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The Mysterious Disappearance of Nova University's Research Vessel Gulf Stream

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The Mysterious Disappearance of Nova University’s Research Vessel Gulf Stream

GULF STREAM

GLOUCESTER

The Gulf Stream’s destination

NSU
NOVA SOUTHEASTERN UNIVERSITY
Beyond the Classroom

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Composed by Robert Bogorff and Bettie Jacobs
EPITAPH

William Springer Richardson, Ph.D.
1924–1975
William Ben Campbell
1926–1975
Jack L. Spornraft
1950–1975
James David Riddle
1934–1975
John Wayne Hill
1947–1975

The story we tell is not a pretty story, the ending certainly not a happy one. Although there are no memorial stones to mark your graves, there is a record of who you were. The scientists, the adventurers, the researchers, the engineers, the mariners—all of you lovers of the sea, respectful of its power and mysteries. The who, the what, the why, and the when shall ever be unknown to us.
The Mysterious Disappearance of Nova University's Research Vessel Gulf Stream

...this same placid ocean, as civil now as a city's harbor, a place for ships and commerce, will ere long be lashed into sudden fury, and all its caves and cliffs will resound with tumult. It will ruthlessly heave those vessels to and fro, break them in pieces in its sandy or stony jaws, and deliver their crews to sea-monsters.

Thoreau on Cape Cod

On Saturday, January 4, 1975, the research vessel Gulf Stream with a crew of five men—four from what was then Nova University and one from the Scripps Institution of Oceanography in La Jolla, California—left Boothbay Harbor in Maine and headed out into the Gulf of Maine. None returned.

How could a well-equipped ship with an extremely experienced crew vanish almost without a trace? Why was it necessary to go 1,000 miles north to the frigid waters off the coast of Maine rather than use the warm waters off the Florida coast? Was this merely a routine mission to conduct experiments with free-floating buoys, or was there more involved? The loss of the Gulf Stream remains as much a mystery today as it did in 1975.

All of the factual material used in this paper has been taken from the U.S. Coast Guard Record of Proceedings and the Investigating Officer Narrative Report Concerning the Investigation into the Disappearance of the Research Vessel Gulf Stream on or about January 6, 1975, with Loss of Life.
Let us take a closer look at this vessel and her crew. The research vessel Gulf Stream, official number 505969, was a 48-foot, steel-hulled former oil-drilling support vessel. She was powered by two 460-horsepower diesel engines. Her last dry dock was on September 3, 1974.

The vessel was equipped with the following safety equipment:

- 15 personal flotation devices
- 2 24-inch life rings
- 2 five-man life rafts
- 1 CO₂ fire extinguisher
- 2 dry chemical fire extinguishers
- 1 pyrotechnic flare kit

Other pertinent equipment included the following:

- magnetic compass
- automatic pilot
- 2 110-volt generators
- 2 separate 32-volt battery banks
- 2 separate radio units

Interestingly, the radar equipment had been removed prior to September 1974. Other than that, the Gulf Stream and all the equipment aboard was reported to be in excellent working condition.

The crew consisted of the following five men:

**William Springer Richardson, Ph.D.,** age 51,
director of oceanography

**William Ben Campbell,** age 49,
in charge of vessel

**Jack L. Spornraft,** age 25,
mate on vessel

**James David Riddle,** age 41,
research technician

**John Wayne Hill,** age 28,
assistant development engineer
Richardson was a gifted teacher, sailor, and scientist who left his mark on all who knew him. He received his Sc.B. in chemistry from Brown University and his doctorate in chemistry from Harvard University. He served as a naval pilot during World War II. From 1952 through 1963, Richardson worked at Woods Hole Oceanographic Institute in Massachusetts. Following this position he became an associate professor of oceanography at the University of Miami's Institute of Marine Sciences. In 1966, Richardson was appointed professor of oceanography and director of the Physical Oceanographic Laboratory at Nova University.

In 1973, Richardson was presented with the Marine Technology Society Award for Ocean Science and Engineering, which is sponsored by Lockheed Aircraft Corporation. His greatest contributions and accomplishments were in the area of marine scientific instrumentation. He was a capable scientist, designer, and engineer who made numerous, significant contributions in the field of marine technology.

We had many talks over coffee. I learned to listen and as a result, I learned a great deal. One of the Richardson axioms I'll never forget is "do fewer things well." An associate once shared with me that he made mistakes when he did not take Richardson's advice.

