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## THE WRECK CONNECTION

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# THE WRECK CONNECTION

Our mailman here on City Island says we get more international mail at **Sub Aqua** than any other address! 1995 has been our biggest subscription year ever. In a year when other dive magazines have folded, new ones struggle through the early pains of start-up, and the "big boys" counterprogram each other with still another pretty tropical cover, **Sub Aqua** has quietly grown over five years to be the primary source for divers interested in wrecks and advanced dive sites.



Countless divers look to us as their "Wreck Connection," and this issue certainly bears that out. There are more wrecks in this issue than ever before, in more diverse locations, and at all levels of dive skill. The **Sub Aqua** booth at Beneath the Sea was bubbling with world-class divers who dropped by to say hi, and new subscribers who wanted to see what all the excitement was about. Literally hundreds were proudly wearing their special "NO PRETTY FISHIES" t-shirts (even publishers of other magazines!)

We've never before had such an upsurge in subscribers. Is there more interest in wreck diving than ever before? We think so. Are we doing something right? The marketplace is saying yes - divers serious about their craft and their fun prefer our focus and enjoy our style. It's always a challenge to satisfy demanding readers such as you. But then, this kind of diving *is* a challenge, isn't it?

Joel D. Silverstein, Editor

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## THE HANG LINE

### Latest Dish on the Doria

The courts have extended John Moyer's admiralty arrest on the *Andrea Doria* an additional two years, according to maritime attorney Peter Hess. Moyer's expeditions in the past few years have yielded many prized artifacts including the massive ceramic wall artworks from the promenade deck. What is he after next? ■

### DAN Awards O<sub>2</sub> Kit to Dive Boat - Sea Hawk



The Divers Alert Network, acting on behalf of an anonymous donor, recently gave a complete O<sub>2</sub> package to Long Island dive boat Sea Hawk. The kit was presented by City Island Chamber Training Director Kathy Weydig, at an Eastern Dive Boat Association workshop/meeting. Captains John Lachenmeyer and Frank Persico were "Just thrilled... what a surprise. We thought we were coming to this meeting to learn more about the bends, and now we have one of the tools to help divers."

In an additional cooperative venture, EDBA President Captain Steve Bielenda has agreed, with his membership, to permanently display decompression illness prevention and emergency information posters on all dive boats. ■

### Happy They Bought Raffle Tickets

Some very excited divers were the proud winners of the first City Island Chamber raffle. Ron Scorese won a DUI CF200 dry suit at a drawing held at Beneath the Sea in White Plains. Bob Duval won a Dive Rite Bridge computer, Val Askins won a Sherwood Source computer. Missy Tracey, in a follow-up drawing, won an additional DUI CF200 dry suit.

## THE WRECK CONNECTION

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**ON THE COVER** - Rhode Island wreck diver Billy Campbell after a working dive on the *Andrea Doria*, during the 1993 Moyer Expedition. Photographed on location aboard the R/V *Wahoo* with a Canon T-90, 100mm lens at f8 using Ilford HP-5 film rated at ISO 200 by Joel Silverstein.



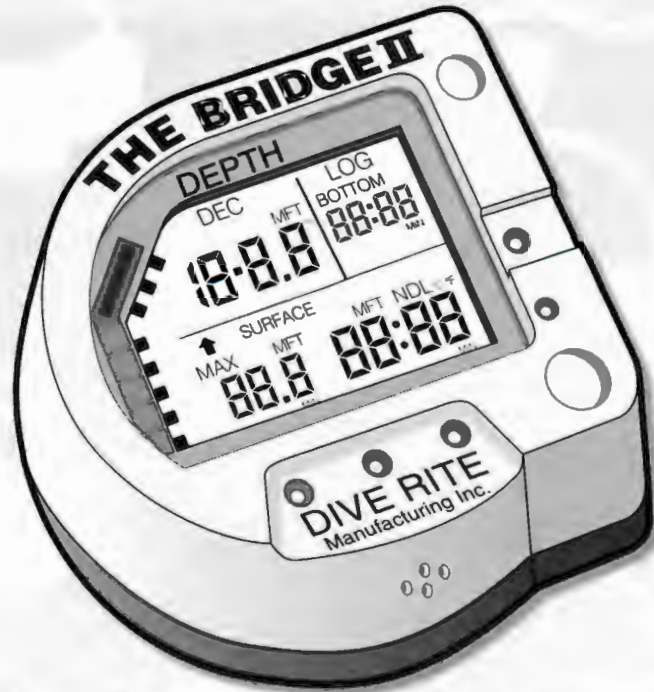


Joel Silverstein, CIC Director, Ron Scorese (winner), Dick Long, Chairman and John Boyer, Director of Marketing of Diving Unlimited International.

All equipment was generously donated by the manufacturers as a fund raising activity to further the work of the City Island Chamber. CIC is the only diver emergency facility available 24 hours a day, seven days a week, year round, in the New York - tri-state area. Funds raised through the raffle and membership donations are used to finance public education activities, training, and to help defray unreimbursed portions of emergency treatments. This year's raffle was extremely successful in covering public communication costs. Over 7000 Beneath the Sea attendees passed by the booth and were made aware of CIC's availability and educational programs. ERDO-City Island Chamber is a 501 (C) 3 not-for-profit tax exempt organization. For further information contact: ERDO - City Island Chamber at (718) 885-3188. ■

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# The Risks of Wreck Diving



By Bill Bleyer



**Y**ou descend the anchor rode, tie off your reel line and swim through a hole in the side of a sunken ship looking for goodies. You might come back with a brass porthole or a lobster.

Then again you might slice your drysuit and your skin on a jagged, rusty bulkhead. Or the razor sharp metal could sever your line, leaving you clueless about how to get back to your entry point. A ceiling panel could give way and trap you. Your gear could tangle in dangling cables. Or you could stir up the thick layer of silt on the deck and lose all visibility.

Wreck penetration isn't necessarily a recipe for disaster. But there are some unhealthy choices on the menu for those who don't bring the necessary ingredients to the kitchen.

"Wreck diving has inherent risks that

diving on a reef doesn't have," says Rod Farb, a North Carolina marine photographer and author of two books on shipwreck diving. "If you go inside obviously you're in an overhead environment just like a cave dive and it becomes as risky. With the advent of deep wreck diving, the risks have become much greater. Wreck diving is not something a new diver should pursue immediately. It's something you work up to. You have to understand the special equipment and circumstances and how to deal with emergencies."

"Like any kind of diving, there can be potential hazards," says PADI Director of Technical development Karl Shreeves. "A diver with the appropriate training and appropriate experience who follows that training experience can do a lot to mitigate some of those hazards. In penetration, the

statistics show again and again that people who aren't properly trained or properly equipped in penetration diving have a very bad safety record. And people who are properly trained and properly equipped have a very good safety record."

Dan Orr, Director of Operations at Divers Alert Network, agrees. "It really all depends on the individual. If the individual is trained and qualified, it's probably no more dangerous than any other activity that divers participate in." Joel Dovenbarger, DAN Director of Medical Services, says dive fatalities in wreck penetration, as in other types of dives, usually are the result of inexperience or lack of training. In 1993, the last year for which DAN statistics are complete, there were 92 diving deaths. Of the 81 certified divers who died, five were doing penetration wreck diving — the same number as those who died doing night dives in open water. But there were 11 deaths spear fishing, 7 in caves and 41 doing general pleasure dives. Dovenbarger notes that there are a lot more wreck divers than cave divers.

International Association of Nitrox and Technical Divers president Tom Mount believes cave diving and penetration wreck diving pose equal risks. Cave divers tend to cover longer distances in an overhead environment. "In wrecks you don't go as far but you have more silting and entanglement potential and wrecks get unstable with age."

Many divers pick up their first rudimentary wreck diving skills in advanced open water certification courses. In the Northeast, it is common to progress from there through "on-the-job" training by diving with diveboat mates or more experienced buddies. But the experts agree it's safer to take a wreck diving course if you plan to spend a lot of time exploring around the exterior of wrecks and an advanced course if you plan to do penetration dives.

PADI issued 625,000 certifications worldwide last year, 70 percent of the divers taking basic open-water training. Advanced open-water and rescue courses



comprised many of the remaining certifications. But when it comes to the specialty course, "wreck diving is the number one specialty in terms of consumer interest," Shreeves says.



Tom Mount

PADI and NAUI wreck-diving courses limit training to recreational dive limits: 130 linear feet — down and/or sideways, and always staying in a "light zone." Going beyond that, going deep inside a wreck, or doing planned decompression dives is considered technical diving. And that training is left to specialists such as IANTD and Technical Diving International.

