

SINKING THE

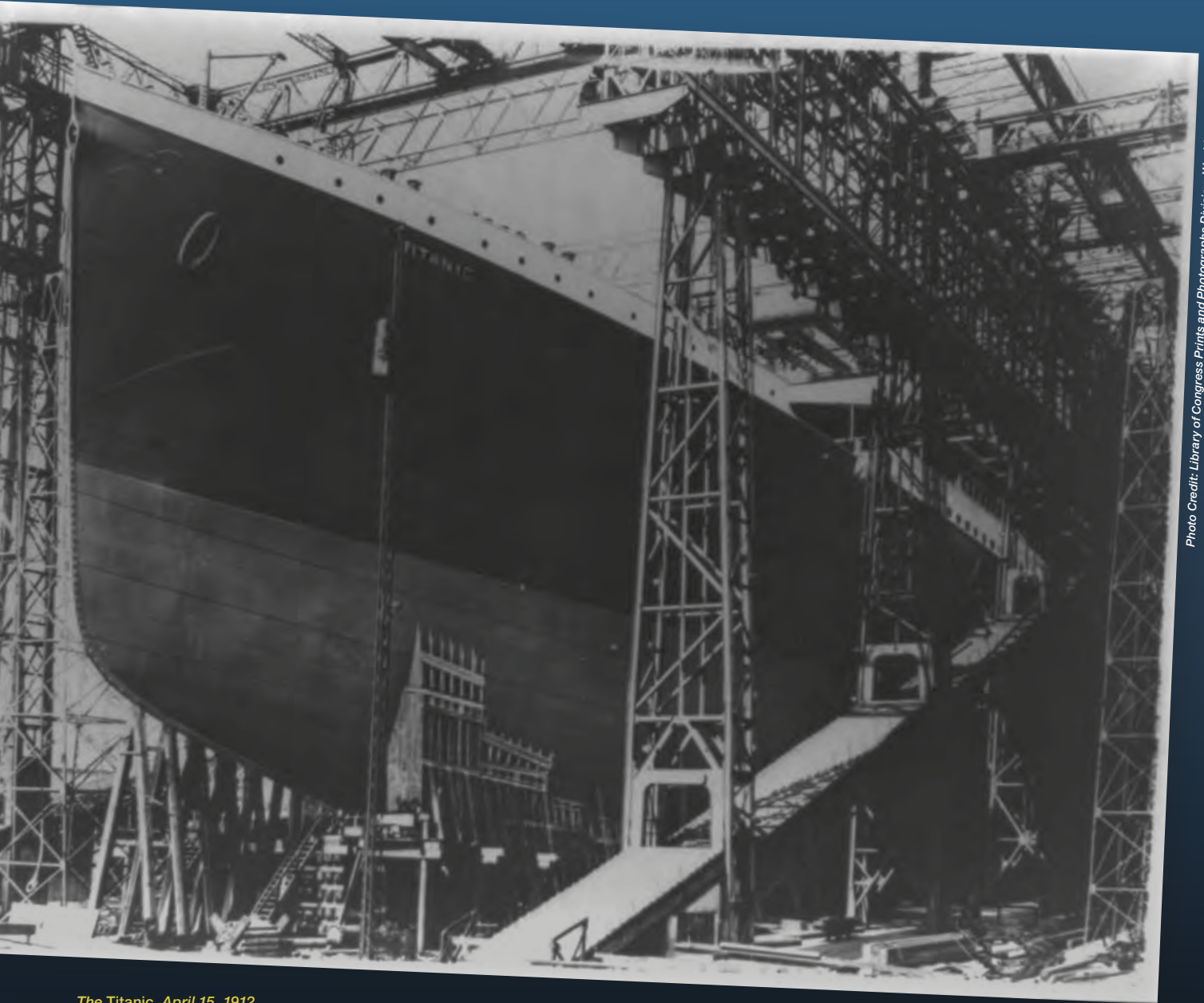


Photo Credit: Library of Congress Prints and Photographs Division, Washington, D.C.

The Titanic, April 15, 1912.

