

# DIVER



PALAU | A DOG'S TALE | BC MUCK DIVING | HELIUM ON THE RISE? | NOVA SCOTIA WRECK | ADDICTIVE DIVING

## Sharks Them & Us



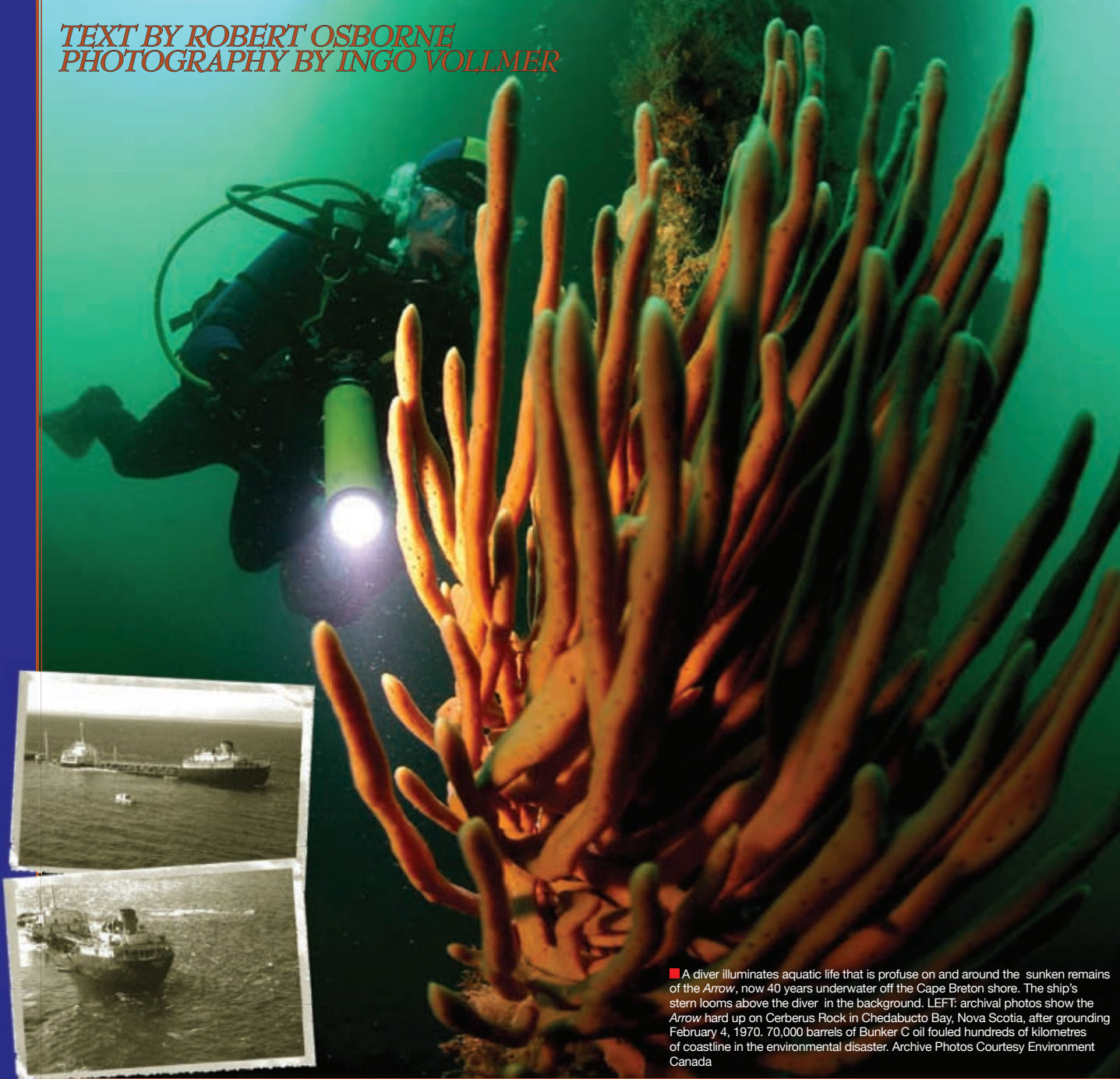
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# ARROW

## NOT FATAL

*But 40 years ago this aging oil tanker caused an environmental mess not dissimilar from the recent Gulf of Mexico spill. A new study of its long-term effect may prove revealing. Meantime, the diving's great!*

