Sinking of the RMS Lusitania

The sinking of the Cunard ocean liner RMS Lusitania occurred on 7 May 1915 during the First World War, as Germany waged submarine warfare against Britain. The ship was identified and torpedoed by the German U-boat U-20 and sank in 18 minutes. The vessel went down 11 miles (18 km) off the Old Head of Kinsale, [1] Ireland, killing 1,198 of the 1,959 people aboard, leaving 761 survivors. The sinking turned public opinion in many countries against Germany, contributed to the American entry into World War I and became an iconic symbol in military recruiting campaigns of why the war was being fought.[2]

Lusitania had the misfortune to fall victim to torpedo attack relatively early in the First World War, before tactics for evading submarines were properly implemented or understood. The contemporary investigations both in the UK and the United States into the precise causes of the ship's loss were obstructed by the needs of wartime secrecy and a propaganda campaign to ensure all blame fell upon Germany. Argument over whether the ship was a legitimate military target raged back and forth throughout the war as both sides made misleading claims about the ship. At the time she was sunk, she was carrying a large quantity of rifle ammunition and other supplies necessary for a war economy, as well as civilian passengers. Several attempts have been made over the years since the sinking to dive to the wreck seeking information about precisely how the ship sank, and argument continues to the current day.
Background

When *Lusitania* was built, her construction and operating expenses were subsidised by the British government, with the proviso that she could be converted to an Armed Merchant Cruiser if need be. At the outbreak of the First World War, the British Admiralty considered her for requisition as an armed merchant cruiser, and she was put on the official list of AMCs. The Admiralty then cancelled their earlier decision and decided not to use her as an AMC after all; large liners such as *Lusitania* consumed enormous quantities of coal (910 tons/day, or 37.6 tons/hour) and became a serious drain on the Admiralty's fuel reserves, so express liners were deemed inappropriate for the role when smaller cruisers would do. They were also very distinctive; so smaller liners were used as transports instead. *Lusitania* remained on the official AMC list and was listed as an auxiliary cruiser in the 1914 edition of *Jane's All the World's Fighting Ships*, along with *Mauretania*. [3]

At the outbreak of hostilities, fears for the safety of *Lusitania* and other great liners ran high. During the ship's first east-bound crossing after the war started, she was painted in a drab grey colour scheme in an attempt to mask her identity and make her more difficult to detect visually. When it turned out that the German Navy was kept in check by the Royal Navy, and their commerce threat almost entirely evaporated, it very soon seemed that the Atlantic was safe for ships like *Lusitania*, if the bookings justified the expense of keeping them in service.

Many of the large liners were laid up over the autumn and winter of 1914–1915, in part due to falling demand for passenger travel across the Atlantic, and in part to protect them from damage due to mines or other dangers. Among the most recognizable of these liners, some were eventually used as troop transports, while others became hospital ships. *Lusitania* remained in commercial service; although bookings aboard her were by no means strong during that autumn and winter, demand was strong enough to keep her in civilian service. Economizing measures were taken, however. One of these was the shutting down of her No. 4 boiler room to conserve coal and crew costs; this reduced her maximum speed from over 25 knots (unknown operator: *strong* km/h) to 21 knots (unknown operator: *strong* km/h). Even so, she was the fastest first-class passenger liner left in commercial service.

With apparent dangers evaporating, the ship's disguised paint scheme was also dropped and she was returned to civilian colours. Her name was picked out in gilt, her funnels were repainted in their traditional Cunard livery, and her superstructure was painted white again. One alteration was the addition of a bronze/gold coloured band around the base of the superstructure just above the black paint. [4]
1915

By early 1915 a new threat began to materialize: submarines. At first they were used by the Germans only to attack naval vessels, and they achieved only occasional – but sometimes spectacular – successes. Then the U-boats began to attack merchant vessels at times, although almost always in accordance with the old cruiser rules. Desperate to gain an advantage on the Atlantic, the German government decided to step up their submarine campaign. On 4 February 1915 Germany declared the seas around the British Isles a war zone: from 18 February allied ships in the area would be sunk without warning. This was not wholly unrestricted submarine warfare since efforts would be taken to avoid sinking neutral ships.\[5\]

*RMS Lusitania* was scheduled to arrive in Liverpool on 6 March 1915. The Admiralty issued her specific instructions on how to avoid submarines. Despite a severe shortage of destroyers, Admiral Henry Oliver ordered HMS *Louis* and *Laverock* to escort *Lusitania*, and took the further precaution of sending the Q ship *Lyons* to patrol Liverpool Bay.\[6\] The destroyer commander attempted to discover the whereabouts of *Lusitania* by telephoning Cunard, who refused to give out any information and referred him to the Admiralty. At sea, the ships contacted *Lusitania* by radio, but did not have the codes used to communicate with merchant ships. Captain Dow of *Lusitania* refused to give his own position except in code, and since he was, in any case, some distance from the positions they gave, continued to Liverpool unescorted.\[7\]

It seems that, in response to this new submarine threat, some alterations were made to *Lusitania* and her operation. She was ordered not to fly any flags in the War Zone, a number of warnings, plus advice, were sent to the ship’s commander in order to help him decide how to best protect his ship against the new threat, and it also seems that her funnels were most likely painted a dark grey to help make her less visible to enemy submarines. Clearly, there was no hope of disguising her actual identity, since her profile was so well-known, and no attempt was made to paint out the ship’s name at the prow.\[8\]
Captain Dow, apparently suffering from stress from operating his ship in the War Zone, and after a significant "false flag" controversy, left the ship; Cunard later explained that he was "tired and really ill."[9] He was replaced with a new commander, Captain William Thomas Turner, who had previously commanded *Lusitania*, *Mauretania*, and *Aquitania* in the years before the war.

On 17 April 1915, *Lusitania* left Liverpool on her 201st transatlantic voyage, arriving in New York on 24 April. A group of German–Americans, hoping to avoid controversy if *Lusitania* were attacked by a U-boat, discussed their concerns with a representative of the German Embassy. The embassy decided to warn passengers before her next crossing not to sail aboard *Lusitania*. The Imperial German Embassy placed a warning advertisement in 50 American newspapers, including those in New York (see illustration).

### Last voyage and sinking

#### Departure

*Lusitania* departed Pier 54 in New York on 1 May 1915. The German Embassy in Washington had issued this warning on 22 April 1915.[10]

> **Notice!**
> Travellers intending to embark on the Atlantic voyage are reminded that a state of war exists between Germany and her allies and Great Britain and her allies; that the zone of war includes the waters adjacent to the British Isles; that, in accordance with formal notice given by the Imperial German Government, vessels flying the flag of Great Britain, or any of her allies, are liable to destruction in those waters and that travellers sailing in the war zone on the ships of Great Britain or her allies do so at their own risk.
> Imperial German Embassy
> Washington, D.C. 22 April 1915

This warning was printed adjacent to an advertisement for *Lusitania*'s return voyage. The warning led to some agitation in the press and worried the ship's passengers and crew.

