THE WRECK OF THE LADY MARY

BY AMY ELLIS NUTT

PHOTOS AND GRAPHICS

BY ANDRE MALOK
THE LADY MARY WRECK SITE

The Lady Mary left the port of Cape May on the morning of March 18, 2009. The vessel traveled southeast to the restricted scallop fishing area known as the Elephant Trunk. Sometime between 5:10 and 5:40 a.m. on March 24, the vessel sank and six of the seven on board were killed. Four of the six bodies eventually were recovered — two were lost at sea.

Sources: NOAA Fisheries Service; New England Fishery Management Council

ABOUT THIS STORY

Reporting began in January after the U.S. Coast Guard finished its investigations hearings.

For the next seven months, Amy Ellis Nutt and Andre Malok made dozens of trips to Cape May, Philadelphia, Atlantic City and North Carolina. Those interviewed included: the co-owner of the Lady Mary, the boat’s sole survivor; family members and friends of the six men who died in the sinking; scallop fishermen, especially those working within six miles of the Lady Mary; the dock manager for Hamburg Sud, the shipping company that leases the container ship CapBeatrice; and improperly.

Numerous attempts were made to speak with the European head of Reederei Thomas Schulte, the owner of the CapBeatrice, but phone and e-mail requests for interviews, including those e-mailed in German, were refused.

ANDRE MALOK is a videographer and graphic artist who has worked as a professional artist for 20 years. He joined The Star-Ledger in 1996 and has received a number of graphic and illustration awards from the Society for News Design and the New Jersey Press Association. In 2009, he won an Emmy Award from the New York Chapter of the National Academy of Television Arts and Sciences for an online video documentary. Contact Andre Malok: (973) 392-4172 or amalok@starledger.com.

AMY ELLIS NUTT has won numerous national honors for her writing and reporting, including the American Society of Newspaper Editors Distinguished Writing Award. Her 2008 series “The Accidental Artist” was a finalist for the Pulitzer Prize. A graduate of Smith College, she holds master’s degrees from the Massachusetts Institute of Technology (philosophy) and the Columbia University Graduate School of Journalism. She also was a Nieman Fellow at Harvard University in 2004-05. Contact Amy Ellis Nutt: (973) 392-2794 or anutt@starledger.com.

Amy Ellis Nutt, left, and Andre Malok of The Star-Ledger.

Artist: Ekonowmopoulos/The Star-Ledger

Go to NJ.com/ladymary to see a documentary video about the Lady Mary featuring interviews with family members and the survivor, photos of the wreck and a simulation of events based on months of reporting by The Star-Ledger.

Cover illustration depicts the Lady Mary out at sea.
A sudden jolt, then a frigid fight for life

By AMY ELLIS NUTT
Star-Ledger Staff / Photos and graphics by ANDREW MALOK, Star-Ledger Staff

One of the waves plummets José Arias. In the frantic scramble to abandon ship, he zipper his survival suit only to his throat and now the freezing Atlantic is seeping in, stealing his body’s heat. The cold hammers him, a fist inside his head. Seesawing across the ocean, he cannot tell east from west, up from down. At the top of a wave the night sky spins open, then slides away. Buckets of stars spill into the sea. “Sálvame, por favor. Sálvame.”

Save me. Please save me, he prays to Our Lady of Guadalupe.

In the chilly, early morning hours of March 24, 2009, 37-year-old José Arias is floating in the water 65 miles from Cape May. The nearest lights are from another fishing vessel just a few minutes away, but he does not see him, anchored less than a half-mile away. A little farther out, a commercial container ship shoots toward Philadelphia. Although Arias does not know it yet, all of his friends and fellow fishermen are dead, and the red-hulled scalloper, the Lady Mary, is resting, right side up, on the sandy bottom of the Atlantic. The mystery of what sank her, which continues to haunt the maritime world, has just begun.

For months, what happened to the 71-foot Lady Mary baffled the Coast Guard, marine experts, fishermen, divers and heartbroken loved ones of the six men who died. The reports from her crew, the analyses of more than a dozen marine experts, the expert opinions of the lawyer representing the families of those who perished — a picture has slowly emerged.

No single event doomed the six fishermen, rather a cascade of circumstances set in motion years earlier by a slip in penmanship on a vessel safety form, compounded by a clerical error. Then, a floating behemoth 10 times the size of the little scalloper came plowing through the fishing ground of nearly nil fish. The men of the Lady Mary were like thousands of others, working the vessels of a Wild West sort of world, in hazardous, ever-changing conditions with scant safeguards and few legal protections.

On today’s oceans, endangered whales have more protection than fishermen, though scores are killed each year. And when fishermen do die at sea, their deaths often remain unexplained, their bodies never found and their lives soon forgotten by the public.

As one mariner noted, “There are no clues marks on the ocean.”

José Arias, the only survivor of the Lady Mary, was asleep below decks when the scalloper began sinking. Before leaving land, he did something that would play a role in his survival.

He never liked to hear from his sons when they were out fishing, he just wanted them to get the job done and come home.

He worried about them, especially when they were on the same boat. Usually they took two boats and kept an eye on each other. When one of them called Fuzzy in the middle of a fishing trip, he always thought something was wrong.

At 10:57 that night, Bobo called his father back to tell him they had 200 bags of scallops — big ones, he told his father — and would probably be heading back on Tuesday, the 24th.

Three minutes later, Bobo called Stacy. The couple had broken up so many times over the years, often because of his drinking, but when he moved back into the house in Wildwood, in June of 2008, he quit and told her he wanted to be a real father to his kids.

The next eight months were blissful, according to Stacy. Bobo fixed breakfast for the children, attended every one of 9-year-old Jermaine’s basketball games — in fact, every one of his practices — and would sometimes drive the kids to the Family Dollar Store in Rio Grande to buy them presents.

Of course, that was when he was just back from a fishing trip and had money in his pockets. When he did not have cash, he spent it freely, usually on the kids, but sometimes on complete strangers.

The previous November, when they were all driving down to Virginia Beach for a big family reunion, Bobo spotted a homeless man wondering on the side of the road. He pulled over, handed him all the food they’d just picked up at KFC and gave him $10 in cash.

“Here boy, go, man,” he said. “I hope you can make it.”

When fishing season opened in March 2009, Bobo was broke again. Just before leaving on the first trip of the year, he stopped at Adele’s Jeweled Treasure in Cape May and, according to store records, pawned the golden chain he always wore around his neck for $100.

Like Bobo, younger brother Tim was utterly and completely a fisherman. He even married a fisherman’s daughter. Carinna often went down to the boat before a trip, cleaning sheets in her arms, and...
made her husband’s bed. She also liked to pack Tim’s stuff and stowed “sea letters” — love notes, really — into the pockets of his clothes. Each day, when Tim dressed, it was like Christmas morning, and he tucked the little presents into his shaving kit for safekeeping.

“Tell (the Realitor) I’ll have the money for the house when I come back in June,” she’d say, as she left for bed the night before that Wednesday morning.

