

Anchor Man

Marco inventor adapts seawall tie-back system to include boat mooring

By Quentin Roux

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Marco Island inventor and businessman Jim Timmerman broke a mold two years ago with his revolutionary seawall tie-back system. Now he's kicking up the technique a notch. He's adapted his basic idea to help boaters secure their boats when hurricanes pay unwelcome visits.

Timmerman's original seawall system uses giant screws inserted hydraulically from the canal side of the wall — doing away with the traditional "dead man" system of excavation, trenching and time-consuming concrete pours. He introduced his Dynamic Seawall Maintenance Systems company in June of 2004, using what he described as knowledge that has been around for thousands of years.

The screws are 16 feet long, weigh about 25 pounds each, and the shafts are typically an inch in diameter. At preset intervals, curved helixes "burrow" the tie-backs into the soil at the rate of about 3 inches per revolution.

The idea for securing boats with a similar technique arose last year when Hurricane Wilma threatened. Capt. Roger Parcelles was worried about the safety of his 100-foot Marco Island Princess and called Timmerman asking for the loan of two original anchor systems. "I manually inserted them and when the hurricane passed, they were the only things that held the boat in place," Parcelles said. "We had snapped concrete pilings, but those two land anchors held."

The success caused Timmerman to take a hard look at this new possibility, resulting in the recent formation of Dynamic Maritime Services. "The beauty of the system," Timmerman said, "is that once installed, it is virtually invisible apart from the lid of a utility-type box lying flush with the ground."

When needed, the box is opened to reveal a chain with a shackle attached to a pad eye. The eye in turn is connected to the screw. "The screw itself reaches about 14 feet into the ground and a sheath-like 'fairlead' leading from the box directs pressure from being shear to tensile, making it highly efficient," Timmerman said.



The product, like his seawall maintenance systems, has been through the engineering and permitting process. Timmerman said the boat-anchoring system costs about \$3,000 per unit, with about two of them being recommended for typical 50-foot boats owned by those on Marco.

At the moment, Timmerman is expanding at a measured rate rather than biting off more than he can chew. "We've intentionally stayed within Florida. We want to make a firm foundation (in and around Marco, and later Lee and Collier Counties) first," he said.

Timmerman devised the screw "earth anchor" idea from a salvage job about five years ago when he winched a grounded and damaged yacht sideways to be able to apply a patch to a hole caused by the keel pushing through. He did it with rough calculations, an earth anchor and winching the boat over by using the halyard from the mast. It worked, and for Timmerman, the proverbial light bulb popped.