"The people involved with that need to realize that even when they do everything right they're still going to be more of a hazard than if you stick within recreational limits," Shreeves says. "It's just the nature of the beast. It doesn't mean it's unsafe."

"One-thirty is kind of a magic number

but I think there are wrecks at 130 fsw that provide as many difficulties as wrecks at 200 feet," Farb says. The key issues are when narcosis will set in, when the chances of having an accident increase or when the diver will be using too much air. "It could happen at 100 feet for some people and 150 feet for other people."

Dale Fox, interim executive director of NAUI, says, "The [recreational] specialty course introduces you to the safety parameters," how to navigate around a wreck, use reels, uplines and lights and how to rig gear.

The recreational courses also explain decompression diving, but only for use in an emergency. "A person planning no-decompression dives should be prepared to handle emergency decompression situations he might run into and in fact we do that with our advanced open-water divers," Shreeves says. And he adds that most computers now cover emergency decompression as well. "You don't necessarily need the kind of training for planned staged decompression that a technical diver does."

"The minute you talk about going inside a wreck, you are in an incredibly advanced form of diving," Fox says. "You're now talking about the need for



Captain Steve Bielenda

additional equipment, to know additional safety and rescue techniques and different considerations for air management."

That's where the advanced technical courses come in. "These are taught by people who have experience doing the kind of diving you want to do," Farb says.

"Wreck penetration has its own peculiar risks, for instance the problems of entanglement and hazards intrinsic to the wrecks themselves that are not going to be encountered in cave diving or ice diving," says Bret Gilliam, president of Technical Diving International. "There are many elements of diving planning and risk management that share common elements with cave diving and ice diving. Once you start to get more involved in deeper explorations it does require specific training and that training has been sadly lacking in the past for some people. They've had to go out and experiment on their own."

The curriculum for IANTD and TDI's advanced wreck diving courses picks up where the traditional agencies stop.

More than 500 divers around the world have been taught about decompression techniques, uplines, penetration reels, how to escape entanglements and deal with ceiling breakdowns and siltation since TDI was created last summer. The course, which includes eight to ten hours of classroom work, costs about \$250 plus the cost of the four to six dives. "You can't learn this in a classroom," Gilliam says.

IANTD's Tom Mount says his group, formed in 1985 and the first to teach technical diving, has trained about 300 divers. "If someone's going to be trained in penetration wreck diving, you have to do a lot of stress management training that would duplicate realistic situations, like buddy breathing, line sharing, siltouts. They need to be extremely equipment

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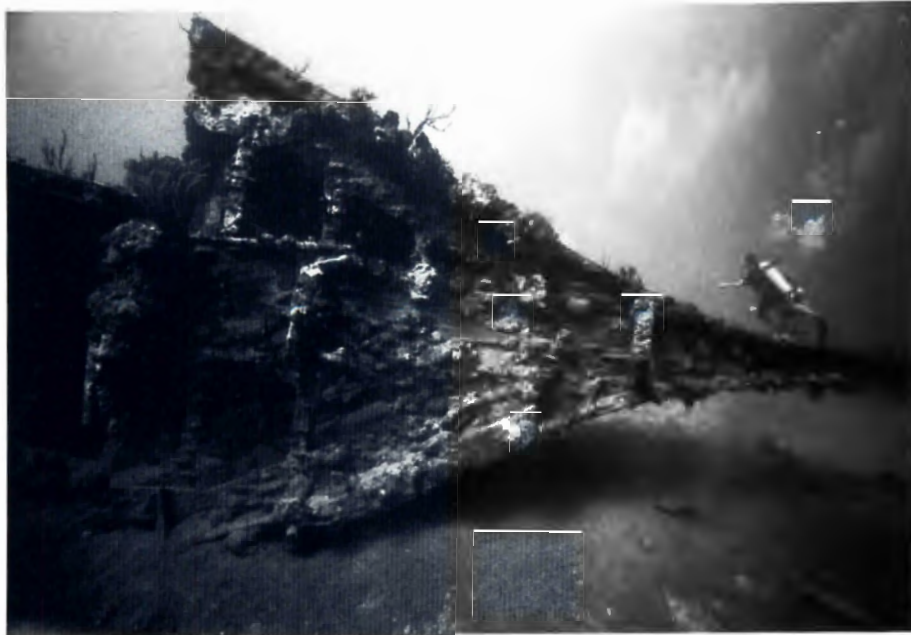
## Capt. Steve Bielenda

-aware.” Students undergo entanglement drills, blacked - out air sharing and exercises in which they have to swim 60 feet to their buddy to get air before they go into an overhead environment. Once inside the wrecks, instructors will tap a diver on the shoulder to indicate he's out of air and the student must swim to his buddy to use one of his regulators. The students must also go through confined spaces while buddy breathing. They are trained how to leave bottles for decompression rather than taking a spare tank inside increasing the risk for entanglement. The course, which offers 280 minutes of bottom time inside wrecks plus open water dive time and lectures, costs about \$400 plus the cost of diving.

Both IANTD and TDI stress reliance on spooling a line into a wreck to find the way back, and they spend a lot of time teaching the proper technique. “A reel is a great thing if you know how to use it,” Mount says. “If you don't know how to use it, it's dangerous.”

Mount and Gilliam contend it's even more dangerous to rely on progressive penetration — memorizing the wreck compartment by compartment — instead of using a line.

“We think if you're going beyond where you can see light that you can't rely on progressive penetration,” Mount says. “We have a little drill we do in our course that changes people's minds about progressive penetration. We have them close their eyes



The bow of the Wreck of the R.M.S. Rhone in 90 fsw off Salt Island - BVI. J. Silverstein

and find their way out and about 5 percent of the people are able to do that. That makes it very obvious that if you're in a siltout, your chance of getting yourself out, regardless of your progressive penetration abilities, is pretty limited.”

Captain Steve Bielenda, president of the Eastern Dive Boat Association and a proponent of progressive penetration, concedes it's not the right technique for most divers. “I believe the average person should first learn how to use a line. Most people don't have the time or the patience to do the diving they need to learn progressive penetration.” And even the most experienced divers should use a line if they plan to follow a complicated path through a wreck, he says.

But he stresses that divers who use lines need to remember they are not foolproof either. “You can tangle in it, it can chafe through where the steel gets rusted down to a razor's edge or someone can cut it. How much faith do you want to put into a one-eighth inch piece of nylon? You have to know the wreck.”

A reel is only one of many pieces of equipment required for safe penetration. The technical experts agree divers should have two totally independent air supplies, whether they are using double tanks or a main tank and a pony tank, and use the rule of thirds, saving a third of the air for emergencies.

Bielenda says a pony bottle should be at least 30 cubic feet in size. “It will give you 6 or 8 minutes to solve the problem on the bottom. A smaller tank is not adequate” And carry at least two primary lights which

can be supplemented by smaller backup lights. And Bielenda says to take at least one good sharp knife or EMT shears for cutting monofilament and cables.

“The most important piece of equipment,” he says, “is the intelligence to know whether you should go in or not.” ■



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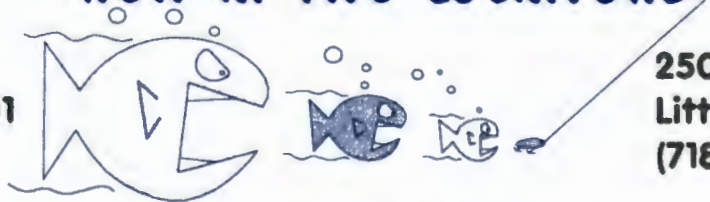


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# MISTLETOE, DELAWARE, AND DODGER



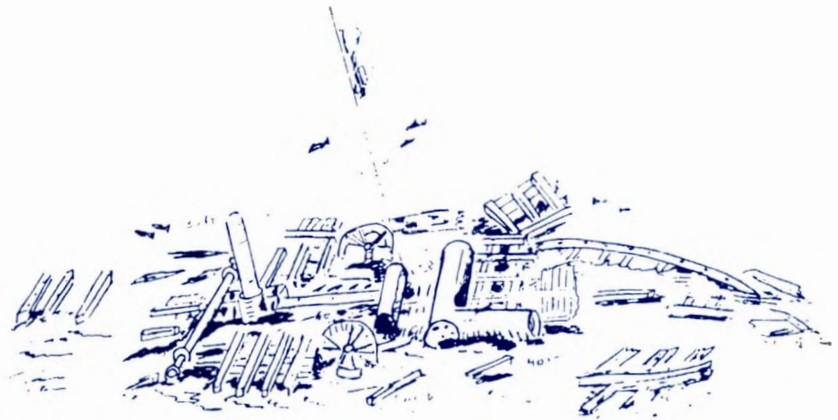
By Daniel Berg

The south shore of Long Island is well known to mariners because of the abundance of shipwrecks scattered across the ocean floor. This notorious area is referred to by divers as Wreck Valley, and the broken bones of over a hundred vessels can attest to the accuracy of the name. In reality this waterway is no more dangerous than any other. The name was earned only due to the abundance of maritime traffic that has sailed or steamed over its sandy bottom. Whenever there is an abundance of ships, certain mishaps and disasters are bound to take place. Add in the U-boat factor from two world wars, some fierce winter storms as well as fog and mechanical difficulties, and you end up with a lot of shipwrecks.