He was going to use his share from the trip to make a down payment on a new home.

On the same block in Whitesboro on which Tim and Carinna lived, 37-year-old Janet Rodriguez was reluctant to see Frank Reyes leave on the early morning of March 24, 2009, has been reconstructed from vessel tracking reports, information from the lady Mary, Capt. Anthony Alvernaz was shucked enough to wake the deepest sleeper.

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April 25, 2009.

In an unrelated photo, Frank Reyes holds his “belly” and a woman says, “Tell me you’re not pregnant.”

The boat was about 60 to 70 miles east by southeast of Cape May and carrying close to a full load: 18,000 pounds of scallops packed neatly into 50-pound muslin bags. One more shift, and the load: 18,000 pounds of scallops packed neatly into 50-pound muslin bags. One more shift, and the Lady Mary would probably head for home.

On the afternoon of March 23, 2009, a sudden squall hit the Lady Mary, and the crew wisely decided to seek shelter at the Lower Township. Early in the season the water was always too cold for Janet and the kids, but not for Bobo.

“Only God would separate us,” she would tell Janet before leaving on a fishing trip, “so you have to trust me.”

On the morning of March 18 she drove him to the dock and kissed him goodbye.

“Now I’m going to be home Monday morning,” he said. “Take care of the kids.”

On the first two days of fishing, the crew had had little luck and kept moving, until they reached the edge of the outside of the Elder Frank, named for the shape of the sea’s floor in that area. That’s when they hit the mother lode, digging for scallops, and their plump scallops the size of half-dollars made.

On Monday, March 23, Arias was supposed to wake Tim and José at 6 a.m. when it was his turn to rest, but Arias wouldn’t wake when he was supposed to. Around 5 a.m. something happened to the Lady Mary, Capt. Antonio Alvernaz was shucked enough to wake the deepest sleeper.

Arias slept soundly, even as the Lady Mary rolled and pitched with the waves. The man continued to sleep until he heard a noise of a boat — or they don’t fisherman for long.

At 5:30 a.m., the Lady Mary automatically reported its position to the fisheries service for the last time. The last electronic signal she sent was from her EPIRB hitting the water at 5:40 a.m.

The other six men, crestfallen. They smoked a littlea man’s affectation, and probably with Bobo, according to a toxicology report, before finally heading to bed.

Ramos was supposed to wake Tim and José at 6 a.m. when it was his turn to rest, but Arias wouldn’t have been surprised if he said the others to take a break, too, then just let the boat drift for a few hours. It was getting colder. The seas were building and the wind was up.

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THE ATLANTIC SEA SCALLOP

The U.S. sea scallop fishery is the largest wild scallop fishery in the world. In 2007, 56 million pounds of sea scallop meat worth approximately $490 million were harvested. The two major fishing areas are Massachusetts and New Jersey. Although populations in the mid-Atlantic have been overfished in the past, all U.S. Atlantic sea scallop populations are currently considered healthy and abundant.

Up to 100,000 scallops

A DREDGING

Scallop dredges are heavy machines that can dip 100 feet or more to the sea bottom, and spend most of their time on the sea bottom.

An incredible twist of fate

Rolling over the waves, his survival suit slowly filling with water, Arias heard nothing — no voice, no engine — only the wind whistling through the waves and the sound of his own heavy breathing. Bubbling and waving in the mountainous seas, he spots a piece of debris floating toward him and reaches for it. The light of the fishing trawler is reflected in Arias’ eyes, but the man himself can be seen nowhere.

Arias slid into the water on his back. He tried to keep his face out of the water, using his arms like paddles and making sure to keep his head above the surface. He could see the boat. He left the bridge and pulled himself down one wave, then hurtling up another. The boat looped and swayed, skidding to port. In a few minutes she would be submerged.

As Taylor hauled back on the dredge, he noticed to the east a huge ship suddenly turn on its deck light. “Like a Christmas tree, or a football stadium,” Taylor said. “It was the first time I've ever seen that.”

Taylor, aboard the Elise G., has been fishing scallops as an anchor — and so was not moving. The ship was “laying-to” — using her dredges to keep it from moving.

The water had risen to Arias’ waist. There was nothing else, is a kind of quick suffocation, and in a moment the current would sweep him away. It was time to shake off the fear, to stop trying to run. It was time to breathe.

The lady Mary still visible to Arias was the long light, is a white light, part of a signal system that indicates to vessels in the vicinity that the boat is a lightship, or a vessel on the outer edge of the continental shelf that serves as an anchor — and so was not moving.

The small, white light was off now, and the other lights were lit up. The lights were off now, and the green light of the fishing trawler was now visible. The engine sputtered to a stop. She was sinking quickly now.

Taylor, at the wheel of the Elise G., looked out the window of the boat. He could see the black outline of the ship that had been visible moments ago, now just a small dot on the horizon.

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As precious minutes tick by, rescue delayed

All his life, Royal “Fuzzy” Smith has followed the sea. One of 13 children from rural Bayboro, N.C., he took his first fishing trip with his father when he was just 4 years old. By the time he was 18, he was working full time on shrimpers plying the Intracoastal Waterway, a 3,000-mile ribbon of inlets, rivers and bays that stretches south from the Jersey Shore to Key West, Fla., then up into the Gulf of Mexico all the way to Apalachicola, Fla.

From a young age, Fuzzy could read the water — where it ran warmer, faster or deeper — and knew the tides without checking the charts. He fished from October to June, at night, when the shrimp came out to feed in the shallows, and especially around a full moon, when they rode the currents out to spawn.

He followed the shrimp south, catching Georgia whites and Key West pink, and then followed them up into the Gulf of Mexico, hauling in Pensacola reds and Texas brownies.

Over the years, Fuzzy moved from mate to captain to owner, and when scallops became the big moneymaker, he gave up shrimping and moved his boats from North Carolina to Cape May. By the time his sons Bobo and Tim were of age, Fuzzy had a fleet of scallopers and knew the tides without checking the charts. He fished from October to June, at night, when the shrimp came out to feed in the shallows, and especially around a full moon, when they rode the currents out to spawn.

Those solo trips were when Fuzzy worried the most. If something went wrong, there was no second boat to help out. He kept the TV tuned to the Weather Channel, and when he couldn’t sleep at night he’d get up, turn on his computer and in the sea-green glow of its screen look for his two sons among the myriad fishers and vessels dotted the East Coast.

Fuzzy followed their progress using a special program on his computer, mainly to help them stay within the federally designated fishing grounds. If they strayed, fines would be levied.

But in truth, he was anxious about their safety. They usually fished together in two boats, so they could keep an eye on each other. But if it was a quick trip, it was easier to go out in one, and the boat host was the Lady Mary.

He wrote everything out in bold, black letters and numbers — in print, mostly, not cursive — and on the hundreds of forms he filled out every year, occasionally a "C" looked like an "O," what could it possibly matter?

A CALL FOR HELP

At 5:40 a.m. on March 24, 2009, a geostationary satellite 22,236 miles above sea level woke up. Its antennas have picked up a maritime distress signal from an Emergency Position Indicating Radio Beacon.

