

Arms Race prior to 1914, Armament Policy

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New weapons produced during the Industrial Revolution in the late 1800s heightened existing tensions among European nations as countries strove to outpace their enemies technologically. This armaments race accelerated in the decade before 1914 as the Triple Alliance of Germany, Austria-Hungary, and Italy squared off against the Triple Entente of France, Russia, and Britain. Germany's fears of increases in Russian armaments, and British fears of the German naval buildup, contributed heavily to the outbreak and spread of the First World War in 1914.

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Introduction

In early 1914, British First Lord of the Admiralty [Winston Churchill \(1874–1965\)](#) observed that “the world is arming as it has never armed before.” Foreign Secretary Sir [Edward Grey \(1862–1933\)](#) agreed, lamenting that “excessive expenditure on armaments, carried to an extensive degree, must lead to a catastrophe,” and adding that he saw “very little to be done”^[1] to prevent the impending cataclysm. After the First World War and its nearly 40 million casualties, beliefs among anti-war activists strengthened that the armaments race had caused the worst war in history, and that arms reductions remained the best

guarantor of peace. The [League of Nations](#) tried to achieve this goal from 1926 to 1935, but it ultimately failed.

Historians today do not explain the outbreak of war in 1914 as simply the result of international tensions caused by the arms race. Myriad factors contributed to the First World War: notions of ethnic/racial superiority and the right — even obligation — to dominate others, mixed contradictorily with fears of relative societal decline; an exaggerated need to express manliness through war; a deeply rooted and glorified militaristic culture; and the pressures of domestic protest movements, which militarists sought to dissipate by re-channeling these tensions outward against foreign enemies.^[2] This article assesses the role of the pre-1914 armaments competition, among many other factors, in helping to bring about the First World War.

The methods applied are empirical, comparative, and based on the synthesis of other historians' work. In general, this article agrees with seminal studies emphasizing the role of land armaments by David Stevenson, David G. Herrmann, and [Annika Mombauer](#),^[3] which find evidence of causation amidst an exacerbated crisis atmosphere before 1914, as well as works on naval armaments by Arthur J. Marder, Volker R. Berghahn, Paul M. Kennedy, Robert K. Massie, and [Matthew S. Seligmann](#),^[4] which point to more indirect armaments-related causes. I also rely, but less so, on the naval studies of Jon Sumida and Nicholas Lambert.^[5] However, this article argues that the [Anglo-German naval race](#) in particular played a direct role in converting a European war into a World War by dragging [Britain](#) into the conflagration and indirectly influencing Turkey to cast the iron dice and go to war. Britain and Turkey's entry into war rapidly spread the fighting to other parts of the world.

This article maintains, furthermore, that the pre-1914 armaments race was a product of broader technological forces at work in Europe since the mid-1800s, and that this wave of new technologies and the weapons it spawned were themselves products of a war-oriented culture embedded much more deeply in European history.

Technological Change and New Weaponry in the Context of European “Militarism” ^[6]

Europe's Warlike Tendencies

Historian Laurence Lafore titled his classic analysis of the coming of war in 1914 aptly: *The Long Fuse*.^[7] Indeed the underlying causes of the conflict were rooted deeply in European history. One late 19th-century scholar identified only 230 years of peace over three strife-torn millennia stretching back to antiquity, which included only two years without war in the 17th century.

Although the 18th century witnessed less bloodshed, the peaceful respites were more like armed standoffs. “Every sovereign keeps in readiness all the armies he would need if his people were in danger of extermination,” wrote the venerable [Charles-Louis Montesquieu \(1689–1755\)](#).^[8]

The continent's ethnic diversity and centuries-long struggles among feuding peoples had spawned a distinct ethnic hierarchy by the mid-to-late 1800s. On the bottom lay resentful subjugated groups like the Irish, Finns, Poles, Czechs, Slovaks, and Croats; formerly dispossessed peoples like the Rumanians, Bulgarians, Greeks, and Serbs had recently reestablished minor states for themselves, but longed to expand them. Other surviving ethnic groups like the Swedes, Danes, Dutch, and Spanish remained peoples with states, but had dropped out of the power struggle.

At the top of this hierarchy were the great dominant nation-states, many of them conquerors of other peoples: Great Britain, [France](#), [Italy](#), [Germany](#), [Austria-Hungary](#), [Russia](#), and the [Ottoman Empire](#) (see map). Some of these greater nation-states were very powerful, especially Germany, France, and Britain, while the others, especially Ottoman Turkey, worried about catching up or falling out. Whatever their status, all eyed one another warily as they jockeyed for position and began to choose sides and form [alliances](#), seemingly readying themselves for a showdown.

Pacifists like Austrian noblewoman [Bertha von Suttner \(1843–1914\)](#) feared this process of squaring off and the “remnants of the old barbarism” in Europe. She condemned “the rage of one people against another”^[9] that threatened modern civilization. The biggest worry for Suttner and other pacifists, including Swedish explosives manufacturer [Alfred Nobel \(1833–1896\)](#), was the technological dynamism of the time coupled with the frightening military implications of these material changes. To avoid a military-technological Armageddon, the pacifist movement unsuccessfully advanced the idea of substituting arbitration procedures for the traditional “final arbiter”: war.

Reinforcing rival [pacifist efforts](#), the so-called Second International socialist movement also strove to stop the wheels of war

from running over the workingmen of the world. But the socialist notion of a general strike — all workers of all nations bringing all industrial production to a total stop if war threatened — would register no more success than pacifistic arbitration proposals. While both movements made it more difficult to expand armies and increase armaments, their inability to cooperate with each other as well as their lack of clout in the citadels of real power meant they were unable to ward off their common nightmare: mechanized mass destruction.

Technological Change and New Weaponry

Technology evolved so quickly that historians delineate two Industrial Revolutions: the first from 1750 to 1850, and the second after 1850. The first transformation, an almost exclusively British affair, was closely aligned with Europe's hawkish culture. In addition to its American and Caribbean colonies in the 1700s, Britain added [Canada](#), Florida, [South Africa](#), and [India](#). The markets won through war and colonization drove British exports up over fivefold. The economic pressure to keep up with increasing foreign and domestic demand drove manufacturers to find better means of production. The result was a cluster of remarkable new technologies: coke-fired iron manufacture, reciprocating steam engines, and sulfuric acid mass-produced in lead vats or chambers.

Initially, Britain's Industrial Revolution only indirectly benefited the nation militarily, mainly through a rising national income which the government accessed via taxes and loans used for more of the existing weaponry. By the mid-1800s, however, technologies from the First Industrial Revolution made their way into military operations: steam locomotive-pulled trains for army [transport](#), wrought and cast iron cannons, ironclad steam-powered warships, and increased gunpowder output (sulfuric acid was a key ingredient in its production).

By this time, other nations were anxious not to be left behind in Europe's hostile atmosphere, and thus scrambled to acquire these technologies. Steam locomotives transported troops in Prussian army maneuvers as early as 1839, for instance, and army units moved by rail in the War of Italian Unification (1859–1860), the American Civil War (1861–1865), and the Wars of German Unification (1864–1871). New machine tools, like lathes and milling machines, improved metal-shaping precision, paving the way for production of breech-loading, rapid-firing [rifles](#) and the first [machine guns](#) in the [United States](#), Germany, and France.

