



HMS Titanic: A Preventable Tragedy

by Rachel DeMotte - 1997

In the year 2012, thousands of passengers cruise the Caribbean on a moonlit night, or drift slowly into an Alaskan inlet to photograph glaciers. Or cross the Atlantic on some of the world's finest ocean liners. One would be hard-pressed to find a single passenger reflecting on an event in the frigid North Atlantic, one-hundred-years earlier. An incident which has been forever engraved in countless historical records—the sinking of *HMS Titanic*.

Movies, books and stage plays abound in an attempt to unveil the physical and emotional facets of Titanic's passengers and crew. Few will ever feel the intense, soul-searing fear which those people felt during the two-hours it took for Titanic to slip beneath those freezing waters. What follows is a summary of the oft-forgotten sequence of blunders, perhaps even a lapse of common sense which triggered the tragedy.

The combined British and United States inquiries into Titanic's loss forced the implementation of strict regulations concerning travel over deep ocean waters.

Oft-forgotten Facts

- At 11:40 p.m., 14 April 1912, the world's largest vessel hit an iceberg, four days into its journey from Europe to America.
- Titanic was designed to carry 64 lifeboats but, to save space, it carried only twenty.
- The ship received six warnings about icebergs from other ships that had been in the same area.
- Water temperature was 28°.
- Depth from surface to ocean floor: 12,600 feet.
- Crew on board, 885; twenty-three were female.
- Time between iceberg sighting and collision; 37-seconds.
- The ship's captain, Edward Smith planned to retire after this trip. He went down with his ship.
- Couples who were on their honeymoon: 26.
- After hearing the distress signals, HMS Carpathia arrived at 4:00 a.m. to pick up survivors.
- Total number who perished; 1,517. Bodies recovered: 306 (23%).
- Survivors; 706.

- Ticket for First Cabin; \$4,350 (\$69,600 in 2020 currency).
- Top speed: 26.5 mph (23 knots).
- A priest refused rescue twice, preferring to stay aboard to hear confessions.
- Author Morgan Robertson wrote of a similar disaster—in 1898.
- The ship’s architect, Thomas Andrews, went down with his creation.
- The ship sank 400-miles East of Nova Scotia.
- Victims in the water succumbed in less than 45-minutes, due to hypothermia.
- Recovered bodies never identified: 118.
- Several ships, dispatched from Halifax, Nova Scotia, searched for bodies until mid-June 1912.
- Due to extensive body damage, some victims were buried at sea. Many others were buried in three cemeteries in Halifax. Some were reclaimed by family and taken home.

Titanic’s loss would not only haunt survivors over the ensuing years, but it was the catalyst for most present-day safety measures enjoyed by ocean travelers.

The Journey

On a bitterly cold spring night, R.M.S. Titanic, on its maiden voyage, inadvertently slipped into the annals of maritime history.

A long list of errors led to Titanic’s disaster, primarily it’s construction materials, speed, improperly designed watertight compartment doors, inattention to iceberg warnings, a lack of consistency in distress signals, inoperative radio equipment on nearby, potential rescue ships, and Titanic’s improperly- manned lookout station. In combination, each of these factors led to the sinking.

The loss of Titanic forced marine engineers to rethink the quality of parts and workmanship during the building of all future passenger liners. Additionally, major changes were made in safety measures during transport on the high seas. It may have been the ship builder’s arrogance or an overly-heavy reliance on the technology of the day.

Final Goodbye’s

As she stood on the dock, a young girl named Jenny Walton waved frantically as she spotted her best friend, Agnes Stratton. Agnes was pressed to the railing of this ‘unsinkable’ new ship, Titanic—pride of the White Star Line. Now, as Jenny watched her childhood friend waving back, she longed to join her. She had no idea what lay in store for Agnes.¹

It had taken 15,000 men over two years to build a behemoth which stood 97-feet high, 882-feet in length, with a breadth of 92-feet from port to starboard. At a cost of \$7.5 million, no extravagance had been denied placement on this elegant line.²

The builders had proclaimed that the ship was unsinkable. They’d even gone so far as to state that “Not even God could sink it.” “Perhaps they went too far with their bragging,” Jenny wondered years later.