**TEXT BY ROBERT OSBORNE  
PHOTOGRAPHY BY INGO VOLLMER**



■ A diver illuminates aquatic life that is profuse on and around the sunken remains of the *Arrow*, now 40 years underwater off the Cape Breton shore. The ship's stern looms above the diver in the background. LEFT: archival photos show the *Arrow* hard up on Cerberus Rock in Chedabucto Bay, Nova Scotia, after grounding February 4, 1970. 70,000 barrels of Bunker C oil fouled hundreds of kilometres of coastline in the environmental disaster. Archive Photos Courtesy Environment Canada

It's a contrary kind of morning on Chedabucto Bay. The sun's shining—it's really quite pleasant—but there's a brisk wind blowing from the southwest. In these waters, separating Cape Breton Island from mainland Nova Scotia, that translates into heavy seas. And sure enough we pound through four to six foot (1.2-1.8m) swells in a 25-foot (7.6m) rigid hull inflatable; the ride out to the dive site proves a wild – you might say bone jarring – experience. All this for a dive that still raises big questions in my mind.

The dive we hope to make is on the wreck of an oil tanker called the *Arrow*. But I'm not sure it'll happen in this agitated sea. Getting out of the boat isn't going to be a problem; scrambling back in when the boat is swinging and bucking through a wide arc is the real question.

The other question: What am I going to find? When the *Arrow* went down on February 4, 1970, it caused an environmental disaster of massive proportions, in its day a spill that rivaled the recent Gulf of Mexico disaster. Four decades later will she be a thriving artificial reef or remain a leaky, toxic killer?

### CASUAL CONCERN

The weather was sunny but windy that winter day as the *Arrow* entered Chedabucto Bay, carrying 108,000 barrels of Imperial Oil Bunker C fuel destined for Nova Scotia Pulp Limited. She was operated by Olympic Maritime, a company owned by Aristotle Onassis. At 20 years in service the *Arrow* was aging and certainly not the pride of the Greek shipping tycoon's fleet. Indeed, she was in poor repair; but for her compass virtually all the vessel's navigation systems were out of order. Before long, the *Arrow* encountered heavy rain and winds gusting to 60 knots. As she made her way the aging vessel slowly but surely drifted out of the shipping lane and by the halfway point the *Arrow* was well outside the safe zone. At 9:30 a.m. she struck Cerberus Rock, grounding firmly on the reef. Initially officers and crew were not so concerned. They tried engines in full reverse without success. But Captain George Anastassopoulos felt that they'd have better luck working free at high tide. So they didn't send out a distress signal. Another step toward environmental disaster had been taken.

### DARK IMPRESSIONS

After 20 minutes pounding through the waves we arrive at the wreck marker buoy. My host, Ingo Vollmer, casts a skeptical eye on the water conditions. Finally, he says, "I think it's possible." Quickly, I gear up with my dive buddy for the day, Ingo's wife Anita. We roll backwards off the RHIB and swim over to the descent line, make a quick check then submerge. Right away I can tell this isn't going to be a promising dive. It's only 100 feet (30m) deep and the rough water has churned up the bottom. We descend to the wreck in only five to 10 feet of visibility and hit the top of the superstructure at about 60 feet (18m). I can see we're on a wreck, but not much more. Fortunately, Anita knows this dive site like I know my neighbourhood; she could find her way around blindfolded. She signals me to follow. We manage to complete a circuit of the wreck—down to the rudder at 90 feet (27m) and around the hull—but all I can make out are vague dark impressions. After 30 minutes we give up and head for the surface.

And this is where the dive gets a little tricky. The winds have picked up even more. The RHIB is swinging through a 10-foot (3m) arc. There's no dive ladder. We have to catch hold of a rope and, while hanging on the side, remove our BCDs and weight belts, hand them up to the boat tender and then heave ourselves in. My arm and shoulder are getting a real workout as I get all my gear off and haul myself up over the side. I'm getting too old for this stuff, I think, but when it's all over I'm feeling vaguely like a Navy SEAL, another mission completed. Ingo asks me how the dive went. When I tell him, he says: "We'll try again tomorrow." He fires up the engines and we head for shore.

### TOO LATE

Captain Anastassopoulos was also relying on the next day being better. He was certain his vessel could be reversed off the rocks. But after trying all day without



## Dive GRAND CAYMAN

### Definition:

Of or relating to the sea; depicting the sea; below the surface of the water.

### Related Activities:

Thrill to Stingray City; stroll endless Seven Mile Beach; chill out at Rum Point.

