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The History of the United States Navy

Course Guidebook

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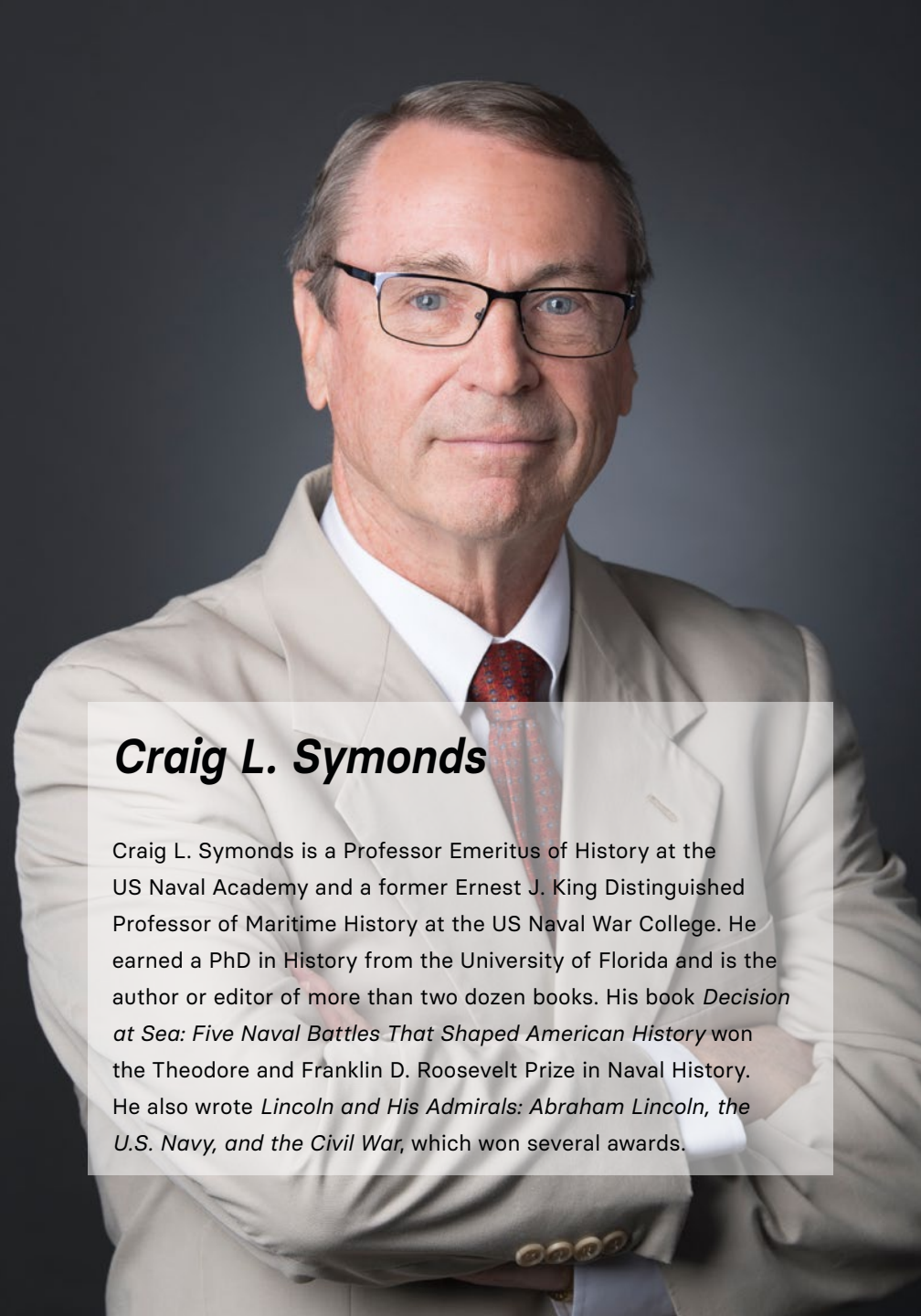

Craig L. Symonds

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01 *The British Origins of the US Navy*

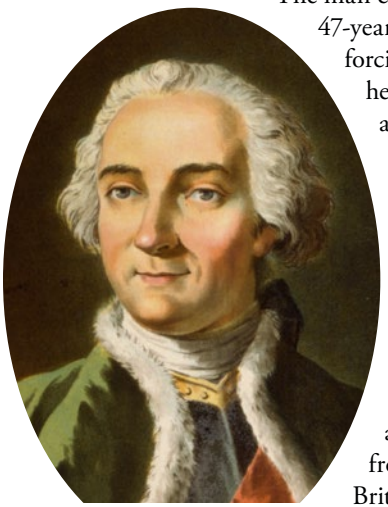
This journey through the history of the United States Navy will take you from the age of sailing ships and smoothbore cannon to the era of nuclear-powered aircraft carriers, missiles, and satellites. The lecture begins in 1759 with the land battle at Quebec, because an argument can be made that it lit the fuse of the American Revolution and led to the nation's founding. The event also illustrates the key factor that made the British victory possible in the first place: its command of the seas in the 18th century.

British Victory at Quebec

On the night of September 13, 1759, a 32-year-old British general named James Wolfe took an enormous risk by moving his soldiers in small boats up the St. Lawrence River. His objective was the French citadel of Quebec. Twice previously, Wolfe had sent his army to approach it over land. Each time, his troops had been thrown back.

James Wolfe

The first of them to reach the crest filed out onto a large open pasture that bore the name of a local farmer, Abraham Martin, and was therefore known as the Plains of Abraham. By sunrise, a substantial body of soldiers had spread out in a long line on the open plain outside the walls of the French citadel.



Marquis de Montcalm

The man commanding the French garrison was 47-year-old Marquis de Montcalm. Instead of forcing Wolfe's soldiers to fight their way in, he chose to sortie from the fort with his army and meet the British in the open. It was a fatal error. Montcalm and the French had the numbers, but British discipline won the day. Both generals fell mortally wounded.