Because of these mishaps, Wreck Valley has become one of the best wreck diving locations in the world. On the bottom are the remains of a wide variety of vessels including everything from German U-Boats, prohibition rum runners, schooners, passenger liners, and even some warships. Each wreck is unique not only in location, depth and dive conditions, but in history and the types of artifacts that divers can recover. Let's now take a look at three of Wreck Valley's shipwrecks.

**MISTLETOE** - Also known as the *East Wreck*, the *Mistletoe* was a wood hulled side wheel steam ship built in Chester, Pennsylvania, in 1872. She was 152.6 feet long by 26.7 feet wide, displaced 362 gross tons and was powered by a 370 horsepower engine.

On May 5, 1924, while bound for an offshore fishing ground under the command of Captain Dan Gully and carrying 74 passengers and ten crew members, she caught fire, burned to the water line and sank a few miles off Far Rockaway. It may never be known what caused the fire that day, but all on board were fortunate to be transferred to small fishing boats that had come to lend aid. Luckily, no lives were lost.



The *Mistletoe* courtesy Wreck Valley Collection.

After examining two photocopies of an old newspaper article, given to me by Captain Bill Reddan, I came across a couple of interesting facts. One of the photographs in the article shows the *Mistletoe* with excursion passengers on her upper deck waiting for rescue boats. In this picture you can see that she is flying the American flag upside down, a signal of distress. The other photograph shows the pilot boat, *Sandy Hook*, which would herself sink in 1939, in the foreground standing by to lend assistance.

The *Mistletoe* now lies in 42 feet of water, four miles southwest of East Rockaway Inlet. Her remains provide homes for lobster, ling, blackfish and even small cod. Divers can see the remains of her paddle wheels and boilers as well as lots of copper sheeting. The copper sheeting had been used to plate her hull so worms couldn't eat through the wood. This is one of the more popular shallow water wreck dives in the area and divers will usually find good conditions with visibility averaging 20 feet.

**DELAWARE** - The *Delaware* was a 250 foot long by 37 foot wide Clyde Line steamer that displaced 1,646 gross tons. She was built in 1880, by Birely, Hill &

Streaker, in Philadelphia.

On July 9, 1898, the *Delaware*, which had recently been refitted to accommodate passengers, was steaming five miles offshore. At 10:00 P.M. the captain received a report that there was a fire in her hold. The crew tried to contain the blaze, but it was soon apparent that the fire was out of control. Captain A.D. Ingram gave the order to abandon ship. His crew of 38 and all of the 35 passengers calmly boarded her life boats. By this time, the entire ship was on fire and nearby vessels came to her assistance. Captain Ingram was the last to leave the sinking ship. Aside from a few burns, there were no serious injuries.

The *Delaware's* still floating hulk was taken in tow by one of Merritt Chapman's tugs, but she slipped beneath the waves before making it to shore.

Today, this wreck is very popular with New Jersey divers. She is located in 75 feet of water about two miles off Bay Head, New Jersey. Her broken down charred remains hold many interesting artifacts. The *Delaware* was also rumored to be carrying \$250,000 in gold bullion. I first dove this wreck aboard George Hoffman's boat, the *Sea Lion*. By digging, I was able



to find a few old bottles. What made the bottles interesting was that they were fused together by the intense heat of the fire that sunk the *Delaware*. On most dives one can recover an assortment of artifacts ranging from bottles and china to Indian Head pennies. In 1989, Bill Davis found and recovered the *Delaware's* brass bell. Other than her bell the most notable artifact was a tombstone recovered by Captain George Hoffman in 1994.

**DODGER** - The *Dodger* is an unidentified wreck. She received her name from a fishing boat captain who found her on the day the *Dodgers* won the pennant.

The *Dodger* sits in 100 feet of water. She is a very big wooden wreck, which is mostly broken up, very low lying and provides excellent lobstering. The first time I dove this wreck, I caught a 14 pound lobster. The next visit produced an eight pounder, while on the third I came home with another eight pounder. The ribs of this wreck provide the perfect home for lobsters. Most charters don't run trips to the *Dodger* on a regular basis because her remains are too small for large groups of divers to explore, thus giving the lobsters a chance to grow.



The Mistletoe.

Divers who want to experience the thrill of diving Wreck Valley first hand can utilize a number of charter boats running out of either the South Shore of Long Island or Jersey coast. Trips from Long Island average about two hours. Boats from Jersey take a bit longer. New York's prime dive season starts in May and runs through September.

Every year, thousands of divers take trips to these sites in search of bringing home a piece of history, catching lobsters, taking underwater photographs or just for the thrill of exploration. I would highly recommend calling your local dive store, or charter boat, and then joining in the fun and adventure of diving Wreck Valley. ■

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# Tugboats and Schooners for Two (Plus a Whale Skeleton!)



by Captain Eric J. Takakjian

**W**reck diving in New England is as diverse as the region itself. Shipwrecks in New England are numerous and varied, in shallow water and deep. The remains of sailing ships, freighters, tugs, passenger ships and warships are scattered throughout the waters of the New England coastline. Ports such as Portland, Gloucester, Boston, New Bedford, and Fall River have been centers for commerce and trade since the early 1700's. Numerous ships, engaged in coastwise and overseas trade, called at these ports and the many smaller ports in between. Storms, collisions, navigational errors, and acts of war have all contributed to the great numbers of wrecks. In early years, steamers carried freight and passengers between prominent ports, with sailings daily.

Cape Cod juts forty five miles out into the Atlantic Ocean. The numerous shoals and islands surrounding the Cape have always been a hazard to shipping. The opening of the Cape Cod Canal in 1914 cut 150 miles off the trip from New York to Boston and eliminated the need to navigate around the hazardous backside of the Cape. With the opening of the canal, the

numbers of wrecks around Cape Cod and in New England began to decrease. Even with the advent of the canal and modern navigational aids, shipwrecks still occur. Every year vessels both large and small are still lost in New England's waters.

Although some wrecks are very popular and are dove frequently, the majority of New England's shipwrecks have seldom if ever been dove. Wreck diving in New England is similar to how it was in New York and New Jersey twenty or thirty years ago. Artifacts are abundant, and new wrecks are being found on a frequent basis. This article will examine four recently-discovered shipwrecks that are rapidly becoming popular dives sites - two tugboats and two schooners.

The *Sagamore* was one of the many four-masted wooden coal schooners that plied the waters of the Northeast. She spent most of her days transporting coal from Norfolk and Baltimore to various northern east coast ports. Built in 1891 in Kennebunk, Maine, she was 219' long and displaced 1,415 gross tons. The *Sagamore's* last home port was Fall River, Massachusetts.

Late in the evening of May 10, 1907, the *Sagamore* was sailing east in Nantucket Sound with a full load of coal. The Norwegian steamship *Edda* was steaming on a westerly course, bound for Vineyard Sound. The two ships collided off East Chop Lighthouse. As the *Sagamore's* bowsprit swept over the bridge wing of the *Edda*, the *Edda's* captain was carried off his bridge. The captain of the *Edda* then made his way aft to inform the crew of the *Sagamore* of the collision and his predicament. The *Sagamore* sank shortly thereafter with only the tops of her masts showing above the water. The *Edda* survived the collision only to run aground on a nearby shoal. Fortunately for the *Edda*, she was pulled free a short time later.