The obvious connection between industrial and military prowess during the First Industrial Revolution caused nervousness in European capitals as the Second Industrial Revolution swept through Europe before the turn of the 20th century. Steel replaced iron for many uses; greatly improved machine tools created even more precise metal parts; powerful steam turbines supplanted increasingly inefficient reciprocating engines; more highly concentrated sulfuric acid became available; and oil began to supplement coal as an energy source. Engineers and scientists also created electrical power and equipment, [wireless telegraphs](#), telephones, and nitrogen-based high explosives.

These breakthroughs had the potential to revolutionize the art of [warfare](#) by spawning killing machines: repeating rifles shooting twenty to thirty bullets per minute; improved machine guns spewing 600 bullets per minute; semi-recoilless rapid-firing field [artillery](#) firing hundreds of shells per hour; and artillery shells packed with extremely powerful nitrogen explosives. Steam power, steel, electricity, advanced optics, and the new explosives also ushered in early prototypes of the modern battleship. As the Second Industrial Revolution gathered momentum after 1900, it brought automobiles, airships, airplanes, steam turbine-powered ships, and submarines. These new technologies, like earlier advances, challenged army and navy establishments either to adopt the weaponry and determine the best tactical adjustments, or to reject the new devices altogether.

Given the power struggle among seven major nations within Europe alone, rejection of new weaponry would prove difficult if just one or two powers adopted a particular device. This happened early on, when the French adopted semi-recoilless artillery and the Russians and British adopted machine guns (see Section 8). But these [weapons](#) developments did not affect only the leading European powers. By purchasing the new artillery models, for example, Serbia hoped to stop Turkish or Austrian invaders in their tracks, while lagging major states like Russia and Turkey viewed machine guns and rapid-firing cannons as potential equalizers. Moreover, nitrogen explosive sea mines, particularly in narrow straits and channels and along coastlines, offered once formidable naval nations like Turkey a nearly impassable defense, but Germany also planned to even the odds against naval giant Britain by luring the enemy over mines. The submarine represented another good example of shortcut to victory against countries with more and bigger surface vessels; this was the nightmare, in fact, of Britain's Royal Navy when France took the lead in [submarine](#) construction around 1900, and after 1906 when Germany followed suit.

Rapid technological change disrupted business-as-usual routines in military establishments, forcing hard-fought debates about the Arms Race prior to 1914, Armament Policy - 1914-1918-Online

the worth of military devices yet untested in war, followed by many controversial decisions to adopt weaponry that, once taken, often went beyond tactical issues to affect operational, strategic, and even national policy thinking. Recent historians have dubbed this technology-driven assessment and decision-making process the Revolution in Military Affairs (RMA).^[10] This establishment-rattling RMA became more frenetic in the decade before 1914 as nations reacted not only to another set of technological challenges, but also, nervously, to the reactions by other nations. In all of the cases discussed in this article, technology was the *engine* driving an increasingly frantic armaments competition, even though the *fuel* or underlying cause and determinant of this interstate friction remained the deeply rooted rivalries and national security anxieties among these states.

Military Strength on Land and Sea, 1903–1904

Alliances and Neutrals

By the early 1900s, the squaring-off process among the Great Powers of Europe had resulted in two powerful alliances. The first was the Triple Alliance of Germany, Austria-Hungary, and Italy (formed from 1879 to 1882). Facing the Triple Alliance was the Franco-Russian Alliance (dating from 1894). Great Britain remained *neutral*, as did Turkey, weakened but still valuable as an ally. Although none of these alliances were set in stone, Tables 1 and 2 show the quantitative army and navy strengths should war have broken out in 1904 with these alliances intact.

Country	Number of Troops	Army Expenditure (in Millions of Pounds Sterling, Current Prices)
Germany	606.866	36,6
Austria-Hungary	361.770	17,6
Italy	221.085	9,7
France	575.000	28,0
Russia	<i>1.100.000</i>	39,4
Britain	209.460	29,2
Turkey	<i>280.000</i>	7,8

Table 1: Army Strength, 1904 (*with Estimates in Italics*)^[11]

Country	Battleships Completed, Launched, & Laid Down	Naval Expenditure (in Millions of Pounds Sterling, Current Prices)
Germany	24	10,7
Austria-Hungary	7	2,3
Italy	3	4,7
France	17	11,7
Russia	22	11,9
Britain	39	36,8
Turkey	1	0,5

Table 2: Naval Strength, 1904 (*with Estimates in Italics*)^[12]

These tables clearly indicate an intense armaments competition between the powers. The naval leader, Britain's Royal Navy, had studied and adopted a succession of new hardware since the passing of the age of sail in the 1860s and finally reached a new state of the art by 1900. This particular RMA was heavily swayed in its final stage by *The Influence of Sea Power upon History* (1890), by American historian Alfred Thayer Mahan (1840–1914). Germany, Russia, and France followed Britain's lead, building one cutting-edge battleship after another. All twenty-four of Germany's battleships, for instance, were built after 1890. Three of the newest ships in commission at the time—Germany's *Wittelsbach*, France's *Suffren* ([see photograph](#)), and Russia's *Revitzan* ([see illustration](#))—all displaced around 12,000 tons, hit top speeds of eighteen knots propelled by coal-fired triple expansion reciprocating steam engines, had similar thickness of armor, and carried twenty primary and secondary guns of

roughly equivalent caliber and overall weight of shell. The typical main armament was four 12-inch guns.

There were also analogous armaments developments on land in the early 1900s. After decades of trial and error, all armies of the European Great Powers possessed weapons made possible by first-wave technologies of the Second Industrial Revolution coming to Europe after the mid-1800s. The results of this RMA — a competition somewhat less fraught for armies at this particular time — saw military establishments moving their divisions by rail according to intricate timetables; deploying recoiling, rifled steel cannon ([see photograph](#)) firing shells packed with nitrogen explosive; and equipping infantrymen with improved semi-automatic magazine rifles ([see photograph](#)).

Although arms competition was ongoing, and pacifists and socialists justifiably feared the build-up of arms, the armaments race did not necessarily threaten war *between the two alliances* around 1904. Neither side had been rattling sabers against the other, nor had any “war scares” involving the two alliances occurred since the Balkan and Franco-German crises of the 1880s. War clouds had gathered and blown over many times over recent decades, but they were mainly due to colonial incidents tied to Britain and did not threaten to hurl the European alliances into war.^[13] Finally, although naval construction was indeed frenetic, historian David G. Herrmann rightly describes the army increases as a “steady peacetime development,” with military leaders “more conscious of the constraints they faced than of any imperative for rapid expansion.”^[14]

By the early 1900s, moreover, neither alliance needed to fear being overpowered by its enemies. On the naval side, both alliances possessed the same technology, as explained earlier, but also had nearly the same number of battleships—the Franco-Russian Alliance’s thirty-nine to the Triple Powers’ thirty-four. The balance tips slightly toward the Triple Alliance when considering the fact that Russia’s three completed Black Sea behemoths had no easy passage through Turkish waters to the Mediterranean, and that six of its big capital ships were stationed in the Far East, leaving only eleven in the Baltic Sea near the European theater.

