

BY VIC VENTERS

June is Big Rock time in Morehead City. For the uninitiated, Big Rock is not a beach music festival or a new light beer; it's the largest blue marlin tournament held on the East Coast. This year marks the 30th anniversary of the Big Rock Blue Marlin Tournament and the event draws fishermen from around the country. From June 11 to 18, about 150 boats are expected to compete in this year's tournament.

The quarry is the blue marlin, a blue-water species found in the Gulf Stream. Blue marlin can weigh almost a ton and the fish are encountered from Mexico to Cape Cod. Blue marlin are believed to be migratory, moving north in warm weather and south in the cooler months.

Our coast is a renowned marlin fishery, in part because of the proximity of the Gulf Stream to the Outer Banks; the stream can edge as close as 18 to 20 miles off Cape Hatteras depending on weather and sea conditions.

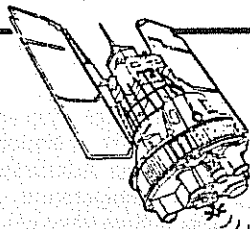
Despite the area's excellent fishing, catching a marlin is not easy. One study showed that it took about 10 trips to boat one blue marlin; another study showed only one blue marlin was landed for every 112 hours of trolling.

But once a blue marlin has been caught, the fisherman will likely find himself hooked as well. Known for their strength and stamina, the great fish jump and twist with terrific surges of power, producing hammering claps as its body crashes to the water after jumping. And not only is the fight great, but the purses for tournament winners are spectacular as well.

The winner of this year's Big Rock Tournament can expect to pocket more than \$100,000. Large prizes like this, and stiff entry fees, offer a powerful incentive for fishermen to try to improve upon the meager odds for marlin fishing success. And for marlin fishing, the key to success is in locating the fish, which means finding areas where baitfish are located.

In the Gulf Stream, baitfish congregate where there are changes in water currents and temperature. Traditionally, fishermen count on being able to 'read' the surface of the water and being familiar with what type of water will hold fish. By combining this understanding with a knowledge of underwater structure, marlin fishermen can improve their odds for boating a fish. To this end, marlin boats are equipped with temperature gauges, depth finders and other sophisticated electronics.

While there are often locations which usually attract fish, such as underwater structure, unfavorable weather and sea conditions can often make that water barren.



# High Tech Fish Finder

Then the fisherman's game becomes a search in an attempt to locate the best suitable water. Until recently, this search has remained relatively old fashioned, with boats cruising until suitable water is found.

However, Dr. Mitchell Roffer, a fisheries oceanographer who operates Roffer's Ocean Fishing Forecasting Service (ROFFS) in Miami, hopes to change all that. ROFFS provides both commercial and sport fishermen with a high-tech forecasting service designed to predict where various fish species — including blue marlin — can be found. In formulating his predictions, Roffer combines his fisheries background with weather and oceanographic information gleaned from satellites and other remote sensing devices.

The service, which can be purchased by subscription or on a specific tournament basis, provides fishermen with up-to-the-hour information on ocean water temperature, water color, water circulation patterns and baitfish locations. This information can then be used to guide fishermen to fish concentrations.

Roffer came by his information the hard way; he proved his theories doing doctoral research. The theories — based on 10 years of research done with the University of Miami's Rosentiel School for Marine and Atmospheric Science — show that temperature gradients, as well as changes in water color and flow, cause fish to congregate in areas where conditions for survival are best. In his thesis, Roffer was able to accurately and consistently predict bluefin tuna locations in two seven-week periods in 1980 and 1981.

Roffer incorporated his business in 1986 after fishermen constantly asked him for data. The information on water temperature, temperature changes and currents is overlaid on a LORAN chart that

includes bottom topography. Because of constantly changing ocean conditions, the oceanographic and fishing data on the charts is updated up to 15 times per day.

Roffer said his charts are most popular in the Northeast but are gaining in popularity all along the East Coast. "There has been an increase in the number of fishermen using the service," Roffer said. "It's picking up in relation to the amount of monied tournaments. There is a lot of prize money in these tournaments and with the private bets, its even greater."

While experienced fishermen can read the water and use equipment to determine water temperature, Roffer says his charts save time, gas and money by putting fishermen in the general location of the fish without lengthy searches.

Roffer has made some believers in North Carolina. While he declined to comment on how many North Carolina fishermen were using his service, he admitted that he had already received orders for three tournament charts and has regular customers in the Morehead area who also use his service. He added that several visiting anglers fishing the tournament would be using the service as well. "People have won tournaments, some right off the North Carolina coastline," Roffer explained, adding that one of his clients had won

Reprinted From:

## MARITIMES

June 9 — June 22, 1988 Vol. 10 No. 6

\$90,000 in a tournament off New Jersey. "We have had people in the money at Big Rock."

Client names, however, were not being divulged for the fear that clients would become 'pied pipers' of the tournament. "There is one client in the area who is vehement about not giving his name out," Roffer stated. "When we call him, he doesn't even want us to leave our names at the docks."

Not all fishermen are beating down the door to get Roffer's service. The charter captains *Maritimes* spoke with said they were familiar with the service or similar services but none said they used them. A couple of charter boat captains said that charts similar to Roffer's were valid means of locating fish — but only as long as they are up to date.

Roffer admits there are problems with acceptance and says he has two chief obstacles to overcome. "One, there is the old ingrained attitude that we are a bunch of scientists and we don't know what we are doing," Roffer said.

The other problem is fishermen using

outdated information and becoming disillusioned. The National Oceanic and Atmospheric Administration produces sea surface temperature charts which are released three times per week. However, the good fishing areas can change in a matter of hours, thereby quickly rendering the charts obsolete. "The government is still putting out sea surface temperature charts for free about three times a week," Roffer said. "What happens is people get these charts for free and will use them and find them not adequate for their needs and it poisons the well. It's a nice historical record, but that's about all."

Because of this, Roffer said he and his employees are constantly at work, providing updated information. The charts and updated information are sent to clients via facsimile machines, telephone and single sideband radio. "We work, crazily enough, about 18 hours per day, seven days per week."

Roffer will provide *Maritimes* with a series of Big Rock Tournament charts and in a follow-up article next issue, we will analyze where the actual tournament catches are made compared to Roffer's pre-tournament advice. ■

## Roffer Was Right

The high tech fish finder featured in the June 23 *Maritimes* provided what proved to be absolutely accurate information for mapping the marlin during the Big Rock Marlin Tournament June 11-18.

The first place fish was hooked June 13 less than one mile from a "hot spot" off the coast of Atlantic, N.C. indicated on a ROFF'S chart received that day. On June 15, the second place fish was hooked in a location near Diamond Shoals, off Hatteras, where Roffer's Ocean Fishing Forecasting Service predicted fishing activity should be particularly good.

According to sources, the majority of the 62 fish hooked (42 of which were released) in the tournament were caught between the 39800 and 39850 lines (loran). ROFF'S charts received during the week of Big Rock consistently predicted good fishing in this area. However, the charts indicated that the most likely concentrations of marlin were to be found that week southeast of Frying Pan Shoals off Wrightsville Beach. As far as we could determine, Big Rock fishermen concentrated on the closer area between Cape Lookout and Cape Hatteras.

Reprinted From:

# MARITIMES

July 7 — July 20, 1988 Vol. 10 No. 8