About the size of a large flashlight, an EPIRB is a required piece of equipment on most commercial fishing vessels. When submerged — that is, when a ship begins to sink — the device automatically releases from a bracket attached to the outside of a ship’s cabin or wheelhouse and floats to the surface.

The EPIRB emits a distress signal, in bursts, every 50 seconds on a special radio frequency (406 megahertz), reserved for emergencies. Embedded in the signal transmitted in the early morning hours of March 24 was a unique 15-digit code identifying the Lady Mary and its owners.

The geostationary satellite is the first link in an electronic rescue chain, and it automatically notifies the nearest automated “local user terminal,” which is an unmanned computer at U.S. Mission Control Center in Suitland, Md. The center is operated by the National Oceanic and Atmospheric Administration, and its Search and Rescue Satellite-Aided Tracking program, or SARSAT, is in the same building on NOAA’s satellite operations facility, Suitland, Md.

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Fuzzy was good at all the nuts and bolts. Although he filled his mail in a full kitchen garbage can, he knew where everything was — balls and boat logs, record books, tax papers, trip reports and safety equipment registrations.

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but blind to her.

half-billion-dollar satellite passing overhead is all the testimony of a NOAA official.

decade, the last three years as a rescue swimmer.

Although he grew up in Pennsylvania, he spent the summers of 2001. He spent the next few years as

trained only to look at the middle of the form — at a 15-digit code.

Instead of ADCD023C3542C01, the clerk wrote 13-digit code.

20 minutes beyond her and just watching the Philadelphia Flyers beat the New Jersey Devils for their third win in a row. Shortly after 9 p.m., he turned off the light and went to sleep.

All of his body was on the lifeguard chair but never on Channel 2182. The radio message disappeared into his computer, he sends it on Channel 16, and fishing boats will only pick up a VHF message.

Fisher, also on watch, tells him to send the UMIB out on two frequencies, VHF Channel 16 and HF Channel 2162, both reserved for emergencies. The signal emitted by VHF is line-of-site, and just as good as an antenna in tall. Most recreational vessels and fishing boats will only pick up a VHF message when they’re no more than 20 to 50 miles offshore.

At 7:53 a.m. they are airborne, lifting quickly and will be out of the hangar in three hours.

is too noisy inside for conversation.

The helicopter is bumpy as the helicopter is buffeted by the ocean, it’s too noisy inside for conversation.

As Arias slides into the next trough, the raft disappears behind a wall of water.

The blood flowing to Arias’ muscles has thickened and slowed. Hypothermia is beginning to set.

As Arias slides into the next trough, the raft disappears behind a wall of water.

Three hundred miles to the south in Virginia, Coast Guard Petty Officer Rafferty frantically makes survival calculations. The signal was emitted from a satellite orbiting Earth. It was not mandatory.

Without a matching registration, there is no boat ID, no owner name, just a notice of the unfolding disaster.

Petty Officer 3rd Class Trista Penä, also on watch, tells him to send the UMIB out on two frequencies, VHF Channel 16 and HF Channel 2162, both reserved for emergencies. The signal emitted by VHF is line-of-site, and just as good as an antenna in tall. Most recreational vessels and fishing boats will only pick up a VHF message when they’re no more than 20 to 50 miles offshore.

At 7:07 a.m., Petty Officer 1st Class Cullen Rafferty is on watch. Cullen Rafferty is on watch.

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The blood flowing to Arias’ muscles has thickened and slowed. Hypothermia is beginning to set.
A TINY ERROR WITH HUGE IMPACTS

Even a tiny error with huge implications. And it's not just in the movies or books. In real life, such errors can have catastrophic consequences.

**A Week in the Water**

Matt Touhy and his crew are having trouble with the chopper's new 406-frequency EPIRB direction finder. It's clear from the stiffness of the arms and legs that he's a victim of hypothermia. He tries to shout to the helicopter, but the wind scatters his voice. Ensconced in his immersion suit, his neon-yellow arms are lost to view, and his voice is drowned out by the chopper's roar. The "arm" waving at the helicopter is actually the piece of wood that was thrown overboard.

A helicopter hovers, just 300 feet from the Lady Mary before the trip began. It's 8:36 a.m. Peña decides to switch to an older direction finder, this one still working. Matt Touhy are having trouble with the chopper's hand writing. A clerical error — one wrong letter in a 15-digit code — meant the chopper was unable to pick up the signal.

**The Floating Body**

During his nearly three hours in the water, he's been staggering by the cold. At 80 miles an hour, the rotor wash scalds the man in the dry suit, his neon-yellow arms and legs are lost to view. The helicopter hovers, just 300 feet from the Lady Mary before the trip began. It's 8:36 a.m. is lowered on the hoist and swims back to life.

**The Rescue Mission**

As he's lowered a second time, he asks the EMT. "No," the man replies. "Nothing." They see me, don't they? "I got a plank in the water, 2 o'clock and there's something swimming in the roiling waters of the Atlantic.

**The Survival Suit**

By 8:20 a.m. the crew finally spots a debris field where it landed. But she can't go until the door is closed. It takes all the strength Downham and Oyler to bring the man back to the hoist. It's a close a 4 m, when Peña points the helicopter northward. They had a wind sail out. Now they're in a head wind. The trip back will not only take longer; it will use up more fuel.

Even in his dry suit, Downham is staggered by the cold. At 80 miles an hour, the rotor wash scalds his face with its roar, lifting harness, radio, strobe light, pocket flares and knives, he's a tangled mass of cord and padding, wrapped in 50 pounds to his already considerable frame.

**The Stroke**

"Where's the rafter? All I can see is a red buoy down there," she says. When Downham reaches the second body, it, he calls out, "I got a plank in the water, 2 o'clock and there's a survivor suit out of it," he shouted. It seems clear from the stiffness of the arms and legs that this man is in a stroke.

**The Survival Suit**

The flight mechanic points out theOrange and white helicopter descends from the inside of the helicopter. The visibility is better than 10 miles and the man in the dry suit, his neon-yellow arms and legs are lost to view.

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In agonizing bits, news spreads to loved ones

Edith Jones, longtime partner of Bernie Smith, lies on the couch in her apartment in Wildwood. It is 11 a.m., and Jones is expecting Bernie back the next day. On ABC, Channel 6 in Philadelphia, Rachael Ray has just finished interviewing the latest winner of TV’s “The Biggest Loser” reality show. Jones is waiting for “The View” to start when Action News breaks in with a special report.

The Lady Mary, a fishing boat out of Cape May, appears to have sunk, the announcer says. One man is reported to be alive, two others are either dead or in very critical condition, and four are still missing.

Jones leaps off the couch and calls her daughter Rebecca.

“Bernie’s boat went down!” she screams into the phone.