The alliances were also fairly well-balanced on land. The giant Russian army gave the Franco-Russian Alliance a numerical advantage on a potential eastern front, and Russia was the only continental army equipped with machine guns in 1903; each division boasted three eight-gun batteries. But the Russian army was poorly led, as the [Russo-Japanese War \(1904-1905\)](#) would demonstrate, and their divisions had much less artillery support than German and Austro-Hungarian units. Similar parity would exist on a potential western front. Although Germany needed to send some army corps east, Italian forces would more than make up the shortfall—assuming, of course, that Italy remained loyal to the alliance. The German army also deployed far more field guns per corps than the French (144 versus ninety-two), possessed howitzers for high angle fire, and may have had a slight advantage in heavier-caliber guns. France, on the other hand, was the only continental artillery equipped with semi-recoilless, rapid-firing field artillery. The famous French 75-millimeter gun ([see photograph](#)) also boasted shields and a 1,000-meter longer range than the German field artillery piece.

In short, none of the alliance leaders felt they lagged behind enemies and needed to catch up. They had no reason to believe an attack was imminent, but were confident that if one came they were well-equipped for success in battle.

The Wider Focus: A European Military Equilibrium in 1903-1904?

Adding Britain, the great imperial power of this era, to the international relations equation in Europe circa 1904 projects a far less stable image. Table 2 shows that if Britain had abandoned its decades-old policy of neutrality in Europe and joined one alliance bloc or the other, enemy navies would have been overwhelmed. The British army also could have upset Europe’s balance. It was small ([see Table 1](#)), but professional and well-equipped. Like other European armies outside France, the British army had not yet introduced quick-firing field pieces, but it did deploy twenty-four machine guns per division; this added over 14,000 bullets per minute to the rapid fire of 12,000 crack infantrymen. Because commitment of the British army to one side or the other could spell victory on land for that bloc, any change in British foreign policy would generate anxiety and have destabilizing consequences.

During the late 1890s and early 1900s, Britain felt threatened by both continental alliance blocs. The rapid construction of German battleships as a result of the ambitious plans of Imperial Naval Office Chief [Alfred von Tirpitz \(1849-1930\)](#) certainly worried the English leadership, especially after two rounds of talks in 1898 and 1901 failed to produce a naval agreement or alliance between Britain and Germany. In 1902, naval intelligence also identified Germany’s new, fast luxury liners, cruising at twenty-three knots and constructed for rapid conversion to surface commerce raiders, as predators that, according to Director of

Naval Intelligence Prince [Louis of Battenberg \(1854–1921\)](#), “could seriously interrupt our trans-Atlantic imports.”^[15] But the Franco-Russian Alliance generated even more anxiety. At the turn of the century, the best British battleships were stationed at Gibraltar and Malta in the event of war against its age-old rival France. That same year, moreover, Britain signed a military alliance with [Japan](#), reckoning, mainly, that the six state-of-the-art Japanese battleships would provide a counterweight to Russia’s Far Eastern squadron of six battleships. In fact, Russia probably worried Britain the most until Japan nearly annihilated the Russian fleet in 1904 and 1905, revolutionary disturbances further enervated [Russia in 1905](#), and Germany jolted Europe by trying to bully its way into French Morocco in 1905 (see Section 5).

Already by 1904, nevertheless, Britain had concluded that Germany represented a great enough threat to warrant certain preparatory measures. That April, for instance, Britain and France signed an agreement recognizing their mutual interests in North Africa. The agreement’s primary purpose was to bolster British imperial interests by eliminating the possibility of a French threat in North Africa; it also strove to facilitate the two nations’ solidarity against Germany, however, by avoiding conflict with one another. Later in the year, First Sea Lord [John “Jacky” Fisher \(1841–1920\)](#) began to shift Mediterranean and Far Eastern battleships to home waters, while also accelerating plans for naval bases in Scotland. Although the first measure aimed to save money by de-commissioning older warships and placing them into a reserve force, and the second created a base for operations against Russia’s large Baltic fleet, both were also steps to brace for any eventual naval conflict with Germany. In late 1904, finally, Fisher began to design the HMS *Dreadnought*, a new super battleship that would have nothing to fear, and another new class of powerful and even faster ships, the “battle cruisers.” These innovative projects reflected the same British need to remain flexible facing all potential enemies.

The Diplomatic Revolution, 1904–1907

In February 1904, the Japanese attacked the Russian naval installation at Port Arthur in southern Manchuria. By 1905 Russia had committed the bulk of its military resources to a costly war it would not win. Fifteen battleships were lost, and for a time it seemed the Russian monarchy too would be lost to revolutionary forces. Germany chose this moment, when Russia could provide only minimal assistance, to provoke a crisis with France. German leaders were unsettled by the newly cordial relations between Britain and France, having so far assumed that these perennial enemies would remain so, thereby giving Germany ample time to build up its fleet and leverage Britain into an alliance on German terms. To poach Britain from France, Germany demanded its own economic and strategic rights in Morocco, which London and Paris had recognized in 1904 as an exclusively French sphere of influence. France would either be diplomatically humiliated or defeated militarily, thus demonstrating to Britain the need to kowtow to Europe’s strongman.

The [Moroccan Crisis](#) was the first war scare in eighteen years with the potential to plunge the whole continent into war. It finally blew over in 1906 with no German gains and without triggering war. It was nevertheless a significant turning point in European international relations. France and Britain, far from being driven apart, were pushed closer together, each more aware now of the diplomatic and military need of the other given the potential threat Germany posed. Staff talks between the two armies began with the goal of coordinating the passage of a British expeditionary force across the Channel to help defend France. For the first time in 1905 the British army war-gamed this eventuality. The admiralty followed suit, drawing up its first operational plans for a war against Germany — not for a North Sea clash, but for a long-distance blockade that Fisher dubbed “our great anti-German weapon.”^[16] In 1906, moreover, Britain acceded to American President [Theodore Roosevelt’s \(1858–1919\)](#) “Corollary” to the Monroe Doctrine, which assigned to the United States policing rights for foreign investments in Latin America, including those of the largest investor there, Britain. Fisher then began shifting British naval forces from the Caribbean to home squadrons. In 1907, finally, London settled all outstanding differences with Russia in central Asia. Similar to the 1904 agreement with France, the goal was to insure the empire’s jewel, India, against Russian attack, as well as to facilitate solidarity against Germany. The “Triple Entente” of France, Russia, and Great Britain had come into being. It was not a formal alliance between all three countries, but a significant development nonetheless—and the battle lines of the First World War had come more clearly into focus.