### Actions:

- 1 Diving One of the World's Top Site - Stingray City
- 2 Dive the Hotspots: Tarpon Alley, Eagle's Nest, Chub Hole, Ironshore Caves - Over 159 to choose from
- 3 Take a Specialty or Technical Course from our Experts
- 4 Chilling Out at Rum Point, North Side
- 5 Exploring Nature Along the Mastic Trail
- 6 Diving down our 6,000' Walls Covered in Marine Life
- 7 Catching Air or a Wave at Black Pearl Skate & Surf Park
- 8 Visiting Pedro St. James Historical Site
- 9 Explore One of our Many Wrecks
- 10 Kick Back at a Beach Bar



# IF YOU GO

Because of the *Arrow's* location there are a limited number of dive operators who can take you to the wreck. The most complete service is Marlin Diving Enterprises, at <http://www.vipilodge.com/diving.html> Run by Ingo Vollmer, it's associated with VIPI Lodge so it's essentially one stop shopping. Located on Janvrin Island and just 10 minutes by boat from the wreck, the Vollmer's operate a fully stocked dive shop offering rentals, refills and nitrox among other things. Price for a day of diving – two dives – using your own gear is \$95. Cozy cottages are also for rent, each with its own kitchen. Daily rate for a log cabin that sleeps two to four is also \$95, weekly rates available.

Causeway Diver Supply (near Auld's Cove) is another fully stocked dive store in the area. Check out <http://www.causewaydiver.ca> The owners operate a 32-foot (10m) cabin cruiser though *Arrow* charters are weather dependent. They welcome anyone who wants to jump on board on days they do make the run out to the wreck—no charge.

There are lots of local motels and hotels in the area—particularly in the nearby town of Port Hawkesbury. <http://www.novascotia.com/en/home/default.aspx> is a good place to start looking for accommodations and restaurants.

Louisbourg Scuba Services also makes the run down the coast to the wreck on a semi-regular basis. <http://www.louisbourghscuba.com> They charge about \$50.00 for a two-tank dive/trip. They also provide nitrox and trimix fills for technical divers. Accommodations in the Sydney and Louisbourg region are abundant.

Diving season is late spring to early October. This is cold water diving; water temperatures range from the mid 30s to low 50s F, about 1.6° to 11.6°C spring through fall.

If you travel to this region to dive be sure to leave time for surface activities. Cape Breton is an outdoor wonderland. Sea kayaking along the rugged coastline is a treat, there are miles of nature trails and the abundance of wildlife is truly impressive.

success he began to realize this was more serious than he'd first thought. The weather was starting to turn ugly. Finally, he sent out a distress call. A Canadian Fisheries vessel responded and removed most of the crew. Several attempts to pull the *Arrow* off the rocks failed. By this time it was determined the oil would have to be pumped out to free the ship. Salvagers decided to begin the following day, a call that some regard as the next major error in the catastrophe.

By morning it was too late. A three mile-long (5km) oil slick spread out across the bay. Overnight the *Arrow* had split and the bow section had already sunk, spilling 3.5 million gallons (13,250,000 litres) of oil. The back two-thirds of the ship holding most of the oil remained intact on the surface. Further Coast Guard effort to tow her off the rocks was hindered by foul weather. And by the morning after the stern section was gone as well. An environmental time bomb that could release millions of gallons of oil at any time was now sitting on the bottom of the bay.

Day two and we head out again. There's still a heavy swell from the southwesterly winds. As we approach the seas flatten out—marginally. Ingo decides we're good to go and this time Anita decides we'll do a circuit around the superstructure and top deck. Again the visibility is poor but at about 50 feet (15m) light penetration is excellent. I begin to see more. Masses of shaggy seaweed cover the gangways of the superstructure. Thousands of small baitfish, a kind of ocean perch called cunner, swarm the top of the wreck. As we work our way down the length of the main deck, Anita points out



■ A fisheye view of the *Arrow* in Chedabucto Bay. Here a wolffish that's taken up residence in an old valve looks out its front door at the hulking remains of the oil tanker just a fin flick away. The ship's stern and rudder can be seen silhouetted in the fairly clear water. BOTTOM LEFT, an aerial photo of the *Arrow* awash on Cerberus Rock. She remained afloat for days before breaking in two and sinking, each section on different days. Photo: Courtesy Environment Canada

a wonderful macro feature. The pipes and machinery that used to move the oil now are covered in miniature orchid-like sea anemones that closer in look like a covering of fluffy candyfloss. We hit the far end of the wreck and I notice a couple of very promising swim-throughs—old hatchways that lead down to the forward hold and out the front of the wreck. I make a mental note to revisit them on the first dive with good visibility. We hit our turnaround time and head back for the boat. A more promising dive to be sure, but I can't help thinking there's more to this wreck than I'm seeing under these conditions. One thing I am sure of, this wreck is no longer an environmental time bomb.