“... my purpose is to ascertain what lessons this disaster teaches us ...”
—Senator I. Raynor, May 28, 1912, during the U.S. Senate Inquiry on Titanic Disaster

UNSINKABLE: LESSONS FOR LEADERSHIP

BY PEDRO C. RIBEIRO

On April 15, 1912, the “unsinkable” RMS *Titanic* sank during its maiden voyage only 2 hours and 40 minutes after hitting an iceberg. Investigations and inquiries led by the U.S. Senate and the British Wreck Commission indicated that a combination of overconfidence, ignored warnings, lack of communication, and lack of leadership resulted in one of the greatest disasters in maritime history.

On April 10, 1912, when she steamed out of the harbor at Southampton, England, on her maiden voyage, the *Titanic* was the largest moving object ever built by man. The product of five years of planning and construction, *Titanic* was compared to the greatest monuments of the world. Proclaimed by a leading naval engineering journal as “practically unsinkable,” she sank during her maiden voyage, taking with her the lives of 1,517 people.

What happened? The *Titanic* disaster hearings and related sources offer some lessons to today’s project leaders and teams.

Compliance Is Necessary but Not Sufficient

Titanic’s original project plan included a configuration of forty-eight lifeboats, sufficient to accommodate all her passengers and crew. The original plans, however, were not approved by J. Bruce Ismay, chairman of White Star Line. Ismay’s arguments were based on the fact that *Titanic* could be in full compliance with the British Board of Trade rules with just twenty lifeboats, enough for 1,176 passengers. He reasoned that the ship was designed to be practically unsinkable, a lifeboat in itself. Additional lifeboats would unnecessarily clutter the boat deck that could be used as a promenade area.

Titanic sailed on her maiden voyage in full compliance with legislation, with 2,223 passengers and crew on board, but with a total lifeboat capacity for just 1,176 passengers.

Sometimes Leaders Have to Rock the Boat

Titanic’s original lifeboat plans were conceived by Alexander Carlisle, managing director of shipbuilder Harland & Wolff. He believed that new giant ocean liners needed a larger number of

lifeboats than the number required by rules set by the British Board of Trade. He presented his plans during meetings held with White Star Line but did not press his views after the client refused to accept his plans, considering this to be a client decision.

Later, during the British Wreck Commission’s inquiry, he said he regretted not being forceful enough with his client and peers in defense of his call for more lifeboats.

Near Misses and Mishaps Are Learning Opportunities

A trail of mishaps and near misses pointed to the challenges of controlling the hydrodynamic forces of the new class of ocean liners:

- **June 21, 1911:** *Olympic*, *Titanic*’s sister ship, nearly sank the tug *Hollenbeck* by suction when it was caught in the ship’s backwash in New York.
- **September 20, 1911:** Due to the suction effect, *Olympic* was involved in a serious collision with Royal Navy cruiser *Hawke* in Southampton, and was left with a large hole punched in her side. The *Hawke* suffered major damage to her bow.
- **February 24, 1912:** The *Olympic* collided with the Grand Banks off Newfoundland, Canada, and lost a propeller blade.
- **April 10, 1912:** Departing from Southampton on her maiden voyage, *Titanic* caused a suction effect on the SS *New York*. Collision was avoided by a few meters.

Near misses and mishaps are opportunities to learn and to take steps to make sure that similar problems will not happen in the future. However, instead of increasing awareness, they contributed to augmenting the level of confidence in the new class of ships in terms of maneuverability and endurance to collisions. According to author Leo Marriott, the fact that *Olympic* endured collisions with a warship and stayed afloat,

Survey No. M23780
REPORT OF SURVEY
AN INDEPENDENT SURVEY
OF THE TITANIC
APRIL 15, 1912

Ship Name	Titanic	Builder	Harland & Wolff	Registered	White Star Line
Ship No.	1514	Builder's No.	1000	Registered No.	1000
Year of Construction	1912	Builder's Name	Harland & Wolff	Registered Name	White Star Line
Year of Survey	1912	Surveyor's Name	John Smith	Surveyor's Rank	Master
Survey Date	April 15, 1912	Survey Time	10:00 AM	Survey Location	North Atlantic Ocean
Survey Purpose	Investigation of the Titanic disaster	Survey Results	See report	Survey Conclusion	See report