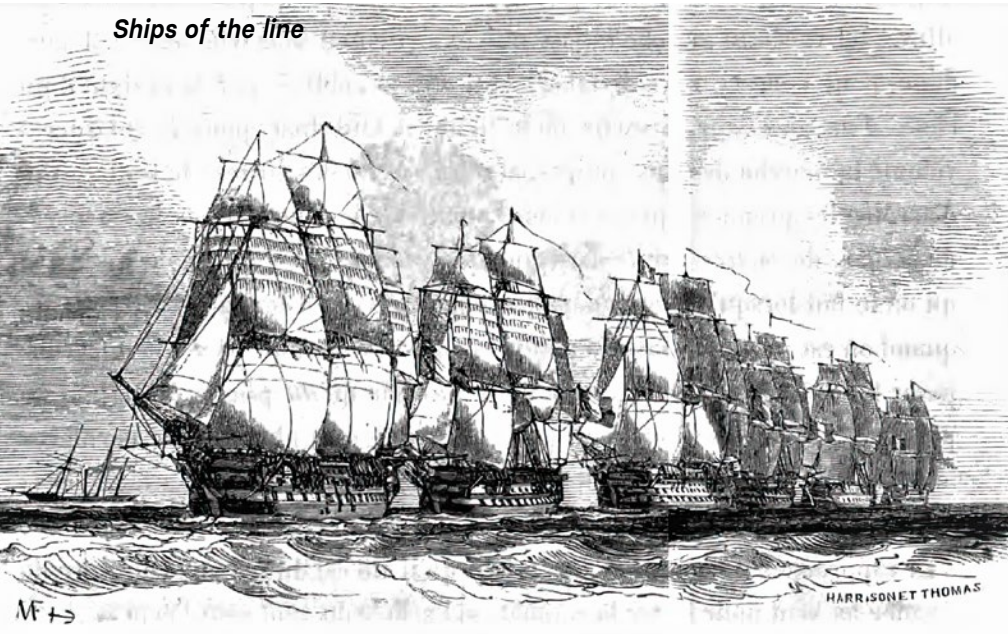
The full impact of that brief exchange would not be evident for months. But the British victory was one of the battles on which history pivoted. The defeat at Quebec effectively stripped Canada from the French empire and added it to the British Empire.

The death of General Wolfe

Naval Warfare in the Age of Sail

The backbone of Western navies in the age of sail was something called a ship of the line. The name derives from the fact that navies in this era generally maneuvered and fought in a line-ahead formation, following one another like ducks on a string. That made sense because the guns were lined up along the sides of each ship. When all those guns fired together, it was called a broadside. Sailing in any formation other than a line ahead risked what is today called friendly fire.

This Royal Navy's dominance had emerged slowly over several centuries as Britain won naval wars against first the Spanish, then the Dutch, and subsequently the French in a series of wars that dated back to the defeat of the Spanish Armada in 1588.



Ships of the line

These ships were about 200 feet long, and generally had two rows—or decks—of cannon. For that reason, they were sometimes called two-deckers. In the early 18th century, the number of guns on a ship of the line varied from 50 to over 100, but by the time of the American Revolution, the number had been more or less standardized at 74.

These ships were quite crowded. Each carried a crew of 600 to 800 men, even more for larger ships. Scores of men were needed to loosen or furl the sails, which had to be done by hand, and to man the guns, each of which weighed 5,000 pounds or more. That meant that European navies—and especially the Royal Navy—were constantly in need of manpower.

When a lookout spied an enemy on the horizon and shouted the news down to the officer of the deck, the captain would order the ship to clear for action. That involved reducing sail, knocking down bulkheads—the interior walls of the ship—to give the gun crews room to work, and extinguishing galley fires. The crews cast loose the heavy guns from their restraints, while powder boys as young as 10 years old brought up ammunition from the magazine. Amazingly, a well-trained crew could do all this in 5 to 10 minutes as the ships slowly closed on one another.

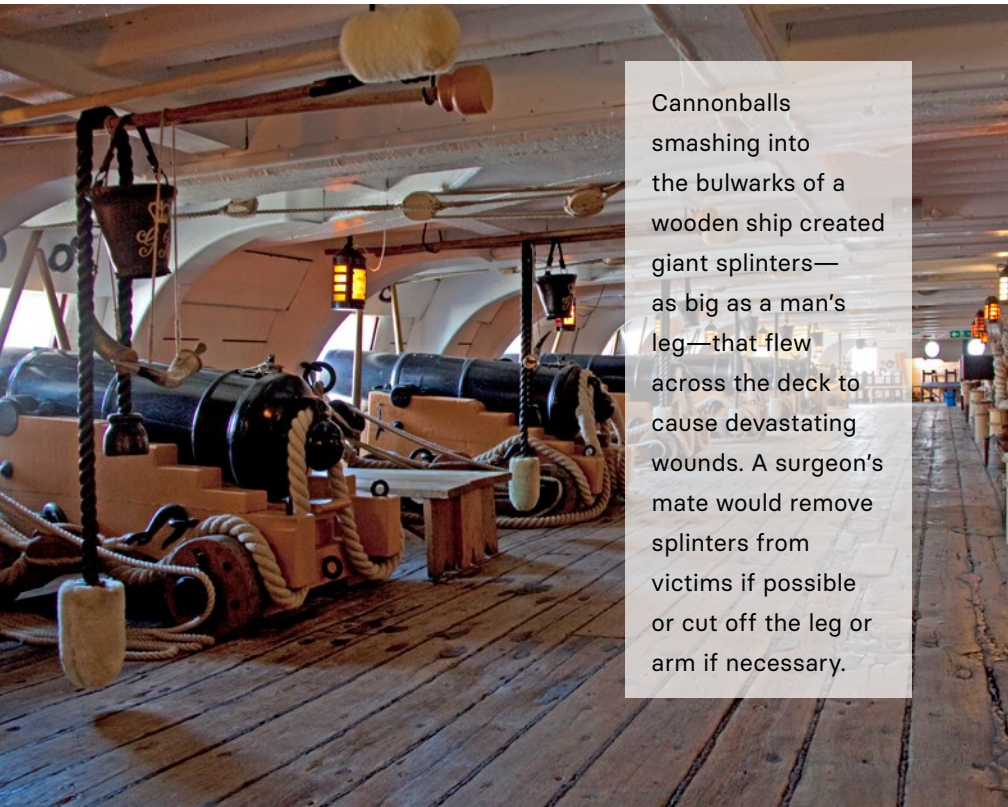
If it was a fleet engagement, the opposing ships maneuvered to within effective gun range, which was only about 60 to 100 yards. Such a close range was necessary because the smoothbore cannon used to fire the cannonballs were wildly inaccurate over longer distances.

Once engaged, the two fleets simply hammered away at each other as fast as they could load and fire, as white smoke generated by the black powder obscured visibility. At that point, the captains and admirals often had little to do but calmly walk the quarterdeck to offer an example of coolness under fire.

Weapons on Ships

The guns on all the ships were muzzleloaders. For each shot, the gun had to be sponged out so that embers from the previous shot did not ignite the powder prematurely. Then, premeasured bags of powder were shoved into the muzzle and rammed home by a ramrod. The shot was placed in the muzzle, and it was rammed home as well.

The cannonballs were solid round shot—literally iron balls. Bar shot—two cannonballs connected by a rod—was used to take down spars or rip up sails on the enemy ship. Chain shot was two cannonballs connected by a chain. It could be used against rigging or as an antipersonnel weapon. Grapeshot was a canister filled with dozens of golf-ball-sized round shot. Firing a load of grapeshot into a crowded deck was devastating.



Cannonballs smashing into the bulwarks of a wooden ship created giant splinters—as big as a man's leg—that flew across the deck to cause devastating wounds. A surgeon's mate would remove splinters from victims if possible or cut off the leg or arm if necessary.

If ships of the line were the battleships of the age of sail, frigates were the cruisers. Frigates were rigged like a ship of the line, with three masts and square sails, but they carried only one row of guns, which were much smaller.