It had been an hour late getting away from the dock, as the ship *New York* had broken free of its moorings, nearly colliding with Titanic. Finally, around 1:00 p.m. on April 10th, Titanic departed from Southampton, England for the short trip to Cherbourg, France, arriving just after sunset. The ship made one more quick stop at Queenstown, on the south coast of

¹ *Titanic Voices*: Hyslop, Forsyth and Jemima. Page 47.

² St. Petersburg Times: Nov. 14, 1997, Page 3.

Ireland, for mail pickup. Those stops now behind her, Titanic headed West on its six-day trip to New York City.

Social customs of the day required passengers to be separated into three sections, according to their economic standing. These classes were designated as First Cabin, Second Cabin, and Third Cabin, with separation being strictly enforced. The wealthiest had access to every amenity on the main deck, including the finest food, smoking rooms for men only, a reading room for women only, even a heated swimming pool and spa.

First Cabin fares also had access to card rooms, a dance hall, and luxurious sleeping quarters. Single men and women were kept far apart at each end of the ship, while families stayed together.

At the time of Titanic's maiden voyage, there had been great fervor in the shipping business for both speed and extravagance. Each builder sought bragging rights about being the fastest with the finest amenities.

Aboard Titanic was J. Bruce Ismay, president of White Star Lines. At some point on the journey, he ordered the captain to increase the ship's speed. It was his desire to beat the crossing time of Titanic's sister ship, Olympic, by arriving in New York City a day earlier than scheduled.

On most fantastic adventures, travelers enjoy sending messages to their friends. This voyage proved to be no exception. The wireless telegraph, while in its infancy at the time, was the instrument of choice for the status-conscious, affluent residents of First Cabin. The two wireless radio operators were kept busy, day and night, sending out brief messages of, "Hi. Wish you were here," and, "We'll be home soon."

Several times on Saturday, April 13th, other ships which had sailed through these same shipping lanes, warned Titanic about floating ice and, especially, icebergs. Was it a euphoric belief that Titanic was unsinkable, and the pressures of sending out innumerable passenger messages, that imminent danger was not taken seriously by the crew?

One such warning was given to the captain, Edward J. Smith. In turn, Smith gave it to White Star's president, Ismay, who put it in his pocket. That message remained there for over five-and-a-half hours before being posted to the bridge. Six such messages were received from ships Amerika, Baltic, Caronia, and Mesaba. Each warning was ignored in favor of sending the passenger's messages.

Titanic was now gliding through the cold Atlantic waters at 22.5-miles-per-hour. As a precaution, the captain posted a lookout in the crow's nest to watch for icebergs. He then retired for the night. The time was, now, just after the shift change, at ten o'clock.

At eleven o'clock, the ship Californian radioed the Titanic that she was, "dead in the water, completely surrounded by ice." The wireless operator on Titanic, frustrated by the constant warnings, messaged back, "Keep out!" He was buried with passenger notes. Warning further, he wrote, "You're jamming my signal." Before giving its position, Titanic's operator cut off the Californian.³ Shortly afterward, the Californian's wireless room was shut down for the night.

At 11:40 p.m., the lookout called the bridge with, "Iceberg right ahead." Titanic's chief

³ Old News: Page 2.

officer immediately ordered a sharp left turn and that all engines be shifted to “full speed, reverse.”

The iceberg was closer than anyone realized and, due to its speed, Titanic could not avoid a collision. As a result of the sharp turn, the iceberg hit the ship on its starboard (right) side, just below the water line. The ice dug into the hull, running nearly one-quarter of the ship’s length—about 240 feet.

Few passengers in First Cabin were aware that the ship had hit something, except for a few drinks spilling on a card table. In Third Cabin, however, people were thrown completely out of their bunks.

Due to intense vibrations, President Ismay, along with other crew members on the bridge, believed that one of the ship’s propellers had lost a blade. Below deck, crew members saw water rushing into engine rooms Five and Six.

The shipbuilder’s operation’s manual indicated that Titanic would remain afloat if no more than four of its holds were flooded. Within ten minutes, by 11:50 p.m., five of the forward holds were flooded with fourteen-feet of sea water (approximately 22-tons each). The chief officer ordered that the massive waterproof doors between the holds be closed.

Just after midnight, the ship’s designer, Thomas Andrews, informed Captain Smith that the first six holds were flooded, and that Titanic was doomed. He added that they had less than two hours before she goes down.