Captain William Thomas Turner, known as "Bowler Bill" for his favourite shoreside headgear, had returned to his old command of *Lusitania*. He was commodore of the Cunard Line and a highly experienced master mariner, and had relieved Daniel Dow, the ship's regular captain. Dow had been instructed by his chairman, Alfred Booth, to take some leave, due to the stress of capturing the ship in U-boat infested sea lanes and for his protestations that the ship should not become an armed merchant cruiser, making her a prime target for German forces.[11] Captain Turner tried to calm the passengers by explaining that the ship's speed made her safe from attack by submarine. However, Cunard shut down one of the ship's four boiler rooms to reduce costs on sparsely subscribed wartime voyages, reducing her top speed from 25.5 to around 22 knots.[12]

*Lusitania* steamed out of New York at noon on 1 May, two hours behind schedule because of a last-minute transfer of forty-one passengers and crew from the recently requisitioned *Cameronia*.[13] Shortly after departure three German-speaking men were found on board hiding in a steward's pantry. Detective Inspector William Pierpoint of the Liverpool police, who was travelling in the guise of a first class passenger, interrogated them before locking them in the cells for further questioning when the ship reached Liverpool.[14] Also among the crew was an Englishman, Neal Leach, who had been working as a tutor in Germany before the war. Leach had been interned but...
later released by Germany. The German embassy in Washington was notified about Leach’s arrival in America where he met known German agents. Leach and the three German stowaways went down with the ship, but they had probably been tasked with spying on the Lusitania and its cargo. Most probably, Pierpoint would already have been informed about Leach.\[15\]

**Passengers**

*Lusitania* carried 1,959 people on her last voyage, with 1,265 passengers and 694 crew aboard. Those aboard included a large number of illustrious and renowned people including:

- Theodate Pope Riddle, American architect and philanthropist (survived)
- Canadian businessman Sir Frederick Orr Lewis, 1st Baronet (survived)
- William R. G. Holt, son and heir of Canadian banker Sir Herbert Samuel Holt (survived)
- Montreal socialite Frances McIntosh Stephens, wife of politician George Washington Stephens (died)
- Mary Crowther Ryerson of Toronto, wife of George Sterling Ryerson, founder of the Canadian Red Cross (died)
- Lindon W. Bates, Jr., New York engineer, economist and political figure (died)
- British former MP David Alfred Thomas (survived)
- His daughter Margaret, Lady Mackworth, British suffragist (survived)
- Edwin W. Friend, professor of philosophy at Harvard University and co-founder of the American Society for Psychical Research (died, left a wife five months pregnant behind)
- Oxford professor and writer Ian Holbourn (survived)
- H. Montagu Allan's wife Marguerite (survived) and daughters Anna (died) and Gwendolyn (died)
- Actresses Rita Jolivet (survived), Josephine Brandell (survived) and Amelia Herbert (died)
- Belgian nurse Marie Depage (died), wife of surgeon Antoine Depage
- New York fashion designer Carrie Kennedy (died) and her sister, Kathryn Hickson (died)
- American building contractor and hotel proprietor Albert Bilicke (died)
- Renowned chemist Anne Justice Shymer, president of the United States Chemical Company (died)
- Playwright Charles Klein (died)
- American writer Justus Miles Forman (died)
- American theatre impresario Charles Frohman (died)
- American philosopher, writer and Roycroft founder Elbert Hubbard (died)
- His wife Alice Moore Hubbard, author and woman's rights activist (died)
- Wine merchant and philanthropist George Kessler (survived)
- American pianist Charles Knight (died) and sister, Elaine Knight (died)
- Renowned Irish art collector and founder of the Hugh Lane Municipal Gallery in Dublin Sir Hugh Lane (died)
- American socialite Beatrice Witherbee (survived), wife of Alfred S. Witherbee, president of the Mexican Petroleum Solid Fuel Company
- Her son Alfred Scott Witherbee, Jr. (died) and her mother, Mary Cummings Brown (died)
- American engineer and entrepreneur Frederick Stark Pearson (died) and his wife Mabel (died)
- Genealogist Lothrop Withington (died)
- Sportsman, millionaire, member of the Vanderbilt family, Alfred Gwynne Vanderbilt (died) — last seen fastening a life vest onto a woman holding a baby.
- Scenic designer Oliver P. Bernard (survived), whose sketches of the sinking were published in the *Illustrated London News*
- Politician and future United States Ambassador to Spain, Ogden H. Hammond of Louisville, Kentucky (survived) and his first wife, Mary Picton Stevens of Hoboken, New Jersey (died), a descendant of John Stevens and Robert Livingston Stevens (parents of former New Jersey Congresswoman Millicent Fenwick)
- Dr. Howard L. Fisher, brother of Walter L. Fisher, former United States Secretary of the Interior (survived)
• Herbert S. Stone, New York newspaper editor and publisher, creator of magazines The Chap Book and The House Beautiful, son of Melville Elijah Stone (died)
• Rev. Dr. Basil W. Maturin, British theologian, author and rector of Saint Clement’s Church in Philadelphia, Pennsylvania (died)
• Debutant Miss Phyllis Hutchinson, 20-year-old niece of businessman Robert A. Franks of West Orange, New Jersey, financial agent for Andrew Carnegie (died)
• Irish composer and conductor T. O’Brien Butler (died)
• Arthur Henry Adams, president of the United States Rubber Company (died)
• James A. Dunsmuir, of Toronto, Canadian soldier, younger son of James Dunsmuir (died)
• Charles T. Jeffery, automobile manufacturer who became head of the Thomas B. Jeffery Company after his father’s death (survived)
• Paul Crompton, director of Booth Steamship Company Ltd. (died), and his wife Gladys (died), six children (died), and their governess, Miss Dorothy Allen (died)
• Elisabeth Antill Lassetter, wife of Major General Harry B. Lassetter and sister of Major General John M. Antill (survived)
• Josephine Eaton Burnside, daughter of Canadian department store founder Timothy Eaton (survived), and her daughter Iris Burnside (died)
• Albert L. Hopkins, president of Newport News Shipbuilding and Drydock Company (died)
• William Sterling Hodges, wife Sarah and two sons, William and Dean (all died)
• William Broderick Cloete, mining entrepreneur who was returning to London from Mexico. His body was not found.
• George Stevens, butcher of Princes Risborough, Buckinghamshire, England who had emigrated to the US a few years earlier but had decided to return to England (survived)
• Owen Slavin, trimmer aboard ship. Survived after his arm was amputated by Dr. Silvio de Vescovi with a penknife. (survived)

Submarine activity
As the liner steamed across the ocean, the British Admiralty had been tracking the movements of U-20, commanded by Kapitänleutnant Walther Schwieger, through wireless intercepts and radio direction finding. The submarine left Borkum on 30 April, heading north west across the North Sea. On 2 May she had reached Peterhead and proceeded around the north of Scotland and Ireland, and then along the western and southern coasts of Ireland, to enter the Irish Sea from the south. Although the submarine’s departure, destination, and expected arrival time were known to Room 40 in the admiralty, the activities of the decoding department were considered so secret that they were unknown even to the normal intelligence division which tracked enemy ships or to the trade division responsible for warning merchant vessels. Only the very highest officers in the admiralty saw the information and passed on warnings only when they felt it essential.[16]