Frigates did not fight in a line of battle. They were used for scouting, for trade protection, to attack an enemy's trade, or even for passing flag signals between the big ships in the battle line. Even smaller warships—such as sloops and brigs—carried fewer and lighter guns. They were used as commerce raiders, as escorts to merchant ship convoys, or to carry messages.

Life for British Naval Officers

Life on board these warships was no picnic. First of all, there was a vast gulf between the officers. Officers were generally from the landed class. Some of them were the second sons of aristocrats who would not inherit the family title or lands and were therefore sent off to either the church or the navy, which was at least respectable. Many got their navy commissions by family influence, if not by openly purchasing it.

These sons of nobility generally began their service as teenagers, with no preliminary training beyond the ability to read, write, and calculate. Once in the navy, they would be effectively apprenticed to a ship's captain, who might or might not be a family friend. These young officers were called midshipmen because they generally served amidships during a battle, carrying messages from the quarterdeck to the gun deck when the noise of battle made it impossible to shout orders.

At age 19, they could sit for an exam, which—if they did well—made them a passed midshipman and eligible for promotion to lieutenant. Generally, a lieutenant had to die or leave the service to create a vacancy before a passed midshipman could move up.

When a midshipman became a lieutenant, further promotions were mostly a matter of seniority. They usually had to wait for an opening, which could take years. If they did get promoted—and were fortunate enough to make post captain—their future was assured. All they had to do was stay alive long enough and they were assured of becoming an admiral.

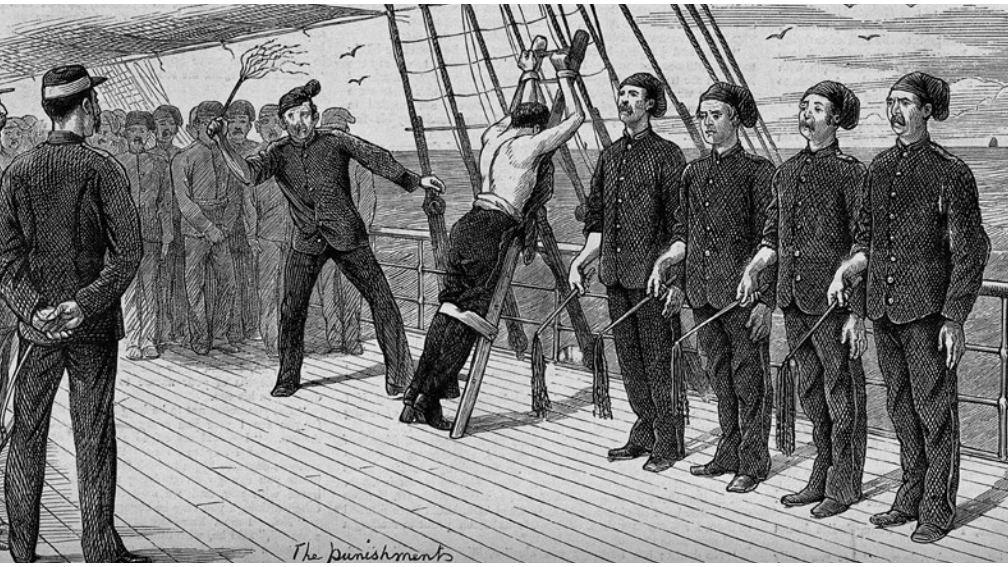
Life for British Enlisted Men

The story of the enlisted men is quite different. First of all, while there were plenty of volunteer sailors in the Royal Navy of 1775, quite a few of them were pressed into service. Today, we would say they were drafted, though the process was not so bureaucratic.

Once you were on board, the conditions were spartan. It was so crowded that sailors slept in hammocks arrayed one above another, about 18 inches apart.

The work was tedious, repetitive, and dangerous. Much of it consisted of moving heavy objects. Setting or furling the topgallant sails meant climbing a rope ladder to a wooden spar that was 60 or more feet above the deck—without safety lines.

Disobedient sailors could be punished with the cat-o'-nine-tails, a whip with a wooden handle and nine leather thongs, with a piece of buckshot sewn into the end of each to ensure that they cut through the skin. It was not a happy moment on board when a petty officer "let the cat out of the bag."



It was assumed that every able-bodied sailor owed service to his king. So, if a navy press gang put its hands on you—literally laid hands on you—you were in the navy. No paperwork required.

The food was pretty terrible. Most of the meat—typically pork—was rancid from being stored aboard ship for months. Eating salted pork fat day after day made you terribly thirsty. Yet drinking water—like everything else—was strictly rationed. Such a diet led to all sorts of shipboard ills, including, famously, scurvy. In 1747, a Scottish physician named James Lind discovered that eating lemons or limes would prevent scurvy. Once it caught on, Royal Navy sailors were sometimes dubbed "limeys."

Almost all of these traditions were adopted by the fledgling US Navy, which was, in effect, modeled on the Royal Navy. That included the ranks captain, commander, lieutenant, and midshipman, as well as the ship types. American naval officers even adopted a version of the British uniform. Sailors wore whatever they had on when they came on board, occasionally updated from the leavings of the deceased, called a slop chest.

Impacts of the Seven Years' War

Let's return to the Seven Years' War and the British victory at Quebec. France agreed to cede all of Canada to Britain. For the British colonists, this removed the single greatest threat to their security, and some began to wonder just how much they really needed Britain's protection anymore.

By itself, that would not have been enough to encourage the colonies to split with the mother country. But another consequence of the war was that the British emerged from it literally broke. The government desperately needed to raise revenue, so policymakers decided to ask the colonies in North America to pay more.

We all know how that worked out. Americans violently protested the Stamp Act in 1765 and the Tea Act in 1773. Indeed, American opposition to any kind of taxation by Parliament eventually led to open resistance and full-scale rebellion in 1775. Most Britons assumed that the rebellion would be quickly snuffed out. In that, of course, they were dramatically wrong.

02 American Revolution on River, Lake, and Sea

The Americans never seriously challenged Britain for command of the sea, but they used naval forces when it was convenient—or necessary—to achieve particular objectives. This lecture examines the evolution of America's sea power during the Revolutionary War, from leasing merchant ships and building a squadron from scratch to the creation of the Continental Navy.

Washington's Navy

After the skirmish at Lexington, Massachusetts, on April 19, 1775, that began the Revolutionary War, the British marched to Concord in search of stockpiled rebel arms. News of the bloodletting at Lexington traveled quickly, drawing militia units from all over the area. Consequently, when the British began their march back to Boston, they were repeatedly fired on from cover.

The survivors of that punishing march made it back to Boston, where they were safe from further rebel attacks. That was mainly because Boston in 1775 was virtually an island, connected to the mainland only by a narrow peninsula called the Boston Neck. A small group of soldiers could easily defend that neck, which meant the American rebels could not get in, but it also meant the British could not get out. Stalemate.