Some Third and Second Cabin passengers began appearing on deck. They knew there was trouble sooner than those on the upper decks. Soon after midnight an eerie calm settled over the ship as her engines became silent. Relatively few of the passengers knew what was happening. Some scooped up shaved pieces of the iceberg, waging snowball fights, or otherwise playing with the ice that landed on the deck.

At 12:05, Captain Smith gave the order to prepare the lifeboats. With no intercom to warn them, some members of the crew were still setting tables for breakfast; others ran from cabin to cabin, urging passengers to get out on deck. With the night air freezing cold, many chose the warmth of the gymnasium, instead. Others went to the purser’s office to retrieve their secured valuables.

At 12:10, Smith stuck his head in the wireless room, telling radio operators to send out a distress call. Responses came from Carpathia (fifty-eight miles distant), as well as seven other vessels: Ypiranga, Frankfurt, Baltic, Caronia, Prinz Fredrich Wilhelm, Mount Temple, and Olympic. None of these ships were close enough to help in time.

Feeling Titanic, itself, to be safer than the small, wooden lifeboats, many passengers refused to step out into the cold, dark night. Forced evacuation finally began at 12:35⁴ as twenty-eight people—one-third of the lifeboat’s capacity—climbed into a lifeboat and were lowered into the water. Most of the lifeboats which were used that night, were only half full when they were lowered into the Atlantic.⁵ Crew members did not believe that the hoists could handle the weight of more passengers. It was decided that they would load more people at the gangway doors, half way down the ship’s side. Those doors, however, were never unlocked.

⁴ Fifty-five minutes after striking the iceberg.

⁵ The lifeboats were capable of holding up to 75 people.

As they continued their escape, First and Second-Class passengers were given priority over others. Later investigation found that over 75% of Third Cabin passengers died, while only 38% of First Cabin perished.⁶ Most of the passageways leading up to the main deck were locked to prevent the lower-class people from contaminating First Cabin's wealthy elite. It was believed that Third Cabin passengers were likely to carry diseases.

On one side of the ship, women and children were put into the lifeboats; on the opposite side, men could get in only if no women were present. There was no organized plan for evacuation.⁷

While many of the lifeboats were lowered—holding only women and children—there was still room for men who were standing nearby. This procedure on Titanic gave rise to the saying, “Women and children first.” Chivalry was running high at that point in time, and for a man to save himself over another meant humility and shame. All the while, as people abandoned ship, the band continued to play; even during the entire two hours as the ship was sinking.⁸

In the lifeboats, most felt that their evacuation was just a precaution, and that they'd soon be back on board. At 12:45 a.m., the ship's Fourth Officer fired the first of eight distress rockets. He was told to repeat the firing every five minutes. On the horizon, the crew of the Californian saw the rockets but didn't realize they were distress signals.

One of Californian's crew members later reported that he thought it was a celebration taking place on Titanic. Nor had they responded to Titanic's wireless messages, due to their own radio having been turned off. Charges were brought against Californian's crew and captain in the ensuing months; however, all were eventually dismissed.

At 1:15 a.m., Titanic lurches toward her right side. Some men continued to joke and play cards. If one were to observe this scene from afar it might appear as a play; the actors knowing that, after the third act, they'll all be going home! On the starboard side, the Fifth Officer had to use his weapon to prevent men from climbing into lifeboats.

With many passengers running for safety, others among the hundreds still on board remained skeptical. Considering that the air temperature was only 31°, a number of First Cabin fares preferred to stay warm.

By 1:30 a.m., those in the lifeboats could see the ship's huge propellers sticking up out of the water. By 1:40, the Californian could no longer be seen by Titanic on the horizon. The one ship that could have helped save so many, unwittingly slipped away into the North Atlantic night.

The last lifeboat was lowered at 2:05 a.m. Captain Smith released the two wireless operators, but they continued to send distress signals until finally abandoning their positions at 2:17 a.m.

By now, the bow of Titanic was submerged and rapidly filling with water. This forced the stern to rise out of the water. With its enormously heavy rear half now high in the air—at a 45-degree angle—gravity's pull took command. At the ship's mid-point, she snapped in two. The stress had finally separated the bow from the stern. Now the bow was free to sink,

⁶ Life: June 1997, Page 71

⁷ A lifeboat safety drill scheduled for the day previous, had been canceled.

