

The History of the Twentieth Century

Episode 91

“The Luxury Navy”

Transcript

[music: Fanfare]

In a speech in 1912, the First Lord of the Admiralty, Winston Churchill, declared that “a German fleet is a luxury not a national necessity, and is not therefore a fleet with a pacific object.” He did not feel it necessary to add that in contrast the Royal Navy was therefore a necessity. If Britain lost her Navy, she would certainly lose the Great War. Even the loss of naval supremacy would put the United Kingdom and its Empire in grave danger.

No such concerns applied to Germany. Unlike Britain, Germany could afford to take risks with her Navy. In the early days of the war, what gave British admirals sleepless nights was the fear that the High Seas Fleet would make some bold, unexpected move to cripple or destroy the Royal Navy.

Welcome to *The History of the Twentieth Century*.

[music: Opening War Theme]

Episode 91. The Luxury Navy.

In this podcast, I’ve spent a good deal of time talking about the Royal Navy and the naval race with Germany. In the early twentieth century, Britain is the world’s richest nation, the only undisputed superpower, and rules a global empire. Her navy is essential to maintaining this status. As Barbara Tuchman points out in *The Guns of August*, the Royal Navy is vital to the British Empire in the plainest, most literal meaning of the word “vital.” That is, the British Empire cannot survive without it. And that is precisely the reason why the growth in the German Navy set off so many alarm bells in Britain.

Britannia, as we know, rules the waves. But that’s because she has to. Britain is an island nation, to begin with. That’s how she managed to be the only Great Power in Europe that doesn’t need a conscripted army. In an island nation with so great a navy, a great army would be superfluous.

Not that there's much risk of a German invasion of Great Britain itself. Even if you grant that, somehow, the German Navy achieves superiority in the waters of the British Isles, a large-scale invasion is unlikely so long as Germany is also fighting a two-front war with France and Russia.

But the list of British strategic concerns does not end with a large-scale invasion of the home islands. Foreign trade is fundamental to the British economy. Over forty percent of the world's merchant shipping tonnage is British, and British-flagged ships carry more than half the world's overseas trade. Two-thirds of the food Britons eat is imported, and the British war effort depends on soldiers and supplies from across her worldwide empire moving freely into Britain, and then across the Channel into France.

The Admiralty had a plan for dealing with the German Navy in the event of a war, and as you may recall, the First Lord of the Admiralty Winston Churchill had put the plan into motion even before Britain officially entered the conflict. The Home Fleet, which had already been on maneuvers, had been ordered to steam for its chosen war station: Scapa Flow. Scapa Flow is a body of water within the Orkney Islands that forms a handy natural harbor as the surrounding islands protect it from the storms and waves of the North Sea, and it is vast enough to hold large numbers of ships. It is not the most convenient of locations for the Navy, lying as it does to the north of mainland Britain at a latitude which is positively Norwegian.

The new combined fleet that gathered at Scapa Flow was dubbed the Grand Fleet, and the Second Sea Lord, Admiral Sir John Jellicoe, was appointed to command this enormous naval force. Its size varied as ships came and went, but it included something like 160 ships, including about 40 modern battleships and battlecruisers.

Scapa Flow is hundreds of miles away from Kiel, where the Germans keep their High Seas Fleet and their U-boats, so that helps keep the Grand Fleet safe, but it also basically puts the island of Britain in between the two navies. And, more specifically, it puts the Grand Fleet over 500 miles away from those crucial English Channel shipping lanes where the soldiers, equipment, and supplies for the BEF are crossing into France. Indeed, the High Seas Fleet is significantly closer to those critical crossing points than the Grand Fleet is. If the Germans really want to raid the English Channel, they can get there before the Grand Fleet can intercept them. Of course, they won't be able to get back home again without fighting their way through the Grand Fleet, and that turned out to be all the deterrent the British needed.

Remember that in 1914, the world's most recent experience with a Great Power naval conflict was the Russo-Japanese War of nine years ago. The climax of that naval war was the Battle of the Tsushima Strait, in which the main Russian battle fleet, which had sailed all the way from the Baltic, was shattered by the Japanese. That battle not only cost Russia her fleet, but pretty much ended the war. A lot of people thought the naval war between Britain and Germany was destined to come down to a similar all-out battle between the High Seas Fleet and the Grand Fleet, with the winner of that battle most likely to go on to win the overall war.