In June 1775, 2 months after Lexington, the Continental Congress in Philadelphia appointed George Washington of Virginia to command the still-growing crowd of militiamen gathered outside Boston. Washington needed to supply his own army as well as find a way to cut British supply lines.

He leased a merchant ship, the *Hannah*, from a militia colonel named John Glover. Armed with four small cannon, she was sent out to loot British supply ships. The *Hannah* could not challenge any British warship, but she could easily overwhelm unarmed supply vessels. Here was the first use of what can broadly be termed sea power by what would become the United States.

Washington leased other ships, eventually obtaining more than a dozen of them. Collectively, they came to be called Washington's Navy, and several of them had successful cruises. In March 1776, after a 10-month siege, the British decided to evacuate Boston.

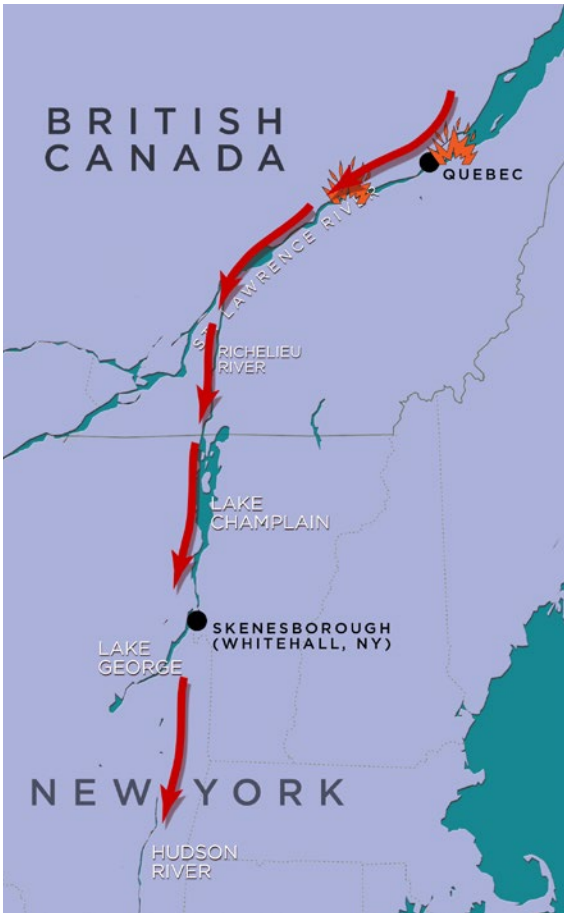
Battles of Valcour Island and Saratoga

A year after the siege of Boston, the British sought to cut off New England from the rest of the American colonies by sending an army down from Canada along a traditional invasion route: west from Quebec along the St. Lawrence to the mouth of the Richelieu River, then south to Lake Champlain and Lake George, and then on down the Hudson River to New York.

The Continental Congress sought to block it by authorizing the construction of a naval force on Lake Champlain, commanded by Colonel Benedict Arnold. Today, he is most closely associated with his treason, but in 1776, he was a rising star in the Continental Army, and he brought great energy to the task. He organized teams of men to fell, haul, cut, and shape trees into lumber to be assembled into vessels. This was carried out on the southern edge of Lake Champlain near a town then called Skenesboro, and today known as Whitehall, in New York.

The British knew they could not advance southward over Lake Champlain without disposing of Arnold's little squadron. So, they, too, built ships. Arnold got his squadron onto the lake first. It was not much: six galleys carrying between 8 and 10 guns, and six more single-masted vessels called gundalows with 3 guns each.

The ensuing Battle of Valcour Island, fought on October 11, 1776, resulted in an overwhelming British victory. And yet, Arnold's construction of that fleet had compelled the British to build one, too, dramatically delaying their movement south. By the time the British secured control of the lake, it was mid-October, and the early snows had begun to fall. The British decided to wait for spring to continue the offensive.



John Burgoyne surrenders to General Horatio Gates

That proved decisive. By the spring of 1777, the American army was much larger, and the British got bogged down trying to march over land from Lake Champlain to Lake George. Their experience illustrated a rule of thumb, which is that whenever British armies ventured beyond the reach of the Royal Navy, they got into trouble. That's what happened here. In September and October 1777 in the Battle of Saratoga, British major general John Burgoyne was not only beaten, but he was also forced to surrender his entire army to the American commander General Horatio Gates.

The American victory at Saratoga led France to recognize the new American government and join the war. It was a vital turning point that had originated on Lake Champlain with the tiny American fleet that never won a battle.

The Continental Navy

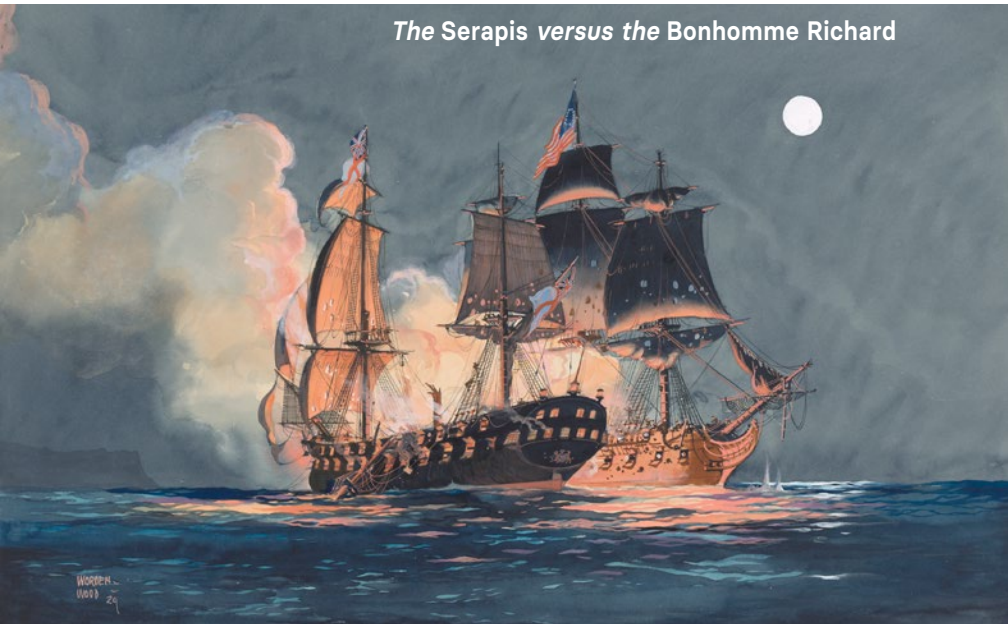
On October 13, 1775, Congress authorized what it called a Continental Navy that was supposed to be a maritime counterpart to Washington's Continental Army. In December, Congress also authorized the construction of 13 frigates—an homage to the 13 states. Frigates were three-masted, square-rigged warships that usually carried between 28 and 40 guns.

Congress hoped the possession of a traditional European-style navy would add legitimacy to its claim to nationhood. For much the same reason, Congress also authorized the construction of three ships of the line a year later, in November 1776.

The modern US Navy considers October 13 as its official birthday.

