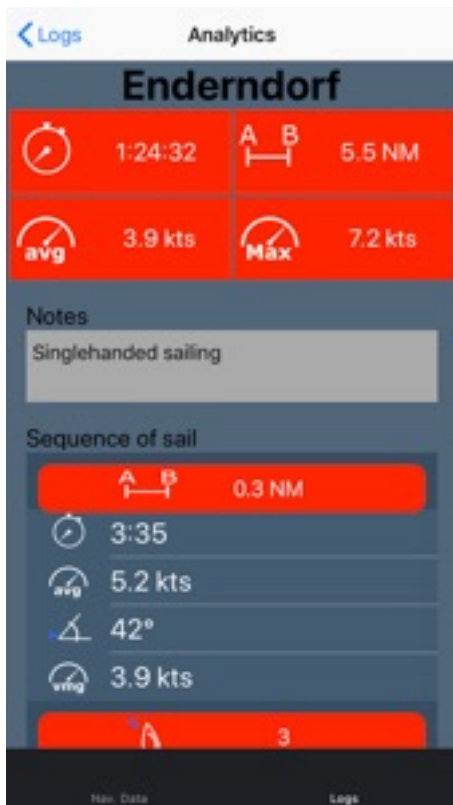
Determined with sailed distance and sailed time



### Max Speed

Peak of the speed data during your sailing activity

# Sequence details of the tack



The calculation of manoeuvre data requires wind data in direction and speed. Wind data are shown on the map as in Beaufort value and direction as wind arrow. This leads to some degree of inaccuracy compared to the wind conditions right at your boat. Also, wind is shown as true wind and cannot consider apparent wind at your boat.

Calm and light air wind conditions do not allow appropriate calculation of tacks and gybes. Neither wind data nor manoeuvre data or the polar diagram will be shown.



## Angel to true wind

Angle to true wind on upwind course/leg.



## Velocity made good

Speed according to true wind direction on upwind leg.

Calculation according to [https://en.wikipedia.org/wiki/Velocity\\_made\\_good](https://en.wikipedia.org/wiki/Velocity_made_good)



## Tack

Tacks are listed with a Tack-ID and time.

Tap the line for further details of your manoeuvre.

The Tack-ID is also shown on the map.



## Gybe

Gybes are listed with a Gybe-ID and time.

Tap the line for further details of your manoeuvre.

The Gybe-ID is also shown on the map.



### Speed before manoeuvre

Speed in knots right before your tack/gybe.



### Angle

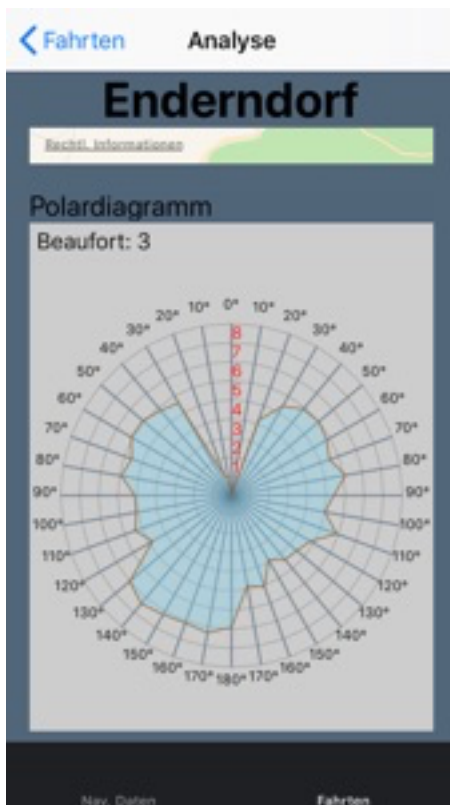
The angle is calculated as degree between the course during the last 25 meter (27 Yard) before, and the first 25 meter (27 Yard) after your manoeuvre.



### Speed after tack

Speed in knots right after your tack/gybe.

## Polar diagram



The maximum speed according to each 10° angle of the boat to true wind is shown as polar plot.