The *Sagamore* was located by John Fish and Arnie Carr while performing a side scan sonar survey of the area for a missing airplane. The wreck was first chartered to this season. The wreck lies broken up on a white sand bottom in 70 fsw. The cargo of coal stretches the length of the wreck and rises ten to fifteen feet off the bottom. Numerous large timbers and ships fittings are lying around the perimeter of the wreck. Wire rigging is strewn about over the pile of coal. A large anchor windlass marks the forward most point on the wreck. Visibility averages 15 to 20 feet and may be even better in the early and later parts of the year. Strong currents are prevalent in the area, so dives should be planned around slack water. The *Sagamore* is a dive that can be enjoyed by divers of all skill levels, and it is a wreck with limitless possibilities for artifacts.

The tugboat *P.T. Teti* is another wreck that can be enjoyed by most any diver. Built in Brooklyn, New York at the Ira S. Bushey shipyard in 1937, this 80' steel tug was launched on September 3rd as the *Chemung*. The *Chemung* worked out of the port of New York from the time she was built until 1958 when she was sold and moved to Boston. Renamed the *P. T.*



The *Chemung*.





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140 fsw, giving the wreck 30 feet of relief. The wreck is completely virgin, with loads of artifacts everywhere. On the day the wreck was found the fog horn and peep whistle were recovered. Visibility averages 25 feet but should be even better in the spring and early summer. A slight current is present and the water temps on the bottom are in the mid to high 30's.

New England wreck diving has a lot to offer. Divers at all skill levels will find something interesting to dive. Any wreck diving trip to New England would not be complete without a trip to one of the many fine maritime museums which can provide hours of insights into our region's rich maritime heritage. Most charter boat operators can provide assistance and info on places to stay and the best local eating and drinking establishments. ■

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## USS SAN DIEGO

On July 19, 1918, the *USS San Diego* struck a German U-boat mine and sank. Over the years, the Navy sent its divers down to investigate the wreck's possible classification as a hazard to navigation. It eventually struck the ship from its Navy Vessel Register and abandoned the vessel.

In 1959, Maxtor Metals Company of New York purchased the salvage rights to remove the wreck for scrap metal. Already a popular recreational diving and fishing reef, The American Littoral Society, Marine Anglers Club, National Party Boat Owners Association, EDBA and the major East Coast dive clubs quickly rallied to save the wreck from total demolition. Shortly thereafter, Maxtor Metals abandoned its claim to the wreck.

Now, three and one-half decades later, the Navy again wants to involve itself with this popular East Coast tourist attraction.

# NAVY TO DIVERS: “Hands off the Diego while we check her out.”

By Bill Bleyer



A U.S. Navy diving and salvage unit will survey the wreck of the World War I cruiser *San Diego* off Long Island in June. It's part training mission and part investigation into the integrity of the deteriorating hulk, says Bob Neyland, underwater archaeologist at the Navy Historical Center in Washington.

The visit is giving some Northeast divers the jitters because they fear the survey may lead to restrictions on removing artifacts from the crumbling hulk or even banning all diving on the site.

“The mobile diving and salvage unit will go out and do a survey for training purposes,” Neyland said. “They will give us a report on the condition of the ship and specific safety hazards and especially to see if there is loose ordinance spilling out of the ship.” “If there are live shells accessible to divers, the Navy could remove them or take other action to protect the public,” he said.

Neyland said the Navy divers would also be looking to see if there are loose artifacts that divers could reach. “The basic policy still is that the artifacts are still federal property.”

The last time the *San Diego* drew government attention was in the fall of 1992. The U.S. Coast Guard banned

diving on the wreck for two days because divers had been retrieving live artillery shells from the hulk off Fire Island.

The ban was lifted after Navy demolition experts said there was no hazard if the shells were left untouched on the 77 year old wreck.

Sal Arena, owner of a Freeport dive boat, complained to the Coast Guard that divers on other dive boats were bringing up 3- inch- diameter projectiles from the wreck of the World War I cruiser sunk by a German mine in 1918. The divers said they brought the shells to a platform on the stern of the boat, removing the heads, and dumped out the gunpowder to save the brass casings as artifacts. The Coast Guard responded by declaring a “safety zone” around the 504-foot wreck in 110 feet of water 7 miles off Fire Island. The Navy then sent a demolition team to visit the wreck and explore first-hand.

Cmdr. Cordell Viehweg of the Coast Guard investigations unit in Manhattan said at the time that the Navy determined there was no danger of accidental explosion of the shells inside the wreck. But the Navy urged that dive boat operators be warned of the danger of accidental explosion if the shells, which contain about five pounds of explosive propellant each, are disturbed. He said it would be legal, but not prudent, to take apart the shells underwater.

But Stephen Bielenda, captain of the *R/V Wahoo* and president of the Eastern Dive Boat Association, said in 1992, “We're not going to bring them up — Period.”

Divers on many Long Island dive boats brought up shells from Long Island's most popular diving site for years. The dive operators stopped taking 6-inch shells from the wreck years ago because they have explosive warheads, but had continued to remove the 3-inch shells that have solid steel heads. Bielenda said, “no one was ever hurt by a recovered shell.” ■

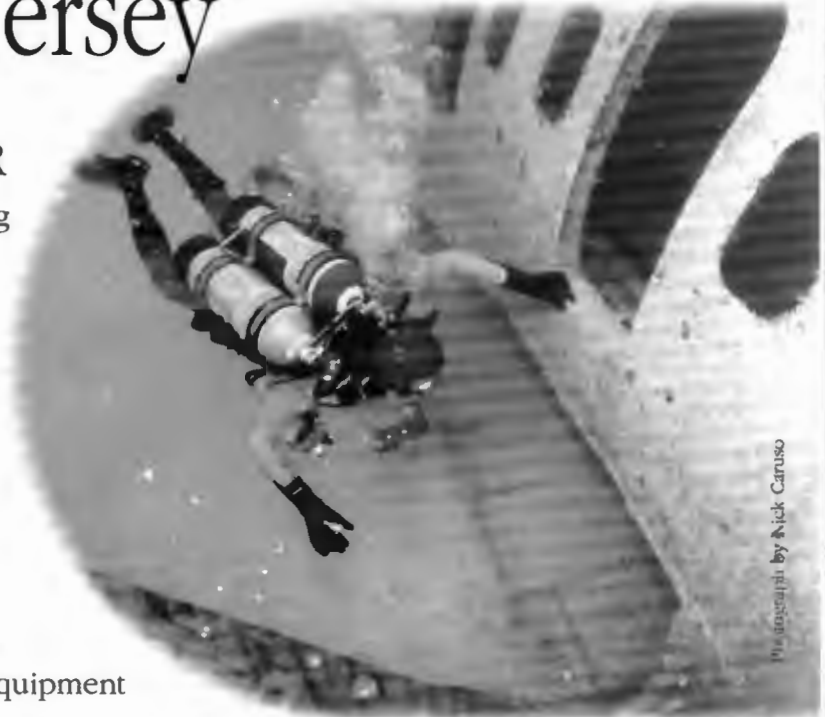
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## MARK NEASE: Key West Diver

an exclusive interview by Joel Silverstein

*While scores of wannabe techies ogled the latest in cyber-gear at this year's tek conference in San Francisco, we got the bottom line from Mark Nease. A world class tech veteran at 34, Nease is the support side of Billy Deans' world famous training ground, Key West Diver.*

**When was the first time you went diving?** The first time was in 1975 at the tender age of 14 — where I grew up on the West Gulf Coast of Florida on the Gulf of Mexico.

**What got you hooked?** Since I can remember, my aspiration was to be a marine biologist. My heroes were Jacques Cousteau and Sylvia Earle. I had a great time in the water and always enjoyed swimming around. I looked at diving as a tool to get in there and learn more about the fishes. I've always had an inclination towards the scientific end of it, and I've had some college level training in the marine sciences. However, I became more fascinated simply with diving for the sake of diving than I did with the research or scientific applications of it. I was having too much fun just with the diving and the equipment.

**You're known mostly for handling support operations for Billy Deans. When did you go from wide eyed youth to where you are now?** I dove for many years recreationally. My scuba diving instructor, back in Charlotte County Junior High School, recognized that I had a high level of dedication and drive, and put me right to work in his YMCA scuba program as a teaching assistant. I pretty much always worked in some aspect of training and turning other people on to the excitement. That probably had something to do with pulling me away from the academic applications. After I graduated high school I went to college in Key West, Florida to get a degree in marine sciences. With the

reefs five miles offshore, that made it an easy decision to go. I proceeded to Key West in '79 to see how far along the academic road I'd go. The problem was that I tried to go to school in one of the premier locations for recreational diving. I completed a two-year degree program in marine science, but really never stopped pursuing the sport diving direction of the industry.