Those of you who have read ahead in the history of the twentieth century already know that no such grand confrontation is going to take place. But that information would have come as a big surprise to most naval strategists of 1914. They were looking for that big naval battle. And the thinking was that while Britain was more likely to win the big naval battle, Germany had more to gain from it. What I mean by this is, the loss of her navy won't prevent the German Army from continuing to wage war on the Continent, but the loss of the Royal Navy would devastate the British war effort and stand a good chance of costing the allies the war.

So what all of this means for Britain is that she must pursue a cautious, low-risk naval strategy, hence the deployment to Scapa Flow. And although in hindsight we know it will never happen, the British Admiralty were watching nervously in the early days of the war for any unusual activity that might suggest Germany was springing a trap.

Stationing the Grand Fleet at Scapa Flow works out well for the British in a whole other way: from this position, the Royal Navy commands the waters between Scotland and Norway, which are the entrance to the North Sea. This makes it possible for Britain to blockade Germany in a manner virtually unprecedented in naval history.

You may recall from back in episode 41, I made the case for the German Navy's being large enough to threaten a potential British blockade of Germany. Until now, "blockade" meant "close blockade," meaning a squadron of ships patrol just outside the blockaded port, ready to pounce on any ship that tries to enter or leave. The mastermind of the German Navy, Admiral Tirpitz, reasoned that the British fleet would have to break up into small squadrons to watch a number of ports across the North Sea coast, while the German High Seas Fleet could remain unified and strike at individual blockade squadrons at times and places of its own choosing, and have local superiority each time. Some of these attacks could be hit-and-run strikes by submarines and torpedo boats. So in that way, the High Seas Fleet would be able to undermine a British blockade by chipping away at it, a few ships at a time. The Germans would have been happy to sacrifice a few torpedo boats and submarines to sink a British dreadnought, and if they could pull off that trick often enough, the balance of naval power in the North Sea might tip toward Germany.

But that's not how it's going to work out. The combination of modern dreadnoughts, fast and powerful, the use of radio to send messages instantly, and newfangled weapons like underwater mines and submarines, coupled with Germany's unfortunate geographical predicament mean that all the Grand Fleet at Scapa Flow needs to do to control the sea lanes in and out of Germany is to control the upper end of the North Sea, which they are well capable of doing. And they can do this without dividing the Fleet and while remaining hundreds of miles away from any possible German counterattack. The upshot of all this is that if the Germans want to try to break the blockade, it will be on them to steam hundreds of miles north from their home base and take on the entire Grand Fleet all at once.

Yeah, they're not going to do that.

The chief German official who did not want to do that was Kaiser Wilhelm. The Kaiser liked to say it was his half-British ancestry that accounted for his love of the sea and of his Navy. Whatever it may have been, the Kaiser certainly did love his Navy, and when the Great War broke out, he was loathe to put it at risk. All that glamor, all that prestige, all that *money* the High Seas Fleet represented, well, who wanted to see all that go to the bottom of the North Sea?

And so, while the British were steeling themselves for some dramatic German surprise, the Germans...did nothing. Okay, they did have one surprise up their sleeves. When the British deployed their army to France, the German Navy hoped to slip at least some submarines, possibly even some of their smaller, faster surface ships, into the English Channel to harass the transports. If they got lucky, they might even be able to inflict a serious wound on the British war effort before it even got started. Who knew?

But the British surprised the Germans first by getting the BEF across to France sooner and faster than expected, during the third week in August. German submarines were operating in the North Sea at this time and were unable to redeploy in time, so the attack never materialized.

Of course, the British also have submarines and small, fast destroyers. They sent those to the Heligoland Bight, the waterway that is the German Navy's gateway to the North Sea. The British sent them to monitor the Germans during that critical third week in August when they were shipping their army to France to sound the alarm in the event of a German Navy sortie. The Germans never made a move, but the British did spend a week observing the German's own defensive destroyer patrols in the bight, which were meant to intercept any British submarine that might try to slip in and attack the German fleet. These German patrols stuck to a rigid pattern, because, you know, Germans, and when the British figured out the German patrol pattern, it gave them an idea.