Though the colonies were rich in the kinds of raw materials needed to construct warships, they had no experience in doing so. And frigates, especially ships of the line, were much larger and more complex than merchant ships or fishing boats. Consequently, there were delays in construction. Only six frigates ever made it to sea, and their record was disappointing.

But there were some bright spots in the history of the Continental Navy. John Paul Jones, a commissioned lieutenant in the Continental Navy, had several victories against British warships. On September 23, 1779, Jones and his ship, the *Bonhomme Richard*, fought the most famous sea duel of the war. Accompanied by several smaller vessels, Jones attacked a British convoy in the North Sea. The largest of the British warships, the frigate *Serapis*, took on Jones's ship.



***The* Serapis *versus the* Bonhomme Richard**

It was a ferocious battle, fought at close quarters, with neither captain backing off. When a British shot took down the American flag, the British captain, Richard Pearson, called across through the smoke to ask Jones if he had struck. At that moment, Jones became immortal. He called back, "I have not yet begun to fight."

Eventually, a grenade hurled into the *Serapis* started a fire that burned out of control, forcing Pearson to surrender. The *Bonhomme Richard* was so battered that she subsequently sank. Jones and his crew transferred to the captured *Serapis* and brought her into a Dutch port as a prize.

Privateering

The principal sources of strength for the British Empire were her trade and her colonies. To attack her trade, the Americans employed not only their handful of warships but also a host of small, privately owned schooners and sloops.

The concept was simple: The US government provided what was called a letter of marque—literally a license to steal—to a private ship owner. It authorized the bearer to capture, burn, or destroy enemy vessels, and he got to keep everything, including the ships and their cargoes.

But there were risks. Privateers were generally small and lightly armed. Any British warship could blow them out of the water. The privateer's one hope was speed. The volunteer crews also took a risk. They did not get paid and signed on for a share of the booty, though often there was no booty to share.

During the course of the American Revolution, Congress issued some 2,000 letters of marque, and about 800 American privateers actually got to sea. Of those, more than half captured at least one British ship. In all, American privateers took about 600 British merchant ships.

The Battle of the Capes

The French joined the war against Britain to gain revenge against the hated British. The French sent an army to the fight in America, but more importantly, they also committed a navy under Admiral Francois Joseph Paul, Comte de Grasse.

Washington had learned that he could never pin down and defeat a British army so long as it could retreat to the coast and be rescued. He needed to coordinate the movements of his own army—now reinforced by French regulars—with de Grasse's navy to trap a British army against the coast.

In the spring of 1781, de Grasse sent Washington a letter asking him where he wanted the French fleet to deploy along the American coast. The letter went by sea, taking weeks to arrive.

The best opportunity seemed to be in the Chesapeake Bay. A British army under Charles Cornwallis had been marauding through the southern colonies for months, and when he needed supply or reinforcement, he would almost certainly head for a seaport in Virginia. So, Washington asked de Grasse to send his fleet to the mouth of the Chesapeake Bay.

That letter also went by sea, and it took another week or more to reach de Grasse. Even if he got it, Washington could not be certain he would act on it. Nevertheless, he started his army marching southward from New York, not knowing if de Grasse would be there when he arrived.

Meanwhile, the British made a calculated guess about what was up and sent their fleet from New York to the Chesapeake, too. They estimated that de Grasse would bring about 15 ships, so Sir Samuel Hood took 14 British ships to confront him.

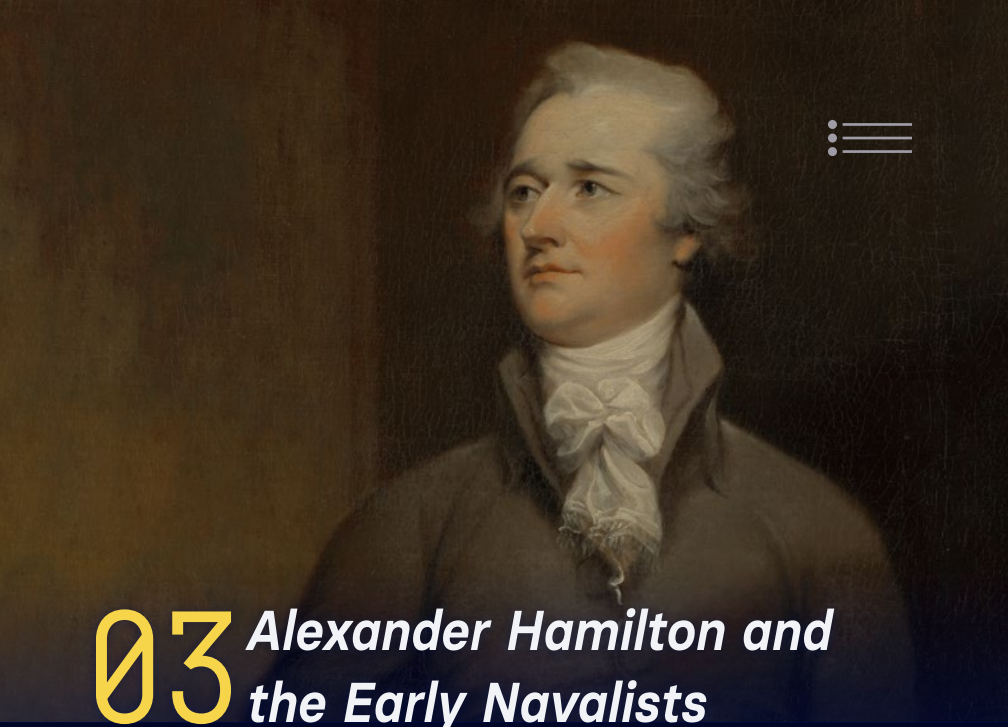
But to his undying credit, de Grasse brought his entire fleet of 28 ships. He also stopped in Havana for several days, which proved critical, because when Hood got to the Chesapeake Bay, the French were not there.

So, Hood turned around and sped back toward New York, just as de Grasse's ships arrived at the Chesapeake. When Hood found that the French weren't in New York either, his boss, Admiral Sir Thomas Graves, decided to take the entire British squadron to the Chesapeake—a total of 19 ships of the line. At the entrance to the bay, Graves and Hood found de Grasse and his 28 ships. Cornwallis and his British army were there, too.

Almost miraculously, Washington's army and de Grasse's navy had arrived at the same place at the same time to trap a British army. On September 5, 1781, British and French fleets fought the decisive naval engagement of the American Revolution: the Battle of the Capes. Tactically, it was a draw. But that was good enough, because the British failed to dislodge the French, and afterward they withdrew back to New York. Recognizing that the game was up, Cornwallis surrendered his army six weeks later, on October 19.

The Battle of the Capes

In London, it was a devastating blow. Popular opposition to the war had grown, and it was evident now that the war was unwinnable.



03 *Alexander Hamilton and the Early Navalists*

Following the end of the American Revolution, Congress voted to get rid of the navy. It wasn't until the 1790s that Congress authorized the construction of new naval ships, which were not intended to be permanent. This lecture highlights the arguments for and against the creation of a standing navy as well as several key events that influenced American attitudes on the subject.