I was diving close to fifteen years before I felt experienced enough and confident enough to proceed to an instructor level. Over the last six years or so I've gone through instructor and leadership positions, at the same time working hand in hand with advanced applications of technology with Billy at Key West Diver.

**People hear of your deep water exploits on such wrecks as the *Wilkes Barre*, the *Kendrick* and most recently *El Cazador*. Tell us more.** I think what happens with divers is that they see some of the real high profile tech "buffos" going out there doing it so easily. What they *don't* see is that we are out there diving *all* the time - not just on the weekends or once in a while. *El Cazador* was a deep water salvage operation. We were hired to find to find the booty of *El Cazador* fifty miles off the coast of Louisiana in 270 fsw. It involved using the technologies that we developed over the years where we would use tri-mix scuba rigs to do essentially what would normally be done in a commercial, surface supplied diving rig.

A large part of my experience was built up in South Florida where it's very conve-

nient to go diving. You can go diving just about any given day of the year and you don't have to go far to do it. That was always the attraction to me for Key West and especially the facility. The way that we have it set up, it's ten feet from the classroom to the fill panel, ten more feet to the boat and in 30 minutes we're into any number of different depth ranges for our dives. The bottom line is, no matter what range we find ourselves in on a given day, we're doing it for fun. That's our motivation for doing this stuff — and we may get real ambitious or we may just go float around the reef and watch fish.







**When you provide support for the technical dives, do you ever get scared?** Always apprehensive, for lack of a better word. Always in a heightened state of awareness, as opposed to when you finally return to the dock and tie the lines on. What I find to be the one major difference in recreational reef exposures and deep decompression exposures is the average practitioner's level of commitment. On a

recreational reef dive, I find a vast majority, as a rule, pretty much leave the driving to us. They're not really focusing and are not moving themselves into that heightened state of awareness. It makes no difference to them.

We may be running a trip to 30 feet of water, obviously a no decompression situation, with fairly easy access to the surface and there is a certain amount of support that has to be done for a very benign exposure such as that. However, due to the inexperience of the average vacation diver, there's an ever increasing necessity for scrutiny and actually more and more services need to be provided from a surface support aspect for the people that are swimming around having fun.

Once the diver wants to move from a recreational type of exposure to a more technical type — an ambitious exposure, that is when he's willing to come along with us to that higher state of awareness and responsibility for himself.

Once they get into the technical level exposures, their attitude changes and so do their own rules. Where before they would leave it all to us, now their rule is "Don't touch my valves." They like it when we take care of the other support items like the tie in, and the support divers and the sur-



face supply bottles, but when it comes to their main diving rig they prefer us to be "hands off." When that attitude begins to develop we know they are in it totally. As the main support person I need that level of awareness to let them be responsible for themselves but still maintain an even keener awareness of what is going on.

**It sounds as though the technical dives are more intense but you try to keep them personal.** We're a small operation with a tightly knit team, and on any given trip out on the boat with us, it's always a first name basis. I've run boats in which I was responsible for 60 and 80 and 90 passengers, and then it's a numbers thing. So, no matter the exposure in our current way of doing things, it's a small operation and it's a personal thing. But it becomes more and more personal as we extend ourselves out in the range.

**From an operations standpoint, what do you need to see in a diver before you're comfortable?** Knowing what their motivation is. Making sure that they're willing to come with you up to this higher level of cognizance so that we can all relax a little bit and have fun. So, we don't have to be, like you say, scared. Another thing that goes with the support aspect, which we define as a large part of my job, is to integrate people with their equipment. I sort of look at it as a oneness, becoming one with your scuba unit. The ones that want to go swim around and have fun and get integrated with their hardware to the point where it's second nature, *that's* the diver we get comfortable with.

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**What do you like to see in the people besides the integration of equipment? A willingness to learn *and* share ideas.** Just about every time you go out on the boat with us in Key West, it takes the form of a training experience. Even when it's not within the confines of a structured program that's going to result in a certification, we're constantly in a training situation. We're constantly bouncing ideas off each other and offering suggestions for different ways for doing things, and also keeping a real open mind for ways of doing things that we haven't thought of. Another real advantage to being down here in Key West at the end of the highway is we get so many people coming from so many different disciplines, and we take the time to learn from *them*. We feel it's our responsibility.

**If you had to pick the one place that you like to dive best where would it be?** I've done some diving up in the Northeast, and had the pleasure of working on some expeditions in some real fine areas to the south of us in the Caribbean. I've also had the pleasure of the not-so-desirable areas in the Northern Gulf of Mexico, but when it comes right down to it, there's so much that I can do right out our back door in Key West. We've been at it here for ten, fifteen years, and we're still just scratching the surface.

I hate to sound trite, but there's a lifetime of diving on the *U.S.S. Wilkes Barre*. We refer to it as a playground. It was never placed in its current situation with any intent for that. The *Wilkes Barre* was sunk in 1972 by the Navy to test explosives for the betterment of warfare hull design. As far as where they sank it, I figured that way that other ships wouldn't run over it and maybe fisherman could use it in the artificial reef theory.

They probably never really envisioned it as being a playground — an ideal training ground for a group of scuba diving aficionados, but it works out that way. Resting in two complete sections 250 feet below the surface with nothing else around her, it's almost as if it was made for it. New deep divers can reach the top of the mast at 140 feet. Add to Key West wrecks like the *Curb* (190 fsw), the *Kendrick* (320 fsw), the *Cayman Salvage Master* (90 fsw) plus a few hundred other wrecks around here, and we never run out of places to go.

**Where do you see your operation going in the next four or five years?** This is perhaps the hardest question yet, which I'm



still trying to figure out. I see our small team in Key West continuing to devote, as we have been, a certain portion of our time to training people who have the qualities we've talked about earlier and the desire to raise the technical diving art form to a higher level.

The other direction is to spend a lot more time in integrating people from the recreational end into the basic Nitrox level. I'm of the opinion that Nitrox could be good for just about everybody. Technical diving, decompression diving, overhead environment diving and whatever definitions fall under that broad category are not for everybody, by far, but just about everyone can benefit from basic entry level Nitrox technology. On the other side of

technical training, we'd like to be able to offer things to do for people that have been through their training and have gotten their experience — we'd like to be able to get off and just do projects.

It's an ongoing commitment to keep yourself mentally and physically ready for it. It's key to keep up your knowledge of your own equipment and also the technological advantages that you can add to your system and your bag of tricks. It's practically a full time pursuit. We want to be able to have folks join us on expeditions that will continually test their mettle, if you will, and give them continued inspiration to keep up the necessary level of commitment. And then, perhaps, going one step beyond that. ■

# CAROLINA ON MY MIND

## Cape Hatteras Favorites

by Captain Roger Huffman

Once upon a time I made no distinction between wrecks. Each dive was an adventure and making it back to the boat in one piece an accomplishment. I was a novice diver and those were the good old days. With time and experience in the school of hard knocks I learned that there really are skill levels among divers and that different dive sites require different skill levels.

Novice, Intermediate and Advanced are the terms I hear used most often. I've never seen the distinction displayed so vividly as on a day last September. A team of divers had come down to dive what we hope is a German U-Boat in 550 ft. of water. Needless to say, the water boy on the support team was a highly advanced diver. Anyway we had to scrap the dive and drop inshore to the *Dixie Arrow* where we found another boat anchored up. We both put six divers in the water. My gang came back after a pleasant dive, praising the conditions and the wreck. All six divers on the other boat made unplanned free ascents after getting lost, swam till they were very tired and were pulled back to the boat on the end of a very long rope. One diver hyper-ventilated and got panicky. They should have gone to the *Hesperides*.

The *Hesperides* has to rate as one of the best "beginner's" wrecks in the seven seas. It has so much going for it that a wreck diver usually has to pay the dues of experience in order to enjoy it. Age, relief, beautiful growth, and lots of fish, all in only thirty feet of water.

For several years I'd been hearing tales about a shipwreck on the Diamond Shoal. Once in a while one of the guys in the fishing charter fleet would come across this wreck on the way back from the 1250 rocks but nobody had the numbers until one day Don Macarther spotted the wreck and called me on the radio with the location. Two days later we pulled up, dropped the hook, and went. The wreck was uninfluenced by man. The fish came over to swim with us. There were a dozen world record sheephead so old their fins were ragged. The wreck was covered in hard and soft corals and in the shallow



Compass and binnacle from the *Empire Germ.*

waters of the shoal all the colors stood out. The biggest surprise was the amount of relief. The wreck was contiguous from stem to stern with some sections reaching nearly to the surface. The engine was the most beautiful thing I had ever seen underwater. And it was so shallow! I had fully expected to find a beaten down sanded over scrap of wreck, not this showpiece. That day will always stand out as one of the best dives ever.