The Great Naval Race, 1906-1914

In February 1906, while Europe’s diplomatic sands shifted alarmingly against Germany and the Triple Alliance, the Royal Navy launched the *Dreadnought*, commissioning it in December. Heretofore state-of-the-art battleships were now disparagingly dubbed “pre-dreadnoughts.” The new ship displaced nearly 18,000 tons, not 12,000; was driven by steam turbines, not \$Arms Race prior to 1914, Armament Policy - 1914-1918-Online

reciprocating engines; was capable of twenty-one knots, not eighteen; bristled with ten 12-inch rifles, not four; and was coal-fired but designed to convert to oil, a much more efficient fuel. The *Dreadnought* made all competing vessels obsolete and forced other nations, especially Germany, into a desperate race to catch up.

But Fisher was not finished. He rushed the design and funding for another revolutionary ship—under discussion since the early 1900s—through the admiralty and parliament. Known as the battle cruiser, it had similar dimensions and armament to a battleship, but one less turret and less armor. The reduced weight allowed the turbines to push the ship at over twenty-five knots. Battle cruisers were designed to chase down the non-turbine light and heavy cruisers of enemy nations preying on worldwide British commerce. Their other mandate was to be the big fast cats that would catch the “German greyhounds,”^[17] the easily converted luxury liners with 6-inch and 4-inch guns to be unleashed on British shipping lanes. Fisher enthusiastically envisioned the battle cruisers guarding the empire and routes to it, not lining up for battle in the North Sea — but before long the heavy armament of these ships proved too tempting for admirals who wanted greater weight of shell in the battle fleet. In 1908, three battle cruisers, *Invincible* (see photograph), *Inflexible*, and *Indomitable* joined the Royal Navy. Three larger dreadnoughts, *Bellerophon*, *Superb*, and *Temeraire*, followed in 1909.

Germany had to respond or be left extremely vulnerable to British sea power. By 1910, four German dreadnoughts (see photograph)—*Nassau*, *Westfalen*, *Rheinland*, and *Posen*—had taken up station. They were somewhat heavier (19,000–20,000 tons), a bit slower (at nineteen-twenty knots), but just as powerful, possessing twelve 11-inch guns and two inches more armor belt. Germany’s first battle cruiser, *Von der Tann*, also joined the High Seas Fleet that year. Slightly superior to Britain’s *Invincibles*, it had eight 11-inch guns, thicker armor, and twenty-seven knot speed.

Now the race was on. Military and public opinion in both countries grew obsessed with the nightmare scenario of an enemy fleet sneaking into the North Sea and attacking ships caught unaware and unmaneuverable at anchor, and then bombarding helpless coastal towns.

This mutual fear lessened chances of negotiating an end to the race. As early as 1908, British Chancellor of the Exchequer [David Lloyd George \(1863–1945\)](#) told the German ambassador that “every Englishman would spend his last penny to preserve”^[18] his country’s naval supremacy. In 1909 Germany offered to slow down shipbuilding if Britain first promised to maintain neutrality in any continental conflagration. Britain insisted that the tempo slow first before any political agreement, and that such an agreement could not include a pledge of neutrality that would allow Germany to defeat France and Russia. Talks finally ended in 1912 over these differences and background fears. The negotiating mission to Germany that year of British War Minister [Richard Burdon Haldane \(1856-1928\)](#) did not result in German agreement to decelerate naval spending. As British Prime Minister [Herbert Henry Asquith \(1852–1928\)](#) put it, “Nothing, I believe, will meet [Germany’s] purpose which falls short of a promise on our part of neutrality, a promise we cannot give.”^[19]

And so, rather than slowing, the shipbuilding pace accelerated (see illustration). By 1914 Britain had completed or laid down an *additional* twenty-three dreadnoughts and seven battle cruisers. Both types were larger, faster, and more powerful. The Queen Elizabeth Class battleships (see photograph) begun in 1913, for example, carried eight 15-inch guns, while the new battle cruisers boasted eight 13.5-inch cannons. Germany, struggling to keep up with Britain’s torrid pace, answered with fifteen new dreadnoughts, completed or laid down, and six battle cruisers. Both types, like their British counterparts, were larger, faster, and more powerful. Thus the two dreadnoughts laid down in 1913 also had eight 15-inch guns.

Innovations in naval technology offered Germany an opportunity to close the gap with Britain’s larger fleet. Although the RMA process of responding to new technological possibilities had produced a seemingly superior naval state of the art by 1904, HMS *Dreadnought* and the *Invincible* Class battle cruisers forced naval tacticians to repeat the whole process and ascend higher up the study/response curve. This time, study was warranted not just for the design of faster and more powerful ships, but also for gunnery. Indeed, admirals would no longer fight battles at 5,000–10,000 yards, as when Japan crushed a Russian fleet in the Battle of Tsushima in 1905, but rather potentially at 12,000–16,000 yards. Range finding at nine to ten miles, however, presupposed devices and systems enabling shells to hit targets miles beyond what the human eye, or even 1904 state-of-the-art range finders, could achieve. Even though Germany was behind the Royal Navy quantitatively in 1914, the country led Britain in gunnery due to several factors: use of stereoscopic range finders, which enabled operators to plot ranges faster; more experience with centralized fire control, which enabled guns to respond more quickly to moving targets; and superior training of fire controllers to cope with the steep inclination of shells at long range and the frequent alteration of course by enemy ships.

German ships “always work with big and rapid alterations of range, and exercise firing while turning,”^[20] observed an Austrian naval official. These advances represented another example of military technology offering weaker powers an equalizer (see Section 3). Although this advantage offered much consolation, such technical superiority could not completely allay German anxiety over falling behind.

There was a near inevitability to Germany having fewer ships. For one thing, Britain enjoyed access to income and wealth taxes at the national level, while Germany’s unusual tax structure limited Berlin to taxes on consumption until the first taxes on wealth were levied in 1913–1914, forcing the government to borrow the funds for half of its new dreadnoughts. Even more of a disadvantage, Germany’s army expenditure constrained naval outlays, whereas Britain’s did not. Thus Germany spent 101.8 million pounds on its military in 1913, allotting 78.3 million to the army and 23.8 million to the navy, while Britain’s defense spending totaled 77.1 million, with overall naval expenditure of 48.8 million - double the German level. Germany’s shipbuilding budgets actually fell 15 percent after 1911 due to rapidly rising army spending.

The conviction that sea power, as Mahan had written, could very well decide any struggle compelled the allies of Britain and Germany to enter the frenetic naval race too. Table 3 shows naval strengths, expenditures, and spending increases since the onset of the dreadnought revolution.

Country	Dreadnought Battleships and Battle Cruisers (Completed in Bold, Laid Down or Budgeted in Parentheses)	Shipbuilding Expenditures in 1913 (Millions of Pounds Sterling, Current Prices)	Percentage Increase in Shipbuilding Expenditures (1902–1904 to 1911–1913)
Germany	22 (4)	11,4	131%
Austria-Hungary	3 (5)	4,4	270%
Italy	4 (6)	4,3 (1912)	246%
Britain	34 (3)	17,1	38%
France	4 (12)	7,0	41%
Russia	0 (4)	11,1	105%
Turkey	2	5,5	1100%

Table 3: Dreadnought Battleships and Battle Cruisers, 1914–1915^[21]

These figures indicate that the Royal Navy, however wary it remained of the German challenge, possessed a commanding lead over the High Seas Fleet in 1914 - in ship numbers if not gunnery. This numerical lead would shrink only slightly with newly commissioned ships in 1915 and 1916. Darkening Germany’s prospects further was the fact that Russia and France, both entering the dreadnought competition late, were in the process of extending the overall lead of the Triple Entente to fifty-seven to forty-four by 1916–1917.