## INGENIOUS TECHNIQUE

The first divers visited this wreck within days of her going down, but they weren't recreational divers. They were military—and with a tough job ahead of them. In response to the sinking, the Canadian government launched what amounted to a



■ Anemones adorn much of the wreck. After decades the ship has become an artificial reef. Profuse flora and fauna make it a must dive for wreck hounds visiting Nova Scotia. BELOW: a North Atlantic wolffish is among occupants of the sunken ship.

military campaign. The spill from the bow section had already contaminated 190 miles (306km) of coastline, potentially destroying the local fishing industry. They didn't want the rest of that oil leaking out and finishing the job. So the Canadian military and Coast Guard, with the assistance of the U.S., launched a campaign to save the bay. It was a two-part operation: firstly to clean up and contain the spill, secondly to safely pump oil from the sunken stern section into a barge. It all went better than anyone could have expected. Within weeks divers had attached pumps to the outside of the wreck and, using an ingenious technique of pumping hot water into the holds to heat the oil so it would flow, they pumped the oil up to a waiting barge. The clean up on the shore took a lot longer and the success of that undertaking earned mixed reviews. Eventually, the government declared the operation complete and gradually the disaster drifted from memory.

## THIRD TIME LUCKY

Faded away until, that is, local divers began to explore the wreck and found that a transformation had taken place. A transformation I'm still trying to see on my third and final day of diving, which begins on a promising note. The sun is shining and better still, the wind has died completely. I head up to the Vollmer Lodge dive shop and quickly pack my gear into the RHIB. This time the journey out is magical. We blast along on a calm sea past islands covered with sea birds. Eagles perch in the trees that line the bay. Every time I turn and look,



## Dive CAYMAN BRAC

### Definition:

To go below the surface; to plunge into headfirst; to enter deeply.

### Related Words:

Dive down sheer walls; hike along the rugged eastern bluff; land a big one deep sea fishing.

### Actions:

- 1 Dive the Hotspots: M.V. Capt. Keith Tibbetts, East Chute, Tiara Tunnels, Anchor Wall, Rock Monster Chimney
- 2 Experience Unlimited Visibility...Usually 100 to 150 feet... with Little or No Current
- 3 See 100 Different Hard and Soft Corals
- 4 Swim with over 500 Types of Fish
- 5 Rappel Down Bluffs, Climb Up Sheer Walls
- 6 Go Bird Watching
- 7 Discover our Hidden Treasures on a Nature Tour
- 8 See the Island by Water in a Kayak
- 9 Hike Along the Rugged Eastern Bluff
- 10 Relax with a Cold One under a Coconut Tree

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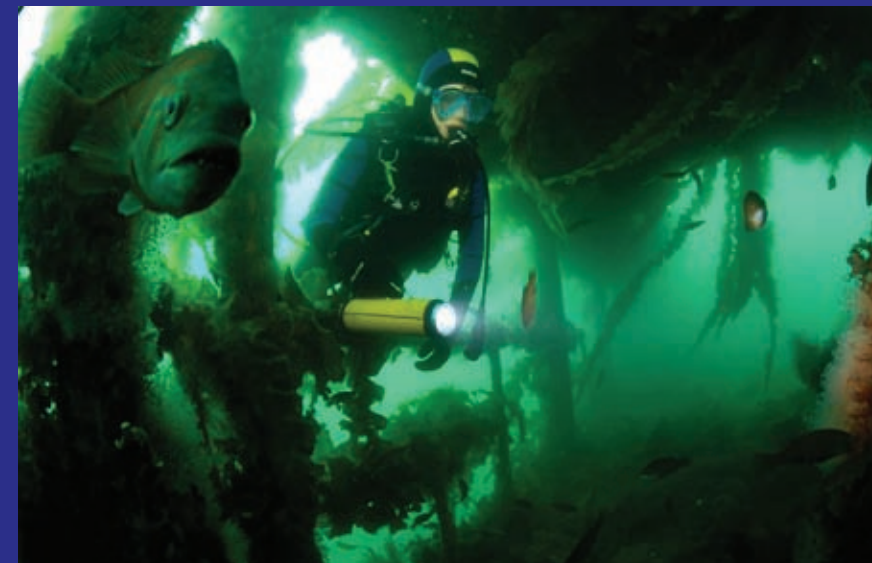
■ Rusting valves are one reminder of the Arrow's purpose. She was an oil tanker and this equipment was central to pumping her cargo in and out of the vessel. BELOW: a diver gives some scale to the ship, whose stern rises from the seabed.



a harbour seal is poking its head out of the water. Chedabucto Bay has come to life.