The *Hesperides* began life in England in 1884 as a cargo ship for R & J Evans & Co. She measured in at 2,290 tons and was 286 ft. long, 38 ft. in width, and 24 ft. in depth. The ship was named after the daughters of Hesperus, the evening star, who were fabled to guard a garden at the western extremity of the earth in which grew golden apples. She was later sold to one O. Owens and re-powered with a 300 HP dual cylinder steam engine. On her last voyage, the *Hesperides* was en route from St. Jago De Cuba to Baltimore with a cargo of iron ore when she ran aground on the infamous Diamond Shoal at Hatteras. Now she guards the juncture of the western extremity of the Labrador current and the eastern extremity of the Gulf Stream.

The bow of the ship still stands tall and

proud. The anchors are there to be seen and the foredeck holds a large winch. Along the middle of the wreck the sides are intact but the decks have rusted away. This area holds that beautiful engine and the boiler. Forward of the engine the deck beams still stand and another winch is present. The shaft alley runs fore and aft the ship's centerline. The stern comprises a large decked over compartment with hatch, and the ship's steering quadrant reaches nearly to the surface. In the washout beneath the stern the propeller is still in place and a debris field lies off in the sand to the ship's port side. All this in only thirty feet of water, wow!

For the intermediate diver the *Dixie Arrow* is a great dive. The *Arrow* is a W.W.II tanker that fell victim to a German submarine. She sank in 90 fsw. and rises twenty feet at the bow and engine room to a least depth of 70 fsw. She's long, 468 ft., and 62 ft. wide, and is really a two dive wreck, one fore and one aft. On the forward section the bow rises majestically from the sand to a height of twenty feet. If you can manage to drop the anchor right in the forepeak, the diver is afforded the awesome view of that full bow on the way down the anchor line. Inside the bow



an array of bulkheads and deck beams stand. At the aft end of this section stands a solid bulkhead that I have nicknamed "the nailing wall." For the last few years the Jacks that hang around the wreck have taken up the habit of pinning a school of bait fish up against this bulkhead and feeding on them. It's quite a sight to see the Jacks circling the bait and then dashing in to feed. It would make an exciting video. The long center section is broken down to rubble and has little relief. In the stern the boiler room contains the engine and attendant three boilers. At the very stern the propeller can still be seen.

The size of the *Dixie Arrow* allows the diver to practice navigation skills while the wreck's inherent clarity keeps finding one's way around from becoming too difficult. The *Dixie Arrow* was kind enough to sink in an area of clean, hard sand so silting is seldom a problem. The depth of the dive requires the careful use of dive tables and a well planned and executed dive. The wreck's superstructure and machinery provide an interesting background for photography and the *Arrow* has always held a lot of marine life, especially immature Queen Angels. The *Dixie Arrow* definitely has a lot of qualities that allow intermediate divers to hone and polish their skills.

But what do you do with the moss-backed divers with barnacles on their noses? Do you go deep? It's certainly in vogue, but depth isn't everything. A lot of advanced divers want a specialty dive. We do project dives like the *Monitor*. Sometimes it's a deep gas dive or a special artifact dive. Other advanced divers want to travel the longer distances to reach that seldom dove wreck. To me, the real trick is to find a wreck that combines several of these qualities. There are quite a few to choose from but I would pick the *Empire Gem* above most. Why? I like the name! My mother is British. The area off the western edge of the Shoal is referred to as "the wreck area." We do a lot of fishing there. The *Gem* is in the heart of the wreck area and is a "pretty fishie" wreck. It's also known as "The Smell Wreck." The reason becomes obvious when you get downwind of the bow. To this day, fifty years after being sunk by a German U-Boat, the *Gem* is slowly leaking something that smells like sulfur dioxide. It's not the most pleasant of odors and before LORAN you found the wreck by smell. The *Empire Gem* was originally built for the British War Ministry in 1941 to serve as a tanker for the war effort. By January of 1942 she was on the

bottom in 143 feet of water.

The *Gem* is in several pieces. The bow section is the largest and unfortunately is upside down with its rails in the mud. The stern section lies southeast of the bow, is upright and is an extremely interesting piece of wreckage. The bridge came loose and is somewhere NE of the bow. Water quality on the *Gem* is nothing to brag about, not by Hatteras standards anyway. The bottom around the *Gem* is really dirty and if there is any current, visibility drops down into thirty foot range. The ship's stern section is the one to dive and is really scenic.

The engine is very prominent. You can swim under the stern and view the propeller, and the ship's cannon can be found out in the sand. The body of the wreck is very intricate with lots of nooks and crannies to go "junking" in, and the entire wreck is heavily encrusted in growth




Pretty fishies on the *Hesperides*.

with a lot of "white lace" coral. The sheer volume of fish will stun you. Everything from tropicals to sand tigers like to hang out around the *Gem*. Sounds nice doesn't it? Well, it is but the *Empire Gem* isn't the easiest wreck around to dive. When the vis is down it gets tough finding your way around and turning the corner at the stern and coming face to face with a grinning sand tiger is enough to make a new diver swallow a regulator. Oh, one more thing. Never, ever attempt to dive the smell wreck on a southeast wind! ■

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# Key West Blue Waters The *Cayman Salvage Master*

By Captain Joe Weatherby

Anyone who has taken a dive vacation to the lower Florida Keys in the last ten years is probably familiar with this, the most easily accessible of the big wreck dive sites. The *Cayman Salvage Master*, also known as the *Cayman Salvor*, is unique among wrecks of its size in the United States in that it is often fully visible from the top of the anchor line. The wreck's geographic location on the outside of the Keys' outer reef system puts it in perfect position to receive the blessing of the blue water. I refer to the phenomenon that occurs when the Gulf Stream comes in over the reef in the lower Keys bringing the fabled 200 foot+ visibility Key West is famous for.

The *Cayman Salvage Master* was built in Duluth, Minnesota as a 180' Coast Guard Cutter. The 180's were built during World War II and did service mainly as buoy tenders and light icebreakers on the Great Lakes, although many of her class did wartime service as escorts and tenders. Ships



Don Kincaid

completed during winter months had to break their way to salt water. The 180's were built with a 37' beam and a 12' draft at a cost to the taxpayers of just under 1 million dollars each. Standard armaments package included a 3" gun and four 20mm cannon with many variations depending on duty.

In the late 1970's, the *Cayman Salvage Master* was berthed in the Navy mole at Truman Annex Navy Base in Key West to undergo a refit for use as a commercial salvage vessel. Story has it that there was a bitter dispute between the owner and the crew. It is alleged that one of the crew opened the sea cocks. The *Cayman Salvage Master* sank at the dock.

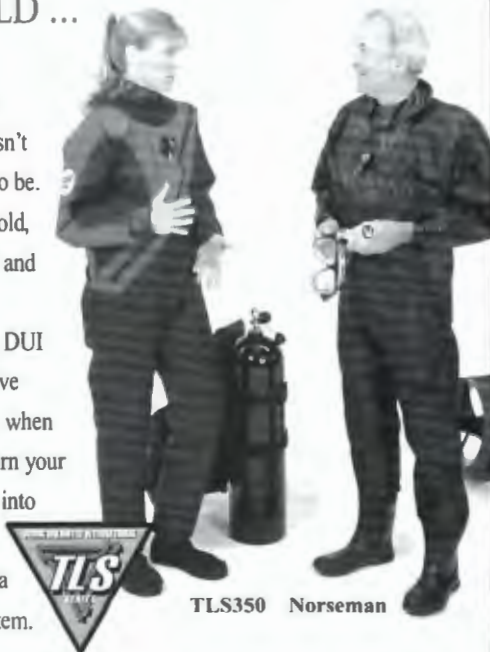
The ship stayed submerged and derelict for many years and in the true Key West wrecking spirit some of the locals did a little unofficial salvaging of the wreck and this is where most of the brass and valuables (along with the portholes and probably the galley sink!) disappeared to.