Richardson was a good-looking, thoughtful man who always struck me as being happy in his work. He seemed to be in a constant process of relentlessly probing for truth and at the same time enjoying the good things in life. His personality was such that he easily disengaged himself from his research to enjoy good company, conversation, and parties. He rarely missed the Friday afternoon beer parties that, on occasion, included his famous atomizer-enriched martinis, a tradition which has survived him.
Campbell spent a great deal of his life working on boats and sailing them out to sea. He studied celestial navigation in which he became proficient even before entering the Navy. Campbell's expertise in woodworking led to a successful business building reproductions of early American furniture. He joined the Nova University staff in 1968.


Riddle served in the U.S. Army during the Korean War. He was employed for four years by the RCA Corporation in Thule, Greenland, where he worked in quality control. While employed by Ocean Systems, he worked on several top-secret security projects for the U.S. Navy. He was a highly qualified scuba diver and a licensed boat operator with the U.S. Coast Guard. Riddle spent time in the rodeo circuit and worked in Hollywood as a stunt man. He appeared in the films Namu the Killer Whale, Thunderbolt, and Flipper. Riddle was first employed by Nova University in 1970.

Hill was employed at Scripps Institution of Oceanography. Having been there since July 1, 1973, Hill worked as an assistant developmental engineer. He was not directly associated with Nova University, but was given permission to accompany the university staff; he tested his own buoys.

The purpose of this voyage, as with many before, was to perfect a heavy weather buoy testing program. The testing results would provide vital information to a number of large national and international scientific programs in oceanography and meteorology. Richardson designed these drifting buoys to be tracked by satellites, operating in the ocean for the purpose of drifting with the currents and measuring surface marine and atmospheric characteristics. Their ultimate purpose was to provide a better understanding of the oceans and their effects on climate change. At times, the buoys were tracked by aircraft so their locations could be pinpointed. This voyage was one of those times.
Oceanographic measuring devices used to track ocean currents. The buoys drift with the currents and transmit via satellite data on their positions as well as data on air temperature, wind velocity, and the temperature and salinity of sea water. Each can weigh up to 600 pounds.
The last known position of the buoys was taken on January 3 by pilot Jerry Erich, who flew Nova University’s tracking aircraft.

In an interview in 1974, Richardson explained the reasons for testing the buoys and their locations. He said that the North Pacific could store incredible amounts of heat. The heat’s absorption or radiation, even in small amounts, could cause atmospheric changes in the United States. “The North Pacific is a mean place. So is the Gulf of Maine in winter. We need a place to test those buoys where the seas and weather are nasty. Maine is it. You have quite deep water, fairly close to land, and excellent facilities at Boothbay.”

Of the Gulf Stream, Richardson stated “Oh, she’s a good old boat. We’ve been in some bad stuff. She can handle the Gulf of Maine if it does not gang up on her.” He then went on to speak about the possibility of ice. “I’ve been thinking about that. We don’t have much high superstructure. I don’t think the ice will bother us.”
The question of questions remains. What happened to the *Gulf Stream* and its five-man crew between January 4 and January 7, 1975? The following is what is known. The *Gulf Stream* was not new to the cold waters off the coast of Maine. It was estimated that she had already gone out to attend to its buoys close to 50 times. The crew was upbeat and optimistic. Their goal to gather the buoys and record the scientific information was routine. Based on his experience, it is likely that Campbell checked the weather conditions and found them favorable on the assumption they would be returning on Sunday night, January 5. The weather report for the dates January 4 through January 6 indicated that the weather was good during this period. The highest reported seas were four feet for one day, and all other records showed three feet or less. The barometer reading indicated the presence of high pressure, but then again strong winds may be associated with high-pressure areas in that region.

The task before the crew seemed simple enough—leave Bigelow Laboratory in Boothbay Harbor and recover eight buoys scattered from 30 to 40 miles south. The original plan was that at the end of the first day, they would put into Gloucester, Massachusetts, overnight and return to Boothbay on Sunday, January 5. It is therefore logical that Campbell would not have checked the weather reports for Tuesday, January 7.

At approximately 10:00 a.m. on Saturday, January 4, 1975, the *Gulf Stream* left Boothbay Harbor, Maine, with five persons. What happened afterward, whether it was due to bad luck, bad judgment, an accident, or something sinister, is not known. In reality, the story is only partly known. What is known are unexplained sightings and numerous theories.

