



Test Case

TC108 Test TWD calc at standstill

**Belongs to Plan(s):** TP5 dashboard_tactics...**Belongs to Suite(s):** TS18 NMEA simulator ...**Case Type:** Functionality**Label(s):** windows linux**Test Quality:** **EXCELLENT** Defects Closed Fixed**Assign To:** Petri Makijarvi**Case Priority:** Low**Estimate:** 120**Is Automated**

Precondition

This test requires that you have system - a boat - with a multiplexer or other active system which can calculate the the true wind data from the relative wind data but which does not provide true wind direction either on the water or on the ground. In other words, you get only TWS/TWA out of it in some NMEA sentence.

For this test the dashboard_tactics_pi must be higher than v0.5.2 (which does not yet has this function).

In his test we use MiniPlex 2 with these settings:

NMEA Conversions

Heading

- ☒ Heading Magnetic <--> True (HDG/HDM <--> HDT)
- ☐ Reverse True Heading (HDT)
- ☐ COG to True Heading (VTG -> HDT)

GPS

- ☐ GPS Speed to Log Speed (VTG -> VWH)
- ☐ Log Speed to GPS Speed (VHW -> VTG)
- ☐ RMC -> GGA
- ☐ RMC -> ZDA

Wind


- ☐ VWR <--> MWV
- ☒ Relative to Theoretical Wind (MWV.R -> MWV.T)

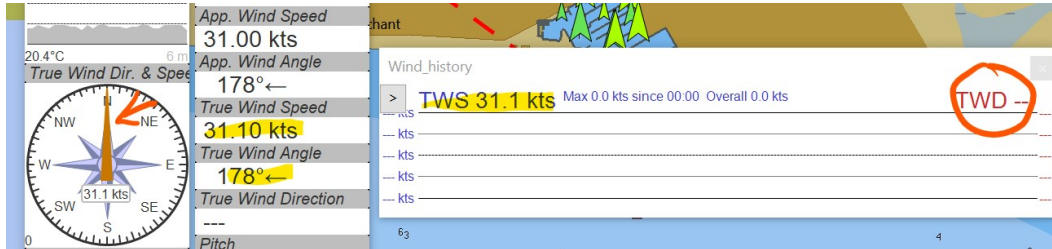
Of course, you must be in the boat and it should be moored. The maximum allowed movement is having resulting speed under 0.2 knots. (This may make this function unusable in anchored situations in heavy weather - but people


should not use this application in those cases, anyway).

Steps

Click "Tab" or "Shift + Tab" to navigate grid 

-  The default position of the test shall be that the forced true wind calculations for Tactics regatta calculator are turned off (the box is not selected, see below). Make sure that the starting point of the test is like this what comes to TWS/TWA and TWD (in a stormy day, but it is not a requirement but some wind would be nice to have):



-  Turn on the forced true wind calculations of the Tactics regatta calculator:


True Wind

<input type="checkbox"/> Correct STW with Leeway	<input type="checkbox"/> Correct AWS/AWA with Heel
<input checked="" type="checkbox"/> Force True Wind Calculation	<input type="checkbox"/> Use SOG instead of STW for True Wind Calc
<input checked="" type="checkbox"/> Show Wind Barb on Chart (OpenGL)	

Polar - NOTE: Internally calculates True Wind data (TWS,TWA,TWD) and uses it within the whole plugin even if there is True Wind data available via NMEA.

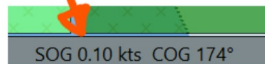
Polar file: ...

Please note that selection of SOG vs. STW has no meaning in this case. Tactics regatta calculator checks **both** to make sure that the boat speed is not over 0.2 knots. If it is, then it enters to normal, forced true wind calculations with the boat speed - these are out of the scope for these tests.


- 3  Observe that the boat speed, as indicated by GPS does not exceed 0.2 (here in a strong winds and big swell the moored boat remains under control).



forced TW values:
if SOG on STW
 $7 = 0.2 \Rightarrow$ not
standstill!
 \Rightarrow no "TW" standstill"
 \Rightarrow but all values
get calculated
at standstill, this
may blink




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- 4  Observe the opencpn log messages. Tactics regatta calculator indicates progressive debug message when it collects data prior to the actual true wind calculations and it provides the debug output of the **first** of such a calculation:

```
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: waiting on an AWS sentence.
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: a valid AWS received, now (22.600000).
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: Forced calculation requested but no TW data as
for now..
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: Tactics has now an internal AWA value, (167.00
0000).
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: Tactics has no valid intenal AWS value yet.
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: Forced calculation requested, no TWD, but has
TWA/TWS.
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: Tactics has a valid internal AWS value (22.600
000).
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: Tactics has an internal true heading value, no
w (305.500000).
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: AWA unit is availabe, now (°lr).
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: checks OK, execution of algorithm will be laun
ched.
11:19:07 AM: dashboard_tactics_pi: Tactics true wind calculations: standstill TWD only requested, returning now T
WA 167.100000 '°lr', TWS 22.600000 'kts', TWD 138.400000 '°T'.
```

 PASS or FAIL

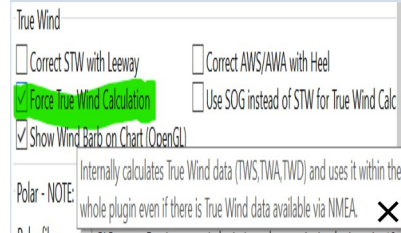
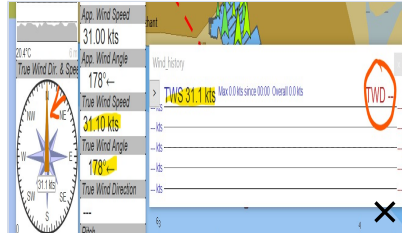
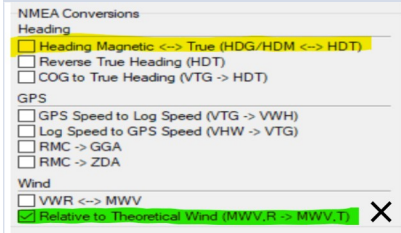
- 5  Observe the three major instrument (including the Wind History instrument) for the updates of TWD values.



 PASS or FAIL

 Add Step

Attachments



forced Tweak:
if SOG on STW
if >0.2 => not
standstill!
=> no TWD standstill
=> but all values
set calculated
at standstill, this
may blink

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Add Attachments

RESULTS	DEFECTS	REQUIREMENTS			
Status	Test Plan Run	Assigned To	Updated At↑	Actions	
✓ Pass	TPR85 dashboard_tactics_pi...	 Petri Makijarvi	11 months ago		
⌂ Pending	TPR87 dashboard_tactics_pi...	 Petri Makijarvi	10 months ago		
▶ Skip	TPR88 dashboard_tactics_no...	 Petri Makijarvi	4 months ago		
⌂ Pending	TPR89 race_start_startline_gri...	 Petri Makijarvi	3 months ago		
⌂ Pending	TPR90 tc112 and tc113 new t...	 Petri Makijarvi	2 months ago		
<div><div><div>«</div><div><</div><div>1</div><div>2</div><div>></div><div>»</div></div></div>					
ACTIVITY	HISTORY	COMMENTS			