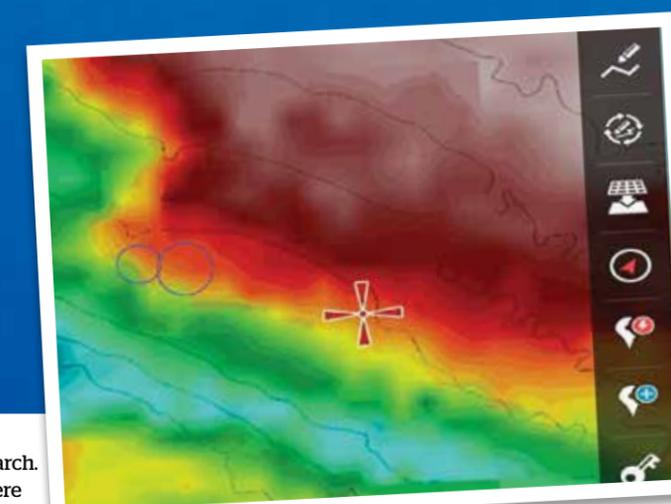


THE GAME CHANGER

WORDS AND PHOTOS:
PETE MCGREGOR

The SST map shows different colours for temperature and current direction. The water colour is great, and because of the closeup detail you can even see patches of warmer/colder coloured water, letting you target them.



To catch a marlin first you need to find it. The Question : Will using SST help you catch more marlin? Answer: Hell yes! When **New Zealand Bay Fisher** Editor Tony Dawson asked me to write an article about using SST to help catch gamefish I must admit to being a bit sceptical. My experience with an SST app last season had been pretty underwhelming. But I have seen the light, brother fishermen! I HAVE SEEN THE LIGHT! So I'll attempt to explain SST in layman's terms; well, after all, that's what I am, anyhow!

What the heck is SST, you ask?

SST means Sea Surface Temperature, and for our purposes it's measured by satellites regularly crossing our seas, measuring temperatures at depths ranging from mere micrometers up to 1 metre. Data from satellites is broadcast to ground receiving stations and combined to create daily global SST maps used for weather prediction, ocean forecasts, and in coastal applications such as fisheries forecasts, pollution monitoring, and tourism. SST maps are also widely used by oceanographers, meteorologists, and climate scientists for

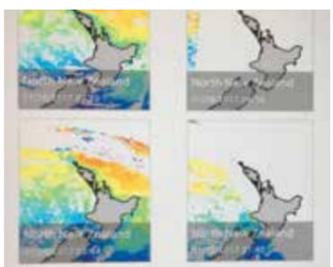
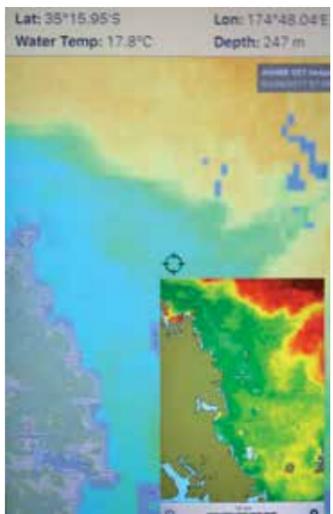
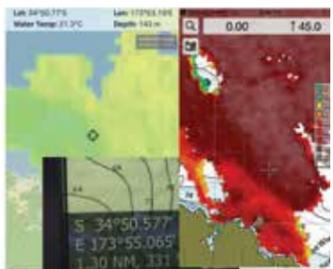
scientific research. For anglers there are two important forms of map: Sea Surface Temperature and Water Colour. Water colour maps detect the phytoplankton base of the food chain, and water clarity. Both these measurements are vital for finding fish.

So, we're looking for:

1. The point at which water temperature changes.
2. The point at which water colour changes.
3. Current movements that may affect where those areas may have moved to overnight. ➔

TOP: Marlin below the boat.

INSERT: Ocean SST



TOP TO BOTTOM: Fish on!
Marlin caught here compilation.
Comparison of Fishtrack and Ocean SST same day.
Fishtracks very good preview panel.

If you troll along those transition zones you will find bait, and bait attracts top end fish like marlin. Use the SST map to travel to the warmer water, then use the Water Colour map to fine tune where you troll.