Debates over a National Navy

Soon after the end of the war, the American navy virtually ceased to exist. Most Americans were utterly indifferent to this. The Articles of Confederation, adopted by Congress in 1777, said nothing at all about a navy. A decade later, the new Constitution did authorize a navy, but most Americans were unclear about whether Congress should actually do it.

Alexander Hamilton had argued in the *Federalist Papers* that an American navy was needed not only to defend trade and to provide security against invasion, but also to give the United States influence in European affairs. But most Americans wanted nothing to do with Europe at all. This illuminated a fundamental disagreement in the new nation about what a navy was for.

Navalists—like Hamilton—wanted a national navy as a counterweight in great power politics. Anti-navalists did not necessarily oppose the idea of having a navy, but they believed it should be only for defensive purposes. Besides, navies were expensive, which almost certainly meant higher taxes. So, the new US government made no move to establish a navy, and for most of a decade, the United States had no navy at all.

The Barbary States

What changed that was a threat to American merchant shipping in the Mediterranean. By the 1790s, the once-powerful Ottoman Empire was mostly a confederation of Muslim principalities with a loose allegiance to the sultan in Constantinople. Among these were Algiers, Tunis, and Tripoli on the Mediterranean coast of Africa, known as the Barbary Coast. Lacking robust agriculture or industry, they relied on annual payments extorted from the European powers to ensure the safe passage of merchant ships in the Mediterranean. Most countries paid it as a form of insurance, but the United States did not pay because it had only a few merchant ships in that area.

The Portuguese Navy had patrolled the Strait of Gibraltar, which kept the Barbary corsairs confined to the Mediterranean. But when the patrols ended in 1793, a handful of armed vessels from Algiers expanded into the Atlantic. Almost at once, they seized American merchant ships, confiscating the cargo and selling the crews into slavery.

The crisis forced American leaders to decide whether to pay the tribute or build a navy. Many US congressmen insisted that it was simply cheaper to pay off the Barbary pirates. Navies were expensive to build and required annual upkeep. Also, some anti-navalists suspected that navalists were using the crisis to get a foot in the door for a permanent navy. Navalists countered that building a navy was a one-time expense, whereas the Barbary States could up the ante whenever they felt like it.

Congress authorized the construction of six frigates in 1794, solely to protect US commerce from the Algerine corsairs. The legislation specified that if a peace was secured, the construction of the warships would stop.

Thanks to naval architect Joshua Humphreys, the new vessels were bigger, stouter, and more heavily armed than ordinary frigates. But gathering the materials took time. Months passed, even years. In the meantime, American negotiators did work out a deal with Algiers. In 1796, they agreed to stop attacking American ships and release all the hostages if

the Americans gave them $650,000 and a new frigate. That's almost $21 million in today's dollars. The United States also agreed to pay $21,600 a year in tribute money.

While this was a distasteful peace to many, it was peace, and according to the original legislation, work on the six frigates was now supposed to stop. But that seemed wasteful after the money and effort spent, so Congress compromised. The United States would finish three of the six frigates, and the president would have the authority to complete the three others later if another crisis emerged. Inevitably, it did.

The XYZ Affair and Quasi-War

According to the treaty signed by France and the United States in 1778, each nation had pledged to come to the aid of the other in case of war with a third power—specifically Britain. In 1778, France had immediately declared war on Britain and had helped secure American independence. Consequently, when France again went to war with Britain 15 years later, it expected the United States to reciprocate by declaring war as well.

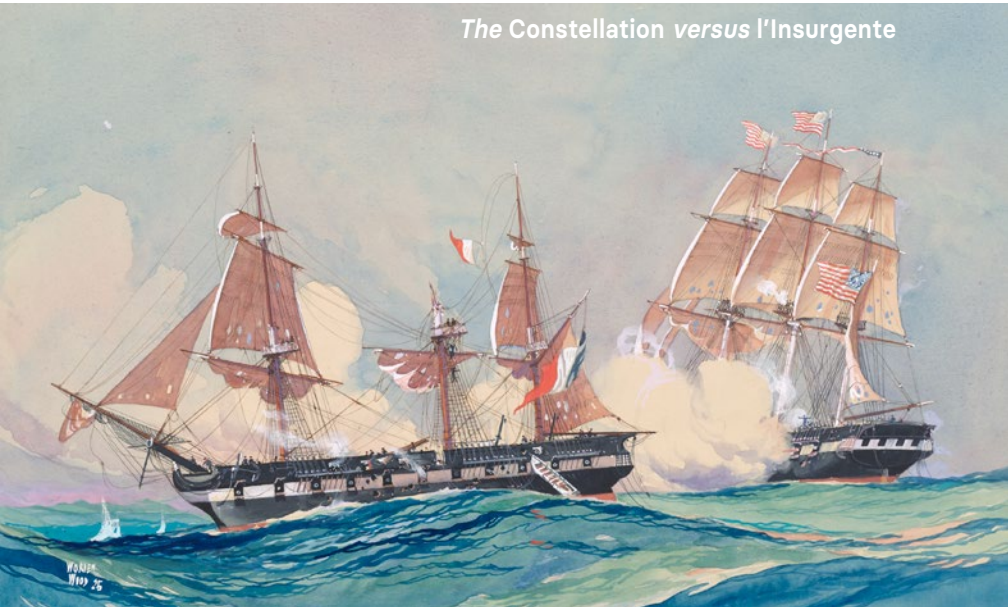
George Washington, who was now president, decided that was not necessary. The original treaty, he declared, had been signed with the French monarchy. After the French Revolution overthrew that regime in 1789, all deals were off. The United States would remain neutral. That perplexed and angered the French.

Almost as bad, the United States signed a new treaty with Britain in 1795 that gave Britain favorable trading status in the United States. The French were so furious that their privateers began capturing American merchant ships that traded with British colonies in the Caribbean.

John Adams became president in 1797, and, hoping that something could be worked out with the French, he sent a trio of diplomats to Paris to negotiate. When they arrived, however, representatives of the French foreign minister told them they would have to pay a stipend—essentially a bribe—for an audience. In letters home, the American negotiators identified the three French representatives only as X, Y, and Z, giving this incident its historical moniker as the XYZ Affair.

Outraged congressmen refused to approve any funds for payments and instead authorized the completion of the three unfinished frigates to suppress the French privateers. Congress did not declare war on France. It simply authorized the use of force by sending the six frigates to the Caribbean to chastise the French. History has labeled it a quasi-war, and it was the first overseas deployment of US Navy warships in history.

No US Navy ship had a more spectacular war against France than the USS *Constellation*, commanded by Captain Thomas Truxtun. His encounter with the frigate *l'Insurgente* in February 1799 was the first victory by a US Navy ship over a foreign foe. He also defeated a larger French frigate, the *Vengeance*, in February 1800.