On 27 March, Room 40 had intercepted a message which clearly demonstrated that the Germans had broken the code used to pass messages to British merchant ships. Cruisers protecting merchant ships were warned not to use the code to give directions to shipping because it could just as easily attract enemy submarines as steer ships away from them. Queenstown was not given this warning and continued to give directions in the compromised code, which was not changed until after Lusitania’s sinking. At this time the Navy was significantly involved with operations leading up to the landings at Gallipoli, and the intelligence department had been undertaking a program of misinformation to convince Germany to expect an attack on her northern coast. As part of this, ordinary cross-channel traffic to the Netherlands was halted from 19 April and false reports were leaked about troop ship movements from British west and south coast ports. This led to a demand from the German army for offensive action against the expected troop movements, and consequently, a surge in German submarine activity on the British west coast. The fleet was warned to expect additional submarines, but this warning was not passed on to those sections of the navy dealing with
merchant vessels. The return of the battleship Orion from Devonport to Scotland was delayed until 4 May and she was given orders to stay 100 miles (unknown operator: u'strong' km) from the Irish coast.\[17\]

On 5 May U-20 stopped a merchant schooner, the Earl of Lathom off the Old Head of Kinsale, examined her papers, then ordered her crew to leave before sinking the schooner with gunfire. On 6 May, U-20 fired a torpedo at Cayo Romano from Cuba, a British steamer flying a neutral flag, off Fastnet Rock missing by a few feet.\[18\] The Royal Navy sent an uncoded warning to all ships at 10:30 pm on 5 May – "Submarines active off the south coast of Ireland" – and at midnight an addition was made to the regular nightly warnings, "submarine off Fastnet".\[19\] On 6 May U-20 sank the 6,000 ton steamer Candidate. It then failed to get off a shot at the 16,000 ton liner Arabic, because although she kept a straight course the liner was too fast, but then sank another 6,000 ton British cargo ship flying no flag, Centurion, all in the region of the Coningbeg light ship. The specific mention of a submarine was dropped from the midnight broadcast on 6–7 May as news of the new sinkings had not yet reached the navy at Queenstown, and it was correctly assumed that there was no longer a submarine at Fastnet.\[20\]

Captain Turner of Lusitania was given a warning message twice on the evening of 6 May, and took what he felt were prudent precautions. He closed watertight doors, posted double lookouts, ordered a black-out, and had the lifeboats swung out on their davits so that they could be launched quickly if necessary. That evening a Seamen's Charities fund concert took place throughout the ship and the captain was obliged to attend the event in the first class lounge.\[21\]

At about 11:00 on 7 May, the Admiralty radioed another warning to all ships, probably as a result of a request by Alfred Booth who was concerned about Lusitania: "U-boats active in southern part of Irish Channel. Last heard of twenty miles south of Coningbeg Light Vessel". Booth and all of Liverpool had received news of the sinkings, which the admiralty had known about by at least 3:00 that morning.\[22\] Turner adjusted his heading northeast, not knowing that this report related to events of the previous day and apparently thinking submarines would be more likely to keep to the open sea, so that Lusitania would be safer close to land.\[23\] At 13:00 another message was received, "Submarine five miles south of Cape Clear proceeding west when sighted at 10:00 am". This report was entirely inaccurate as no submarine had been at that location, but gave the impression that at least one submarine had been safely passed.\[24\]

U-20 was low on fuel and had only three torpedoes left. On the morning of 7 May visibility was poor and Schwieger decided to head for home. He submerged at 11:00 after sighting a fishing boat which he believed might be a British patrol and shortly after was passed while still submerged by a ship at high speed. This was the cruiser Juno returning to Queenstown, travelling fast and zig-zagging having received warning of submarine activity off Queenstown at 07:45. The admiralty considered these old cruisers highly vulnerable to submarines and indeed Schwieger attempted to target the ship.\[25\][26]

Sinking

On the morning of 6 May, Lusitania was 750 miles (unknown operator: u'strong' km) west of southern Ireland. By 05:00 on 7 May she reached a point 120 miles (unknown operator: u'strong' km) west south west of Fastnet Rock (off the southern tip of Ireland), where she met the patrolling boarding vessel Partridge.\[27\] By 06:00, heavy fog had arrived and extra lookouts were posted. As the ship came closer to Ireland Captain Turner ordered depth soundings to be made and at 08:00 for speed to be reduced to eighteen knots, then to 15 knots and for the foghorn to be sounded. Some of the passengers were disturbed that the ship appeared to be advertising her presence. By 10:00 the fog began to lift, by noon it had been replaced by bright sunshine over a clear smooth sea and speed increased to 18 knots.\[28\]
Sinking of the RMS Lusitania

_U-20_ surfaced again at 12:45 as visibility was now excellent. At 13:20 something was sighted and Schwieger was summoned to the conning-tower: at first it appeared to be several ships because of the number of funnels and masts, but this resolved into one large steamer appearing over the horizon. At 13:25 the submarine submerged to periscope depth of 11 metres and set a course to intercept the liner at her maximum submerged speed of 9 knots. When the ships had closed to 2 miles (unknown operator: u'strong' km) _Lusitania_ turned away, Schwieger feared he had lost his target, but she turned again, this time onto a near ideal course to bring her into position for an attack. At 700m range he ordered one gyroscopic torpedo to be fired, set to run at a depth of three metres, which was fired at 14:10.\[^{29}\][^30]

In Schwieger's own words, recorded in the log of _U-20_:

Torpedo hits starboard side right behind the bridge. An unusually heavy detonation takes place with a very strong explosive cloud. The explosion of the torpedo must have been followed by a second one [boiler or coal or powder?]... The ship stops immediately and heels over to starboard very quickly, immersing simultaneously at the bow... the name Lusitania becomes visible in golden letters.\[^{31}\]

The _U-20_‘s torpedo officer, Raimund Weisbach, viewed the destruction through the vessel's periscope and felt the explosion was unusually severe. Within six minutes, _Lusitania_‘s forecastle began to submerge.

On board the Lusitania, Leslie Morton, an eighteen-year-old lookout at the bow, had spotted thin lines of foam racing toward the ship. He shouted "Torpedoes coming on the starboard side!" through a megaphone, thinking the bubbles came from two projectiles. The torpedo struck _Lusitania_ under the bridge, sending a plume of debris, steel plating and water upward and knocking lifeboat number five off its davits. "It sounded like a million-ton hammer hitting a steam boiler a hundred feet high," one passenger said. A second, more powerful explosion followed, sending a geyser of water, coal, dust, and debris high above the deck. Schwieger's log entries attest that he only launched one torpedo. Some doubt the validity of this claim, contending that the German government subsequently altered the published fair copy of Schwieger's log,\[^{32}\] but accounts from other _U-20_ crew members corroborate it. The entries were also consistent with intercepted radio reports sent to Germany by _U-20_ once she had returned to the North Sea, before any possibility of an official coverup.\[^{33}\]

At 14:12 Captain Turner ordered Quartermaster Johnston stationed at the ship's wheel to steer 'hard-a-starboard' towards the Irish coast, which Johnston confirmed, but the ship could not be steadied on the course and rapidly ceased to respond to the wheel. Turner signalled for the engines to be reversed to halt the ship, but although the signal was received in the engine room, nothing could be done. Steam pressure had collapsed from 195 psi before the explosion, to 50 psi and falling afterwards.\[^{34}\] _Lusitania_‘s wireless operator sent out an immediate SOS, which was acknowledged by a coastal wireless station. Shortly afterward he transmitted the ship's position, 10 miles (unknown operator: u'strong' km) south of the Old Head of Kinsale.\[^{35}\] At 14:14 electrical power failed, plunging the cavernous interior of the ship into darkness. Radio signals continued on emergency batteries, but electric lifts failed, trapping passengers and crew; bulkhead doors closed as a precaution before the attack could not be reopened to release trapped men.\[^{36}\]
Captain Turner gave the order to abandon ship. Water had flooded the ship's starboard longitudinal compartments, causing a 15-degree list to starboard.