Through testimony, it was established that the vessel generally made daytime trips only and rarely stayed out overnight. If an overnight trip was required, the vessel would stay in a port. It was customary for the vessel to make contact by radio or telephone if it was not going to return to Boothbay. The expectation was that communication would be made either Saturday, June 4, or Sunday, June 5. At that time, Richardson would instruct the pilot with regard to locating the buoys. Charles Yentsch, Ph.D., a former faculty member and colleague, was to play a key role in the unfolding mystery.
Evidently, Richardson had agreed to call Yentsch at home when they made port on Saturday or Sunday. Yentsch would then be given instructions to relay the message to Nova University pilot Jerry Erich, who was to bring the plane to Gloucester. There he would pick up the \textit{Gulf Stream}'s automatic direction finder. This device would then be put inside the aircraft so it could better pinpoint the location of the buoys.

By Monday morning, January 6, Yentsch, director of Bigelow Lab, contacted the Coast Guard and asked them to try to reach the \textit{Gulf Stream}. The attempt was unsuccessful, and an alert was issued that morning.

What else is known about January 4, 1975? Pilot Jerry Erich was aboard the \textit{Gulf Stream} before the vessel left port. Richardson told him that the vessel would head south from Boothbay to retrieve Buoy #1, which was one of the larger and more difficult buoys. They were set to spend the night in Gloucester after retrieving the buoy. As stated, the plan was to receive a call from the \textit{Gulf Stream} either Saturday or Sunday, but it never came.

Francis Pierce, owner of Pierce Marine Services, knew Campbell and the \textit{Gulf Stream} well. He testified that as far as he knew, the vessel was in excellent condition and was well maintained. Pierce also testified that although the vessel had two fuel tanks, Campbell filled the forward tank to 175 gallons, only half of its capacity because he didn't want the excess to weigh down the bow. The aft tank was filled with approximately 500 gallons. Campbell estimated that fuel consumption was 42 gallons per hour at 16 knots. He was known to be accurate in computing fuel requirements.

Further testimony established that the steering cable was recently repaired, one of the generators overhauled, and other minor work completed. There were no explosive materials on the \textit{Gulf Stream}. All of the equipment on the vessel used diesel. Campbell told Pierce they were leaving the morning of January 4 to pick up the buoys. He made a reference to the size of Buoy #1 because it would be difficult to handle. They would then proceed to Cape Ann, Gloucester, and expected to be back on Monday, January 6.
It also was stated that a block and tackle was taken out by Campbell, who said that he would use it to help raise the large buoy. Does this mean he intended to carry the buoy rather than tow it? The testimony now takes on an element of mystery. The investigation relies on facts. Now, however, the facts become, like in *Alice in Wonderland*, "curiouser and curiouser."

Witness Wilson G. Francis, a local lobster fisherman, identified the Gulf Stream from photographs. He stated that he had seen her tied up at Bigelow Labs on several occasions. He testified that on Monday, January 6, 1975, he was setting traps, and, at approximately 10:00 a.m., he saw the Gulf Stream "coming around Squirrels Island heading in a southerly direction at approximately 15 knots." He further stated that he could not be absolutely positive, but he thought it was the vessel.

The next witness was absolutely positive. John Hammond, a local fisherman, was convinced that he had seen the Gulf Stream. He stated that he was in the area described by Francis and that he saw the ship heading south past Squirrels Island at about 10:00 a.m. on January 6. His wife, who was aboard with him, said she also saw it. He commented to her as the vessel went past, "There goes the Gulf Stream. It's the only research vessel around here that does any work."

How was he so certain that it was on January 6? He indicated he had not been out the week prior so it could not, therefore, have been Saturday. When asked if he had any receipts verifying the date, he promptly produced three receipts all dated January 6.

Another witness, Commander Howard, recognized the voice of Campbell in a transmission on January 6 and stated that it was not a distress call. The call was very short and routine in nature. Since he could only hear the ship's side of the conversation, he paid no attention to the contents of the conversation and was unable to give any testimony as to what was said.
It seems inconceivable that the *Gulf Stream* could have been out of contact for 48 hours and then be sighted by two individuals 15 minutes away from Bigelow Lab as she headed back to sea. The attitude at the hearing was one of speculation and conjecture. The more evidence was produced, the more questions arose. The Coast Guard then testified as to its part in the drama.