***The* Constellation *versus* l'Insurgente**

These successes fueled public enthusiasm in the United States for the navy. Congress passed a bill to create a Department of the Navy, and President Adams appointed Benjamin Stoddert as the first secretary of the navy. That administrative infrastructure created a center of advocacy for the navy's continuation and expansion.

Expansion of the US Navy

During the quasi-war, Stoddert petitioned Congress to approve the construction of 12 ships of the line and as many new frigates. Doing so would take several years, so it was obvious that Stoddert's request was aimed at a standing naval force for the postwar years. Congress approved building six new ships of the line and six sloops.

In 1801, Thomas Jefferson became president. He did not want to get rid of the navy, but he believed that it should be used mainly to defend the coast and protect trade. He certainly did not want to get wrapped up in European power politics.

Navalists in Congress feared that Jefferson would severely reduce or even eliminate the navy altogether. The day before he took office, Congress passed the Peace Establishment Act. It reduced the navy to 13 frigates and stipulated that 6 of them were to remain on active duty (even during peacetime), while the others could be called into service in case of emergency.

The First Barbary War

Jefferson supported keeping six frigates on active service. And he employed them right away. He divided them into two squadrons of three frigates each plus a sloop. One squadron went to the Barbary States, while the other stayed at home. His plan was to rotate the squadrons every few months so that they would constitute a standing deterrent.

That first squadron was commanded by Captain Richard Dale (bearing the courtesy title Commodore), who arrived in the Mediterranean in July 1801. Upon arrival, he learned that the bashaw of Tripoli, Yusuf Karamanli, had declared war on the United States. The United States had paid Karamanli $56,000 to secure a treaty, but when Karamanli found out that the ruler of Algiers was getting 10 times as much, he decided he wanted a bigger payday.

On August 1, 1801, a Tripolitan corsair called the *Tripoli* attacked the American sloop of war *Enterprise*, one of many US warships to bear that historic name. The crew of the *Tripoli* soon found themselves overmatched

***The* Enterprise *versus the* Tripoli**

and attempted to flee, but Lieutenant Andrew Sterrett, captain of the *Enterprise*, pursued her. The Tripolitans pretended to surrender but then opened fire again. They did this three times, until Sterrett fired broadsides into the *Tripoli* until she was sinking. There were no American casualties.

Despite this early victory, the American squadron commander Commodore Dale had little luck in prosecuting the war. He believed that he lacked sufficient force to attack the city of Tripoli. So, he established a blockade, though he maintained it only intermittently. After a year without any perceptible progress, he was recalled and replaced by Richard Valentine Morris. If Dale had been disappointing, Morris was disastrous. When he returned to the United States after a year, Jefferson stripped him of his commission.

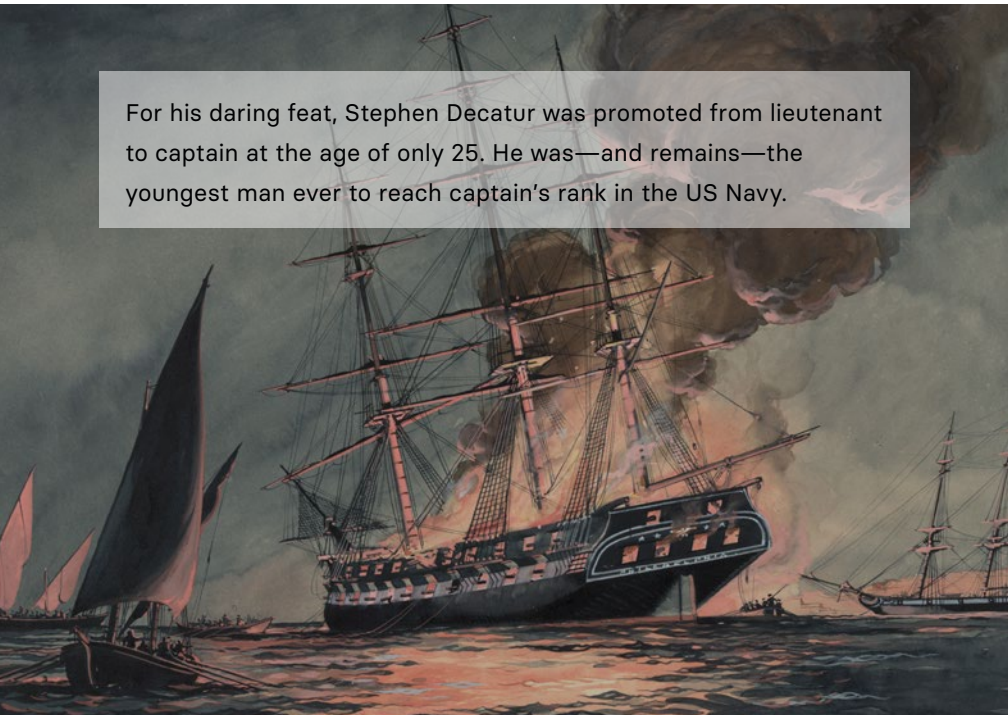
In 1803, Commodore Edward Preble assumed command. He maintained a close blockade of Tripoli and initiated several raids into the harbor. Prior to his arrival, the frigate *Philadelphia*, commanded by Captain

William Bainbridge, had been pursuing a Tripolitan vessel when he ran his ship aground on an uncharted shoal. A swarm of Tripolitan gunboats surrounded him, and he was forced to surrender. A high tide subsequently refloated the *Philadelphia*, and the Tripolitans took her into Tripoli Harbor.

That is where she was when Preble arrived. The loss of the *Philadelphia* deprived Preble of one of his largest ships, and it gave Karamanli more American hostages, including Bainbridge himself.

A young lieutenant named Stephen Decatur volunteered to take a small boat into the harbor and burn the *Philadelphia*. Their bold mission was successful, but it did not bring the war any closer to an end.