It was decided in 1985 to raise her and turn her into a fishing wreck. The salvor in charge of the operation seems to have grossly underestimated the weight of the vessel and made many failed attempts to raise her, finally deciding to try and lighten the ship by sawing off the superstructure with a cable. This superstructure was deposited in the Gulf of Mexico and is now known as the

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Gunbor Wreck. He then flipped her upside down, injected air into the hull, and amidst broken cables and spilled oil, managed finally to raise the *Cayman Salvage Master*.

The salvor's problems now really began. With the ship floating upside down the salvor seems to have decided that he wasn't able to sink her at the pre-approved site in deep water, well away from shore in 300 feet of water. The *Cayman Salvage Master* was towed out of Key West Harbor at night, taking a couple of channel buoys with her in the process. Mysteriously when he reached 86 fsw, tiring of his task and insisting he was over the (286 foot) site, he sank the *Cayman Salvage Master*.

The ship settled on her side on live coral and this is where the environmental authorities got involved. The harried salvor was made to move the ship 50 yards further south to an open sand bottom, a painstaking three day process accomplished in extremely heavy weather.

The *Cayman Salvage Master* lay on her side in the sand until Hurricane Kate rolled the wreck onto her keel as we see her today. At 5.6 nautical miles it's a quick trip from Key West to the wreck. She's intact, except for the aforementioned superstructure, and is now thickly grown over, redone in hard and soft corals, spiny oysters and anemones. The wreck is home to tame jewfish and moray eels, and literally teems with huge schools of baitfish. The *Cayman Salvage Master* also has resident turtles, and big pelagics like amber jacks and barracuda hover high over the deck, attracted by the swarming bait.

The *Cayman Salvage Master* has a 30 foot profile, the keel in the sand at 90 fsw and the deck at 60 fsw. When the blue water is not over the wreck you can expect average visibility of 70 feet and current is generally light, although can be surprisingly strong at times. Due to the removal of the superstructure the wreck is quite easy to penetrate and there are a couple of easy swim throughs, the intact engine room being of special interest. A word of caution: this wreck was not prepared as thoroughly as most artificial reefs and there are many places on the wreck where hatches swing open and shut and jagged pieces of shipwreck can reach out and grab the unwary. In addition the inner parts of the engine room and many of the passageways are covered in the famous South Florida coral silt; good buoyancy control is needed here. As artifacts go, most were removed when she sank at the dock. The few cage lamps that remained had been scarfed up by a bunch of New York divers back in '89. Even so, the *Cayman* is a wreck that the most experienced of wreck divers come back to dive over and over again. ■



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# The *Bianca C*

## “Andrea Doria of the Caribbean”

by Captain Hank Garvin

**B**ack in 1989, I was sitting around with Chris Dillon, a long time dive buddy. The summer was ending and we were both looking toward the long dry winter with apprehension.

I had been looking through a magazine to find a place to go that was new, had shipwrecks, and had no rules regarding artifacts. I read about an ocean liner that sank in 1966. She had caught fire while in the St. George Harbour and burned for four days. She was towed out of the harbor by the British frigate *Londonderry*. About two miles from shore, the heat from the fire caused the ship's hull plate to buckle and she sank in about four minutes. The ship was the *Bianca C*.

Construction started in 1939 in France. In 1946 the Germans, who seized her, completed and launched her as the *Marechal Pertain*. The name was changed to *La Marseillaise* then to *Arosa Sky* and finally to the *Bianca C* when Carlo Bianca bought the ship for the Bianca Shipping Line.

When I originally read about her it was just a note in an article about Grenada. Then I found out about an expedition in the early 80's put together by Peter Gimble and a few other divers I knew. They were after the safe on board and made two journeys to Grenada in search of her “treasures.” Unfortunately for them the Cubans, who controlled the island at that time, had other ideas and chased them from the site with one of their gun boats.

By 1989 the Grenadian conflict was over and it sounded to me that no one was very interested in this wreck, even though they called it the “*Andrea Doria* of the Caribbean.” I started making phone calls to the Grenadian Embassy, Chamber of Commerce, local dive shop (there was only one) and the dive operations that were available at that time. Every one confirmed the fact that the *Bianca C* was not part of any sanctuary or National Treasure Program. Every article that we could find indicated that nothing much was ever salvaged from the wreck. When we got down to Grenada, we would later find that the Cubans had taken the props and probably the stern bell.



Hank Garvin and Chris Dillon with the bell from the *Bianca C*.

It was our hope to go for both the stern and the bow bell. Chris Dillon and I looked at whatever photos of the *Bianca C* and any other ocean liners we could find to locate the different locations bells were placed.

At that time there were no direct flights to the Island of Grenada but we were not to be stopped. We had a mission and we were off — I had planned all the details. We would leave early in the morning on Friday and get to Grenada early enough to do a late afternoon dive.

Chris videoed the entire trip down. Okay, the plane left at 11:30 instead of 6:30. After the first two hours of waiting for the airline to fix or change or build a new plane I was running around like a lunatic trying to change flights, gradually losing my temper because all my fine plans were going down the drain. I turned around and there was Chris who handed me a rum and Coke and had the video camera in my face, “So Mr. Garvin it's now 9 a.m., do you know where your children are?” I stood there with a big grin and a rum and Coke. I started laughing. At this point, I realized that it was a vacation and I might as well enjoy it.

It actually took us two days to get to Grenada. When we *finally* arrived at the hotel, we met Haans the Instructor, who had over one hundred dives on the wreck and never found a thing. He explained the operation to us: Augustus, was the captain of our 21 foot fishing boat, with a 35 hp Evinrude outboard motor (1960 vintage) will take us to the wreck.

We both looked at each other and laughed. We had expected a totally different situation, but we jumped into the boat. Augustus was truly amazing; he found the wreck each time using land ranges after a 20 minute ride. He was able to put us exactly where we asked each time.

Our first dive was quite memorable. We were tied into the swimming pool in the stern. As we descended, we could see the mast standing there like a cross protecting the *Bianca C*. She sits almost upright in 155 fsw, the top deck is at 90 fsw. She is about 600 ft long. This is a *major* wreck.

The fire had completely obliterated all the interior walls that were not made of metal. The metal walls are brittle to the touch due to the fire and high salinity of the

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water. She is a magnificent dive. There are plenty of pretty fishes and various types of coral, but we were on our mission.

The first dive was to be a kind of feeling out dive, to get our bearings and learn the condition of the wreck and the water.

I got to the deck, looked at my gauges and found that I had about 200 psi in one tank and the other was full. I showed this to Dillon and indicated that I would be doing a shorter dive. We swam up the starboard side of the *Bianca C* about 100 ft. I looked at my gauge and signaled that I was going back. I got back on the boat and watched as Chris' lift bag broke the surface. Soon after I left, Chris swam forward and looked down. Laying there on the deck was the bell! He could not believe his eyes. He picked it up and put it in his bug bag and sent it up on his lift bag. Haans almost swallowed his regulator.

We got back that afternoon and took the prescribed "hold up the artifact with the dumb grin" photo. We didn't stop grinning for the next ten days.

Postscript: We have been accused of being "The Marauders from New York" when we recovered these artifacts. We left many dishes and portholes to be put on display for the people of Grenada. After we left, these items were confiscated by the government. I recently spoke with a couple who were in Grenada. They visited the local museum and saw dishes and other artifacts being displayed, with price tags.

The *Bianca C* is a fantastic dive and I would recommend it to anyone interested in wreck diving. It offers an opportunity to dive a world class wreck at different experience levels. The wreck is affected by the tides and the current can vary from nothing to severe. The people and the food were excellent and the under-the-counter rum was outstanding. Some day we will go back, if they allow us into the country. ■

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## Summer Reading: Book Notes

We just got back from the South Street Seaport's well-stocked nautical bookstore. Besides grabbing a copy of *Treasure Island* for our dive trip to Tortola, we picked up two major hardcovers from non-diving (read: big) publishers. Both Bob Ballard and Sylvia Earle are world-renowned underwater researchers and dive pioneers, and both weigh in with quality book offerings, just out in 1995, for the general public. These are important books, and both highly recommended

**Explorations: My Quest for Adventure and Discovery Under the Sea** by Robert D. Ballard, Ph.D., Hyperion, N.Y. \$24.95

The first thing you notice about *Explorations* is its authority. The book feels like one Cousteau would do in the nineties. Lots of meaty photos and a lifetime of high tech underwater adventure. Submarines, the *Titanic*, the *Bismarck*, the *Thresher*, and much more. There's almost a Tom Clancy feel to Dr. Ballard's 407 page autobiographical book - it crackles with the tension of the deep. This is a must-have for anyone interested in the ocean, and the thinking of one of its greatest explorers. Parts of this read like episodes of *Sea Quest*. Or is it the other way around?