How it works in practice: There are 4 main avenues for local fishermen to access and use SST maps; NIWA, PredictWind, FishTrack and OceanSST. All of these can be run as apps on a mobile device.

NIWA

This used to be a subscription service but is currently offered free as a temporary service for public access to satellite Sea Surface Temperature and chlorophyll data for selected areas in New Zealand. The data is updated Monday to Friday excluding national and local public holidays This is a very basic service though – the pictures are not real time, colours are used to show various temperature ranges, and you are unable to accurately pick a GPS position on the map. It requires internet connection: <https://sds.niwa.co.nz/>

PREDICTWIND

SST maps come bundled with the PredictWind app for mobile phones or tablets. A basic 12 month subscription is \$42.99 which enables the user to access wind and swell data and sea surface temperature maps for up to 9 locations. The SST maps are colour coded according to temperature and updated daily; there is no ability to zoom in or pick GPS positions. Requires internet connection: <https://www.predictwind.com/apps/>

FISHTRACK

While you can have 15 days' free use of this app you really need to upgrade to the Premium app which costs about \$120 for 1 year subscription. This is a very easy-to-use app (perhaps the easiest) which shows a map of NZ in which you can zoom in on the area you're interested in. The maps again show varying colours to signify temperature and you simply lay the gunsight

over the sea area you're interested in; the app shows GPS position, water temperature and water depth at that point (nice). You can watch your boat position progress as you navigate to the spot, including a recorded track.

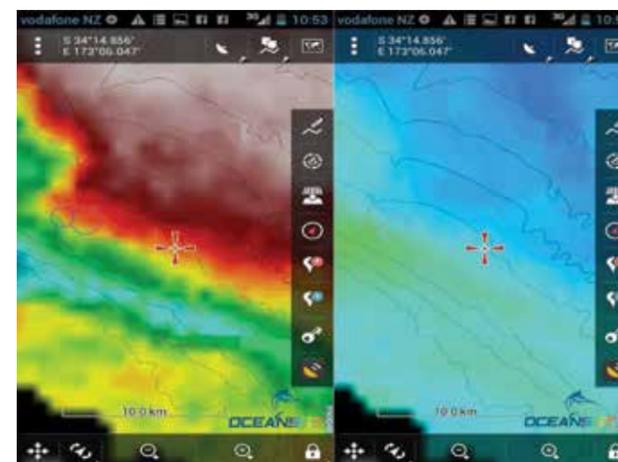
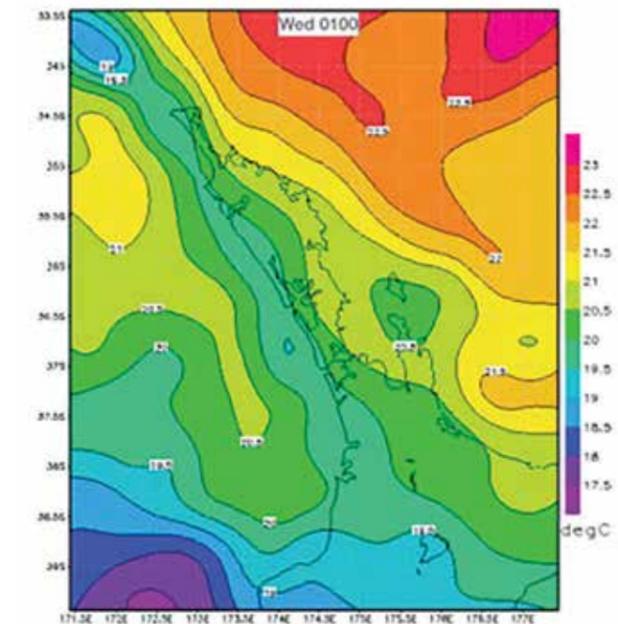
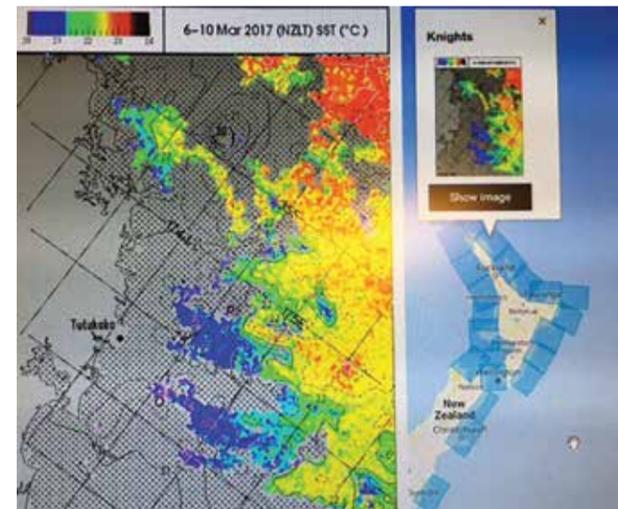
In addition to Sea Surface Temperature images you can access water temperature and chlorophyll images, and the maps show current movement which is a great help in anticipating movement of warm areas. (Remember the map is usually a day old at least, so being able to predict temperature movement is of great value).