On January 4, at around 10:00 p.m., Boothbay received the following transmission. “Coast Guard, this is the *R/V Gulf Stream*. Over.” They responded, “This is Coast Guard Boothbay. Can we be of assistance?” He stated that the response came in “Coast Guard, this is the Gulf . . . .” For the next hour, they tried to reestablish contact, but to no avail. When questioned about the call, the radioman claimed the speaker sounded “nervous.” Nothing further was heard until Tuesday, January 7, when at approximately 11:30 a.m., the following was heard. “U.S. Coast Guard Boothbay, this is the *R/V Gulf Stream*. Over.” The witness stated that the voice was normal. Another transmission was picked up by a fishing vessel at approximately 2:00 p.m. on the same day.

Although there is some confusion as to what was reported, the *Gulf Stream* was still afloat on January 7 if this testimony is accurate. None of the transmissions indicated any trouble or, more importantly, their location.

Time had run out by Tuesday evening. The weather rapidly deteriorated, and the Coast Guard found it impossible to sustain the search. There was low visibility, and the danger of icing was great. The cutter *Cape Horn* encountered 12-foot seas and 6-foot cross seas with strong winds, so it returned to base. An aircraft was sent out but also had to return to base. Reports of winds at 40 knots came in. One report was of seas at 20 feet. When seas are 20 feet or more, the crest of the waves starts to topple and roll over. Visibility is reduced by blowing spray. Blown foam would appear in dense streaks, and the boat would be required to employ storm survival tactics. Under these conditions, there is a great deal one must know about the sea.
The houseboat that provided office space for the oceanographic faculty members
My first professional library position was at the State University of New York (SUNY) Maritime College at Fort Schuyler, New York. This university prepares young men and women with the leadership skills necessary for a wide range of professional careers. Graduates have the opportunity to become commissioned officers in the U.S. Armed Forces.

To complement their classroom work, SUNY Maritime has its own training vessel outfitted with classrooms, a library, engineering labs, and more. When I was there, the school’s ship was the Empire State IV. She was 489 feet long with a beam of 70 feet and gross weight of 12,097 tons. A speed of 17 knots powered by 17,000-horsepower engines made her a large and powerful ship. During bad weather, there were days and nights one does not soon forget. I cannot imagine the horror the crew of the Gulf Stream would have endured with 20-foot waves smashing into her.

I have read firsthand accounts of what the sea is like during a storm of this magnitude. Perhaps some of you have lived through one. Abruptly, the skies grow dark and the air colder. The winds will shift and begin to build. The seas will rise. The helmsman will swing the wheel to try to get the boat perpendicular to the next wake approaching from astern. The rain will drive into the windshield and explode against the glass. It is said that you can’t hear yourself talk when the wind blows that hard. Those who have survived this magnitude of storm cannot compare it to anything else in their experiences. There are times when the wind slows, and you grow optimistic that the worst has passed. Then with a howl, the wind becomes even more fierce than before. The boat will pitch violently, and one becomes too frightened to even look out at the sea. Keep in mind that this would be an 8 or 9 on the Beaufort scale. It would be defined as a strong gale, which is technically not even a storm. It would be quite a way from a violent storm, which is rated at 11, or a hurricane at 12.

When questioned about the safety of venturing out into the Gulf of Maine during the winter months, Yentsch thought it was safe due to the pattern of events in the weather system. He explained that the start of a winter blow signaled a
shift of wind into the southwest. This is accompanied by dropping pressure and temperature; winds will increase and blow hard from the northeast. As the wind moves further east and swings to the northwest, the barometer will rise, and the temperature will fall. As the high pressure moves in, wind velocity generally drops. During this interval, sea operations will commence. Bill was well aware of this weather sequence. They referred to the activity as “playing the backside of the front,” a term that follows football jargon.

Yentsch felt from the beginning that the Gulf Stream was run over. He felt that three factors were important—vessel size, operation during the night in limited visibility, and operation in heavily trafficked areas. The vessel was small and not readily visible on radar. Also, the visual angle from the pilot house was such that lights might easily be missed. It was agreed that they would not have known if a collision had occurred unless their propeller or rudder were damaged.

