

#### GARMIN.



# ORCi Europeans 2024 What information we focus on

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## Agenda

- Purpose
- Introduction to Team Pro4u and KSSS Offshore clinic
- Brief overview of our instrument system
- Information: what we display, when, where and why?
- Performance test "light"







### Purpose

- "...share ideas and talk about how Team Pro4u use ... information to sail in the most efficient way."
- Elaborate on:
  - What information we focus on at start, W/L and offshore/Coastal
  - Why we prioritize this information
  - Where we present the information
- Present our method for performance analysis









# Introduction The Team



















#### Selected results and awards

- ➤ Gold In ORC Europeans 2015 och 2017
- 9 medals in ORC Europeans/Worlds
- 1:a Round Gotland race total 2023
- > 1: ORC Double handed worlds 2022
- Winner of the swedish nationals ORC Total 5 times

- Skipper awarded Swedens best male sailor (Vinges Kanna) 2022
- Awarded Swedens best offshore Team 3 times
- Awarded KSSS Best coach award 2021
- The Team also have a J70 campaign







#### **KSSS Offshore clinic**

- Team Pro4u are proud to run KSSS Offshore clini in cooperation with KSSS
- Started 2019
- 10 participants per year between 16 and 30
- ➤ In total 56 graduates at end of October
- Application to KSSS in January. Membership not needed to apply
- Duration: April to October
- ➤ Theory: 21 hours. 6\*3.5 hours
- ➤ Sailing 55,5 hours. 13\*3.5 and 10 hours true offshore



Certificate in Offshore Sailing

This is to certify that

#### Förnamn Efternamn

has completed the Royal Swedish Yacht Club's Offshore Clinic 202<mark>X</mark> In cooperation with Team Pro4u

Stefan Rahm Managing director Royal Swedish Yacht Club Anders Bengtsson Head of training Royal Swedish Yacht Club



#### Course program

#### The course program include:

- Theoretical tips and practical training in all roles on an offshore boat: foredecker, mastman, pit, headsail trimmer, spinnaker trimmer, mainsail trimmer, navigator/strategist/ tactician and helmsman.
- · Maneuvers including but not limited to:
  - Tacking and roll tacking
  - Spinnaker and gennaker hoist: Bare away and jibe-set
  - o Gybing, roll jibing and heavy weather jibing
  - Spinnaker and gennaker take down: Starboard, and port roundings, Kiwi-drop
  - Stay sail handling
  - Flying head sail changes
  - Reefing
- Instrument and Racing software knowledge incl but not limited to:
  - Walk trough of all major functions in Predict Wind and Expedition tactical and navigational software
  - Calibration of instruments
  - Weather, weather routing and selection of grib files
- · Speed and trimming with instruments
  - Use of TBS, AWA, TWA, VMG etc for fast driving in challenging conditions
  - Tuning of polars and sailcharts
  - Trimming of mainsail, jibs, genuas, reachers, symmetrical and assymetrical spinnakers and staysails
- Basic sail care and maintenance of hardware







Any specific questions you want us to emphasize

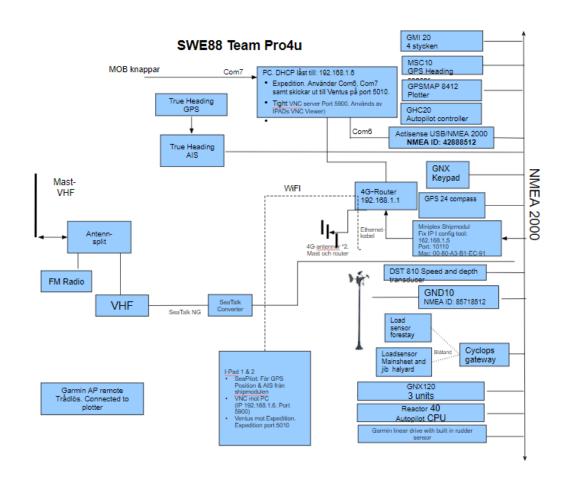






### Brief overview of system

- Garmin sensors, plotter and displays
- Expedition used as processor for basically everything
  - Advanced calibrations
  - Calculations
  - MOB Buttons
  - Routs (Sent to plotter)
  - Sailchart, weather etc
- NMEA 2000 network
- 4G router and Miniplex module to share NMEA data via WiFi

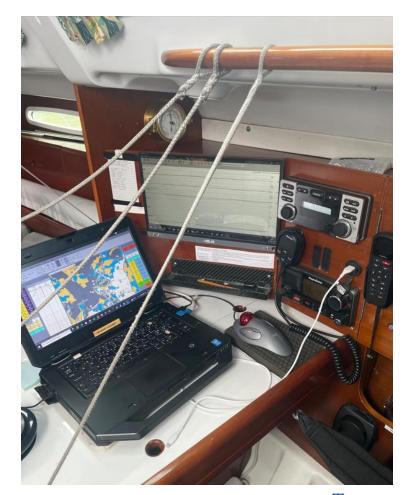






### Hardware for info presentation

- 3 mastdisplays
  - Up to 3 datafields each
  - 4 different set ups.
- 4 displays on cabin top
  - Up to 4 datafields each
  - Basically 2 different set ups
- Nav station with PC + extra display
- Ipad mini for nav and tactics on deck
  - VNC Viewer to PC/Expedition
  - Back up stand alone nav app (Seapilot)