A different screen enables you to preview up to 6 maps a day simultaneously so you can see progressions plus pick the map which shows the most detail. However I found that the detail (or rather the lack of it) is the weakness with this otherwise excellent app: some days it's simply not possible to see a complete un-fractured picture. While I understand that the science is reliant on cloudless skies to get clear images, even on cloudless days I found some very fractured maps. I have to say this has improved over the results I got last season but has still got some way to go to catch Ocean SST. The maps are shown from a fairly high altitude and this also affects the detail available – however on a good day this app is very good and its ease of use is great on a bobbing trailer boat.

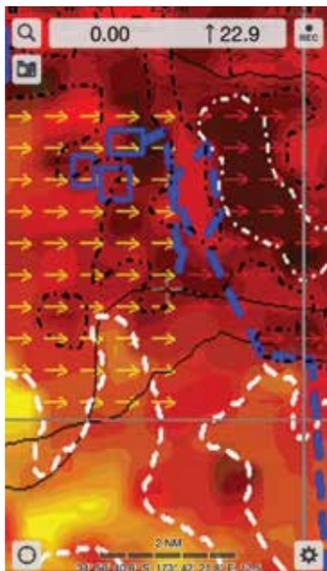
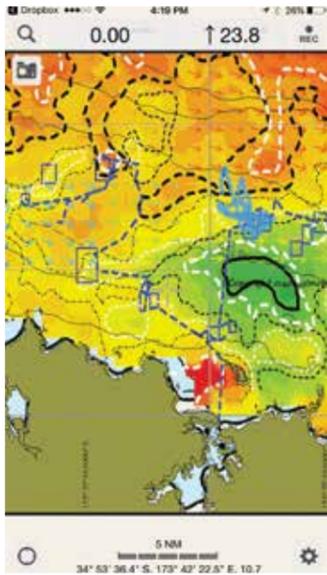
Maps can be downloaded. Does not require internet connection once map is open. <http://www.fishtrack.com/>

OCEAN SST

This is a New Zealand service. You can opt for a 1 year subscription (round \$250) or pay monthly (\$65). Further advanced personalised service (see below) is available by negotiation. Ocean SST works on both Apple and Android devices Ocean SST is by far the most advanced and up-to-date service, even in its standard form. It is a bit more challenging to get up and running, though. First, you will need to buy the Ocean SST app. Then you will need to start a Dropbox (if you do not already have the Dropbox app) and you



TOP: NIWA SST map.
CENTRE: Predict Wind SST map.
BOTTOM: Ocean SST Android screenshot SST and Water Colour - note the circles pointing out what you are looking for.



TOP: Typical Ocean SST Personal Service map, showing suggested trolling lines, square points of interest and our boat track.

BOTTOM: More detail Ocean SST (on iPhone) personal service, note where he has highlighted points of interest. this is what you are looking for.

OPPOSITE PAGE

TOP: Ocean SST 27.01

BOTTOM: Ocean SST showing boat trolling area plus fine blue line is Paul's proposed trolling line and the squares are his suggested areas to concentrate on.

also need a mapping app - Ocean SST will supply you the links for these though, and they are either free or inexpensive. Paul from Ocean SST is very helpful in helping set up those of us who have a computer handicap. Once all this is in place Ocean SST send map pictures to your Dropbox each day, as follows:

- Morning at 7am NOAA SST
 - Afternoon at 1-2pm NOAA SST
 - Evening at 7-8pm Nasa SST Nasa Water Colour
- Ocean SST provides more regular updates than the other services reviewed.

