Test Case TC47 Test TW calc with STW

Belongs to Plan(s): TP5 dashboard_tactics...

Belongs to Suite(s): TS18 NMEA simulator ...

Case Type: Functionality

Label(s): windows

Test Quality: EXCELLENT Defects Closed Fixed

Assign To: Petri Makijarvi

Case Priority: Medium

Estimate: 15

Is Automated

Precondition

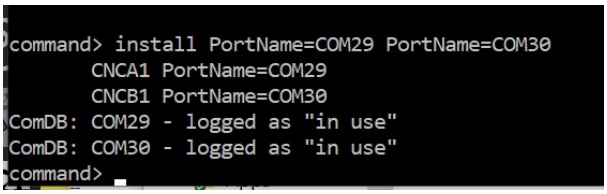
There shall be a NMEA simulator on which the sentences VHW for STW, MWV for AWS and AWA, HDG for HDT shall be fully controlled to be static and not moving in any way. (In this test case NMEA Simulator http://www.kave.fi /Apps/ is used - there are few steps which are specific to its version, if new versions or other products exists, or other simulator is used, one can skip those steps without a record other than for instruction for the future tests).

At the end of test we make a conversion sanity check using true wind converter and vector visualization application http://www.starpath.com/freeware/truewind-setup.exe - on other platforms similar on-line services can be used.

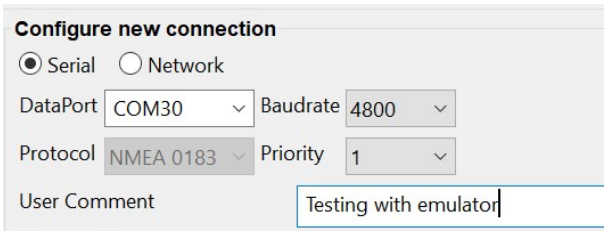
Steps

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

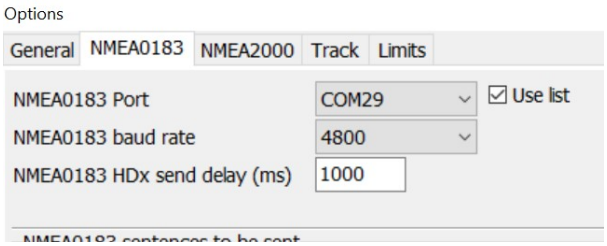
1 Set up the com0com port for the simulator as follows



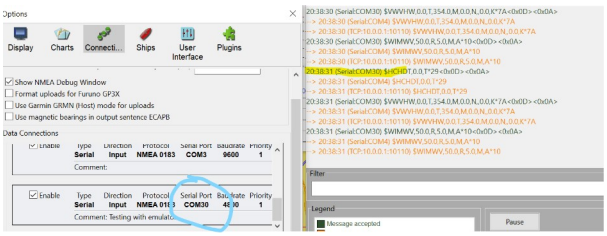
2 Set the OpenCPN to receive data from COM30:



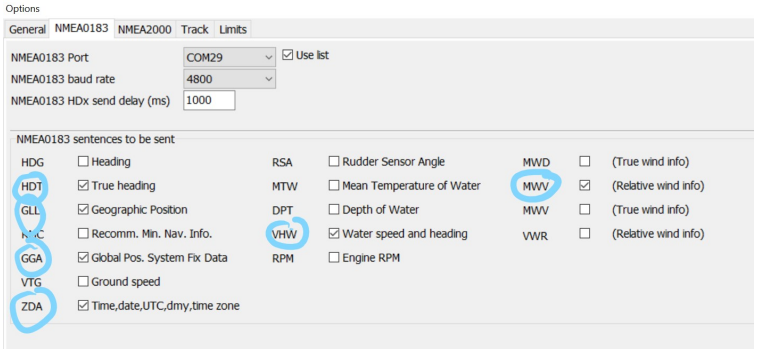
3 Set the NMEA Emulator to send to the port COM29:



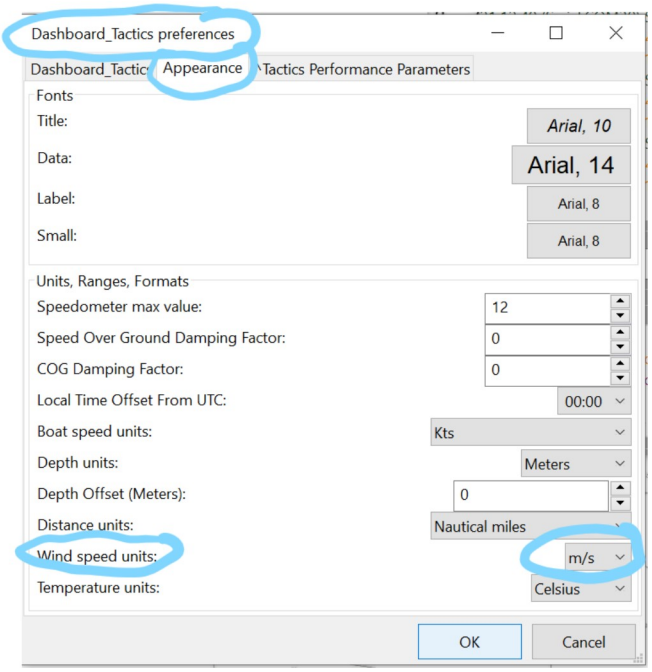
4 Prepare the NMEA debug window in OpenCPN and use filters for the aforementioned sentences - either disable or otherwise make sure that there are not other data coming in:



5 Select the sentences to be sent out in NMEA emulator:

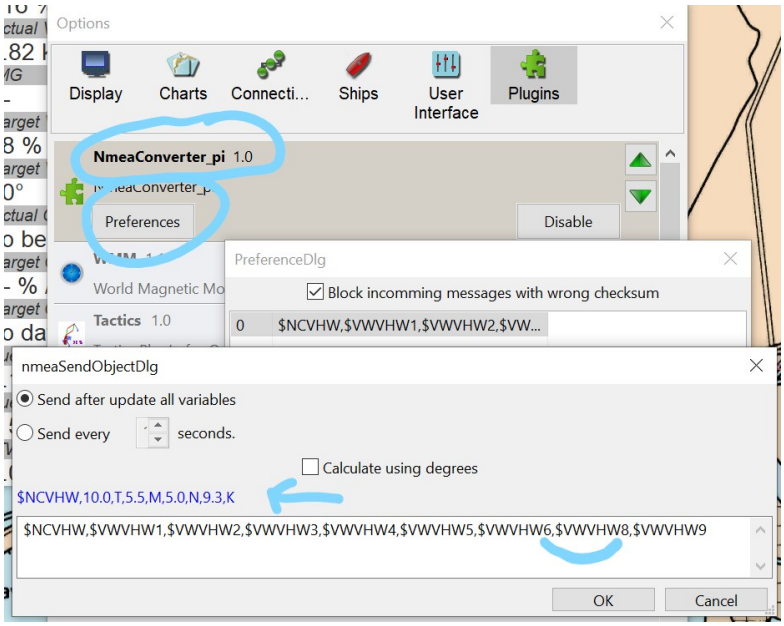


6 In Dashboard, select the speed value to m/s since it is used NMEA SImulator, this facilitates the test but is not mandatory.

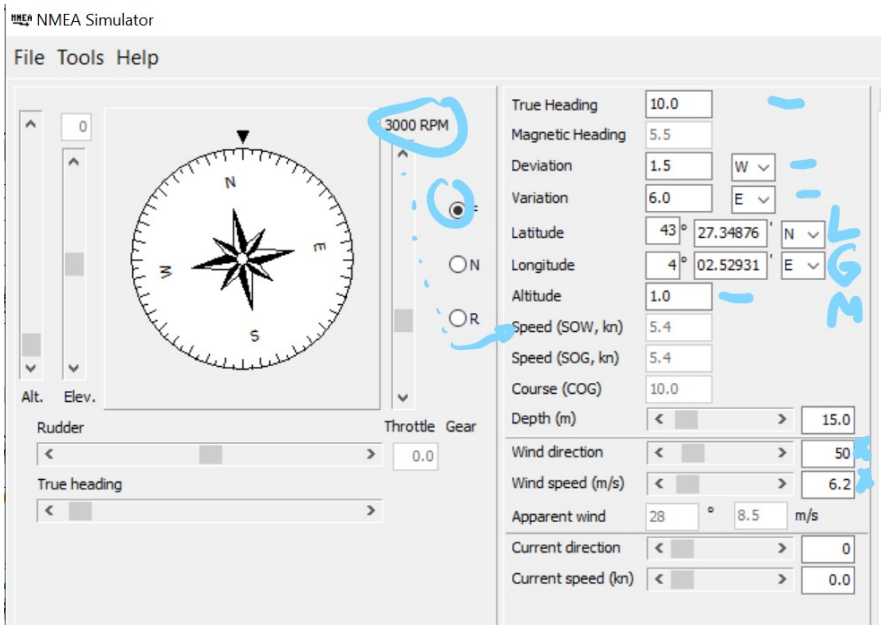


7

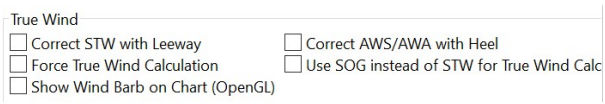
This step is ~~optional~~ obsolete since July 2010: it was to compensate a bug in NMEA emulator's output of VHW sentence, extra comma makes checksum to fail (version March 2019 concerned). We use NMEAConverted plugin as follows to skip the extra comma:



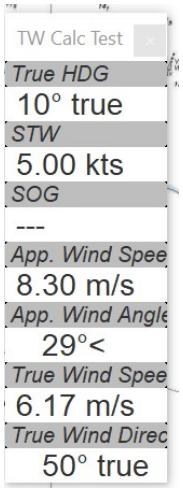
8 Prepare the NMEA emulator to send the values which you can select freely but here's an example. Note that you need some throttle (despite the wind!) to make the boat to move. Do NOT start the "run" yet (no sentences out).