By this time in late August, you'll recall, the BEF had been deployed to France and had quickly been humbled by the German Army. The news coming out of France was pretty bleak at this point, and the British were looking for a win to help boost morale. So a plan was laid. Three British submarines would slip into Heligoland Bight at just the right time and place, early in the morning, to be sure they would be spotted. The subs would then flee, the German destroyers would give chase, and the subs would draw them into an ambush at the hands of a larger force of British destroyers and cruisers. Farther out to sea, battlecruisers from the Grand Fleet would be ready to back up the smaller force, in the event the Germans decided to go for broke and send out their own dreadnoughts, although the British timed their ambush to coincide with low tide, when the larger German ships would have difficulty leaving port.

The outcome of this plan was the first naval battle of the Great War: the Battle of Heligoland Bight, on August 28. The British won a convincing victory in that fight, though luck played an important role. The Germans destroyers took the bait and pursued, and six German light cruisers rushed after to support them.

The battle lasted five hours. The German ships surprised the British by being faster and better armored than expected. German gun crews fired more quickly and more accurately than predicted. And in the mists and the confusion, British ships mistook each other for the enemy and something very tragic might have come of that, but, as I said, the British got lucky. The outnumbered Germans lost three cruisers and one destroyer, with several more seriously damaged, and the British escaped before the German battlecruisers could arrive. No British ship was sunk, although a few suffered serious damage. In terms of casualties, the numbers are telling. The British suffered 35 seamen killed and 55 wounded. The Germans suffered 712 killed, including an admiral and a commodore, 149 wounded and 336 sailors taken prisoner after being rescued from their sinking ships. One of the German sailors taken prisoner and returned to Britain that day was Wolf Tirpitz, the son of the Admiral.

The Battle of the Heligoland Bight gave the British a badly needed morale boost in those dark days when it seemed that the BEF was doomed to be captured, or at least evicted from the Continent. As for Germany, the Germans did not see how risky the British plan was or how close it came to a disaster. All they saw was the Royal Navy appearing suddenly out of the mist right on their front doorstep with no warning, bloodying the German fleet, and then escaping unscathed. The Royal Navy had demonstrated it was still the Royal Navy of legend. Skillful, daring, and always coming out on top.

The effect of this relatively minor engagement reached far. Kaiser Wilhelm ordered that the High Seas Fleet hold back to avoid further losses. Its commander was instructed to wire the Kaiser for specific Imperial permission before entering into any engagement with the British. Many senior military figures agreed with the Kaiser on this, but Wolf Tirpitz's father, the admiral, was beside himself. He sought an audience with the Kaiser to try to talk him out of this new policy; we don't know exactly what was said in that meeting, but we do know that the 17-year relationship between these two men which had been close until this moment soured afterward, and the Kaiser's decision stood.

There were some good reasons to support the Kaiser on this, although some might say "good rationalizations." One was that by late August, the Kaiser and his government were feeling pretty confident that France would be defeated in another week or two. Once France was out of the war, Britain would be much less of a threat. Recall that the Germans had hoped that Britain would stay out of the war altogether, and were disappointed when she entered it. They still judged Britain's commitment to the war to be lukewarm, and hoped that the British might agree to an armistice once France was defeated. In this view, to strike a hard blow against Britain might actually be counterproductive, in that it would increase British commitment to see the war through.

In fact, just at that moment, Russia seemed to be the bigger threat. Things were not going so well on the Eastern front. And that was another reason to keep the fleet intact. The High Seas Fleet

could easily maintain control of the Baltic and protect German trade with Scandinavia so long as it remained intact.

And then there is the “fleet in being” theory, which holds that the very existence of a fleet forces the enemy to tie down their own naval assets. In this view, the High Seas Fleet is doing Germany a service just by existing. It forces the formation of the Grand Fleet, and forces the Grand Fleet to stay close to Britain. Why risk the High Seas Fleet in a longshot gamble to wound the Grand Fleet when we are already tying it down just by sitting in port?

The fleet-in-being theory is much derided today, but it was serious business in 1914. Even Admiral Mahan, author of *The Influence of Sea Power upon History* endorsed it, and the experience of the Russo-Japanese War appeared to validate the concept. The Russian Pacific Squadron was blockaded at Port Arthur for nearly a year, but its very existence tied down most of the Japanese Combined Fleet for most of the war.

But Tirpitz wasn't having any of it. In his view, it was the British, not the Germans, who were benefitting from the fleet in being. The Grand Fleet was tying down the German Navy, and this situation was not to Germany's advantage, not so long as the blockade was maintained.