This increasingly adverse trend spiked Triple Alliance nervousness about the immediate foreseeable future of 1916 to 1917. The prospect of fighting the Triple Entente was daunting, but German naval leaders, for one, felt better about fighting sooner rather than later. Thus Germany’s fleet father, Tirpitz, worried in October 1913 that Britain’s lead, combined with a shift in German parliamentary funding from navy to army, would leave “the whole fleet policy [of overtaking Britain] in vain.” Tirpitz’s most recent biographer, Patrick J. Kelly, writes that “this sober realism was followed by a fatalistic expression that Germany,” lacking an alternative, “might have to roll the dice in a war.” The chief’s top aide, [Eduard von Capelle \(1855–1931\)](#), agreed in May 1914. The advantages of the Royal Navy, coupled with the prospect of a wide, long-distance blockade of Germany, “force us in even higher measure than before to throw all upon the offensive.”^[22] Obviously, he was thinking of a desperate gamble, a “*Flucht nach vorn*” (“retreat toward the front”). As explained in Section 7, naval leaders in Rome and Vienna, worried about the twelve big ships the French had laid down or budgeted (Table 3), were whistling a variation on this sooner-rather-than-later tune when they considered the Mediterranean situation.

Anxiety was not limited, however, to the Triple Alliance. Indeed, limiting the focus to 1914 alone shows that Austria-Hungary and Italy had built more big vessels for their ally than France and Russia had done thus far for Britain – seven capital ships to four. If Turkey’s two dreadnoughts, completed at great expense in Britain in the summer of 1914, were, perchance, added to the Triple Alliance column, the ratio was nine to four, and the overall lead of the Entente narrowed to only eight ships, an uncomfortably

small margin in British eyes. An even more worrisome scenario to British military leaders: what would the thirty-one dreadnoughts and battle cruisers of the Triple Alliance (plus Turkey) do to the *mere four* state-of-the-art battleships of the French and Russian navies if British politicians, perchance, opted for neutrality?

International Crises and Shooting Wars, 1908-1913

War Scares in the Balkans and Morocco

European stability, a tenuous proposition for centuries, quickly unraveled after 1904. The Moroccan crisis of 1905–1906 and the accompanying diplomatic revolution were followed immediately by an escalating naval race of frightening proportions. Then, in 1908, the year Germany launched SMS *Nassau*, Austria-Hungary annexed the former Turkish province of Bosnia-Herzegovina. Nearly 50 percent Serbian in ethnicity, Bosnia had long been eyed by expansion-minded, adjacent Serbia, which mobilized and called on Slav protector Russia for assistance during the ensuing annexation crisis. Germany backed its Germanic cousins in Vienna, however, and forced Russia, still lamed from the Japanese war, to back down in 1909. This compelled Serbia to acquiesce too, but both Russia and Serbia wanted racial revenge, swearing they would not back down again the next time.

Two years later, Europe again came to the brink of war. In July 1911 a German gunboat anchored in a French Moroccan port, provoking another crisis. The war scare reverberated all summer, each side speaking of insults to national honor and the need to fight. It finally blew over in October without triggering the widely anticipated showdown between alliance blocs.

Like the First Moroccan Crisis, however, serious consequences followed. In Germany, the Navy League, a pressure group for naval expansion, agitated for more ships. Furthermore, a new organization, the Army League, founded in 1912, similarly made propaganda for a massive increase in men and weapons. All patriots questioned whether [Wilhelm II, German Emperor \(1859–1941\)](#) was competently leading the nation and race. Feeling this pressure, the beleaguered emperor swore that next time, “I won’t chicken out.”^[23]

As their respective army staffs had done in 1905 and 1906, French and British naval officials now planned coordinated efforts against Germany. Britain would remove its newest pre-dreadnought battleships from the Mediterranean – these improved non-dreadnought vessels continued to be commissioned well into the dreadnought/battle cruiser epoch – leaving only pre-dreadnoughts of 1903–1904 vintage there, but these too would sail home if war erupted. The shift allowed Britain to maximize its combined dreadnought and pre-dreadnought strength at home. France would let Britain protect the Channel, while taking primary responsibility for the Mediterranean itself. Political pressure eventually forced Churchill to reinforce the region with three battle cruisers, but enemies would still have naval superiority in an economically and strategically vital area that included the Suez Canal.

Preparing to seize upon this opportunity amidst rapidly rising tensions in Europe (see also Section 7.2), the Italian and Austro-Hungarian naval staffs in 1913 negotiated intricate operational plans for sea battle in the Mediterranean, the first such plans for this alliance. They intended to defeat the French and the remaining British ships in detail, block the transport of French troops from North Africa to the European theater, and then land Italian divisions in southern France. A German battle cruiser ([SMS *Goeben*](#)), supported by Italian light cruisers, would interdict the French transports. Both sides were confident of victory in 1914 or 1915, but no later, given the anticipated completion of French dreadnoughts from mid-1915 through 1917. In 1914, for example, no fewer than thirty-three mostly pre-dreadnought Triple Alliance capital ships (i.e. battleships and heavy/armored cruisers) would confront the twenty-four of France and Britain, prompting [Paul G. Halpern](#) to conclude that the Triple Alliance “at the very least posed a serious challenge”^[24] to its Mediterranean adversaries. Realizing these operational plans, it is important to note, depended first and foremost on the politicians, not the admirals, in Rome.

Localized War Comes to Europe

In 1908 Young Turk rebels forced [Abdülhamid II, Sultan of the Turks \(1842–1918\)](#) to share power, finally deposing him in 1909. Their goal was to refortify the Ottoman Empire, once the greatest power in Europe’s power struggle. Much like Britain ending its neutrality over the course of 1902 to 1907, this agenda proved extremely destabilizing. Thus the chaos unleashed by [Austria-Hungary’s seizure of Bosnia-Herzegovina](#) occurred in part because of the perceived need to take it before Turkey was strong enough to prevent annexation and deny Vienna a strategic advantage on [Serbia](#).

In 1911, similarly, Italy seized Turkish Tripoli (Libya) before Turkey would be strong enough to defend it. To Italy's surprise, however, the Turks decided to fight. Rome had to wage an unexpectedly difficult campaign requiring the mobilization of 100,000 soldiers and its entire navy. Briefly in late 1911, fighting spread to Constantinople (Istanbul), causing the first casualties on European soil between major European powers since the Russo-Turkish War of 1877. In October 1912, Turkey sued for peace and ceded Tripoli to Italy.

