

# News

## Tactical GPS Unit Tech Review

A few weeks ago, Nauteek Tactical Electronics contacted us and asked if we could try their new instruments.

Oh by the way, there are already quite a few racers and sailors in Europe using their equipment. Check at their News page. Nauteek has been around for quite some time now and are now penetrating the USA market.

Sailing Sportboats tested the unit last weekend. Here is our thoughts about it. Hang on!

On ground, we only had to velcro the unit on our existing tacktick micro compass. I have to admit that this was quick and easy. Then we adjusted the magnetic deviation into the unit. This took another few seconds.

It takes no time at all to understand the menus and get use to the buttons functions. That unit is very intuitive, but it is still better to read the manual (2 pages).

Outside, sailing in about 10 knots of wind, we set up the following in the unit:

- Starboard tack and port tack.
- True Upwind Direction (T.U.D.): 240 degrees.
- tacking angle: 95 degrees.
- start line: we sailed by the "RC boat" and recorded its position (one push of a button), sailed down the line and recorded the position of the pin of the line. The same screen also indicated our C.O.G. and the line direction, telling us what side of the line was favored since we have entered the T.U.D.
- Timer settings: 5 minutes, set to "ON" mode which means after the timer, the unit will start the chrono for the race.

These settings are so easy to set, you will be very pleased.

We left all the other settings to the default settings and started our timer.

There is a really cool thing about the SC200 which is the screens that are displayed as you race!

You can choose the following:

- race under the "MULTI SCREEN". This screen is a dual display where you can

change and see any of the information that the unit calculates as you race, OR

- race under the "RACE SCREEN". The Race Screen is also a dual display that will change during the race. The dual information are chosen by the racer. There are 3 screens that will change as you race:
  - 1) Screen 1 - Starting Sequence: displays Timer/Chrono and Distance to the Starting Line.
  - 2) Screen 2 - Upwind Leg: displays Speed Over Ground (S.O.G.) and Variation of the True Upwind Direction.
  - 3) Screen 3 - Downwind Leg: displays S.O.G. and V.M.G. (Velocity Made Good, meaning your gain of speed calculated in comparison to the T.U.D.).

Remember: these settings are the default ones but you can easily change them to whatever you want (for example, screen 3, during the downwind leg could indicate the Velocity To Destination (V.T.D) instead of V.M.G. if you have recorded the downwind mark as a waypoint prior to the start.

The screens change during the race course. In other words, when the timer indicates "0.00", and basically the gun goes off, the unit is calculating if you are going upwind or downwind. If you are going upwind (regular buoy start), the screen will switch to screen 2, which will indicate your S.O.G and Variation to the T.U.D.

When you will round the upwind buoy, the unit will realize that you are now downwind and will switch to screen 3, now showing your S.O.G. and V.M.G.

Again, each screen is a dual display and you can decide to show any of the information offered by the unit: SOG, COG, Time, Chronograph, VMG, Upwind Direction, Distance to Start Line, velocity to destination and GPS position information.

During the start sequence, using screen 1, we can clearly see the timer and distance to the line. These 2 together as great, especially if you practice. This is also a great indicator of how close to the line you are, especially on smaller boats, short handed in crew or even single handed.

At the gun, the screen changed right away to screen 2 showing our SOG and the wind

variation. The Variation is using 2 indicator: a number that indicates the degrees value of the header or the lift and some bars that will point to where the wind is shifting to, therefore letting you know if you are in a header or a lift. No maths to do, easy to understand, these information are just what we needed to make the right tactical decisions immediately.

For the first downwind leg, we were using the VMG which is a good indicator of our real speed. Our SOG was around 7 knots but our speed was 4. Suddenly, our speed dropped to 3 knots. We gybed and gained 2 knots of VMG on the other gybe. We repeated the downwind leg again by setting a downwind mark and therefore changed screen 3 to display the VTD to the mark. The information were also very useful and allow us to maximize our speed downwind.

You can of course change from one screen manually. It only takes a push of a button.

You can also change the dual information displayed at anytime during the race course....another push of a button.

During the starting sequence, when the start goes off, the unit starts to record the race (an recording indicator - a little spinning wheel on the right bottom corner of the display" appears). When you cross the finish line, simply stop the recording. The race is recorded in the unit as a SEPARATE race from any other. When you will start a new starting sequence, another race will be recorded...and so on. The unit can record up to 140 hours of racing (30 hours using the default settings). A USB cable is provide to then upload your data on your PC (Mac coming soon) and view all your tracks during the day.

There are more on the unit that we have not used a lot but which are still pretty useful. For example the Speed Histogram: set your speed scale, let's say 6 knots, would be your target speed upwind. The histogram displays your speed overtime (scale of 16 seconds on the display) and therefore shows how fast you get back to speed after tacking or gybing. Again, that is probably something you want to use when practicing but is also a good speed indicator from one tack to another as you race.

When we tested the unit, we could only record one waypoint. We since then talked to the Nautetek guys and a free release will be available by February 2008 where you can download the upgrade and update your unit. This update will let add more than one

waypoint and create routes, which is great for long distance and coastal racing or sailing, other than upwind / downwind races.

The unit looks great (at least on the boat we tested it with), fits in our pocket. The display is very intuitive and user friendly. It is well put together: you can tell a lot of effort was put in responding to what the racers need on the race course.

The box is sealed. The lithium battery is given for 30 hours in running mode. We used the unit for 3 hours, with the backlight on. The battery indicator went from 99% to 96%. Not bad. I remember some instruments that do not last a weekend with a set of AAA batteries.

Overall, we are really pleased.

Nautetek also made another unit the SC100 (the first one that came out) which as some basic settings that we have not tested. The SC100 is definitely a good unit for sailors, who are not looking as the additional information given by the SC200. Information on the SC100 are timer, SOG, COG but is missing some valuables information that allow good tactical decisions while racing.

What we like:

- the automatic screens changes as you race.
- ease of use.
- dual display.
- size of the display is adjustable
- safety line in case the unit comes off the velcro.
- record more than one race separately.

What we dislike:

- only one waypoint can be set up (firmware update coming by February 2008)
- would be nice to have time to the line but Nautetek explained that boats (mostly small boats) have very high changes of speed during a starting sequence which makes it very difficult to get an accurate "time to the line".

Cheers,

Sailing Sportboats