So why did they wait until Tuesday to search for a boat that should have returned to port on Sunday at the latest? The Coast Guard received its first report that the vessel was overdue on Monday, January 6, at 10:30 a.m., when Yentsch reported that he had not heard from the Gulf Stream and asked the Coast Guard to attempt to contact them by radio. The Coast Guard indicated they would do so. At this point, the feeling was that there was a breakdown in communications rather than that the vessel was in trouble. The Coast Guard unsuccessfully tried to contact the Gulf Stream for 18 hours.

On January 15, 1975, Nova University’s President Abraham S. Fischler received a letter from Captain Milton C. McFarland, U.S. Navy, stating, “The recent termination of the Coast Guard search operations in the Gulf of Maine for the R/V Gulf Stream and the presumption of the loss of the craft and those aboard has been particularly sad for me and my associates of the Naval Underwater Systems Center . . . I wish to express my personal sadness and the condolences of all of us to you and to Nova University for the grievous loss the profession has sustained with the loss of these five men.”
The news of the loss of the Gulf Stream stunned the university. The full impact of Richardson's apparent death would have major implications down the road, both fiscal and emotional. In those days, there were no crisis intervention teams. The loss of this vessel touched each one of us in different ways and, for awhile at least, brought us closer together as a university. We were deeply saddened for the close friends and family of those lost.

People on campus who knew the crew were genuinely grieving. Traumatic events can affect everyone whether or not you have directly experienced the trauma. We relate to trauma with a sense of disbelief, disowning the experience with a sense of disconnectedness from yourself. To counter this, you may create your own story or latch onto current themes. This gives one a sense of control and order.

The students provided a unique perspective in their analysis of the tragedy. Among the many theories offered was one in which a connection was made between the disappearance of the Gulf Stream and the disappearance of the famous “Lost Patrol” (Flight 19) in the Bermuda Triangle. Never mind that the Gulf Stream was nowhere near the Bermuda Triangle. This fact was of little importance for everyone who knew the Bermuda Triangle had been expanded. For those unfamiliar with the Bermuda Triangle or Nova University's indirect relationship to its most famous case, read on.

The original Bermuda Triangle is a triangle connected by a line drawn from Bermuda to Puerto Rico to South Florida and back to Bermuda. Some of the recorded disappearances took place outside this original triangle, so it was expanded and distorted into almost a rectangle. This was an area from Bermuda to Puerto Rico, then east to Jamaica and north to the Carolinas. This region is in no way isolated. To the true believer, this is the sinister no-man's land. According to legend, it strikes fear in the hearts of pilots and sailors to the extent that they have refused to discuss the matter with outsiders. Although military and civilian ships are in and out of the region on a daily basis, the number of disappearances seem to be beyond the laws of chance.
Probably the most famous case took place on December 5, 1945. Five Navy Avenger torpedo bombers (Flight 19) left Fort Lauderdale Naval Air Station in good weather on a short routine patrol, but they never returned. The flight leader radioed that the patrol was lost and unable to tell which direction they were flying. A rescue plane immediately took off, and it too vanished. A massive search was launched, but, after a few days, no trace could be found of any of the aircrafts.

Many of you are probably unaware of the fact that the NSU campus sits on what was Forman Field, a naval air training facility during World War II. This field was named for the family who donated the land. During the 1970s, we could still see the runways, the center of which would be about where the Alvin Sherman Library, Research, and Information Technology Center now stands, and it’s likely that the aviators of the lost patrol and former President George H.W. Bush did some of their training at this facility.

The entire Bermuda Triangle theory holds water, so to speak, as long as the entire craft and its passengers are never found. In our case, the body of James Riddle, a drawer from the galley of the Gulf Stream, and the life preserver which is pictured, make the argument untenable, even for science fiction.
In Steven Spielberg's motion picture *Close Encounters of the Third Kind* (1977), in one of the last scenes, an alien craft lands, and human passengers disembark. The flyers from Flight 19 are in that group. Some 30 years later, they are all the same age as when they disappeared.

One of the most fascinating aspects of the entire story involves the family of Jack Spornraft, one of the missing crew members. Spornraft's parents tried to bring some sort of closure to their son's disappearance. Only the body of James Riddle was ever recovered. The family spent a frustrating year meeting many obstacles in their attempt to find the Gulf Stream and their son's body. Spornraft's father hired attorney Ellis Rubin to file a claim against the insurance company on his son's behalf. Any monies resulting from the suit would be used to launch a search for his son. Spornraft stated that he knew where the vessel was. He believed it to be in 150 feet of water at 40 degrees, 7 minutes north latitude and longitude, 70 degrees, 4 minutes west in the Atlantic Ocean, but was unable to convince anyone to search this area. How could he possibly have this information?