MASTER AND OFFICERS

Master	Edward Smith	First Officer	James Bruce Ismay
Second Officer	Charles G. Smith	Third Officer	Samuel L. Parsons
Fourth Officer	Joseph H. Boxer	Fifth Officer	John G. Barrett
Sixth Officer	David G. Harcourt	Seventh Officer	Charles H. Gifford
Eighth Officer	John H. Gifford	Ninth Officer	John H. Gifford
Ten Officer	John H. Gifford	Eleventh Officer	John H. Gifford
Twelfth Officer	John H. Gifford	Thirteenth Officer	John H. Gifford
Fourteenth Officer	John H. Gifford	Fifteenth Officer	John H. Gifford
Sixteenth Officer	John H. Gifford	Seventeenth Officer	John H. Gifford
Eighteenth Officer	John H. Gifford	Nineteenth Officer	John H. Gifford
Twentieth Officer	John H. Gifford	Twenty-first Officer	John H. Gifford

LEADERSHIP AFFILIATION

Ship Name	Titanic	Builder	Harland & Wolff	Registered	White Star Line
Ship No.	1514	Builder's No.	1000	Registered No.	1000
Year of Construction	1912	Builder's Name	Harland & Wolff	Registered Name	White Star Line
Year of Survey	1912	Surveyor's Name	John Smith	Surveyor's Rank	Master
Survey Date	April 15, 1912	Survey Time	10:00 AM	Survey Location	North Atlantic Ocean
Survey Purpose	Investigation of the Titanic disaster	Survey Results	See report	Survey Conclusion	See report

Photo Credit: The National Archives, Kew, Richmond, Surrey, UK

Report of Survey of an Emigrant Ship 04/11/1912.

The Board of Trade Survey Report shows *Titanic* in compliance with twenty lifeboats on her maiden voyage.

with no casualties, despite serious flooding, appeared to vindicate the design of the Olympic-class liners and reinforcing their "unsinkable" reputation.

Confidence Is Important; Overconfidence Is Dangerous

Confidence is a leadership virtue, but the border between confidence and overconfidence is easily crossed.

Captain Edward Smith, commander of *Titanic*, was the most experienced captain of White Star Line. Talking about his experience during a press interview in 1907, he declared: "... I have never been in an accident of any sort worth speaking about ... nor was I ever in any predicament that threatened to end in disaster of any sort ... I cannot imagine any condition which would cause a ship to founder Modern shipbuilding has gone beyond that."

It is important to note that according to White Star Line logs, Captain Smith's experience prior to 1911 was based on ships no larger than 24,000 tons. *Titanic* and her sister *Olympic*, the largest ships ever constructed, were 45,000-ton ships.

Captain Smith's assumption, based on his past successful experience, was that *Titanic* could establish visual contact with any iceberg in front of the ship in sufficient time to maneuver and avoid it. The report of the disaster hearings would find, among other conclusions:

... *Titanic* rushed onward on her true course, one recognized as appropriate ... yet dangerous at this season of the year, when the Labrador current may be bearing vast masses of ice across the track of ships Ice positions so definitely reported to the *Titanic* just preceding the accident located ice on both sides of the track or lane which the *Titanic* was following. ... No general discussion took place among the officers; no conference was called to consider these warnings; no heed was given to them. The speed was not relaxed, the lookout was not increased, ... [Smith's] indifference to danger when other

HYDROGRAPHIC OFFICE,
WASHINGTON, D. C.
DAILY MEMORANDUM
No. 3015.
April 15, 1912.

FOR THE ATLANTIC OCEAN
CONSTRUCTIONS OF THE AMERICAN COAST.

Mar. 26 - Lat 24° 50', Lon 90° 02', passed a broken spar projecting about 3 feet out of water, apparently attached to sunken wreckage. (See) Wright.

CONSTRUCTIONS ALONG THE OVER-SEA ROUTES.

Apr 7 - Lat 20° 20', Lon 59° 40', saw a lowmast covered with marine growth. (See) (It. 55), Caracas.

ICE REPORTS.

Apr 7 - Lat 45° 10', Lon 56° 40', ran into a strip of field ice about 5 or 4 miles wide extending north and south as far as could be seen. Some very heavy pans were seen. (See) (Dr. 55), Williams.