_Lusitania's_ severe starboard list complicated the launch of her lifeboats. Ten minutes after the torpedoeing, when she had slowed enough to start putting boats in the water the lifeboats on the starboard side swung out too far to step aboard safely.\footnote{While it was still possible to board the lifeboats on the port side, lowering them presented a different problem. As was typical for the period, the hull plates of _Lusitania_ were riveted, and as the lifeboats were lowered they dragged on the inch high rivets, which threatened to seriously damage the boats before they landed in the water.}

Many lifeboats overturned while loading or lowering, spilling passengers into the sea; others were overturned by the ship's motion when they hit the water. It has been claimed\footnote{Crewmen would lose their grip on the falls—ropes used to lower the lifeboats—while trying to lower the boats into the ocean, and this caused the passengers from the boat to "spill into the sea like rag dolls." Others would tip on launch as some panicking people jumped into the boat. _Lusitania_ had 48 lifeboats, more than enough for all the crew and passengers, but only six were successfully lowered, all from the starboard side. Lifeboat 1 had overturned as it was being lowered, spilling its original occupants into the sea. However, it managed to right itself shortly afterwards and was later filled with people from in the water. Lifeboats 9 and 11 managed to reach the water safely with only a few handfuls of people, but both later picked up many swimmers. Lifeboats 13 and 15 also safely reached the water, each overloaded with around seventy people. Finally, Lifeboat 21 managed to reach the water safely and cleared the ship only moments before her final plunge. A few of her collapsible lifeboats washed off her decks as she sank and provided refuge for many of those in the water.} that some boats, because of the negligence of some officers, crashed down onto the deck, crushing other passengers, and sliding down towards the bridge. This has been refuted in various articles and by passenger and crew testimony.\footnote{There was panic and disorder on the decks. Schwieger had been observing this through _U-20's_ periscope, and by 14:25, he dropped the periscope and headed out to sea. Later in the war, Schwieger was killed in action when, as commander of _U-88_, he was chased by HMS _Stonecrop_, hit a British mine, and sank on 5 September 1917, north of Terschelling. There were no survivors from _U-88's_ sinking.}

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Captain Turner remained on the bridge until the water rushed upward and destroyed the sliding door, washing him overboard into the sea. He took the ship's logbook and charts with him. He managed to escape the rapidly sinking *Lusitania* and find a chair floating in the water which he clung to. He survived, having been pulled unconscious from the water after spending three hours there. *Lusitania*'s bow slammed into the bottom about 100 meters (unknown operator: u'strong' ft) below at a shallow angle because of her forward momentum as she sank. Along the way, some boilers exploded, including one that caused the third funnel to collapse; the remaining funnels collapsed soon after. Turner's last navigational fix had been only two minutes before the torpedoing, and he was able to remember the ship's speed and bearing at the moment of the sinking. This was accurate enough to locate the wreck after the war. The ship travelled about two miles (3 km) from the time of the torpedoing to her final resting place, leaving a trail of debris and people behind. After her bow sank completely, *Lusitania*'s stern rose out of the water, enough for her propellers to be seen, and went down.

*Lusitania* sank in only 18 minutes, 11.5 miles (unknown operator: u'strong' km) off the Old Head of Kinsale. It took several hours for help to arrive from the Irish coast, but by the time help had arrived, many in the water had succumbed to the cold. By the days' end, 764 passengers and crew from the *Lusitania* had been rescued and landed at Queenstown. Eventually, the final death toll for the disaster came to a catastrophic number. Of the 1,959 passengers and crew aboard the *Lusitania* at the time of her sinking, 1,195 had been lost. In the days following the disaster, the Cunard line offered local fishermen and sea merchants a cash reward for the bodies floating all throughout the Irish Sea, some floating as far away as the Welsh coast. In all, only 289 bodies were recovered, 65 of which were never identified. The bodies of many of the victims were buried at either Queenstown, where 148 bodies were interred in the Old Church Cemetery, or the Church of St. Multose in Kinsale, but the bodies of the remaining 885 victims were never recovered.

Two days before, *U-20* had sunk the *Earl of Lathom*, but first allowed the crew to escape in boats. According to international maritime law, any military vessel stopping an unarmed civilian ship, was required to allow those on board time to escape before sinking it. The conventions had been drawn up in a time before the invention of the submarine and took no account of the severe risk a small vessel, such as a submarine, faced if it gave up the advantage of a surprise attack. Schwieger could have allowed the crew and passengers of *Lusitania* to take to the boats, but he considered the danger of being rammed or fired upon by deck guns too great. Merchant ships had, in fact, been advised to steer directly at any U-boat that surfaced. A cash bonus had been offered for any that were sunk, though the advice was carefully worded so as not to amount to an order to ram. According to Bailey and Ryan, *Lusitania* was travelling without any flag and its name painted over with darkish dye.

One story states that when Lieutenant Schwieger of the *U-20* gave the order to fire, his quartermaster, Charles Voegele, would not take part in an attack on women and children, and refused to pass on the order to the torpedo room – a decision for which he was court-martialed and imprisoned at Kiel until the end of the war.
Official inquiries into the sinking

Immediately following the sinking, on 8 May, the local county coroner John Hogan opened an inquest in Kinsale into the deaths of two males and three females whose bodies had been brought ashore by a local boat, Heron. Most of the survivors (and dead) had been taken to Queenstown instead of Kinsale, which was closer. On 10 May Captain Turner gave evidence as to the events of the sinking where he described that the ship had been struck by one torpedo between the third and fourth funnels. This had been followed immediately by a second explosion. He acknowledged receiving general warnings about submarines, but had not been informed of the sinking of Earl of Lathom. He stated that he had received other instructions from the admiralty which he had carried out but was not permitted to discuss. The coroner brought in a verdict that the deceased had drowned following an attack on an unarmed non-combatant vessel contrary to international law. Half an hour after the inquest had concluded and its results given to the press, the Crown Solicitor for Cork, Harry Wynne, arrived with instructions to halt it. Captain Turner was not to give evidence and no statements should be made about any instructions given to shipping about avoiding submarines.\[46\]

Board of Trade investigation

The formal Board of Trade investigation into the sinking was presided over by Wreck Commissioner Lord Mersey and took place in the Westminster Central Hall from 15–18 June 1915 with further sessions at the Westminster Palace Hotel on 1 July and Caxton Hall on 17 July. Lord Mersey had a background in commercial rather than maritime law but had presided over a number of important maritime investigations, including that into the loss of the Titanic. He was assisted by four assessors, Admiral Sir Frederick Samuel Inglefield, Lieutenant Commander Hearn and two merchant navy captains, D. Davies and J. Spedding. The Attorney General, Sir Edward Carson, represented the Board of Trade, assisted by the Solicitor General, F. E. Smith. Butler Aspinall, who had previously represented the Board of Trade at the Titanic inquiry, was retained to represent Cunard. A total of 36 witnesses were called, Lord Mersey querying why more of the survivors would not be giving evidence. Most of the sessions were public but two on 15 and 18 June were held in camera when evidence regarding navigation of the ship was presented.\[47\]