Ocean SST collects this data as it arrives to process. They then manually mask for cloud and enhance to define the temperature breaks in each zone that fish are being caught throughout New Zealand for the sport-fishing market. Once this is done, the image is further processed into an image format similar to Google Maps, which consists of hundreds of small tiles (Whangaroa, Kaipara, Manukau, Great Barrier etc) for mapping apps to read as an offline map. It requires no cell tower to provide boat position as the inbuilt GPS in the mobile device will take over.

This service gives you the most up-to-date images of all the services. You can be quite specific in the area you want to target and the maps are data-rich, enabling a great deal more detail. Maps update constantly and up to 5 days' data is held in your Dropbox. When you click on a file in Dropbox it downloads to your device and you then export it to the mapping app. This means the picture becomes "live" in position on a NZ map.

The SST map shows different colours for temperature and current direction. The water colour is great and shows clearly where the blue and purple water is, and because of the closeup detail you can even see patches of warmer/colder coloured water, letting you target them.

A gunsight enables you to select and see the GPS coordinates for a specific spot, zooming in to just metres above the sea surface. You're able to save your file, so you don't need internet coverage to use data at sea, though Paul tells me that internet coverage for Dropbox is available out to about 20nm offshore, anyway. You are able to drive to the selected spot with your boat position showing on the map and you can record a track of your progress, very similar to Google Maps, on your device.

In my opinion Ocean SST maps are consistently more detailed and complete than other services, mainly because of their superior masking processes. This is a really good app. and I recommend it. I got to use this standard app a few weeks ago, picked a likely warm water area and scored our first marlin for the season (see screen shots). <http://oceanmobilemap.blogspot.co.nz/>

OCEAN SST PERSONALISED SERVICE:

Now we're getting on to the sharp end of SST mapping; I call this the 'Beta' version of Ocean SST. The cost varies; you must, as a minimum, have a yearly subscription to the main app. Thereafter a fee is negotiated according to the amount of use anticipated. This service is used by charter operators and really keen fishermen entered

in fishing competitions. Typical tournament packages range from \$75 to \$250 for the duration of the tournament.

You're probably wise to use a tablet or computer, rather than a phone, when utilising this service; Paul tells me Android is best - I haven't been able to confirm this myself as I only have Apple. Certainly, the bigger the screen the better.

What does this give you? Well put simply, Paul will tailor a map specifically for you, and he'll plan your trolling course for the day using his experience with the technology and his experience as a big game fisherman. Around 10pm the night before your trip you'll receive map files on which he has drawn your trolling course out to the fishing area, covering the temperature/colour changes on the way, and once out there he'll highlight spots he anticipates are holding bait, that you should work hard. You'll also receive bite times for the day, in Paul's words: "Created from actual marlin bites, not fictional nonsensical moon phases. These are developed from tide and current velocity." So it's a good idea to be at a highlighted spot at that bite time. Paul then checks on your progress by text throughout the day and asks for feedback on the conditions you're seeing - bait, water colour, sounder activity, bird activity, and other boat hook-ups. This information may result in you being sent to a specific GPS spot, or on a new trolling trail.

Does it work? OK, in the short time I've used this Beta version I have not caught a marlin on my boat. However, on three occasions over a weekend we arrived at a "Hot Spot" at the bite time - only to see another vessel hook up right next to us! What we did notice was a definite increase in the amount of bait showing on the sounder and on the surface. We tested it by running away from the marked hot spots only to see the sounder go blank - no bait! I've talked to other users who've had only limited days on the water this season but who use the personalised service; they've hooked marlin nearly every day. Paul suggests that once clients have used the service a few times, most will be able to see what he's targeting and make their own trolling decisions.

I look forward to using the personalized service for the rest of the season and will advise results. I am impressed enough to say **it's a game changer!**

Paul advises that there are further enhancements coming for Ocean SST over the next few months and again, I will keep you posted on this. Obviously the personalised service is very labour-intensive for Paul so I suspect that some automation may be developed.

Oh- and in case you wondered, Paul has been fishing for marlin for over 15 years and was part of a team that won the Bisbee's - the richest Game Fishing tournament on the planet (read US\$250,000 prize) in 2010, so I reckon he knows a bit!

Used intelligently SST maps will help you catch marlin from your boat, big or small. It's another weapon to add to your fishing arsenal.

Will I be using SST technology to target marlin - **You Bet!** 🐟