For 15 years, Jones, now 70, and Bernie, one of Fuzzy’s younger brothers, lived together in a photograph-filled apartment in Wildwood. It is 11 a.m., and Jones is expecting Bernie back the next day. On ABC, Channel 6 in Philadelphia, Rachael Ray has just finished interviewing the latest winner of TV’s “The Biggest Loser” reality show. Jones is waiting for “The View” to start when Action News breaks in with a special report.

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The tug Michigan helps the barge Great Lakes in Ohio's Maumee River in 2000. In 1998, the barge and tug were involved in a fatal collision with a fishing boat.

Together, they were four experienced captains. Was with Bobo and Bernie and Frankie Credle. I believe it. Tim was too good a fisherman, and he been released. The story of the six New England

How could they sink? She remembered when they always watching the weather. If water gets in, we sink. Nova Scotia's Bay of Fundy.

“A boat went down,” Dawson said. “Do you know the name of Tim’s boat?”

Mary something or something Mary.” “That’s one of them.” Carinna couldn’t believe it, didn’t want to hear it, and couldn’t accept it.

“I know,” Fuzzy said. He was still driving north. “I’m trying to find out now.”

Carinna remembered Tim talking to her. “Baby, if I fall overboard this time of the year, it ain’t good.” She couldn’t stay at work and she was too distraught to drive, so Carinna picked her up and drove her to Cape May. At 8:00 a.m., the deck was awful, and each one had information made it worse. A life raft had been spotted, but no one was inside. Those men had been rescued from the water, but one man was definitely alive.

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When word reached him that two bodies had been recovered, he prayed over and over. “Please God, let them two boys be mine.” In his entire life, he had never prayed so fervently. “I won’t ever ask for nothing else,” he pleaded. “Just let those boys they got out of the water be mine.”

All afternoon, friends, relatives and fishermen stop by the dock. “Fuzzy, you better come on back here,” he said. A half-hour later, Laudemann called back. “I know the name of Tim’s boat!”

“She’s alive?” Dawson asked.

“Dad, they said a boat went down!”

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devices bear inscriptions, scribbled in black ink, with the vessel’s name and the date of rescue or the persons on board (POLB: “Tapped Out” (Aug. 2004), “Tapped Out (5-12-08),” “The Chief (7 POB).”

A couple of his colleagues asked Downham if he was okay.

“Yeah, sure,” he answered, although truthfully he wasn’t sure.

Downham unzipped his gear and raised his equipment, then joined the co-pilot, Matt Tuohy, to hose down the inside of the helicopter. When someone dies during transport, or a body is recovered at sea, the helicopter must be specially cleansed.

After showering, Downham’s shift was nearly up. Another rescueswimmer offered to take the rest of his watch. Inside his cherry-red Pontiac Grand Am, Downham flipped on the satellite radio and tuned to Howard Stern.

Settling back, he stretched his well-muscled arms out toward the steering wheel. Both are covered in tattooed semaphores — violent ones, with skulls, lightning, ammunitions pouches and whales

capped waves. Downham’s mind wandered. He’d never seen a dead body, and he’d certainly never recovered one. He wondered, in an almost clinical kind of way, whether it was going to affect him.

Would he be able to sleep that night? What would it be like the next day? Would it be okay?

An hour later he pulled up to the house in Sea Bright. He shared his future wife, Alexandra. She was still at school, teaching, so Downham donned his wet suit, grabbed one of his surfboards, and headed to the beach. The wind had changed and the waves weren’t particularly good. Still, he stayed out on the water for two hours.

BEHIND THE DOOR

When the local news reported three fishermen had been taken to the hospital, Carinna and Crowley got back in the car and drove to AtlanticCare Regional Medical Center in Atlantic City. A nurse told her only one of the men from the Lady Mary was there — José Arias. Two bodies, she said, were recovered. Two bodies, Downham wondered. He’d never seen a dead body and he’d certainly never recovered one. He wondered, in an almost clinical kind of way, whether it was going to affect him.

Could he be able to sleep that night? What would it be like the next day? Would it be okay?

Carinna reached toward the body of her husband. His lips were so blue and when she bent to kiss them, so cold.

“Arias!” she cried out to José. “It’s them!”

After his rescue, José Arias spent three hours at AtlanticCare Regional Medical Center. The doctors examined him head to toe, checked his temperature and blood pressure, and eventually deemed him well enough to return home. He wasn’t sure.

The board he’d clung to all those hours had kept him from swallowing large amounts of water, and white, frothy fluid in the trachea, the larynx and the lungs — all consistent with asphyxia due to drowning. The more Bobo battled to breathe, the less likely he was to survive. Alone now, the images piled up in his mind — the Lady Mary lurching to port, the helplessness, the horror and grief could be heard on the other side of the drop-off for valet parking. This is also where the persons on board (POB): “Killing Time,” “Gypsy Blood (Aug. 2004),” “Tapped Out (5-12-08),” “The Chief (7 POB).”

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Carinna Smith grew up the daughter of a fisherman but really learned to respect the work her husband did when she occasionally went out on fishing trips with him. His truck is still parked in the driveway. Below is the couple on their wedding day. Photo below, courtesy of Carinna Smith.
Just before dawn March 24, 2009, on black, moonless seas, the container ship Cap Beatrice was steaming toward the Delaware breakwater where the bay and the ocean meet. Here, deep-draft vessels like the Cap Beatrice pause and take on a river pilot, who then guides the ship up the Delaware into the Port of Philadelphia. Occasionally a ship will wait at the breakwater if a berth in port is not immediately available, but containers, which often carry food and other perishables, normally do not.

From her position 66 miles off the coast at 5 a.m., the approximate time the Lady Mary sank, the Cap Beatrice needed only about three hours to reach the breakwater. It took her 17, according to the records of the area’s river pilots association, as well as the Maritime Exchange for the Delaware River and Bay, which monitors the area’s river and bay traffic.

The baffling actions of the Cap Beatrice

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From her position 66 miles off the coast at 5 a.m., the approximate time the Lady Mary sank, the Cap Beatrice needed only about three hours to reach the breakwater. It took her 17, according to the records of the area’s river pilots association, as well as the Maritime Exchange for the Delaware River and Bay, which monitors the area’s river and bay traffic.

"Generally, ships wait one or one and a half hours at the breakwater," said Capt. Dick Buckaloo, acting president of the Pilots Association for the Bay and River Delaware. "For containers, downtime is lost money for them. So it’s odd when a container waits."

What the Cap Beatrice was doing remains unclear, even to the Coast Guard, which received no signal for six hours from the ship’s Automatic Identification System, a tracking device that records speed, position and direction. Her last transmission was recorded by the Coast Guard at 35 seconds past the hour: 5 a.m. Eastern Standard Time.

Because of the missing AIS data, all the Coast Guard could conclude was that the Cap Beatrice “hung” around for seven or eight hours at the breakwater, said communications officer Timothy Marriott, who testified at the marine investigation into the sinking.

"That's unusual," said Capt. John Hagedorn, who teaches in the marine transportation department at the U.S. Merchant Marine Academy in Kings Point, N.Y. "Either there was some problem on the ship or someone shut it off."