Statements were collected from all the crew. These were all written out for presentation to the inquiry on standard forms in identical handwriting with similar phrasing. Quartermaster Johnston later described that pressure had been placed upon him to be loyal to the company, and that it had been suggested to him it would help the case if two torpedoes had struck the ship, rather than the one which he described. Giving evidence to the tribunal he was not asked about torpedoes. Other witnesses who claimed that only one torpedo had been involved were refused permission to testify. In contrast to his statement at the inquest, Captain Turner stated that two torpedoes had struck the ship, not one.\[48\] In an interview in 1933, Turner reverted to his original statement that there had been only one torpedo.\[49\] Most witnesses said there had been two, but a couple said three, possibly involving a second submarine. Clem Edwards, representing the seamen's union, attempted to introduce evidence about which watertight compartments had been involved but was prevented from doing so by Lord Mersey.\[50\]
It was during the closed hearings that the Admiralty tried to lay the blame on Captain Turner, their intended line being that Turner had been negligent. The roots of this view began in the first reports about the sinking from Vice-Admiral Coke commanding the navy at Queenstown. He reported that "ship was especially warned that submarines were active on south coast and to keep mid-channel course avoiding headlands also position of submarine off Cape Clear at 10:00 was communicated by W/T to her." Captain Webb, Director of the Trade Division, began to prepare a dossier of signals sent to the Lusitania which Turner may have failed to observe. First Sea Lord Fisher noted on one document submitted by Webb for review, "As the Cunard company would not have employed an incompetent man its a certainty that Captain Turner is not a fool but a knave. I hope that Turner will be arrested immediately after the enquiry whatever the verdict". First Lord Winston Churchill noted, "I consider the Admiralty's case against Turner should be pressed by a skilful counsel and that Captain Webb should attend as a witness, if not employed as an assessor. We will pursue the captain without check". In the event, both Churchill and Fisher were replaced in their positions before the enquiry because of the failures of the Gallipoli campaign.

Part of the proceedings turned on the question of proper evasive tactics against submarines. It was put to Captain Turner that he had failed to comply with Admiralty instructions to travel at high speed, maintain a zig-zag course and keep away from shore. Naval instructions about zig-zag were read to the captain, who confirmed that he had received them, though later added that they did not appear to be as he recollected. This was unsurprising, since the regulations quoted had only been approved on 25 April, after Lusitania's last arrival in New York, and started distribution on 13 May, after she sank. Lusitania had slowed to 15 knots at one point because of fog, but had otherwise maintained 18 knots passing Ireland. 18 knots was faster than all but nine other ships in the British merchant fleet could achieve and was comfortably faster than the submarine. Although he might have achieved 21 knots and had given orders to raise steam ready to do so, he was also under orders to time his arrival at Liverpool for high tide so that the ship would not have to wait to enter port. Thus, he chose to travel more slowly. At the time, no ship had been torpedoed travelling at more than 15 knots. Although the Admiralty instructed ships to keep well offshore and it was claimed that Turner had only been 8 miles away, his actual distance when hit was thirteen miles (19 km). As a matter of established procedure, only ships travelling closer than five miles (8 km) from shore were ordinarily being censured for being too close.

Turner stated that he had discussed the matter of what course the ship should take, with his two most senior officers, Captain Anderson and Chief Officer Piper, neither of whom survived. The three had agreed that the Admiralty warning of 'submarine activity 20 miles south of Coningbeg', effectively overrode other Admiralty advice to keep to 'mid channel', which was precisely where the submarine had been reported. He had, therefore, ordered the change of course at 12:40, intending to bring the ship closer to land and then take a course north of the reported submarine.

At one point in the proceedings, Smith attempted to press a point he was making, by quoting from a signal sent to British ships. Lord Mersey queried which message this was, and it transpired that the message in question existed in the version of evidence given to Smith by the Board of Trade Solicitor, Sir Ellis Cunliffe, but not in versions given to
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On 10 June, just before the hearing, significant changes were made to the Defence of the Realm Act, which made it an offence to collect or publish information about the nature, use or carriage of 'war materials' for any reason. Previously, this had only been an offence if the information was collected to aid the enemy. This was used to prohibit discussion about the ship's cargo. The rifle cartridges carried by the Lusitania were mentioned during the case, Lord Mersey stating that "the 5,000 cases of ammunition on board were 50 yards away from where the torpedo struck the ship".

An additional hearing took place on 1 July, at the insistence of Joseph Marichal, who was threatening to sue Cunard for their poor handling of the disaster. He testified that the second explosion had sounded to him like the rattling of machine gun fire and appeared to be below the second class dining room at the rear of the ship where he had been seated. Information about Marechal's background was sought out by the British government and leaked to the press so as to discredit him.

Captain Turner, the Cunard Company, and the Royal Navy were absolved of any negligence, and all blame was placed on the German government. Lord Mersey found that Turner "exercised his judgment for the best" and that the blame for the disaster "must rest solely with those who plotted and with those who committed the crime".

Two days after he closed the inquiry, Lord Mersey waived his fees for the case and formally resigned. His last words on the subject were: "The Lusitania case was a damned, dirty business!" The full report has never been made available to the public. A copy was thought to exist amongst Lord Mersey's private papers after his death, but has since proved untraceable.

American court proceedings

In the United States, 67 claims for compensation were lodged against Cunard which were all heard together in 1918. Judge Julius Mayer, who was chosen to hear the case, had previously presided over the case brought following the loss of the Titanic, where he had ruled in favour of the shipping company. Mayer was a conservative who was considered a safe pair of hands with matters of national interest, and whose favourite remark to lawyers was to "come to the point". The case was to be heard without a jury. The two sides agreed beforehand that no question would be raised regarding whether Lusitania had been armed or carrying troops or ammunition. Thirty-three witnesses who could not travel to the US gave statements in England to Commissioner R. V. Wynne. Evidence produced in open court for the Mersey investigation was considered, but evidence from the British closed sessions was not. The Defence of the Realm Act was invoked so that British witnesses could not give evidence on any subject it covered. Statements had been collected in Queenstown immediately after the sinking by the American Consul, Wesley Frost, but these were not produced.

Captain Turner gave evidence in England and now gave a more spirited defence of his actions. He argued that until the time of the sinking he had no reason to think that zig-zagging in a fast ship would help. Indeed, that he had since commanded another ship which was sunk while zig-zagging. His position was supported by evidence from other Captains, who said that prior to the sinking of the Lusitania no merchant ships zig-zagged. Turner had argued that maintaining a steady course for 30 minutes was necessary to take a four point bearing and precisely confirm the ship's position, but on this point he received less support, with other captains arguing a two point bearing could have been taken in five minutes and would have been sufficiently accurate.
Many witnesses testified that portholes across the ship had been open at the time of the sinking, and an expert witness confirmed that such a porthole three feet under water would let in four tons of water per minute. Testimony varied on how many torpedoes there had been, and whether the strike occurred between the first and second funnel, or third and fourth. The nature of the official cargo was considered, but experts considered that under no conditions could the cargo have exploded. A record exists that Crewman Jack Roper wrote to Cunard in 1919 requesting expenses for his testimony in accord with the line indicated by Cunard.[60]

Mayer's judgement was that "the cause of the sinking was the illegal act of the Imperial German Government", that two torpedoes had been involved, that the captain had acted properly and emergency procedures had been up to the standard then expected. He ruled that further claims for compensation should be addressed to the German government (which eventually paid $2.5 million in 1925).