⁸ White Star Lines had the temerity to later bill the families for the uniforms the band members wore when they drowned.

descending at a rate of 13-miles-per-hour toward the ocean floor, over two-miles down.

With the bow gone, the stern resettled onto the surface, albeit momentarily. The stern was now free to fill with water. As it did, it again rose vertically to a high angle, then began to sink. Air trapped in the aft compartments—mostly sleeping rooms—slowed its descent to about 4-miles-per-hour.⁹ After slipping below the surface, it took over thirty-five minutes to reach the bottom.

One's morbid curiosity can only imagine how many men, women, and children were still alive when the ship finally came to rest. What could possibly have gone through their minds, now trapped forever in time? It was at 2:18 a.m., when the great, unsinkable ship had snapped in two like a toothpick, between the third and fourth funnels. It created a loud, cracking, thunderous sound, not unlike an animal in its death throes.

As Titanic sank, those in the lifeboats could only watch helplessly as unlucky passengers clung to anything and everything on her decks. They finally disappeared along with the ship that, "not even God" was able to sink.

Survivors in the lifeboats were able to pull aboard some of those who were swimming, and listened helplessly to the dying gasps of others. As seventeen-year-old survivor Jack Thayer later recalled, "Their cries sounded like a horde of locusts humming, until there were no more sounds." Eventually, there came a deafening silence. Shock was setting in, as all realized their desperate predicament.

The waters of the Atlantic had returned to the calmness of a large pond. Those in lifeboats gently rocked, anticipating rescue by unknown means. Shortly after four o'clock, the *Carpathia* arrived and began taking on survivors.¹⁰ It took several hours to collect all they could find. At 8:50 a.m., on Monday morning, the rescue ship headed for New York with only 705 survivors.

Several days later, on April 20th, the *Bremen* passed by the site of the disaster and reported seeing numerous bodies in the water. The crews of the *Oceanic* and *Mackay-Bennett* picked up 306 bodies later that day. After a week of searching by other ships, the *Minia* sailed from Nova Scotia to recover additional bodies.

On May 6th, the *Montmagny* recovered four remains. On May 15th, the *Magalgerina* picked up one more. In total, 320 bodies were collected from the Atlantic's freezing waters.

On April 18th, at 9:00 p.m., the *Carpathia* arrived in New York, with some of Titanic's lifeboats hanging at her sides. Disembarking in the U.S. for only one day, British survivors left immediately on the *Lapland* for the return trip to England.

In the investigation which followed, the obvious mishaps and unfortunate chain of events began to unravel. Many attempts were made to place blame on the crew's possible misconduct, the ship's poor construction and design,¹¹ even placing blame on a few passengers for their less-than-heroic actions.

In the light of day, though, there were no convictions, and the White Star Line quickly restored its reputation. The company retrofitted the *Olympic*, Titanic's sister ship, with a full complement of lifeboats and other safety upgrades.

⁹ Popular Science: Feb. 1995. Page 55.

¹⁰ Article by Dr. Robert D. Ballard, professor of oceanography; Commander, U.S. Navy (ret.). Page

¹¹ Pamphlet from Titanic: The Exhibition.

Looking back over a long list of Titanic's unintelligible construction decisions, each stand's out like a red flag. As a consequence of this tragedy, a number of universal training programs and procedures were implemented. A worldwide distress call was mandated to allow all ships at sea to know precisely when another ship was in trouble. This become known as the SOS signal.¹²

Though Titanic had sent out distress messages, few other ships knew their meaning. In addition, the crow's nest, from which the ship's lookout first observed the iceberg, would now have binoculars in them at all times.¹³

Ships were ordered to be outfitted with enough lifeboats to hold every soul on board, including the crew. All ships were required to instruct passengers on the function and use of lifesaving equipment; specifically, lifeboats and life-preservers. All crew members were to undergo intensive training in the operation and use of safety equipment on board. This rule was added when it was revealed that passengers aboard Titanic did not know where any life-saving equipment was located, let alone how to use it.

Crew members were ordered to put on life vests and parade around on a liner's deck to inform passengers where to find the equipment, and how it should be used. Beside these new procedures, all radio and wireless rooms were to be manned 24- hours a day.¹⁴

The first meeting for the institution of these new directives was held in 1914 but, due to the war with Germany, most ideas were tabled until the next convention. Red tape and other roadblocks prevented final approval of these regulations until 1929!