A river pilot boarded the Cap Beatrice after she reached the mouth of the Delaware at 1:11 a.m. March 25, according to Paul Myhre, the director of...
operations at the maritime exchange, and steered the ship to Savannah, Ga., then back through the Panama Canal and eventually to Australia.

Although the Cap Beatrice was docked for nearly three hours, no one from the Coast Guard contacted her captain, Vassil Steinderczuk, the shipping agency that leases her, Hamberg Sur, or the German company that owns it, Reederer Thomas GmbH. In particular, he was not interviewed. Capt. Steinderczuk or one of his district commanders, "upon receipt of information of a marine casualty or accident, will immediately cause such investigation as may be necessary," including taking possession of all records of vessels possibly involved, or witnesses to the casualty.

The Cap Beatrice left the Port of Philadelphia at 1:34 a.m. Thursday, March 28, 2009, heading south to New Orleans. By 5:08 a.m., she had passed through the opening to the Mississippi River and arrived at the Packer Avenue marine terminal at 7:30 a.m.

Technically, the investigation into the sinking of the Lady Mary was already 24 hours old. According to the Code of Federal Regulations, the Coast Guard's commandant or one of its district commanders, "upon receipt of information of a marine casualty or accident, will immediately cause such investigation as may be necessary," including taking possession of all records of vessels possibly involved, or witnesses to the casualty.

The Cap Beatrice collided, or came close to colliding, in the early morning hours of March 24, 2009, they were no match for one another. The 728-foot container ship is more than 10 times the size of the 73-foot fishing vessel and was traveling 20 times as fast. Yet both vessels were relying on antiquated rules of navigation pertaining to, the biggest ships — or the fastest ones — usually have the right of way.

The Lady Mary was sitting in 211 feet of water, on the seafloor. When he swam out and around the dredge, full of fishing gear — and several body bags. The Lady Mary had punched through the transom into the stern storage compartment, called the lazarette. The 6-foot-long rudder was sheared off at the waterline. A ramp off the stern, once used to help haul up fish, was all intact; the winches wound and ready to work. The only sounds that her bulbous bow. By that time, the Lady Mary had been lying on the bottom of the Atlantic Ocean for two months.

Two days after visiting the Cap Beatrice, the Coast Guard announced it found no evidence of a collision between the Lady Mary and the container ship.

OUTDATED RULES

There are no road signs on the high seas, no speed bumps, traffic lights, cameras or cops. Most coastal countries continue to trade with the world, but many parts of the ocean traveled by endangered whales. Otherwise, the largest ships — or the fastest ones — usually have the right of way.

The man-made ships that today transport 90 percent of the world’s goods go about their business anonymously as the even出行首的船。This is much larger and therefore less maneuverable. The Cap Beatrice is a medium-size container ship, but her rubber slide contains enough steel — 25 tons — to manufacture 250 automobiles. Just to turn around takes 15 to 20 minutes and more than a mile of sea.

Because she was traveling at nearly 20 knots the morning of March 24, the Cap Beatrice — had she come close to or hit the Lady Mary — would have been a mile past the boat in just three minutes, according to Ron Betancourt, a licensed mariner and maritime lawyer in Red Bank. A little more than a week after the Lady Mary sank in the Atlantic with four of her crew still missing, a vessel from the National Oceanic and Atmospheric Administration located her. Then, on April 14, 2009, the Coast Guard opened an official Marine Board of Investigation. The board's role, as McAvoy made pains to clarify on the first day, was not to assess blame, but rather to determine the causes of the casualties. In his opening statement, McAvoy said it was the job of the board to assess "what admits of cause for the casualty" or "may have contributed to the casualty" and to make appropriate recommendations in this regard.

Driving a recess in the hearings, a group of seven experiment wreck divers, all of them from New Jersey and Pennsylvania, volunteered to visit the Lady Mary. Their mission was to recover any bodies, but also to take photos. On May 12, 2009, in the chilly, early morning darkness, the divers left Cap Beatrice and headed east to the Elephant Trunk with navigation maps, air tanks, scuba gear — and several body bags. It had been 43 days since the Lady Mary sank, and it took the divers five hours to get out to the site. They descended in teams of two, every 10 minutes. Steve Gatto of Sicklerville videotaped the outside of the wreck. In the ghastly green glow of the diver's light, the Lady Mary appeared whole, untouched. With her stern slightly raised, she seemed to hover just above the bottom, as if at any moment she might start her engines and be on her way.

What could have happened? Gatto wondered. Peering into the captain's bridge, he found the first signs of catastrophe: chairs overturned, cups and dishes scattered, a Bible wedged against the wall. Two satellite phones dangled from their cradles, and in the galley, colorful scalp-lok buckets floated like party balloons along the ceiling. The only sounds were the hiss and bubbling of Gatto's scuba tank, and every now and then the "WHOOP—WHOOP—WHOOP of a distant whaler.

Siding down from the wheelhouse to the deck, Gatto panned the camera toward the dredge, full of scallops. Lying in a heap in the hook left corner of the boat. Fuzzy had painted two big white eyes on the metal net, the better to "see" all those scallops on the seafloor. When he swam out and around the corner of the rusty hull, Gatto was taken aback. The Lady Mary's stern was severely damaged, badly, locally on the port side, and just below the waterline.

A ramp off the stern, once used to help haul up the dredge, was ripped and pushed down on the left, and nearly to the transom, the hulk of the boat. One of the thick struts connecting the ramp to the transom was sheared off at the "B" shape and had punched through the transom into the stern storage compartment, called the lazarette. The 6-foot-long rudder was severed off at the...
Gatto looks over the heavily damaged stern of the Lady Mary. None of the divers on the scene said they had ever seen this kind of destruction, despite having explored hundreds of wrecks. Experts who believe the fishing boat was struck by a large commercial ship point to this severe, localized damage.

Bradley Sheard

**2010's DEADLY TOLL OF CRASHES AT SEA**

<table>
<thead>
<tr>
<th>Date</th>
<th>Incident Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 9</td>
<td>Unidentified fisherman killed in fishing boat accident off Massachusetts Coast. Dead: 1</td>
</tr>
<tr>
<td>Jan. 11</td>
<td>Cargo vessel Anning 9 and fishing vessel Zheitingyu collide off in East China Sea. Dead: 5</td>
</tr>
<tr>
<td>Feb. 5</td>
<td>Chinese fishing boat and Chinese fishing vessel collide in East China Sea. Dead: 1</td>
</tr>
<tr>
<td>April 1</td>
<td>Panama-flagged cargo ship Chong Li 39 and Vietnamese-flagged fishing vessel collide off coast of Vietnam. Dead: 1</td>
</tr>
<tr>
<td>June 13</td>
<td>South Korean cargo ship Ocean Ace No. 6 and unidentified fishing vessel collide off South Korea. Dead: 4</td>
</tr>
<tr>
<td>July 15</td>
<td>Unidentified fishing vessel collides with unidentified cargo ship in Straits of Malacca. Dead: 1</td>
</tr>
</tbody>
</table>

**Total number of fishermen killed: 103**

*Incident reports registered by the Marine Accident Reporting System (MARSS) of the United States Coast Guard.*

Based on what he saw while exploring the Lady Mary, Gatto is a firm believer the boat was struck by a large ship.