The name M.B. Dykshoorn is probably not familiar to you, but in the mid-1970s, he was quite a personality. His business card read "parapsychological consultant." While living in New York, he won acclaim for his clairvoyant abilities in helping solve crimes and mysteries. Much of his work was supported by documentation such as affidavits prepared by clients and law enforcement agencies. He was reported to have great success in tracking criminals, finding buried treasures, and other clairvoyant feats. He was a well-known lecturer and spent some time in Miami. In 1974, he published a book entitled *My Passport Says Clairvoyant*. The book asserts that he helped police locate drowning and murder victims and pinpointed many temporary graves of World War II soldiers.

It is not clear how the Spornrafts became aware of Dykshoorn, but it seems probable that they read his book. They met with the psychic in April or May of 1975 and were greatly impressed. Spornraft claimed that Dykshoorn stated that a big wave washed over the boat and that he knew things about his son that would
PORTLAND SHIPPING CHANNEL

BOOTHBAY HARBOR

Crewman’s body

GLOUCESTER

Gulf Stream’s destination

FIPPENIES LEDGE

CASHES LEDGE

AMMEN ROCK

Woods Hole says the vessel went down here

A psychic says the vessel broke up here
make one think the two were friends. It was at this meeting that the Spornrafts were given the coordinates as to the location of the boat. It is interesting to note that after a great deal of calculating winds, drifts, etc., the scientists at Woods Hole came up with almost the same location. (See map)

The Spornrafts continued to pursue Dykshoorn with the hope of getting him more involved in the search. For whatever reason, this did not work out. One would expect that with the Woods Hole calculation and the psychic’s prediction being so close to each other that an attempt to locate the vessel would have been undertaken, but it was not to be.

In the end, President Fischler still felt an obligation to the families to somehow bring closure to the tragedy. On January 22, 1976, he wrote to Senator Richard Stone (D-FL) and requested that the Secretary of the Navy give his attention to this matter.

Senator Stone contacted the Secretary of the Navy. Unfortunately, the answer was not favorable. On February 4, 1976, Captain J.H. Koach, director of fleet operations readiness and the Navy Command Support Center Division, replied: “At the time of her loss, the vessel was involved in a drifting buoy testing program sponsored by the National Science Foundation. While this program is of interest to the Navy, there is no military or scientific benefit to warrant an effort to recover the vessel. It is regretted that a more favorable response cannot be provided.”

Thus, we are no closer to finding out the fate of the Gulf Stream today than we were on April 14, 1975, when the United States Coast Guard submitted its final report. The USCG stated:

There is no evidence that any act of misconduct, inattention to duty, negligence, incompetence, or willful
violation of any law or regulation on the part of licensed or certified personnel contributed to the casualty.

There is no evidence of any mayday or distress being sent from the R/V Gulf Stream at any time.

**Recommendations:**

It is recommended that no further action be taken and that this case be closed.

"Wouldst thou," so the helmsman answered, "Learn the secret of the sea? Only those who have braved its dangers comprehend its mystery!"

**Henry Wadsworth Longfellow**
The Oceanographic Center is located on a 10-acre site in Port Everglades near the port entrance.
EPILOGUE

Over the years, colleagues and other interested parties searched for the Gulf Stream time after time only to meet with failure. Is it that the vessel's destiny is to remain shrouded in mystery?

Every spring in Boothbay Harbor, the priest at Our Lady Queen of Peace Church leads a memorial service. Clergy members take turns reading the names of the 226 fisherman lost at sea since 1798. The church bell rings after every few names. And so it is that the names of the Gulf Stream's five crew members are read.

William Springer Richardson
William Ben Campbell
Jack L. Spornraft
James David Riddle
John Wayne Hill

We mourn their loss.
PARTICIPANTS

Abraham S. Fischler, Ed.D.
President, Nova University, 1970–1992

Charles Yentsch, Ph.D.
Director, Bigelow Laboratories

Jerry Erich
Nova University pilot

Francis Pierce
Owner of Pierce Marine Services

Bruce Fortier
Service manager at Pierce Marine Services

Wilson Francis
Lobster fisherman

John Hammond
Fisherman

William Howard
Commander, U.S.N., retired,
owner of electronic equipment facility