That same year, international crisis and the threat of war spread to Ottoman-controlled territories in the Balkans, where ethnic relations simmered due to the Young Turks' newfound determination to strengthen their authority there. Although Turkish authorities began cracking down on Muslims and Christians alike in [Albania](#), Kosovo, [Macedonia](#), and Thrace, nationalists in the adjacent independent states of Serbia, [Montenegro](#), [Greece](#), and [Bulgaria](#) grew fearful of an impending "extermination" of Christians by Muslims throughout the region. The four small states formed the Balkan League to eliminate the perceived Muslim threat, seize territory from Turkey, and prevent Austria-Hungary from expanding out of Bosnia. The alliance attacked Turkey with 500,000 soldiers in October 1912.

As the Turks retreated from the Balkans, casualties rose shockingly. With Turkish authority crumbling, Christian soldiers and civilians lashed out at Muslims, hanging "spies" and murdering, raping, and burning down villages as payback for the long, brutal Ottoman rule. Although peace finally came in May 1913, war soon broke out again when Bulgaria attacked its former ally Serbia. Greek, Serbian, and Rumanian troops easily defeated the Bulgarians, again perpetrating atrocities against civilians.

The [Balkan Wars of 1912 to 1913](#) could have sparked a European war by pulling in Austria-Hungary, followed in all probability by Russia, Germany, France, and perhaps Britain too. Although both conflicts remained localized, tensions rose, prompting European armies to redouble their armament efforts and brace themselves for the seemingly inevitable wider war.

Army Weapons and Troop Expansion, 1904–1914

As noted in Section 4.1, the Great Powers had embarked on their RMA and adopted considerable new military technology by 1904. In the decade after 1904, however, these same armies stumbled over themselves in a much more frantic RMA competition with their enemies as second-wave technologies of the Second Industrial Revolution appeared on the military stage.

Only France had adopted semi-recoilless field guns ([see postcard](#)) by 1904, but Britain, Germany, and Austria-Hungary had them by 1908, followed by Russia, Turkey, and finally Italy. Like those of Russia and Britain before 1904, other armies rapidly deployed twenty-four machine guns ([see photograph](#)) per division as the years drew on anxiously to 1914; the Turks fell behind after their Balkan debacle, allotting only twelve per division. The Germans initially resisted the machine gun imperative; one leading member of the General Staff, [Erich Ludendorff](#) (1865–1937), was proud that he could distinguish between "humbug"^[25] and potentially beneficial weapons. Soon enough, however, the Germans followed suit lest they be outgunned. Non-rigid airships ([see photograph](#)), rigid Zeppelins ([see photograph](#)), and the first airplanes ([see photograph](#)) took up station, first experimentally at annual maneuvers and then over battle lines in the shooting wars of 1911 to 1913. Furthermore, telephones and wireless kits, joined by military automobiles, had begun in embryonic form to displace horses as the means of communication and transportation. Few decades in the history of warfare have witnessed as much weapons-related innovative scurrying as the decade before the First World War.

For the most part, however, this was a sort of publicly quiet technological competition that occurred beyond the earshot of the general public, most parliamentary deputies, and even some of the better-informed military beat journalists, who all remained fixated on the numbers of infantry divisions and battleships, not so much on the specifics of the deadly new gadgetry that would accompany the troopers and sailors into battle. Just as with these outsiders, however, even better-informed insiders harbored nagging anxieties about the rapid army and navy buildups, for no expert could know for sure whether tactical and operational adjustments—each side's RMA—would work well in war.

Year	Britain	France	Russia
1904	209.460 = 100	575.000 = 100	1.100.000=100
1905	213.780 = 102	595.000 = 103	1.900.000 = 173
1906	196.600 = 93.7	590.000 = 99	1.000.000 = 90,9
1907	179.209 = 86	602.492 = 102	1.000.000 = 90,9
1908	183.280 = 88	610.923 = 106	1.000.000 = 90,9

1909	181.900 = 86,9	567.484 = 99	1.209.000 = 110
1910	182.350 = 87,1	574.342 = 100	1.303.000 = 118
1911	182.700 = 87,2	593.556 = 103	1.345.000 = 122
1912	192.590 = 92	611.709 = 106	1.332.000 = 121
1913	192.144 = 91,7	850.000 = 148 (1914)	1.300.000 = 118

Table 4: Triple Entente Peacetime Army Strength (with Index Numbers to show percentage changes)^[26]

Years	Britain	France	Russia
1904	29,2 = 100	28,0 = 100	39,4 = 100
1905	28,9 = 99	28,5 = 102	40,0 = 102
1906	27,8 = 95,2	34,2 = 120	41,5 = 105
1907	27,1 = 93	32,7 = 117	42,9 = 109
1908	26,8 = 92	33,3 = 119	54,4 = 138
1909	27,2 = 93,2	34,7 = 124	57,0 = 145
1910	27,4 = 93,8	36,4 = 130	56,6 = 144
1911	27,6 = 94,5	40,5 = 145	58,1 = 147
1912	28,1 = 96,2	43,4 = 155	67,6 = 172
1913	28,3 = 96,9	44,2 = 158	75,8 = 192

Table 5: Army Expenditures (in Millions of Pounds Sterling, Current Prices, with Index Numbers to show percentage changes), 1904–1914^[27]

Years	Germany	Austria-Hungary	Italy	Turkey
1904	606.866 = 100	361.770 = 100	221.085 = 100	280.000 = 100
1905	609.552 = 100,4	361.770 = 100	220.834 = 99,9	
1906	614.353 = 101,2	362.398 = 101	249.816 = 113	
1907	616.838 = 101,6	366.578 = 101	249.917 = 113	
1908	619.006 = 102	365.742 = 101	247.000 = 112	361.644 = 129
1909	610.196 = 100,5	369.203 = 102	247.000 = 112	
1910	610.083 = 100,5	370.510 = 102	238.617 = 108	
1911	612.557 = 100,9	353.017 = 98	253.786 = 115	
1912	646.321 = 106,5	405.120 = 120	256.000 = 116	378.377 = 135
1913				
1914	811.000 = 137	494.000 = 137	305.000 = 138	250.000 = 89

Table 6: Triple Alliance and Turkey Peacetime Army Strength (with Index Numbers to show percentage changes)^[28]

Years	Germany	Austria-Hungary	Italy	Turkey
1904	36,6 = 100	17,6 = 100	9,7 = 100	7,1 = 100
1905	39,7 = 108	17,4 = 98,9	10,1 = 104	
1906	41,5 = 114	17,4 = 98,9	10,1 = 104	
1907	46 = 126	18,5 = 105	10,3 = 106	
1908	47 = 128	21,1 = 120	10,9 = 112	
1909	49 = 134	27,4 = 156	12,0 = 124	
1910	47,3 = 129	24,2 = 138	13,5 = 139	13,3 = 187
1911	46,9 = 128	22,4 = 127	14,7 = 152	
1912	52,1 = 142	25,4 = 144	18,7 = 193	
1913	78,3 = 214	34,4 = 195	25,3 = 250	

Table 7: Army Expenditures (in Millions of Pounds Sterling, Current Prices, with Index Numbers to show percentage changes), 1904–1913^[29]

Shifting now from qualitative to quantitative issues, Tables 4-7 show that army strengths remained fairly steady after 1904 until the tension-packed years right before 1914, when the numbers spiked. This trend was very apparent with archrivals France and Germany, but also with Austria-Hungary, the land of the double-headed eagle, which rapidly built up its armaments after 1912, keeping the growing Kingdom of Serbia in view to the south while also fixing a gaze on the Russian giant to the east. The Russian numbers increased dramatically in 1905 as war with Japan escalated, and subsequent years reflected St. Petersburg's desperate attempts to rebuild. The Turkish figures that exist point to a somewhat smaller but better-funded (and better-equipped) army by 1912 and its subsequent collapse after defeat in 1912–1913. Great Britain, ruler of the waves, was clearly more concerned with naval expansion than army increases, although 1908 to 1913 witnessed a 5 percent increase.