**IT HAPPENS TOO OFTEN**

The Coast Guard keeps many records detailing accidents and deaths at sea, but none specifically related to collisions between fishing boats and deep-draft vessels. Two years ago, when the Coast Guard issued a report on fishing vessel casualties between 2002 and 2007, it cited only four fatalities from all types of collisions, including passenger vessels, cruise ships and sailboats, during that 16-year period.

However, an analysis of 2,548 Coast Guard incident reports, on file at its Marine Information Exchange, revealed that in just one six-year period between 2002 and 2007 there were at least 76 collisions between U.S. fishing boats and large commercial ships, and six deaths.

“Ships are so large and so much mass behind them, it’s like a bulb swelling a fly,” said Jim Kendall, a longtime fisherman and now executive director of New Bedford Seafood Consulting. “It happens too often, way too often.”

In the 20 months since the sinking of the Lady Mary, at least two commercial fishing vessels off the mid-Atlantic Coast have been hit by large merchant ships. On April 14, 2010, in heavy rain and fog, the 95-foot scalloper Dollytide was hit by the 950-foot container ship Evergreen Atlantic. On July 30 of this year the 73-foot Atlantic Queen, fishing 11 miles off Long Island, was hit by the 625-foot cargo ship Baldwin, which showed off 55 feet of the Atlantic Queen’s bow. No one was seriously injured in either accident.

Precise numbers on collisions are hard to come by because many fishing vessels are lost at sea with no survivors and no witnesses — just questions. Although at least six fishermen were killed in collisions with cargo ships between 2002 and 2007, another 39 died when 18 fishing boats sank, apparently with little warning, and all hands were lost.

“A lot of times a vessel goes missing and no one knows the cause,” Kendall said. “When you have something that large coming down on you, they can ride right up over you and possibly they don’t even know it.”

When collisions do occur between large merchant ships and much smaller fishing vessels, the boats can sink quickly, according to Ari-Heggens, former fishing vessel safety coordinator for Maine and New Hampshire and now a civilian with the Coast Guard, specializing in emergency preparedness. When he instructs commercial fishermen about what to do in collisions, he warns them they will likely have no more than a few minutes to get into a survival suit or life raft, and in the case of a collision with a large merchant ship, “probably a lot less.”

“When a larger vessel collides with a smaller one,” Heggens said, “it pushes the smaller boat right under the water. Imagine you are driving on a highway — a large tanker would go right over the top of you.”

When scientists at the Massachusetts Institute of Technology studied ship-boat impacts more than a decade ago, they found three times as many collisions occurred in darkness as in daytime and the highest percentage — one-third — occurred between 4 a.m. and 8 a.m.

**BACK TO LAND**

With the help of his fellow divers, Joe Mazranni returned to the Lady Mary, where he and his team spent two days assessing the damage they observed, turned hundreds of photographs and along with written assessments of the damage they observed, turned it over all to the Coast Guard.

“Everyone’s reaction was the same,” Moyer said of the other divers. “That boat got hit.”

Twenty miles from Cape May, the divers radioed the Coast Guard about the body they’d recovered and arranged to meet officials at the dock.

There was just one more call to make. Five miles from shore, Mazranni took out his cell phone and called his brother.

“I think we got Bernie.”
Analyzing the Damage

The 71-foot Lady Mary scallop boat sank in the Atlantic on March 24, 2009. The wreck was explored about six weeks after the accident by a volunteer group of divers aboard the Big Mac out of Cape May. The group would make two dives to recover the body of Tarzon “Bernie” Smith. The U.S. Navy eventually recovered the rudder for analysis. Video and hundreds of still photos were taken to detail the damaged areas, including the rudder, propeller, propeller shaft, transom and stern ramp. Damage to the port stern area of the vessel suggests two possible causes: a collision at the surface or contact with the ocean bottom. A team of experts from Robson Forensics in Lancaster, Pa., reviewed photos, exhibits and underwater video and came to the conclusion that the bottom hit did cause the damage. But not everyone agrees. The divers, Lady Mary co-owner Royal “Fuzzy” Smith, fishing boat stability expert and ex-Coast Guard safety inspector Bruce Belousofsky, and a team of marine forensics specialists believe the damage to the stern could only have come from a sudden, powerful impact with a large commercial ship and not by hitting the ocean bottom.

What it suggests

What it is: Steel cables connected to the ramp, connecting the outboard frame. What happened: Both wires were severed from the ramp and one was tied off with rope. What it means: This may indicate a ship struck the stern of the Lady Mary and broke the wires. Presumably, the crew had enough time to tie one back hastily.

What it is: A steel ramp used to pull the dredge on deck. The crew normally did not use this ramp, but dredged over the port side. What happened: The ramp was pushed in on the port side and the vertical wings were split, but not bent. What it means: The stern striking the ocean bottom would likely have bent the ramp wings. The fact the wings remained straight and only split suggests the area of a localized impact on the surface.

What it is: The vertical “rear wall” of the boat’s hull. The support struts beneath the rear ramp are attached to the transom. What happened: The port side of the transom was bowed in and one strut punched through the transom. What it means: The curved transom may indicate a strike from the bulbous bow of a large ship.

What it is: Four curved steel blades that propel the boat. What happened: The blades slashed the rudder when they were crushed together. Bits of bronze residue, likely from the propeller blades, was found in the rudder’s gashes. What it means: Engine was running and propeller turning when the accident happened, which likely suggests impact was on the surface.

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What it is: A 5-inch solid steel cylinder or hub in the center of the propeller. What happened: Shaft was bent down at a hard angle. What it means: A collision would cause the shaft to bend down. Hitting the bottom would likely have caused it to bend up.

Sources: National Oceanic and Atmospheric Administration; transcripts from U.S. Coast Guard hearings; interviews with José Arias; analysis by marine architects and forensics specialists; and evidence and testimony provided by wreck divers. 3-D model by Pixel Eight; photos by Steve Gatto
Why most experts say collision caused tragedy

A Coast Guard Marine Board of Investigation into the sinking of the Lady Mary convened in April 2009. Several weeks of hearings were held over the next eight months, with testimony from José Arias, the only survivor of a seven-man crew; Fuzzy Smith, the co-owner of the boat; and at least a dozen other witnesses, including Lake Downham, the Coast Guard rescue swimmer who pulled Arias from the water.

More than a year and a half after the accident, the marine board has yet to release its report, although Cmdr. Kyle McAvoy, the chairman of the three-member investigative panel, says it is largely written.

“We’ve worked very hard to address all the possibilities,” he said. “It comes down to a few things: a weather event, some sort of event on the surface with another vessel, or a mechanical problem during the night that led to a slowly evolving problem.”