[music: *The Hebrides*]

On August 24, 1914, the British and French were falling back after the Battle of the Frontiers, the German Eighth Army in East Prussia was redeploying to present General Samsonov with a nasty surprise, and German soldiers were massacring Belgian civilians in the town of Dinant. But that day was also the centennial of another important date in military history. August 24, 1814, was the day that British forces took control of Washington DC, the capital of the United States, and set fire to the Capitol building, the White House, The United States Treasury, the War Department building and destroyed the entire Library of Congress, among other acts of vandalism.

I mention the War of 1812 because it is as if history itself is offering us a timely reminder. That war between the United States and the United Kingdom had been triggered in part by the British blockade of Continental Europe during the Napoleonic Wars and American resentment at what they perceived to be British lack of respect for American rights as a neutral sovereign power. Freedom of trade across the open seas remains in 1914 a key American principle of international relations. Could it be that history is about to repeat itself?

The Second Hague Conference in 1907 included a discussion of the rights of neutral shipping in time of war, and the discussion continued afterward at a conference in London in 1908. Out of that conference came the London Declaration. All of the Great War combatants had participated, as had the United States, Italy, the Netherlands, and Spain. The London Declaration took a pretty hard line in favor of freedom of neutral trade. Only a small number of trade goods were designated legal contraband, meaning that they were primarily for military use, things like

weapons and ammunition and gunpowder. Belligerents could seize these whenever they were discovered at sea, even on a neutral ship. A second category of dual use goods was recognized. Belligerents could seize those only if there was proof they were headed for an enemy nation. Most trade goods, including foodstuffs, went into the third category of things that could not be seized at all under any circumstances.

The United Kingdom, as the world's largest maritime trader, was all for freedom of the seas. Until it got involved in a war itself. On August 6, the US government asked the combatants to declare that their navies would conform to the London Declaration. Germany and Austria agreed at once, on the condition that the Allies would agree as well. The British also agreed, subject to certain exceptions. And this turned out to be one of those cases where the exceptions swallow the rule. Basically, the British promised they would conform to the London Declaration except when they wouldn't.

On August 20, the British Cabinet issued an Order in Council reviving the old Napoleonic-era concept of the doctrine of continuous voyage. This meant that the decision whether to seize trade goods upon the high seas would depend not on the port of destination of the ship but rather on the ultimate destination of the goods being carried. And the British reserved to themselves the right to decide where that "ultimate destination" was.

Think about this for a moment geographically. If neutral ships carried goods to, say, neutral Denmark, it would be a simple matter to offload them from the ships and transport them by land into Germany. For that matter, goods shipped into Italy could end up in Austria or Germany. Goods shipped to Norway could be transported to Sweden and then shipped to Germany across the Baltic Sea, where the Royal Navy can't go.

In August 1914, though, the British Admiralty's nightmare was the Netherlands. You'll recall from episode 80 that the Schlieffen Plan was actually revised to preserve Dutch neutrality, even though there's that inconvenient Maastricht salient that makes it harder for the Germans to funnel troops through Belgium. The reason the Germans were so scrupulous about respecting Dutch neutrality, as opposed to their attitude toward Belgian neutrality, was that German military planners had the foresight to see that neutral Dutch ports could potentially be very useful in the event of a British blockade.

But now, as the German Army is advancing in large numbers through Belgium and into France, Dutch ports, most notably Rotterdam, would be an awfully convenient way of resupplying the German Army, wouldn't they? Even the thought of foodstuffs—which the London Declaration had specifically exempted—passing right through the blockade on their way to feed German soldiers was intolerable to the British. What was a Navy for, if not to interrupt the flow of supplies to the enemy?

The key argument on the other side of this aggressive British approach to blockade was this: how are the neutral powers going to react? Are we going to be alienating them? And the biggest and

strongest neutral power in the world in 1914 was the United States. How far could the Americans be pushed before they begin to push back? The British Foreign Secretary, Sir Edward Grey, would say later that his goal in August was “to secure the maximum blockade that could be enforced without a rupture with the United States.”

Admiral Tirpitz watched in frustration as the British had their way at sea while the Navy he had worked so hard to build remained in port. In September he observed that “[o]ur best opportunity for a successful battle was in the first two or three weeks after the declaration of war... As time goes on, our chance of success will grow worse, not better.” But again, to most of the German command in the early days of the war, when a quick victory in France still seemed possible, the lack of naval action didn’t seem all that big a deal. They reasoned that the British blockade wouldn’t be around long enough to bite. When a German official approached Chief of Staff Moltke about coordinating wartime economic policy, Moltke grumbled, “Don’t bother me with economics; I am busy conducting a war.”