Especially evident in these tables, however, is the behind-the-scenes “quiet” arms race: the consistently more rapid annual increase of new weapon *expenditures* in the inflation-free environment of pre-1914. Indeed, as explained earlier, one killing device after another was adopted by armies whose fear of being left behind outweighed any skepticism. Thus, shut off from public view, where military planners planned and better-informed political leaders calculated, weapons competition was anything but quiet. It is also striking that the expenditure buildup of the Triple Alliance was more dramatic than the Triple Entente, at least in 1912 and 1913. The qualitative buildup in Italy was the quickest of all, as machine guns, new artillery models, airplanes, and airships were adopted. Would the Turkish War be followed by another regional conflict, this time against France, or Austria-Hungary? Only Italy was expanding its armaments faster than Germany, and close behind those two was Austria-Hungary.

This trend forced France and Russia to respond. France raised army strength nearly 40 percent to 850,000 in 1914 - passing Germany at 811,000 - mainly by extending tours of duty from two to three years in 1913. With more increases in the following years, Germany would fall even farther behind. While still possessing the superior 75-mm gun, France also cut into Germany's by now extensive lead in heavier caliber field artillery. The number of 155-mm field guns rose to 104, versus 400 German 150-mm pieces, which had to cover two fronts.

The Russian “Great Program” of June 1914 proved more worrisome in Berlin, however, for peacetime army size would rise 45 percent to 1,885,000 by 1917. Russian forces would also improve qualitatively by expanding rapid-firing field guns to 8,358, dwarfing Germany's total of 6,004 in 1914. Chief of the German General Staff, [Helmuth von Moltke \(1848-1916\)](#), was somewhat consoled that artillery strength per corps would still be greater, but all things considered, writes Norman Stone, “the pointers for the future were unmistakable.”^[30]

It was no surprise, therefore, that Moltke grew increasingly anxious, pressing Minister of War [Erich von Falkenhayn \(1861–1922\)](#) for another troop increase. Moltke even changed his mind from the year before, backing Ludendorff and Army League radicals who believed that only universal conscription, which already existed on paper but not yet in practice, could save the day. It became clear in May 1914 that no further increase could be squeezed out of a stingy parliament whose Left wanted no more consumer taxes, and whose Right was bitterly protesting the new 1913 federal taxes on wealth. In response, Moltke pleaded with the *Kaiser*:

We must be aware that the offensive of almost the entire Russian army will be directed against our forces which remain in the east—to be precise, a Russian army which will, from 1917 onwards, probably already be fully outfitted and equipped in everything in a modern way, and which will be able to cross the border in the shortest time. ... We must not close our eyes to these facts that are so unfavorable to us!

Getting nowhere with his plea made Moltke - one who had no illusions about the ferocity of [modern warfare](#) - eager to sound the tocsins while the odds favored Germany. “If only things would finally boil over,” he declared in early June 1914. “We are ready—the sooner, the better for us.”^[31]

Conclusion: The Armaments Race and the Coming of the First World War

Moltke would soon get his wish. On 28 June 1914, [Bosnian Serb terrorists assassinated Franz Ferdinand, Archduke of Austria-Este \(1863-1914\)](#), heir to the Austro-Hungarian throne. The transparent involvement of Serbian officials led to war between Austria-Hungary and Serbia a month later. When Russia mobilized its army to aid Serbia, a Slavic ally, Germany also mobilized, declaring war on Russia, and then France, in early August. Britain declared war on Germany on 4 August 1914. The First World War had begun.

German Fears about Russia

Traditional histories have rightly pointed to German war plans to defeat France before shifting troops east as a major cause of the wider European war, for German generals could not wait to attack in the west once Russia mobilized in the east. Recent seminal works by David Stevenson, David G. Herrmann, and Annika Mombauer have refined this discussion by emphasizing the desire of Moltke and other leading military and civilian officials to exploit the [July Crisis](#) in order to wage a “sooner the better” preventative war.

Mombauer’s research is particularly rich in documentation. She cites the report of the Saxon military attaché in Berlin, who had spoken with Moltke’s deputy on 3 July 1914:

Everything, he thinks, depends on what attitude Russia takes in the Austro-Serbian business. ...I had the impression that [the General Staff] would be pleased if war were to come about now. Conditions and prospects would never be better for us.

[Viktor Naumann \(1865-1927\)](#), a well-informed journalist, had the same impression:

There [is] considerable uneasiness in Berlin over Russian armaments and the test mobilization of considerable Russian forces. ...Not only in army and navy circles, but also in the Foreign Ministry, the idea of preventative war... [is] regarded with less disapproval than a year ago.

Later in the month, the Saxon attaché again reported Moltke saying: “We would never again find a situation as favorable as now, when neither France nor Russia had completed the extension of their army organizations.” An aide to German Chancellor [Theobald von Bethmann Hollweg \(1856–1921\)](#) heard the chancellor express these same worries about “Russia’s increasing [armaments] demands and amazing potential—in a few years no longer possible to fend off.” After the war, Bethmann Hollweg admitted, “Yes, by God, in a way it was a preventative war,” for military leaders had “declared that [in 1914] it was still possible [to fight the war] without being defeated, in two years’ time no longer!”^[32]

There was, of course, still the kaiser to convince. Against his better judgment and gentler instincts, this time he did not back away from the conflict. Looking at the question of responsibility for the outbreak of war in 1914 from an armaments perspective, Germany’s share of the guilt definitely increases.

The Naval Race and Britain’s Declaration of War

“What really determines the foreign policy of this country is sea power,”^[33] Foreign Secretary Grey declared in 1911, succinctly identifying Britain’s national interest in aligning with the Triple Entente. In 1914, similarly, nagging fears about Triple Alliance sea power induced Britain’s policy decision for belligerency, for neutrality would have allowed Germany to sweep the seas of French vessels. Afterwards, Germany would be so powerful that the Royal Navy could not stop its rival from establishing European and worldwide supremacy. In July, Grey’s assistant, Sir Eyre Crowe (1864–1925), stated:

If Germany and Austria win, crush France, and humiliate Russia, with the French fleet gone, Germany in occupation of the Channel, with the willing or unwilling cooperation of Holland and Belgium, what will be the position of a friendless England?^[34]

Grey used the same reasoning for war before the House of Commons:

I do not believe, for a moment, that at the end of this war, even if we stood aside and remained aside, we should be in a position, a material position, to use our force decisively to undo what happened in the course of the war, to prevent the whole of the west of Europe opposite to us . . . falling under the domination of a single power.^[35]

Like Germany, Britain’s imperial interests dictated fighting, and the sooner, the better.