As late as September, McAvoy said the agency was leaning away from the idea that the Lady Mary was the victim of a high-seas hit and run. Instead, the agency was considering the theory that the boat was swamped and the damage to her stern was the result of its impact with the sea floor. He has declined any comment since.

Two sources close to the investigation said the Coast Guard’s final report may suggest several possible scenarios. These sources detailed the Coast Guard’s thinking to The Star-Ledger on the condition they not be named because they are not authorized to speak about the investigation.

Among the factors:

- The Lady Mary was an old boat, converted between 2001 and 2003 from a trimaran to a scallop- loper, and was never tested for stability because it was not required by federal law.
- The wind was blowing hard and the waves were 6 to 9 feet the night of March 23 into the early hours of March 24, making conditions difficult for the Lady Mary.
- A hatch on the deck back to the lazzarette, a storage area, was always left open, which made the boat vulnerable to swamping in bad weather.
- Blood tests on the bodies of Bobo and Tim Smith revealed marijuana in both men’s blood, although the cause for this remains unclear.
- Tests on the ship’s navigational system did not show any anomalies.

Some of the possible scenarios would seem to run counter to evidence presented at the Coast Guard’s hearings. Coast Guard reservist Aldo Guerino testified the Lady Mary’s safety equipment was up to code, had passed a voluntary inspection less than a year before she sank, and was well maintained.

George Edwards, a naval engineer, believes in the collision theory. The Coast Guard’s lead investigator, Kyle McAvoy, center, has not yet released his report. Bill Garzke, an expert in shipwreck forensics, also believes the likeliest scenario is a collision. Photo courtesy of Fuzzy Smith

One of the sources has general agreement among all the experts. The mystery of what sank the Lady Mary lies with a crashed ramp, a broken rudder and a broken propeller. What force could have mangled all that steel? Everyone acknowledges there are only two possibilities. She was either damaged on the surface in a collision, or she was damaged below the waterline and sank.

For seven months The Star-Ledger investigated the wreck of the Lady Mary, scanning internal Coast Guard documents and 900 pages of testimony from the Coast Guard hearings, observing fish- ersmen at work on a scallop hunter similar to the Lady Mary and in similar wind and wave conditions as on the night she sank, and testing the buoyancy of survival suits in cold sea water, especially when they were not worn properly.

More than 100 interviews were conducted with some of the country’s foremost naval architects, marine engineers, wreck divers, maritime forensics specialists, fishermen present in the Elephant Trunk when the Lady Mary was lost, mechanics who worked on her engine on land, as well Coast Guard officials and those involved in the rescue of José Arias.

The Star-Ledger asked more than a dozen maritime experts — among them a fishing boat stability expert, a hydrodynamist who studies how ships sink, a rudder designer, and one of the few marine forensics specialists to inspect pieces of the Titanic — to examine videos, photos and Coast Guard investigation documents. None of these experts concurred with the theory that the Lady Mary’s stern was bent and crushed by the impact with the sea floor. Only representatives from one company believe this scenario.

“It’s garbage for anyone to think the bottom cause all that destruction,” said George Edwards, a naval engineer at CSC Advanced Marine Center in Washington, D.C. “It’s just not possible.”

The preponderance of opinion, and much of the evidence found by the newspaper, point to a collision with another, much larger vessel — something powerful enough to bend and rip thousands of pounds of steel and send the Lady Mary to the bottom of the sea before she could even shake off a flare. Navigation records from that night show there was only one such merchant ship in the area at the time — the 728-foot-long container ship Cap Beatrice.

AN EXPERT’S OPINION

William Garzke is a pioneer in the field of shipwreck forensics. A long-standing member of the Society for Naval Architects and Marine Engineers, Garzke is also founder and chairman of NSAME’s renowned marine forensics committee, which devotes its time to the scientific investigation of sunken ships. He has consulted on a number of Coast Guard investigations and is probably most well-known for his work on the Titanic, after which he concluded a flaw in the design of the ship’s hull caused the unsinkable ship to sink.

When Garzke and the 14 other members of the forensics committee, of the Star-Ledger’s request, examined the video and photographic evidence of the Lady Mary and analyzed Coast Guard documents and navigational records, they all agreed about the damage to the fishing vessel.

In an undated photo, the Lady Mary, the middle boat, is berthed in Cape May. She was considered a sturdy scallop-boat and had made many trips to the Elephant Trunk. Photo courtesy of Fuzzy Smith

CHAPTER FIVE

Introduction
It is hard for me to believe it was just the sand that caused it,” Galvão said. “It was a collision with another object. That is the likeliest possibility.”

Alexander Schulte, the head of the Damen Group in Hamburg, Germany, which owns the Cap Beatrice, has repeatedly declined to comment on the Lady Mary tragedy despite numerous calls and emails.

Oliver Kouta, the quality manager for OCEAN Shipmanagement, owned by Roeders Thomas Schulz, initially spoke about the incident. However, later he told us by his superior to stay no more. Kouta evasively passed the question to his colleague.

Unfortunately, the conversations and e-mails he said the company had conducted “were not of internal investigation” in which the Coast Guard, “but also other parties involved have investigated and consulting services to lawyers, concluded the Lady Mary was swamped — perhaps by a bow wave from a passing container ship — and that all her stern damage was the result of hitting the sea floor. When she hit bottom, the gallow would have hit the bottom first,” he said.

“The dockside manager in Philadelphia for Hamburg Sud, the company that leases the Cap Beatrice, allowed The Star-Ledger to board the Lady Mary, which was on bottom. In ear-

Stacy recounted the gold chain Bovio had passed on law just after the trip. She often wears it around her neck in remembrance.

it rises high over the deck and is angled over the stern a ramp.

“Avery, a hydrodynamicist who models the vari-

Yet we inspected it carefully and it had no damage what-sover, not even a scratch,” Galvão said. “With that angle and force, I’d expect to see the (propeller) blades bent backward, too, maybe even broken, but they’re not,” he said. “The blow came from behind and pushed the boat down.”

Robert O. Garzke, vice president of the American Society of Navy Engineers, which provides investiga-

If there is a smoking gun in the sinking of the Lady Mary, divers Gaeto and Harold Moyers believe they have identified it in the stern.

“With that angle and force, I’d expect to see the (propeller) blades bent backward, too, maybe even bro-

The broken stay wires, which would have been mended if they had both suddenly broken on the same the damage done to the Lady Mary is a surface collision. The divers, however, never found it.

AFTER THE MANIFEST

The divers, however, never found it. If there is a smoking gun in the sinking of the Lady Mary, divers Gaeto and Harold Moyers believe they have identified it in the stern.

The broken stay wires, which would have been mended if they had both suddenly broken on the same "sinking on an evenkeel also results in the lowest possible terminal velocity."
The Lady Mary was a shrimp boat built in Pascagoula, Miss., in 1969. The vessel was converted to a scalloper between 2001 and 2003.