#### Our 4 set ups

- 1. Start
- 2. W/L
- 3. Offshore/Coastal
- 4. MOB
  - Top mast display switch to
    - COG
    - MK Bearing
    - Mk Distance
- Set up on mast displays changed by one press on remote
- In the W/L set up different data is presented upwind and downwind. Managed by Expedition









# Plus some extra pages on the cabin top displays

- Only Depth
- Set & Drift
- Comparision BSP: SOG. HDG: COG. Always on at transports
- GPS Compass save a lot of calibration time











#### Set up 1: Start on deck



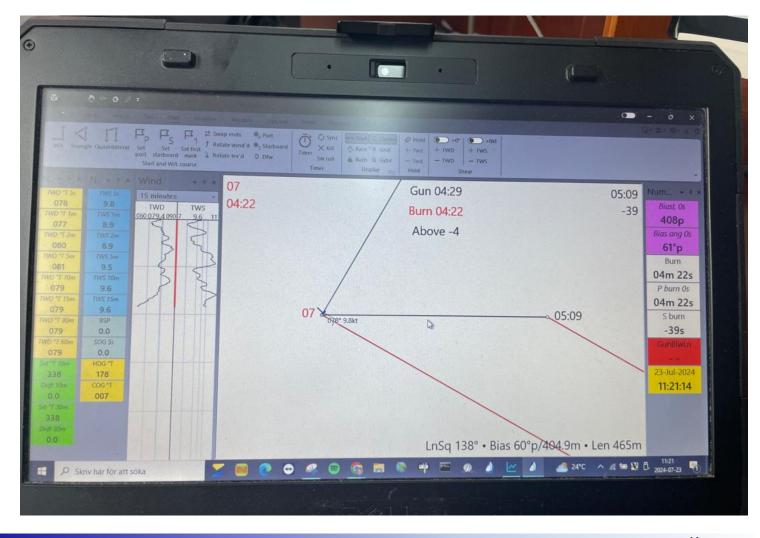








### Start: Expedition







#### Set upp 2a W/L upwind: Mast displays











#### W/L downwind

(TWA more than 90)







### W/L Cabin top.











# Set up 3: Offshore / coastal Mast displays





#### GARMIN. MARINE

# Offshore / coastal Cabin top









#### Our way of doing Performance tests

- Aim: Test different trim, different TBS etc without the need for an other similar boat
- Gives direct feedback
- Does not replace a professional on shore analysis for teams with that possibility



#### Metod

- Run consecutive 3 min tests
  - Alternate set up 1 and set up 2
  - Log data, we use Expedition strip chart
  - Only relative comparisions, and stay on same tack, reduce faults due to
    - Set / Drift
    - Wave conditions
    - Calibration etc
- Compare for each test 3 min average VMG% plus
  - TWS. Make new tests if diff more than +/- 1 kn
  - Diff TBS
  - AWA (Upwind)
  - TWA (Downwind)



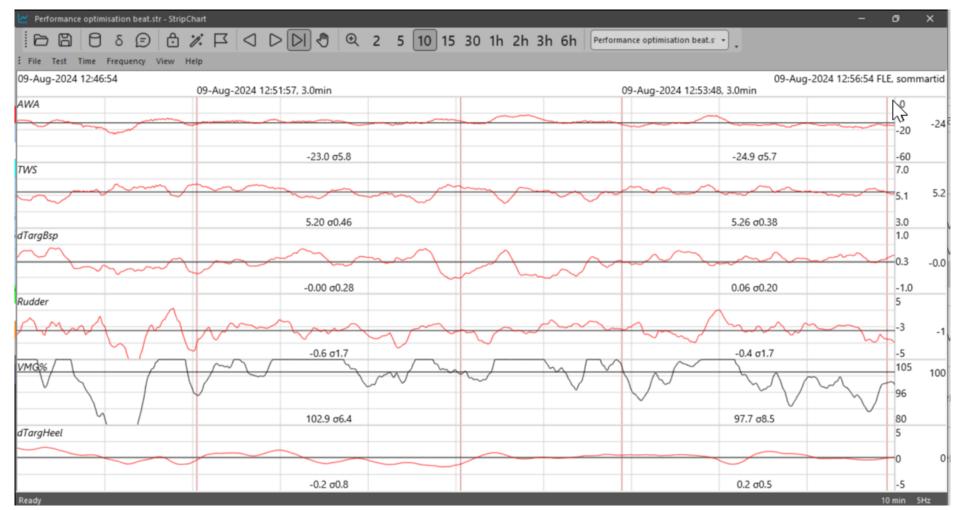
## **Analysis**

- Higher VMG % is the better set-up
- VMG% is used to reduce effect of variations in TWS
- Diff TBS and Angles gives an understanding if the difference in the tests are in BSP och AWA/TWD





#### **Example Upwind**





## Thank you for listening

#### Questions?



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