We're on site in just a few minutes and over the side in record time. As soon as I submerge I know the dive is going to pay off. I can see superstructure 50 feet (15m) below me and as I descend, I get a sense of the scale of the wreck. She's big at almost 530 feet (162m) in length, before splitting, 63 feet (20m) wide and rises about 50 feet (15m) off the bottom. We swim past the superstructure and head deeper to do a circuit of the main hull. Swimming along her length 30 feet (10m) away, I'm dwarfed by her size. With such great visibility I now notice other details – the bottom is covered with scallops and lobster.

We circle around to the front of the ship. This is where the bow of the *Arrow* tore away from the stern; jagged and twisted plates and beams reach out from the hull looking vaguely like some surreal metallic space squid. There's enough clearance to swim in for a quick look. Note to self: next visit bring a reel or two, there's lots to explore inside the hull of the *Arrow*. We pop back out and head for the main deck. Now I'm beginning to get a sense of just how alive this artificial reef has become. In the midst of undulating curtains of seaweed are starfish, crabs, the usual schools of cunner and cod. Little wonder harbour seals make this a regular stop. It's a smorgasbord. Hard to imagine this site 40 years ago—the very antithesis of what I see before me now.



■ Anita Vollmer fins along the ship's gangway. Once a beast and now a beauty resplendent in four decades of marine growth and home to many transient inhabitants, the *Arrow* is a great dive. A recently commissioned government study to understand the longterm effects of the oil spilled by this aging Greek tanker may reveal more than the anecdotal evidence of her transformation as reported by divers over the years.

### STUDY UNDERWAY

Later, Ingo tells me that inside the hull you still come across globs of oil, but on this dive I see no evidence of any lasting environmental impact. Long before I'm ready to surface I'm out of bottom time. Back on the surface it's an easy pull to get into the RHIB and a gentle ride back to shore. I've finally had a good overall look at the wreck and my curiosity is at least partially satisfied.

Interestingly, the government of Nova Scotia is also curious about what's going on at the wreck site. It's just launched a study to assess the long-term effects of the oil spill on the surrounding environment. Researchers may yet discover that what appears to be a thriving ecosystem may be just a thin veneer of life on a toxic sub-surface. Studies 10 and even 20 years after the *Exxon Valdez* spilled 750,000 barrels of oil into Alaska's Prince William Sound, show that wildlife populations are not recovering quickly and that toxin-related deformities are common. High levels of leukemia also have been recorded and digging down a few inches in many places will produce globs of oil. In the Bay of Biscay off the Brittany coast where the *Amoco Cadiz* spilled 1.6 million barrels of oil in 1978, scientists say it could take 60 years before a full recovery of some wildlife populations.

But if there is any long-term damage in and around the wreck of the *Arrow*, the evidence is not immediately apparent. What I've witnessed from my brief visit is yet another example of how, given time, the sea demonstrates its seemingly infinite resilience. 🌹



■ Ingo and Anita Vollmer on their RHIB, a fast ferry between their shore-based dive facility and the *Arrow* wreck and other local dive sites.



## Dive LITTLE CAYMAN

### Definition:

Proceed easily without effort or concern; to make less tense or rigid; to seek rest or recreation.

### Related Words:

Dive Bloody Bay Wall; snorkel in the crystal blue water at Point O'Sand; stroll along secluded Owen Island.

### Actions:

- 1 Experience the Exhilaration of Bloody Bay Wall
- 2 Dive the Hotspots: Jackson Wall, Randy's Gazebo, Eagle Ray Roundup, Marilyn's Cut, School Bus
- 3 Night Diving with Octopus and Squid Flashing Colours
- 4 Explore Enticing Caves and Sink Holes
- 5 Feed Iguanas at Mahogany Estates
- 6 Hike the Salt Rock Nature Trails
- 7 Cycle around our 22 Miles of Spectacular Coastline
- 8 Kayak Over to Owen Island
- 9 Break from Diving with a Stroll along Point O'Sand
- 10 Celebrate your Day's Dive by Relaxing in a Hammock