And so, the bulk of the German Navy would remain holed up in port in the North Sea for most of the Great War, but the German Navy did have other assets, including U-boats.

I should pause here for a moment to point out that “U-boat” is the English-language version of the German term *U-Boot*, which is the shortened form of *Unterseeboot*, which literally means “undersea boat.” This is simply the German way of saying “submarine,” and in German, any submarine from any country is called a U-boat. In English, though, when we say “U-boat,” we always mean specifically a German submarine. Those of you who have read ahead in the history of the twentieth century know that German submarines are destined to play an important role in the Great War, and, who knows, we might even see them return later in the century in another war. It reflects their importance in twentieth-century history, and specifically for English-speaking countries, that we have this specific term in English—U-boat—to refer to German submarines.

The Germans invested a lot into developing submarines. You may recall from our discussions on naval matters in earlier episodes that the submarine was originally conceived as an underwater torpedo boat. In that role, its main function in time of war would be to provide coastal defense against large enemy ships: cruisers and battleships, particularly. But, spoiler alert, as the Great War grinds on, the Germans will come to see submarines as useful in the role of commerce raiding, that is, attacking enemy cargo ships.

At this stage of the war, however, when Moltke is still scoffing at the concept of economic warfare, submarines are still seen primarily as defensive weapons. In August 1914, the German Navy had about twenty U-boats available, not nearly enough to threaten British merchant shipping, but the German Admiralty did begin to consider the possibility of using U-boats to make long-range attacks against the Grand Fleet blockade. If the blockade won’t come to the U-boats, maybe the U-boats can go to the blockade.

Just days into the war, five U-boats were sent on a stealth mission to attack the Grand Fleet right at their home base at Scapa Flow. This would have been a blow at least as impressive as the Battle of Heligoland Bight if it had succeeded, but it didn't work out. Two of the five U-boats had mechanical trouble and had to turn back, one was spotted, rammed, and sunk by a British cruiser, HMS *Birmingham*, and another U-boat simply disappeared. It probably struck a British mine; no one knows for sure.

So not an impressive performance for the world's first-ever wartime submarine patrol. And more than that, the U-boat that *Birmingham* had sunk had been discovered off of Fair Isle, part of the Shetland Islands, north of Scotland. This put the British on notice that German U-boats were hunting far beyond German waters.

It also called attention to the fact that the Grand Fleet's base at Scapa Flow in the Orkney Islands, which are actually *south* of Fair Isle, where the German sub was discovered, had no submarine defenses and it was going to need them, like, yesterday. Admiral Jellicoe, the commander of the Grand Fleet, ordered anti-submarine patrols outside the base, while construction crews built booms and nets across the many entrances to stop submarines from slipping into the harbor.

On September 5, a German U-boat, designated *U-21*, was patrolling outside the Firth of Forth on the east coast of Scotland, when it spotted the British cruiser HMS *Pathfinder*. *U-21* fired a torpedo, which struck *Pathfinder* and detonated one of her magazines. The ship sank rapidly, taking with her about 250 sailors. Eighteen are known to have survived. It was the first time in history that a ship had been sunk by torpedo launched from a submarine. The success of the attack startled both sides; the Royal Navy even attempted to keep the attack a secret, claiming publicly that *Pathfinder* had struck a mine. This was apparently meant to avoid frightening civilians, but there were too many survivors and eyewitnesses to keep the secret for long.

Less than three weeks later, on September 22, another U-boat, *U-9*, scored an even more impressive victory. A squadron of three British cruisers were patrolling the southern regions of the North Sea, particularly a stretch of water between the Netherlands and Britain known as the Broad Fourteens. Apparently it's called that because the sea floor is flat there, at a consistent depth of fourteen fathoms, or 84 feet, so if you look at a nautical map of the region, you will see fourteens all over the place.

Anyway, these cruisers were older ships, not top of the line, and their mission was to guard against any of those small, fast German torpedo boats that might be trying to slip into the English Channel. At 6:00 AM on the 22nd, *U-9* spotted the squadron and moved toward them underwater. The British ships apparently had not been warned about U-boats and were not taking any special precautions.