9 Prepare the Tactics module to calculate silently the true wind usng AWS, AWA, HDT and STW. This means, no options selected here:

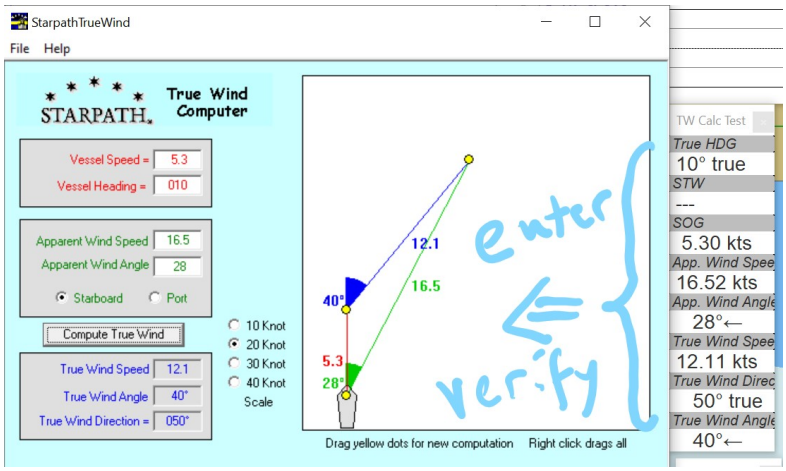


10 Prepare a dedicated dashboard like this (it will be used in the next test case also), start the "run" on NMEA emulator and observe that you get the same values as indicated by the NMEA emulator **and** the NMEA sentences :



PASS or FAIL

11 Convert the result to knots and make an inverse sanity check using an external tool (or your calculator - which will increase the test time).



PASS or FAIL

12 Move the true wind direction with the simulator to the port side, to 340 degrees. Check now that you get the same true wind angle, but from the port side.

NOTE: unfortunately, the above "Starpath" appllication has not made the same sanity check because it fails for TWD. Do not pay attention to it here.

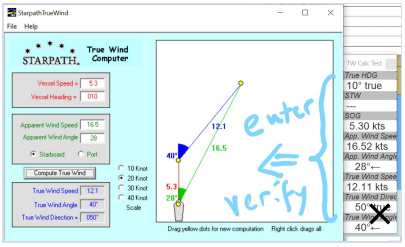
PASS or FAIL

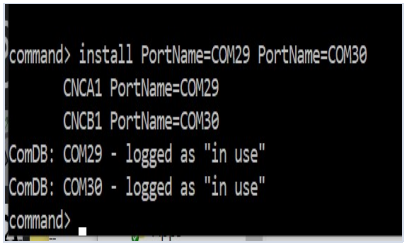
13 Remove VHW sentence from the NMEA Simulator sent sentences. Verify that after 10 seconds, the STW and the true wind values indicate that that the STW has disappeared.

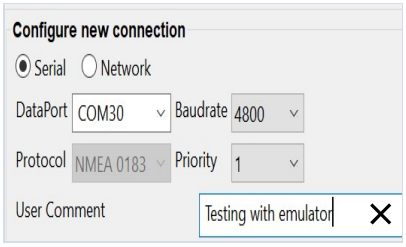
PASS or FAIL

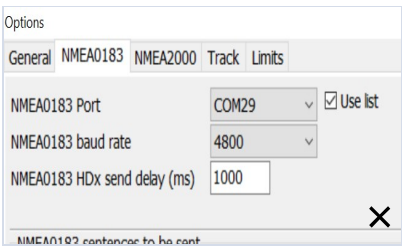
Add Step

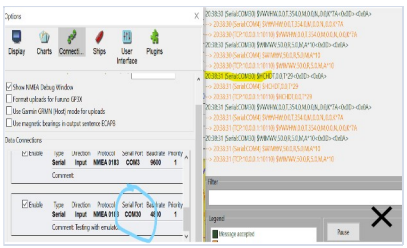
Attachments

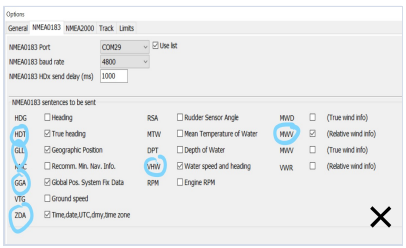












« ‹ 1 2 › »

Add Attachments

RESULTS	DEFECTS	REQUIREMENTS

Status	Test Plan Run	Assigned To	Updated At↑	Actions
✔ Pass	TPR32 dashboard_tactics_pi_...	Petri Makijarvi	about a year ago	
▶▶ Skip	TPR34 dashboard_tactic_pi_st...	Petri Makijarvi	about a year ago	
▶▶ Skip	TPR35 dashboard_tactics_pi_...	Petri Makijarvi	about a year ago	
▶▶ Skip	TPR36 dashboard_tactics_pi_...	Petri Makijarvi	about a year ago	

⏩ Skip	TPR37 dashboard_tactics_pi_...	Petri Makijarvi	about a year ago

« ‹ 1 2 3 4 5 › »

ACTIVITY **HISTORY** **COMMENTS**