International reaction

German reaction

On 8 May Dr. Bernhard Dernburg, the former German Colonial Secretary, made a statement in Cleveland, Ohio, in which he attempted to justify the sinking of *Lusitania*. At the time Dernburg was recognized as the official spokesman of the Imperial German government in the United States. Dernburg said that because *Lusitania* "carried contraband of war" and also because she "was classed as an auxiliary cruiser" Germany had had a right to destroy her regardless of any passengers aboard. Dernburg further said that the warnings given by the German Embassy before her sailing plus the 18 February note declaring the existence of "war zones" relieved Germany of any responsibility for the deaths of the American citizens aboard. He referred to the ammunition and military goods declared on *Lusitania*'s manifest and said that "vessels of that kind" could be seized and destroyed under the Hague rules without any respect to a war zone.[61]

The following day the German government issued an official communication regarding the sinking in which it said that the Cunard liner *Lusitania* "was yesterday torpedoed by a German submarine and sank", that *Lusitania* "was naturally armed with guns, as were recently most of the English mercantile steamers" and that "as is well known here, she had large quantities of war material in her cargo".[62]

Dudley Field Malone, Collector of the Port of New York, issued an official denial to the German charges, saying that *Lusitania* had been inspected before her departure and no guns were found, mounted or unmounted. Malone stated that no merchant ship would have been allowed to arm itself in the Port and leave the harbour. Assistant Manager of the Cunard Line, Herman Winter, denied the charge that she carried munitions:

*She had aboard 4,200 cases of cartridges, but they were cartridges for small arms, packed in separate cases... they*
certainly do not come under the classification of ammunition. The United States authorities would not permit us to carry ammunition, classified as such by the military authorities, on a passenger liner. For years we have been sending small-arms cartridges abroad on the Lusitania.

—New York Times, 10 May 1915

The fact that Lusitania had been carrying shells and cartridges was not made known to the British public at the time. The sinking was severely criticized by and met with disapproval in Turkey and Austria-Hungary, while in the German press, the sinking was deplored by Vorwärts, the daily newspaper of the Social Democratic Party of Germany, and also by Captain Persius, an outspoken naval critic who wrote for the Berliner Tageblatt.

One Catholic Centre Party newspaper, the Kölnische Volkszeitung, stated: "The sinking of the giant English steamship is a success of moral significance which is still greater than material success. With joyful pride we contemplate this latest deed of our Navy. It will not be the last. The English wish to abandon the German people to death by starvation. We are more humane. We simply sank an English ship with passengers who, at their own risk and responsibility, entered the zone of operations."

In the aftermath of the sinking, the German government tried to justify it by claiming in an official statement that she had been armed with guns, and had "large quantities of war material" in her cargo. They also stated that since she was classed as an auxiliary cruiser, Germany had had a right to destroy her regardless of any passengers aboard, and that the warnings issued by the German Embassy before her sailing plus the 18 February note declaring the existence of "war zones", relieved Germany of any responsibility for the deaths of American citizens aboard. While it was true that Lusitania had been fitted with gun mounts as part of government loan requirements during her construction, to enable rapid conversion into an Armed Merchant Cruiser (AMC) in the event of war, the guns themselves were never fitted. However, she was still listed officially as an AMC. Her cargo had included an estimated 4,200,000 rounds of rifle cartridges, 1,250 empty shell cases, and 18 cases of non-explosive fuses, all of which were listed in her manifest, but the cartridges were not officially classed as ammunition by the Cunard Line. Various theories have been put forward over the years that she had also carried undeclared high explosives that were detonated by the torpedo and helped to sink her, but this has never been proven.

British and American actions

Schwieger was condemned in the Allied press as a war criminal.

Of the 139 US citizens aboard Lusitania, 128 lost their lives, and there was massive outrage in Britain and America, The Nation calling it "a deed for which a Hun would blush, a Turk be ashamed, and a Barbary pirate apologise" and the British felt that the Americans had to declare war on Germany. However, US President Woodrow Wilson refused to over-react. He said at Philadelphia on 10 May 1915:

There is such a thing as a man being too proud to fight. There is such a thing as a nation being so right that it does not need to convince others by force that it is right.

When Germany began its submarine campaign against Britain, Wilson had warned that the US would hold the German government strictly accountable for any violations of American rights. On 1 May he stated that "no warning that an unlawful and inhumane act will be committed" could be accepted as a legitimate excuse for that act. During the weeks after the sinking, the issue was hotly debated within the administration. Secretary of State William Jennings Bryan urged compromise and restraint. The US, he believed, should try to persuade the British to abandon their interdiction of foodstuffs and limit their mine-laying operations at the same time as the Germans were persuaded to curtail their submarine campaign. He also suggested that the US government issue an explicit warning against US citizens travelling on any belligerent ships. Despite being sympathetic to Bryan's antiwar feelings, Wilson insisted that the German government must apologise for the sinking, compensate US victims, and promise to avoid any similar occurrence in the future.
**Wilson notes**

Backed by State Department second-in-command Robert Lansing, Wilson made his position clear in three notes to the German government issued on 13 May; 9 June, and 21 July.

The first note affirmed the right of Americans to travel as passengers on merchant ships and called for the Germans to abandon submarine warfare against commercial vessels, whatever flag they sailed under (including 3 other ships: the Falaba, the Cushing, and the Gulflight).

In the second note Wilson rejected the German arguments that the British blockade was illegal, and was a cruel and deadly attack on innocent civilians, and their charge that the *Lusitania* had been carrying munitions. William Jennings Bryan considered Wilson's second note too provocative and resigned in protest after failing to moderate it, to be replaced by Robert Lansing who later said in his memoirs that following the tragedy he always had the "conviction that we would ultimately become the ally of Britain".

The third note, of 21 July, issued an ultimatum, to the effect that the US would regard any subsequent sinkings as "deliberately unfriendly".

While the American public and leadership were not ready for war, the path to an eventual declaration of war had been set as a result of the sinking of the *Lusitania*. On 19 August U-24 sank the White Star liner SS *Arabic*, with the loss of 44 passengers and crew, three of whom were American. The German government, while insisting on the legitimacy of its campaign against Allied shipping, disavowed the sinking of the *Arabic*; it offered an indemnity and pledged to order submarine commanders to abandon unannounced attacks on merchant and passenger vessels.[74] The British public, press, and government in general were upset at Wilson's actions – not realizing it reflected general US opinion at the time. They sneered "too proud or too scared?". Shells that did not explode at the front were called "Wilsons".