Apr 10 - Lat 41° 50', Lon 50° 25', passed a large ice field a few hundred feet wide and 15 miles long extending in a NW direction. (See) (Ger 55). (How York Herald)

COLLISION WITH ICEBERG - Apr 14 - Lat 41° 46', Lon 50° 14', the British steamer *TITANIC* collided with an iceberg seriously damaging her bow; extent not definitely known.

Apr 14 - The German steamer *AMERIKA* reported by radio telegraph passing two large icebergs in lat 41° 57', Lon 50° 09'. (See) (Dr 55).

Apr 14 - Lat 42° 04', Lon 49° 45', encountered extensive field ice and saw seven icebergs of considerable size. (See) (Ger 55).

J. J. K. R. P.
Captain, U. S. Navy/
Hydrographer.

Photo Credit: The U.S. National Archives and Records Administration

Daily Memorandum from the Hydrographic Office Reporting *Titanic* Disaster, 04/15/1912.

The Hydrographic Office memorandum that registered on April 14 *Titanic*'s transmission of an iceberg message from SS *Amerika* reporting two large icebergs, and *Titanic*'s collision with an iceberg in the same area she reported.



Titanic Disaster Hearings held at the Waldorf Astoria New York, April 19, 1912.

and less pretentious vessels doubled their lookout or stopped their engines ... was one of the direct and contributing causes of this unnecessary tragedy. ... Overconfidence seems to have dulled faculties usually so alert.

Watch Out for Organizational Silos

Organizational silos—bureaucratic or cultural barriers between departments or groups—decrease incentives to collaborate, share information, or team up to pursue common objectives.

The winter of 1912 was the mildest winter in thirty years, resulting in the creation of an enormously large crop of icebergs from the Greenland glaciers. Unusual winds blew these bergs far southward, crossing established ship routes. Accordingly, on January 16, 1912, the Hydrographic Office in Washington, D.C., sent a circular letter to shipmasters, requesting them to make use of the United States naval radio stations for the purpose of reporting to the Hydrographic Office ice or other dangers to navigation, using the telegraph as a navigational aid in addition to traditional lookouts.

White Star Line had a partnership with Marconi Wireless Telegraph Company, but Marconi telegraph operators were not considered part of the crew; they were employed by the Marconi Company, not by White Star Line. They had their own clear goals and priorities, namely to send and receive commercial paid messages for passengers. There was little established coordination or procedure, and no incentives for the radio room and the bridge to handle ice warnings cooperatively.

On April 14, 1912, the day of the disaster, *Titanic* received seven iceberg warnings. One of these messages was transmitted from the SS *Amerika* via the *Titanic* to the Hydrographic Office in Washington, D.C. The message reported ice along *Titanic*'s route. *Titanic* radio operators retransmitted the message to the Hydrographic Office but not to *Titanic*'s bridge. Later, the Hydrographic Office would mention in its annual report the irony that *Titanic* hit an iceberg she herself had reported: "It is a lamentable fact and a remarkable coincidence that the sinking

of the *Titanic* was caused by an iceberg the report of which she had transmitted Had she but heeded the one warning that she transmitted she would probably have saved herself."

The disaster hearings also discovered that an important ice-warning message was received approximately one hour before the accident. The SS *Californian*, on the same route of the *Titanic*, stopped due to ice and tried to warn *Titanic*. To this the operator of the *Titanic* replied, "Shut up. I am busy. I am working Cape Race." He was focused on his work, that is, sending and receiving passengers' paid messages.

Ineffective coordination, procedures, and communication between organizations that should have worked together were contributing factors in blocking essential information that could help to prevent the disaster.

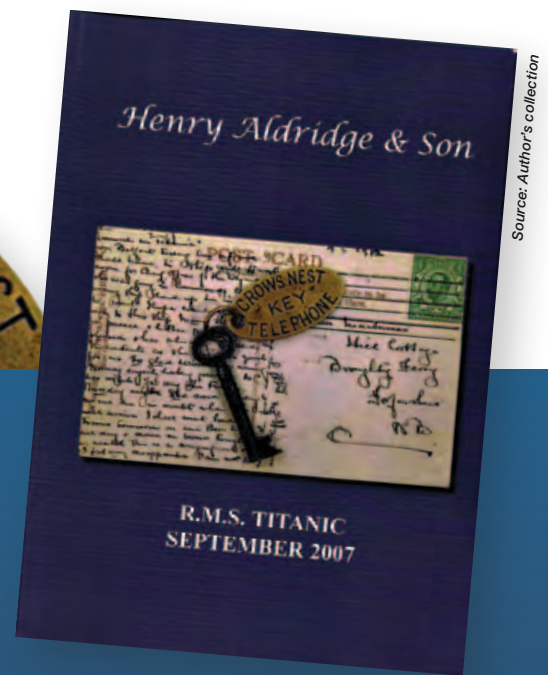
Listen to All Levels of the Organization