Finding the Wreckage

In recent decades, many explorers have tried to locate the burial ground of Titanic. On 1 September 1985, Dr. Robert Ballard finally located the wreckage off the coast of Newfoundland. He first used a submersible, unmanned submarine to photograph its condition and to view the location of thousands of scattered pieces laying on the ocean floor.

In July 1986, Ballard was able to reach Titanic in a manned submersible to gather additional information regarding Titanic's final resting place. One of the objects Ballard recovered was a small piece of the ship's hull. It was given to metallurgists to determine if the steel plates on the ship could have caused it to sink so rapidly. Their suspicions proved correct.

After replicating water temperature and other factors including the ship's speed, they discovered that the hull had been constructed of inferior material. It was also found that the rivets used to hold the plates together were of poor quality, cast iron to be specific.

Comparing steel plates being manufactured today with that piece of Titanic's hull, researchers found that when the ship struck the iceberg, the hull shattered into several pieces.

Today's process of steel-making allows for flexibility. Had it been used on Titanic, steel of this quality would have caused the ship to 'bounce' off the iceberg. Even if the iceberg had cut a hole in the hull, it would not have torn the 240-foot-long crease along its side. Additionally, recent discoveries have allowed scientists to determine the speed of descent of

¹² SOS is not an acronym. It's comprised of 3 dots, 3 dashes, and 3 dots. Morse code for *help*, the distress signal was implemented after Titanic.

¹³ The ship's binoculars were in a locked container, but the key had been lost.

¹⁴ National Geographic: Titanic Collector's Edition - Inside back cover.

the two sections of Titanic as each descended.

Considering its weight and the depth to which each piece is buried in the ocean floor, scientists have arrived at a rather accurate conclusion. Except for sheer curiosity, why would it matter how fast each section descended?

Throughout history, man has tried to outdo the accomplishments of his rivals, in a selfish race for fame and fortune. At the time it was launched, Titanic was larger than any other sea-going vessel. It was the builder's ambition to be the first with the most. In their pursuit of glory, the designers and builders of this mammoth liner forgot the safety of their cargo. And, that cargo paid the ultimate price for others' fool-hearty ambitions.

This tragedy was never forgotten by those who survived. Nor has Titanic been allowed to rest peacefully by others who, though fascinated with its folklore and magnified memories, perpetually romanticize it in the eyes of the masses. Hundreds of books, plays and movies have been made about this tragic and sorrowful event. Better known by its one-word name—Titanic.

When all is said and done, if any one person is most responsible for this tragedy, it would be White Star Line's President Joseph B. Ismay. In his desire to break the speed record, which the *Atlantic* had previously set, he urged Captain Smith to push on at a greater-than-safe speed in an extremely dangerous area. His arrogance and debatable reliance on the technology used in the ship's manufacture, made him believe that his masterpiece was immortal.

Was This Disaster Foreseen?

Morgan Robertson was born in 1861 and died of a heart attack in 1915, in Atlantic City, New Jersey. He was best known as a writer of short stories. However, in 1898, he

published a book named *Futility*; a book that also became known as *The Wreck of the Titan*.

His tale features an enormous British passenger liner called the *SS Titan*, considered to be unsinkable. It did not carry a sufficient number of lifeboats. The Titan's voyage took place in the month of April and it, too, hit an iceberg. It sank in the North Atlantic, resulting in the loss of almost everyone on board.

One can only wonder about Robertson's prescient knowledge of a real-life disaster—the RMS Titanic. It becomes even more incredible, since his book was published fourteen years before Titanic's demise. As with the Titan, Titanic had an insufficient number of lifeboats, collided with an iceberg on a night in April, and sank to the bottom of the North Atlantic. When the SS Titan went down, it took an overwhelming number of souls to their icy, watery grave.

A Replica of Titanic

Currently, a full-size replica of Titanic is being constructed in China. It will not travel the oceans, but tourists will be able to eat and sleep on the stationary attraction. Still under construction in 2020, rooms will cost between \$450 - \$14,000 a night. To view updates on exact location and building completion, do a Google search for *Titanic replica being built in China*. Numerous photographs are available.