**German policy reversal**

German Chancellor Theobald von Bethmann-Hollweg persuaded the Kaiser to forbid action against ships flying neutral flags and the U-boat war was postponed once again on 27 August, as it was realised that British ships could easily fly neutral flags.[75]

There was disagreement over this move between the navy's admirals (headed by Alfred von Tirpitz) and Bethman-Hollweg. Backed by Army Chief of Staff Erich von Falkenhayn, Kaiser Wilhelm II endorsed the Chancellor's solution, and Tirpitz and the Admiralty backed down. The German restriction order of 9 September 1915 stated that attacks were only allowed on ships that were definitely British, while neutral ships were to be treated under the Prize Law rules, and no attacks on passenger liners were to be permitted at all. The war situation demanded that there could be no possibility of orders being misinterpreted, and on 18 September Henning von Holtzendorff, the new head of the German Admiralty, issued a secret order: all U-boats operating in the English Channel and off the west coast of the United Kingdom were recalled, and the U-boat war would continue only in the North sea, where it would be conducted under the Prize Law rules.[75]
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**British propaganda**

It was in the interests of the British to keep US passions inflamed, and a fabricated story was circulated that in some regions of Germany, schoolchildren were given a holiday to celebrate the sinking of the *Lusitania*. This story was so effective that James W. Gerard, the US ambassador to Germany, recounted it in his memoir of his time in Germany, *Face to Face with Kaiserism* (1918), though without substantiating its validity.\[76]\]

**Goetz medal**

In August 1915, Munich medalist and sculptor Karl X. Goetz (1875–1950), who had produced a series of propagandist and satirical medals as a running commentary on the war, privately struck a small run of medals as a limited-circulation satirical attack (fewer than 500 were struck) on the Cunard Line for trying to continue business as usual during wartime. Goetz blamed both the British government and the Cunard Line for allowing the *Lusitania* to sail despite the German embassy's warnings.

One side of the medal showed the *Lusitania* sinking laden with guns (incorrectly depicted sinking stern first) with the motto "KEINE BANNWARE!" ("NO CONTRABAND!"), while the reverse showed a skeleton selling Cunard tickets with the motto "Geschäft Über Alles" ("Business Above All").\[77]\]

Goetz had put an incorrect date for the sinking on the medal, an error he later blamed on a mistake in a newspaper story about the sinking: instead of 7 May, he had put "5. Mai", two days before the actual sinking. Not realizing his error, Goetz made copies of the medal and sold them in Munich and also to some numismatic dealers with whom he conducted business.

The British Foreign Office obtained a copy of the medal, photographed it, and sent copies to the United States where it was published in the *New York Times* on 5 May 1916.\[78\] Many popular magazines ran photographs of the medal, and it was falsely claimed that it had been awarded to the crew of the U-boat.\[76\]

**British replica of Goetz medal**

The Goetz medal attracted so much attention that Lord Newton, who was in charge of Propaganda at the Foreign Office in 1916, decided to exploit the anti-German feelings aroused by it for propaganda purposes and asked department store entrepreneur Harry Gordon Selfridge to reproduce the medal.\[79\] The replica medals were produced in an attractive case claiming to be an exact copy of the German medal, and were sold for a shilling apiece. On the cases it was stated that the medals had been distributed in Germany "to commemorate the sinking of the *Lusitania*" and they came with a propaganda leaflet which strongly denounced the Germans and used the medal’s incorrect date to claim that the sinking of the *Lusitania* was premeditated. The head of the Lusitania Souvenir Medal Committee later estimated that 250,000 were sold, proceeds being given to the Red Cross and St. Dunstan's Blinded Soldiers and Sailors Hostel.\[80\][81] Unlike the original Goetz medals which were sand-cast from bronze, the British copies were of diecast iron and were of poorer quality.\[77\]

Belatedly realizing his mistake, Goetz issued a corrected medal with the date of "7. Mai". The Bavarian government suppressed the medal and ordered their confiscation in April 1917. The original German medals can easily be distinguished from the English copies because the date is in German, i.e. with a dot behind the number; the English version was altered to read 'May' rather than 'Mai'. After the war Goetz expressed his regret that his work had been the cause of increasing anti-German feelings, but it remains a celebrated propaganda act.
Last survivor

The last survivor was Audrey Lawson-Johnston (née Pearl), who was three months old when the RMS Lusitania was sunk. She died on 11 January 2011.\[82\] She became the last living survivor following the deaths of Barbara McDermott (née Anderson) on 12 April 2008 and Ida Cantley on 31 December 2006.\[83\]

Cultural influence

Charles Ives's Orchestral Set No. 2 concludes with a movement entitled, From Hanover Square North, at the End of a Tragic Day, the Voice of the People Again Arose. It recounts Ives's experience waiting for an elevated train in New York City as the news of the sinking of the Lusitania came through. The passengers assembled on the platform began singing "In The Sweet By and By" in time to a barrel organ which was playing the tune. Echoes of their voices can be heard at the start of the music, and the hymn tune itself appears at the end.\[84\]

The first published book by H.P. Lovecraft was The Crime of Crimes: Lusitania 1915 (published in Wales), a poem on the sinking of the vessel.\[85\]

Controversies

Cruiser rules and exclusion zones

The "Prize rules" or "Cruiser rules", laid down by the Hague Conventions of 1899 and 1907, governed the seizure of vessels at sea during wartime, although changes in technology such as radio and the submarine eventually made parts of them irrelevant. Merchant ships were to be warned by warships, and their passengers and crew allowed to abandon ship before they were sunk, unless the ship resisted or tried to escape, or was in a convoy protected by warships. Limited armament on a merchant ship, such as one or two guns, did not necessarily affect the ship's immunity to attack without warning, and neither did a cargo of munitions or materiel.

In November 1914 the British announced that the entire North Sea was now a War Zone, and issued orders restricting the passage of neutral shipping into and through the North Sea to special channels where supervision would be possible (the other approaches having been mined). It was in response to this, and to the British Admiralty's order of 31 January 1915 that British merchant ships should fly neutral colours as a ruse de guerre,\[86\] that Admiral Hugo von Pohl, commander of the German High Seas Fleet, published a warning in the Deutscher Reichsanzeiger (Imperial German Gazette) on 4 February 1915:

(1) The waters around Great Britain and Ireland, including the whole of the English Channel, are hereby declared to be a War Zone. From February 18 onwards every enemy merchant vessel encountered in this zone will be destroyed, nor will it always be possible to avert the danger thereby threatened to the crew and passengers.

(2) Neutral vessels also will run a risk in the War Zone, because in view of the hazards of sea warfare and the British authorization of January 31 of the misuse of neutral flags, it may not always be possible to prevent attacks on enemy ships from harming neutral ships.\[87\]

In response, the Admiralty issued orders on 10 February 1915 which directed merchant ships to escape from hostile U-boats when possible, but "if a submarine comes up suddenly close ahead of you with obvious hostile intention, steer straight for her at your utmost speed..." Further instructions ten days later advised armed steamers to open fire on a submarine even if it had not yet fired. Given the extreme vulnerability of a submarine to ramming or even small-caliber shellfire, a U-boat that surfaced and gave warning against a merchantman which had been given such instructions was putting itself in great danger. The Germans knew of these orders, even though they were intended to be secret, copies having been obtained from captured ships and from wireless intercepts.\[88\] Bailey and Ryan in their "The Lusitania Disaster", put much emphasis on these Admiralty orders to merchantmen, arguing it was unreasonable to expect a submarine to surface and give warning under such circumstances. In their opinion this,
rather than the munitions, the nonexistent armament, or any other suggested reason, is the best rationale for the Germans' actions in the sinking.