**The Collision Scenario**

Theories about the sinking of the Lady Mary range from capsizing due to mechanical failure that left the vessel dead in the water, to a rogue wave, loss of rudder, or cable entanglement with the rudder. However, photos and video taken of the stern damage from the wreck suggest an encounter or even a collision with a container ship passing through the busy scallop fishing grounds en route to Philadelphia. The following is one possible chain of events that lead to the sinking.

**Shortly After Midnight**

Dawn is at anchor. The scalloper Alexandria is within a mile: The 728-foot Cap Beatrice is drifting in a south by southwest direction. The vessel was converted to as calloper between November 2001 and 2003.

**Location prior to sinking:**

- The Lady Mary is sitting in a south by southwest direction. The root of the fishing boat is 15 minutes to her west. Only two vessels are within a mile: The scalloper Alexandria from is at anchor. The 728-foot Cap Beatrice is drifting south by southwest at just under 25 knots.

**5:30-5:40 A.M.**

A container ship approaches from behind and to the port side of Lady Mary. The forward wheelhouse of the Lady Mary is knocked from its mounting. The port side strut on the ramp is buckled and is pushed through the transom into the lazarette, the boat’s rear storage area behind deck.

**5:40 A.M.**

Filling the cut room and through the holes in the lazarette. As the Lady Mary lists, the propeller shoe is punched up against the port side of the prop, the prop shaft is bent down, and the rudder is knocked from its mounting. The portion of the ramp is buckled and is pushed through the transom into the lazarette, the boat’s rear storage area below deck.

**6 A.M.**

Taking on water

**6:45 A.M.**

An Emergency Position Indicating Radio beacon (EPIRB) signal is detected by a NOAA computer in Maryland. A NOAA computer cannot identify one digit in the 15-digit EPIRB registration number is wrong.

**7 A.M.**

The Coast Guard helicopter heads back to Cape May. Jos Arias is the only survivor. The Lady Mary sits in 211 feet of water.

**8:36 a.m.**

Announced a call is activated by a Coast Guard helicopter. Although no one is inside, Arias is soon spotted a short distance away clinging to a piece of wood. After he is rescued, the bodies of Tim and Bobo Smith are recovered.

Sources: National Oceanic and Atmospheric Administration; transcript from U.S. Coast Guard hearings; interviews with Jos Arias and analysis by marine architects and forensics specialists.

**Animation stills and 3-D models by Paul Rath.**
A DETAILED LOOK AT EACH POSSIBLE CAUSE

Several scenarios could occur at sea that might sink a commercial fishing vessel. Weather conditions during the early morning hours on March 24, 2009 were rough. Seas were 6 to 15 feet with winds from 20 to 25 knots (23 to 28 mph). There were, however, more than 20 other fishing vessels in the restricted scallop fishing area at the same time and none turned for home. The accident occurred shortly after 5 a.m. Visibility due to the weather and time of morning would be limited. Following are possible causes of the Lady Mary tragedy and the reasons that the cause is—or is not—plausible.

LOSS OF RUDDER

WYTH IT'S PLAUSIBLE
Fishing boats endure harsh conditions and seas in a constant state of repair. The rudder would have been protected from metal fatigue and broke. The rudder would have had difficulty recovering.

WHY IT'S NOT PLAUSIBLE
Marine forensics experts say the break pattern on the Lady Mary's rudder indicates a sudden, powerful impact, not metal fatigue. If it had lost steering, there likely would have been radio communication from the crew seeking help. The only transmission from the Lady Mary was a garbled, cracked mayday.

SWAMPING

WYTH IT'S PLAUSIBLE
With seas from 3 to 5 feet, it is possible that a bow wave from a passing day or a rogue wave could have wrapped around the rudder and when wrapped in, crumpled the rudder, broke the rudder stock and crush the propeller. When the boat hit the bottom, the rudder buckled.

WHY IT'S NOT PLAUSIBLE
A rogue wave was almost always break the windows of the wheelhouse. The windows of the Lady Mary are intact. Fishermen familiar with the best way to handle a rogue wave would have used previous experience to know what to do. The Lady Mary sank quickly. A swamping would have likely given more time to communicate via radio and put on immersion suits to ensure survival.

CABLE ENTANGLEMENT

WHY IT'S PLAUSIBLE
Cable wouldn't break. Ridges weighing more than 2,000 pounds using hundreds of feet of heavy cable along the seafloor. Cable could have wrapped around the propeller. When the boat hit the bottom, the rudder buckled.

WHY IT'S NOT PLAUSIBLE
Cable makes doesn't show evidence of breaking. It did buckle, the boat had such velocity of backing. It did buckle, the boat had to sink in such a way that everything broke. It was a huge amount of water that would have been released in the kind of damage seen on the rudder, rudder stock and propeller.

COLLISION WITH A SHIP

WHY IT'S PLAUSIBLE
Lady Mary's rudder was in a heavily traveled shipping lane. Close calls happen all the time, especially in poor visibility. The damages to the Lady Mary appear to be from an impact from an unknown vessel. A crew member said the Lady Mary approached too close to the ship.

WHY IT'S NOT PLAUSIBLE
New Jersey State Police divers interviewed the crew and inspected the boat. No police divers believe there was any evidence of a collision. The D.A.'s All data indicate that it was more than a half-mile away when the Lady Mary went down.

LOST COMMUNICATION

WHY IT'S PLAUSIBLE
Coast Guard communications to the SeaPal capsized. Credle saved Jennett's life by radio all the mariners in the vicinity of the sinking, the officer failed to use the frequency most likely to reach them—a mistake he acknowledged in a Coast Guard report.

WHY IT'S NOT PLAUSIBLE
In addition to the Coast Guard, the National Transportation Safety Board, which assisted in the investigation, has declined further comment until their official reports are made public.

A BODY IN THE NET

WHY IT'S PLAUSIBLE
Finally, when a Coast Guard communications officer in Philadelphia eventually did radio all the mariners in the vicinity of the sinking, the officer failed to use the frequency most likely to reach them—a mistake he acknowledged in a Coast Guard report.
Three men, including a father and son, were lost. The scalloper Sea Tractor sank in a storm off Cape May. Six weeks later, the 38-foot Alisha Marie went aground; five men, including three friends of the three lost, were rescued. Before Bernie’s body was found, Edith Jones would lie in bed every night and call his cell phone to listen to his voice-mail message from somewhere in the back seat of the truck. He doesn’t have the heart to fish anymore. Fuzzy says, but every couple of weeks he still hits the road in his Ford pickup anyway, just to check in on his other fishing boats.

Through an interpreter, he says he has worked a lot on the docks since the accident, but not on a fishing boat, and that he won’t, not ever again.

A NEED TO KEEP MOVING

Fuzzy brought his son home to Bayboro to be buried in his backyard, and that’s where he finally buried Bernie’s ashes, too. Hazel, his wife, says she’s out there “from sunup to sundown.” She puts fresh flowers on the gravestones every week, and keeps an eye on Bobo and Tim when she’s on her exercise bicycle in the shed next to the graves.

“Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror. Tim’s Bible is still there, and the rearview mirror.