There was an additional reason for haste in putting to sea at battle stations: the possibility that Germany, falling quantitatively behind in the naval race, would disperse some of its fleet overseas. For years, in fact, Germany had discussed doing just this. The idea was championed by [Heinrich, Prince of Prussia \(1862–1929\)](#), the Kaiser’s younger brother and a high-ranking naval commander. He favored an English-friendly foreign and naval policy, but if war came he thought it wiser to have a portion of the fleet abroad to challenge the British Empire.

Heinrich and his faction registered some success with redeployment of two intimidating battle cruisers, *Goeben* (see [photograph](#)) and *Moltke*, the former to the Mediterranean in 1913, the latter scheduled to reinforce the two fast armored cruisers of Germany's China squadron in 1914. In late 1913, furthermore, the "Detached Division" put to sea, visiting West Africa and South America before returning in mid-June 1914. The Detached Division included two of the newest dreadnoughts, *Kaiser* and *König Albert*. Its commander, [Adolf von Trotha \(1868–1940\)](#), claimed that in wartime his flotilla would force Britain to redeploy between ten and fifteen ships from home waters to hunt him down, thus altering strength ratios in Germany's favor in the North Sea.

Indeed, Germany's overseas experiments influenced Royal Navy actions during the day before Britain's ultimatum to Germany. With ships already guarding the Channel on 3 August 1914 against a sortie of the High Seas Fleet — the British embassy in Berlin had reported impending "important naval maneuvers"—attention shifted later that night to alleged German plans to put raiders on the trade routes prior to potential hostilities with Britain. To intercept any battle cruisers, converted luxury liners, armed merchant ships, and other "commerce destroyers,"^[36] the main battle fleet was ordered into the North Sea and a cruiser squadron headed by the *Invincible* to assemble at Queenstown, Ireland. A North Sea battle against the entire German fleet if it decided to break out was risky, to be sure; the war could be lost or won in a single afternoon. But it was still not as risky as the nightmare scenario of wild hunts for German raiders while diminished strength in home waters left Britain more vulnerable to German attack and invasion.

The Naval Race and Turkey's Entry into the War

To further increase the odds of winning this showdown North Sea battle, the Admiralty confiscated two super-dreadnoughts in early August, just days before their Turkish crews, already in Britain, could set sail. The bold coup became a major variable in a formula adding up to Turkish belligerency. Although Constantinople had negotiated an alliance with Germany in late July, this was seen mainly as a German shield against Russia and support during a potential Third Balkan War directed against Greece and Serbia, not a full-fledged entry into war against the entire Triple Entente (which most Young Turks opposed). But Britain's confiscating act was "one of those incidents," writes historian Alan Moorehead, that:

contrive to express and exacerbate a situation and finally push peoples and governments to the point where, suddenly and emotionally, they make up their minds to commit all their fortunes regardless of what the consequences are going to be.^[37]

Within the Ottoman inner circle triumvirate of [Mehmed Talat Pasha \(1874-1921\)](#), [Ismail Enver Pasha \(1881-1922\)](#), and [Ahmed Cemal Pasha \(1872-1922\)](#), only Enver favored a wild leap into world war in early August. After the ship seizures, however, Cemal's "mental anguish" over this insult moved him to demand, on the very day the news arrived, that Britain repay the 5 million pounds. Then, on 9 August, he insisted on the impossible: that Britain return the two dreadnoughts themselves "forthwith"^[38] if Turkey were to remain neutral in the war. The same day, Constantinople warned Turkish sea captains in Mediterranean harbors that "war with England is not unlikely,"^[39] which explains why Enver asked for German help a week later to fortify the Dardanelles. Talat also mobilized his Committee of National Defense to galvanize "the man in the street" in "popular demonstrations and indignations against Britain."^[40] Germany added fuel to the fire by promising to pay the money Turkey lost on the dreadnoughts if the Ottoman Empire joined the war. After Enver asked, moreover, Berlin permitted the battle cruiser *Goeben* and light cruiser *Breslau* to enter the Turkish navy as another friendly compensation for the vessels that Britain had taken. Although various factors prolonged the process of declaring belligerency, the Russian ambassador to Turkey reported in early October that the loss of the two warships had inflamed feelings against the Triple Entente, and especially against Britain, in both government circles and "public opinion,"^[41] making it all but certain that if and when Turkey entered the fray it would be on Germany's side. In late October, Enver ordered *Goeben* to lead *Breslau* and two pre-dreadnoughts that Turkey had purchased from Germany in 1910 into the Black Sea to bombard the Russian Crimea, thereby triggering war between Turkey and the Triple Entente.

In conclusion, the armaments race both resulted from, and further heightened, tensions among all of the Great Powers in the decade leading up to 1914. It factored especially heavily into the decisions for war in Germany, Britain, and Turkey. The latter two nations' entry into the war, more than anything else, transformed what was to be a largely European conflict into a genuine world war.

Notes

1. ↑ Citations in Steiner, Zara S.: *Britain and the Origins of the First World War*. New York 2003, p. 216.
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11. ↑ Herrmann, *Arming of Europe*, p. 234; Stevenson, *Armaments*, p. 8.
12. ↑ Halpern, *Mediterranean Naval Situation*, pp. 370-379; Holger H. Herwig, 'Luxury' Fleet: *The Imperial German Navy 1888-1918*, London 1980, pp. 263, 267; Massie, *Dreadnought*, p. 462; Stevenson, *Armaments*, p. 7.
13. ↑ See Dülffer, Jost / Kröger, Martin / Wippich, Rolf-Harald (eds.): *Vermiedene Kriege. Deeskalation von Konflikten der Grossmächte zwischen Krimkrieg und Erstem Weltkrieg (1856-1914)*, Munich 1997.
14. ↑ Herrmann, *Arming of Europe* 1996, p. 7.
15. ↑ Seligmann, *Royal Navy and the German Threat* 2012, p. 72.
16. ↑ Lambert, *Fisher's Naval Revolution* 1999, p. 177.
17. ↑ Seligmann, *Royal Navy and the German Threat* 2012, p. ii. For his analysis of the origins of battle cruisers, and their unfortunate evolution to ships of the line, see pp. 65-88.
18. ↑ Massie, *Dreadnought* 1991, p. 698.
19. ↑ *Ibid.*, p. 817.
20. ↑ Sumida, *In Defence* 1993, p. 302.
21. ↑ Halpern, *Mediterranean Naval Situation*, pp. 370-377; Herwig, 'Luxury' Fleet, pp. 273, 277; Stevenson, *Armaments*, pp. 7-8. See Notes 3-4 and 23
22. ↑ Citations in Kelly, Patrick J.: *Tirpitz and the Imperial German Navy*. Bloomington 2011, pp. 352, 353.
23. ↑ Hull, Isabel V.: *The Entourage of Kaiser Wilhelm II 1888-1918*. New York 1982, p. 238.
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