**Sea Change: A Message of the Oceans** by Sylvia A. Earle, G. P. Putnam's Sons, N.Y. \$25.95.

Sylvia Earle's *Sea Change* is extraordinary in another way. This is clearly a message book about the environment of the oceans by one of the world's leading advocates for safeguarding the earth's largest natural resource. A marine biologist and former research director of NOAA, Earle is well known to the dive community. There's plenty of tech, including one atmosphere suits, Deep Flight, a one atmosphere one person underwater flying system, and more. But the importance of *Sea Change* is its political agenda. There's plenty to get you angry and with good reason. We're reminded of pioneer environmental writer and ocean lover Rachel Carson, whose *Silent Spring* galvanized that movement. You can't afford to miss *Sea Change*. ■

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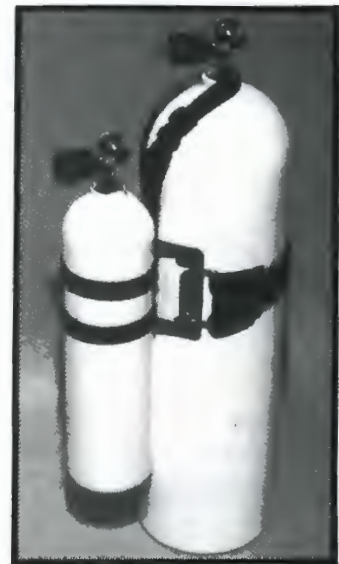
## DIVE BOOKS



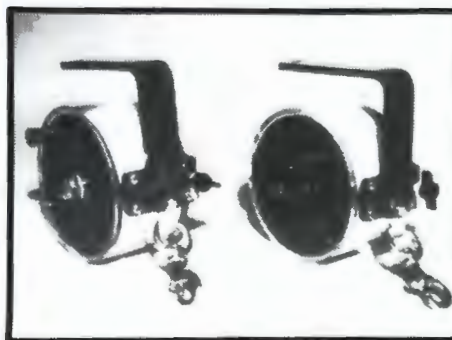
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## July

- 1 Arundo
- 2 Iberia
- 2 Valerie E / Pipe Barge
- 3 USS San Diego
- 4 Lizzie D
- 7 Texas Tower
- 8 RC Mohawk

- 9 Three Sisters
- 9 Lizzie D / Iberia
- 10 Andrea Doria
- 15 Iberia
- 15 Fran S / Pipe Barge
- 16 Stolt D'Agali
- 18 Block Island 3 Day
- 22 USS San Diego
- 23 Fran S / Pipe Barge
- 26 RP Resor
- 28 Coimbra
- 29 G&D / Eureka
- 30 Lizzie D

## August

- 2 Texas Tower
- 4 Texas Tower
- 5 Stolt D'Agali
- 6 USS San Diego
- 8 Oregon Overnight
- 11 RP Resor
- 12 Bald Eagle
- 13 Iberia
- 13 Fran S / Valerie E
- 16 Mystery Wreck
- 18 Texas Tower
- 19 Lizzie D
- 20 Oregon / San Diego
- 23 Linda
- 25 Arundo
- 26 Steel Wreck
- 26 3 Sisters / Coal Barge
- 27 Stolt D'Agali
- 30 Arundo

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## May

- 6 Lizzie D
- 7 Pinta / Macedonia
- 13 Stolt / Algol
- 14 Asfalto
- 20 Liberty Ship
- 21 Lizzie D
- 27 RC Mohawk / Mystery
- 28 British Corvette
- 29 Immaculata / Cindy

## June

- 3 Gypsy / Asfalto
- 4 Lizzie D
- 10 Pinta / Bald Eagle
- 11 New Mystery Wreck
- 17 Valerie / Pipe Barge
- 18 Liberty Ship
- 19 Immaculata / Mystery
- 24 Arundo / Pinta
- 25 Steam Ship

## July

- 1 Valerie E / Iberia
- 2 USN Algol / Pinta
- 4 Asfalto
- 4 Fireworks Cruise
- 8 Pinta / Bald Eagle
- 9 Macedonia / Liberty
- 10 Broadcast / Lizzie D
- 15 Eastern Steamship
- 15 Moonlight Cruise

- 16 Cindy
- 22 Pinta / Liberty
- 23 17 Fathoms / Bald Eagle
- 29 RC Mohawk
- 30 Petland Firth

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- 17 Night Dive
- 20 Stolt D'Agali overnight
- 26 3 day Memorial Day  
Wreck Weekend

## June

- 3 Varanger overnight
- 8 Night Schooner
- 10 Lillian overnight
- 14 Night Dive
- 17 USS San Diego overnight
- 21 Night Dive
- 24 Texas Tower overnight
- 25 Jacobs Return
- 28 Night Dive

## July

- 1 Bidevind Overnight
- 2 Jacobs Return
- 7 Leave to Block Island for  
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- 29 Coimbra
- 30 Jacobs Return

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## June

- 1 USS San Diego
- 3 Oregon
- 4 Tarantula
- 8 Oregon / San Diego
- 10 USS San Diego
- 11 Lizzie D
- 15 Oregon / San Diego
- 17 USS San Diego
- 18 Oregon
- 22 Oregon / San Diego
- 24 Kenosha
- 25 Oregon
- 29 Oregon / San Diego

## July

- 1 Tarantula
- 2 Oregon
- 6 Oregon / San Diego
- 8 Kenosha
- 9 Oregon
- 20 Oregon / San Diego
- 22 USS San Diego
- 23 Oregon
- 27 Oregon / San Diego
- 29 Linda
- 30 Oregon

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## June

- 2 Frank Buck - new
  - 3 USS San Diego
  - 4 USS San Diego
  - 7 USS San Diego
  - 9 Virginia 170'
  - 10 USS San Diego
  - 11 USS San Diego
  - 14 USS San Diego
  - 17 USS San Diego
  - 18 USS San Diego
  - 21 USS San Diego
  - 23 Coimbra 180'
  - 24 USS San Diego
  - 25 USS San Diego
  - 28 USS San Diego
  - 29 Andrea Doria
- ## July
- 4 Oregon
  - 8 USS San Diego
  - 9 USS San Diego
  - 13 Andrea Doria
  - 19 USS San Diego
  - 22 USS San Diego
  - 23 USS San Diego
  - 24 SS Republic / Spikefish
  - 29 USS San Diego
  - 30 Oregon

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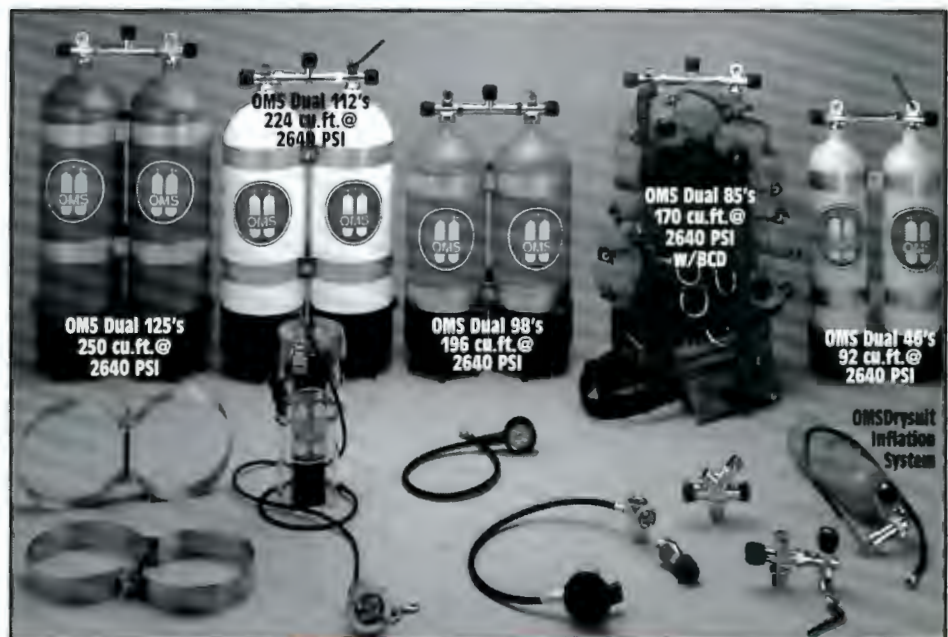
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