No job in an organization is too small to help break the sequence of events that create a crisis. Research indicates that 90 percent of employees can perceive far in advance when projects are doomed; 71 percent say that they try to speak up about their concerns to key decision makers but do not feel they are heard; and 19 percent don't even attempt to speak.

In the case of the *Titanic*, the disaster hearings reports and other sources indicate that lookouts who could have prevented the disaster did not have the tools or status needed to ensure their concerns would be acted on. According to the *Boston Sunday Globe* of April 21, 1912, and researcher George Behe, past vice-president of the *Titanic* Historical Society, lookout Frederick Fleet tried to warn the bridge about the apparent presence of icebergs before the fatal iceberg hit the ship. He was not heard because, due to weather conditions, he was unsure and could not confirm his sighting as an iceberg. The bridge did not take appropriate action because they needed confirmed iceberg sightings to change course or reduce speed. The lookouts had no binoculars, however, which made confirmation difficult. The binoculars in the crow's nest were locked; nobody knew



Titanic crow's nest key, Auction Catalog Cover, 2007.



where the key to the locker was, and the officers did not provide binoculars to the lookouts. (The key to access the binoculars was later found and auctioned in the United Kingdom in 2007 for £90,000.) Finally, at 11:40 p.m., lookout Frederick Fleet confirmed sighting an iceberg, but it was too late. *Titanic* would hit the iceberg 37 seconds later.

During the hearings, the lookout said in his testimony that "... if he had been supplied with binoculars, which were denied him by officers, he could have seen earlier the iceberg with which *Titanic* collided soon enough to get out of the way" Almost one hundred years later, computer simulations proved that, had *Titanic* lookouts seen the iceberg a few seconds earlier, the disasters could have been avoided.

Build and Train Your Team Across Project Phases and Functions

The *Titanic*'s officers and crew were not trained as a team in the handling of lifeboats, nor were they aware of lifeboat tests done during the construction phase. Their lack of knowledge, training, and shared experience made the lifeboat situation even worse.

According to the disaster hearing reports:

"Officers and crew were strangers to one another. ... When the crisis came there was a state of absolute unpreparedness ... *Titanic*'s crew had never acted as a team to lower the ship's boats. ... Untrained and untried, and ... unfamiliar with the lifeboats' capacity ... [they failed] to utilize lifeboats to their capacity ... [resulting] in the needless sacrifice of several hundred lives which might otherwise have been saved."

Preventing Future Disasters

As a consequence of the *Titanic* disaster, the International Convention for the Safety of Life at Sea was created to apply lessons learned from the tragedy. The many factors leading to

the sinking of the *Titanic* clearly demonstrate that crises do not just happen, they are created by a chain of events and conditions that can potentially be recognized and responded to before the damage is done. Learning from crises is important, but it is too expensive when the cost is measured in human lives as well as money. That unacceptably high cost makes it even more important to use the lessons of past disasters to avoid future ones.

In addition, we need to start learning before crises happen by investing in learning skills, processes, tools, and new thinking models for teams and for leaders at all levels in the early identification and prevention of crises. In the centenary year of the loss of the *Titanic*, we should remember that crisis prevention is possible but depends on leadership, alertness, cooperation, and communication at all levels of the organization. ●

PEDRO C. RIBEIRO is the founder of Stratech/TheProjectOffice. A director of the Risk Management SIG and a former member of the board of PMI Educational Foundation, he is the author of the book *Licoes do Titanic sobre Riscos e Crises* (*Lessons from the Titanic on Risk and Crises*), and has contributed to the PMI Practice Standard for Project Risk Management. E-mail: pedrocribeiro@stratech.com.br