At 6:20, *U-9* fired one torpedo at the nearest ship, HMS *Aboukir*. The torpedo hit the starboard hull and flooded the engine room. Aboard *Aboukir*, they believed they had struck a mine. Her

captain, J.E. Drummond, was also in command of the whole squadron that morning, and he ordered the other two ships to approach and help evacuate his crew. *Aboukir* sank at 6:50.

A few minutes later, *U-9* fired two more torpedoes at HMS *Hogue*. The torpedo launch was spotted by the crew of *Hogue*, who fired back at the submarine. The torpedoes struck *Hogue*, and she sank in less than fifteen minutes. Finally, the last remaining cruiser, HMS *Cressy*, steamed toward *U-9* and attempted to ram her, unsuccessfully. Then she began picking up survivors from the other ships. *U-9* fired her last three torpedoes at *Cressy* at about 7:20. Two of them hit, and *Cressy* sank by 8:00 AM. The British lost three obsolete cruisers and 1,459 sailors killed. *U-9* suffered no casualties or damage.

It was a blow to the British, to be sure, but also a warning to take the U-boat threat more seriously. The commander of *U-9* Kapitänleutnant Otto Weddigen, was hailed as a hero upon his return to Germany. On October 15, *U-9* struck again, sinking another British cruiser, HMS *Hawke*. Every member of the crew of *U-9* received the Iron Cross, second class, and Weddigen got the Iron Cross, first class.

These losses drove the British Admiralty into something close to panic. The Grand Fleet was ordered to evacuate Scapa Flow and disperse into multiple ports in Ireland and on the west coast of Scotland until the submarine defenses could be brought up to snuff. It was a good thing, too, because on November 23, *U-18* actually slipped into Scapa Flow, but the fleet wasn't there. She was spotted and forced to scuttle, her crew taken prisoner. And on December 31, the last day of 1914, a British pre-dreadnought battleship, HMS *Formidable*, was sunk by *U-24* in the English Channel, at the cost of 547 lives.

Clearly, the submarine could not be minimized or dismissed. It was a new and dangerous weapon, and its impact on naval warfare is just beginning.

We'll have to stop there for today. Thanks for listening, and thank you to Brian for becoming a patron of the podcast. If you'd like to become a patron, head on over to historyofthetwentiethcentury.com and click on the Patreon button. And while you're at the website, drop a comment or check out the playlists of music used in each episode. And if you like the podcast, spread the word to your family and friends. The more, the merrier.

I'm going to be leaving town for a week. I'm going on a writer's retreat. It's in Canada. We've already established that I don't spend nearly enough time or money in Canada, but this coming week will surely correct both those oversights. I'd invite you to look me up, but that goes against the whole point of a retreat, so I can't. It's being held at the southernmost inhabited point in Canada. Where that is, I will leave as an exercise for the listener's deductive powers. No fair using Google.

But thanks to the miracle of pre-posting, there *will* be an episode next week. There will *not* be an episode the week after that, because I still need some time to catch up after my trip, so sorry

about that, but I hope you'll join me next week, on *The History of the Twentieth Century*, as we return to the Western Front in the aftermath of the Battle of the Marne and ask ourselves, along with the military commanders on both sides, "Now what?" Home Before the Leaves Fall, next week, on *The History of the Twentieth Century*.

Oh, and one more thing. Kapitänleutnant Weddigen was assigned to command a new U-boat, *U-29*, in March 1915. On her first patrol that month, she was spotted off the north coast of Scotland while firing a torpedo at the dreadnought battleship *HMS Neptune*. Among the ships that spotted her was *HMS Dreadnought*, the very ship that had begun the dreadnought revolution in 1906, as we saw in episode 41. *Dreadnought* pursued *U-29* and rammed her, breaking the submarine in half. It sank with all hands. The loss of Weddigen and his boat was a measure of revenge for the British and was mourned in Germany.

Ironically, in the fourteen years that *Dreadnought* would serve in the Royal Navy, this will be her only combat action. The mighty ship whose armor and guns revolutionized naval warfare never relied upon either herself and never went toe-to-toe with another battleship, although you have to credit her speed for helping her to catch and ram that U-boat. Although she never fought in a surface naval action, *HMS Dreadnought* will go down in naval history as the only battleship ever to ram and sink an enemy submarine.

[music: Closing War Theme]