**Contraband and second explosion**

Included in *Lusitania*'s cargo were 4,200,000 rounds of Remington .303 rifle cartridges, 1250 cases of empty 3-inch (76 mm) fragmentation shell casings, and eighteen cases of non-explosive fuses, all of which were listed on the ship's two-page manifest, filed with U.S. Customs after she departed New York on 1 May. However, these munitions were classed as small arms ammunition, were non-explosive in bulk, and were clearly marked as such. It was perfectly legal under American shipping regulations for the liner to carry these; experts agreed they were not to blame for the second explosion. Allegations the ship was carrying more controversial cargo, such as fine aluminium powder, concealed as cheese on her cargo manifests, or guncotton (pyroxylene) disguised as casks of beef, have never been proven. Recent expeditions to the wreck have shown that her cargo holds remain intact and show no evidence of internal explosion.

In 1993, Dr. Robert Ballard, the famous explorer who discovered *Titanic* and *Bismarck*, conducted an in-depth exploration of the wreck of *Lusitania*. Ballard found Light had been mistaken in his identification of a gaping hole in the ship's side. To explain the second explosion, Ballard advanced the theory of a coal-dust explosion. He believed dust in the bunkers would have been thrown into the air by the vibration from the explosion; the resulting cloud would have been ignited by a spark, causing the second explosion. In the years since he first advanced this theory, it has been argued that this is nearly impossible. Critics of the theory say coal dust would have been too damp to have been stirred into the air by the torpedo impact in explosive concentrations; additionally, the coal bunker where the torpedo struck would have been flooded almost immediately by seawater flowing through the damaged hull plates.

In 2007, marine forensic investigators have become convinced an explosion in the ship's steam-generating plant is a far more plausible explanation for the second explosion. There were very few survivors from the forward two boiler rooms, but they did report the ship's boilers did not explode; they were also under extreme duress in those moments after the torpedo's impact, however. Leading Fireman Albert Martin later testified he thought the torpedo actually entered the boiler room and exploded between a group of boilers, which was a physical impossibility. It is also known the forward boiler room filled with steam, and steam pressure feeding the turbines dropped dramatically following the second explosion. These point toward a failure, of one sort or another, in the ship's steam-generating plant. It is possible the failure came, not directly from one of the boilers in boiler room no. 1, but rather in the high-pressure steam lines to the turbines. Most researchers and historians agree that a steam explosion is a far more likely cause than clandestine high explosives for the second explosion.

The original torpedo damage alone, striking the ship on the starboard coal bunker of boiler room no. 1, would probably have sunk the ship without a second explosion. This first blast was enough to cause, on its own, serious off-centre flooding, although the sinking would possibly have been slower. The deficiencies of the ship's original watertight bulkhead design exacerbated the situation, as did the many portholes which had been left open for ventilation.
Wreck site

The wreck of the Lusitania lies on its starboard side at an approximately 30 degree angle in 93 meters of sea water. The keel has an "unusual curvature" which may be related to a lack of strength from the loss of its superstructure. The beam is reduced with the funnels missing presumably to deterioration. The bow is the most prominent portion of the wreck with the stern damaged from depth charging in the Second World War as well as the removal of three of the four propellers by Oceaneering International in 1982.

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[1] Preston, 'Wilful Murder', p. 429
[5] Germany's second submarine campaign against the Allies during the First World War was unrestricted in scope, as was submarine warfare during the Second World War.
[12] Simpson p.60
[14] Preston, Wilful Murder', p.156,445–446
[16] Beesly, p.101
[17] Beesly p.99-100
[19] Beesly p.103
[20] Beesly p.103-104
[21] Preston, 'Wilful Murder' p.197
[22] Beesly p. 106
[24] Ramsay p.79
[26] Preston, 'Wilful Murder', p.216
[27] Beesly p.104-105
[28] Preston, 'Wilful Murder', p.200-202
[29] Preston, 'Wilful Murder' p.216–217
[33] Beesly
[34] Preston, 'Wilful Murder' p.227
[35] Preston, 'Wilful Murder', p.228
[36] Preston, 'Wilful Murder', p.238-240
[40] The Sinking of the Lusitania: Terror at Sea or ("Lusitania: Murder on the Atlantic") puts this at 14:30, two minutes after Lusitania sank.
[41] Robert Ballard, Exploring the Lusitania. This number is cited, probably to include the German spies detained below decks.
[42] Molony; p123
[43] Beesly p.94
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[46] Preston 'Wilful Murder' p.330-332
[47] Ramsay p.126-128
[48] Preston 'Wilful Murder', p.363
[49] Preston, 'Wilful Murder' p.457
[50] Preston, 'Wilful Murder', p.367
[51] Beesly p.111
[52] Beesly p.97
[53] Beesly p.116-117
[54] Ramsay p.140-146
[55] Ramsay p.147-149
[56] Glasgow Evening Citizen. 17 July 1915. (quoted by Schreiner, p. 314)
[57] Preston, 'Wilful Murder', p.367-369
[59] Preston, 'Wilful Murder', p.413-414
[60] Preston, 'Wilful Murder', p.415-416
[61] "Sinking Justified, Says Dr. Dernburg; Lusitania a "War Vessel," Known to be Carrying Contraband, Hence Search Was Not Necessary." (http://query.nytimes.com/mem/archive-free/pdf?res=9E0CE4DE1F3EE733A0575CA0A9639C46496D6CF) (PDF). New York Times: p. 4. 9 May 1915. "Justification of the sinking of the liner Lusitania by German submarines as a man of war was advanced today by Dr. Bernhard Dernburg, former German Colonial Secretary and regarded as the Kaiser's official mouthpiece in the United States. Dr. Dernburg gave out a statement at the Hollenden Hotel following his arrival in Cleveland to address the City Club at noon on Germany's attitude in the present war”
[70] "Lusitania was unarmed" (http://query.nytimes.com/mem/archive-free/pdf?res=9E0CE4DE1F3EE733A0575CA0A9639C46496D6CF) (PDF). New York Times. 10 May 1915. .
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External links
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- The Home Port of RMS Lusitania – Lusitania.net (http://www.lusitania.net)
- RMSLusitania.info (http://rmslusitania.info) – passenger and crew lists, biographies, and deck plans of the Lusitania
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- Professor Joseph Marichal (http://www.encyclopedia-titanica.org/discus/messages/10245/7477.html?1184203857) (Lusitania Passenger KIA WWI), reference only
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- Lest We Forget (http://www.encyclopedia-titanica.org/item/4554/) Moving Passenger's Stories from the Lusitania
- Lusitania Home at Atlantic Liners.com (http://www.atlanticliners.com/lusitania_home.htm)
- Lusitania Information & photos (http://www.relevantsearchscotland.co.uk/ships/ships/013lusitania.html)
- Lusitania Passenger Stories (http://www.lusitania.org.uk)
- The Lusitania Memorial in Cobb (http://www.britannia-picture.com/ireland/lusitania_memorial)
- Maritimequest RMS Lusitania Photo Gallery (http://www.maritimequest.com/liners/lusitania_page_1.htm)
- Photo of one of the Lusitania's salvaged propellers at Liverpool Maritime Museum (http://www.liverpoolmuseums.org.uk/maritime/collections/liners/lusitania/)
- Welsh ballad about the sinking of the Lusitania (http://www.gjt.org.uk/en/item1/25270)
- Lusitania sinking with photos from UK National Archives and BBC videos (http://www.awesomestories.com/disasters/lusitania/story-preface)
- Some Original Documents from the British Admiralty, [[Room 40 (http://german naval warfare.info/indexLUS.htm)], regarding the sinking of the LUSITANIA]: PhotoCopies from The National Archives, Kew, Richmond, UK.
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