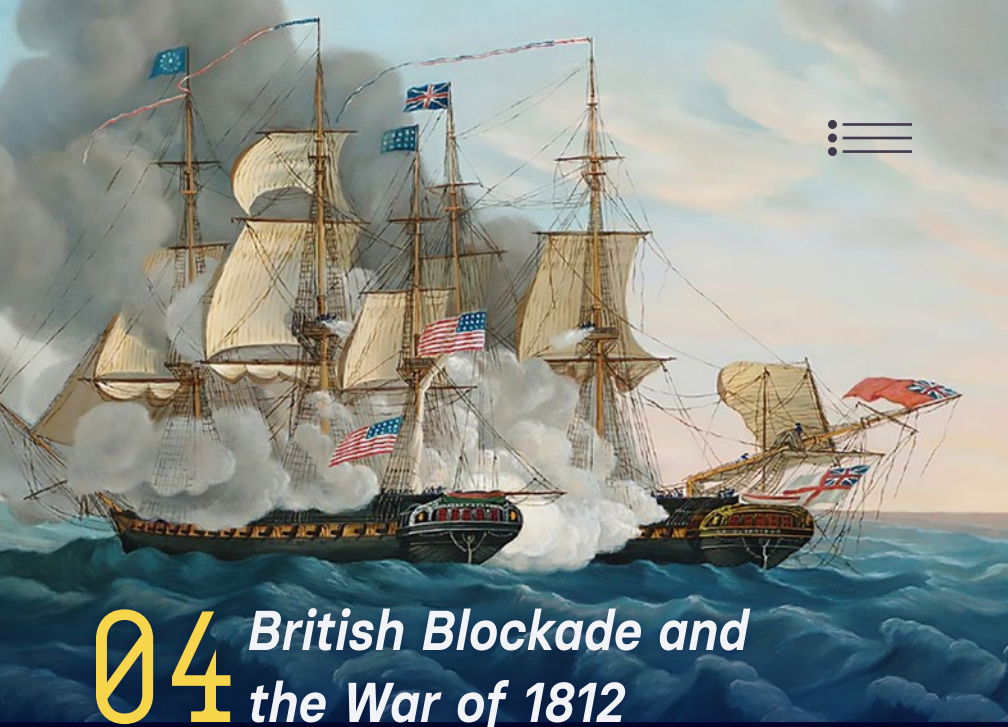
Stephen Decatur



For his daring feat, Stephen Decatur was promoted from lieutenant to captain at the age of only 25. He was—and remains—the youngest man ever to reach captain's rank in the US Navy.

To do that, Preble tightened the blockade and opened a second front. Yusuf Karamanli had an older brother, Hamet, who could reasonably claim to be the rightful ruler of Tripoli. Preble, in cooperation with an American diplomat, encouraged and supported Hamet's claim. Bolstered by eight US marines, Hamet led an army over land toward Tripoli, fighting and winning a small skirmish at Derna.

On June 4, 1805, Karamanli signed a peace agreement. He agreed to stop attacking American ships and to release all of his American prisoners. In exchange, the Americans agreed to abandon Hamet and to pay Yusuf $60,000—about what they had been paying him before the war. That ended the First Barbary War, but the threat was not over.



04 British Blockade and the War of 1812

In the years leading up to the War of 1812, the United States found itself caught up in the power struggle between Britain, which dominated the seas, and France, which had established near-absolute control of the European continent. This lecture examines the circumstances that influenced the United States to declare war as well as some of the battles that revealed both strengths and weaknesses of its young navy.

Tensions Build

On June 18, 1812, the United States declared war on Great Britain. It was a risky decision. To explain why the United States did it, we have to back up to 1805. On October 21 of that year, Admiral Horatio Nelson won what was arguably the greatest naval victory in Britain's long history: the Battle of Trafalgar. Nelson's fleet effectively destroyed the combined navies of both France and Spain off Cape Trafalgar, not far from the Strait of Gibraltar. The victory cost Nelson his life, but it confirmed Britain's undisputed command of the sea.

Just five weeks later, Napoleon—who now called himself emperor of the French—won an equally impressive victory on land by defeating the combined armies of both Russia and Austria in the Battle of Austerlitz.

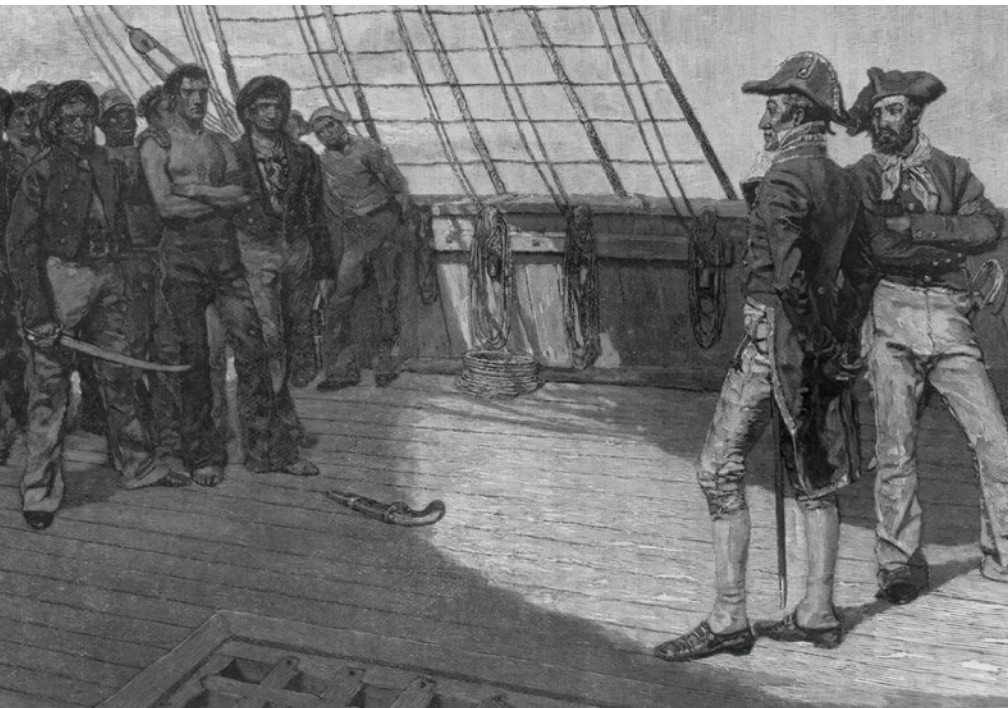
The Battle of Austerlitz

With the British unchallenged at sea and the French dominant on land, it was difficult for these two mortal foes to confront one another directly.

One way they could compete, however, was through economic warfare. Britain issued an order in council in 1807 declaring that neutral countries would no longer be allowed to trade with France or with French dependencies. Napoleon then announced that France would no longer allow neutral countries to trade with Britain or any of its colonies.

The man in the middle of this conundrum was President Thomas Jefferson. He wanted to remain neutral, to trade peaceably and profitably with both countries. That's what most Americans wanted. But the great powers seemed to be forcing him to choose.

The choice seemed fairly obvious. Because Britain controlled the seas, she could make her orders stick. Napoleon, absent a navy, could not enforce his declarations. The Royal Navy was also in constant need of manpower and often resorted to a practice known as impressment. The number of Americans pressed into the Royal Navy grew into the thousands. One authority puts the total as high as 15,000.




USS Chesapeake

One incident in 1807 was especially noteworthy. A confrontation occurred between the American frigate *Chesapeake* and the British frigate HMS *Leopard* over four deserters from the Royal Navy. The senior officer of the *Chesapeake*, Commodore James Barron, had refused to hand over the men, at which point the *Leopard* open fired. Barron, unready for a fight, got off only one shot before he struck his flag. The British officer boarded the ship and took the men he wanted. It was a national humiliation, and there were loud calls for something to be done. Barron himself was suspended from the navy.

Economic Sanctions

Thomas Jefferson announced some economic sanctions of his own, declaring that the United States would simply stop trading with either England or France. That would also end impressment. But the embargo was wildly unpopular, and after 2 years, as he was about to leave office, Jefferson repealed it.

However, the United States did not give up on the idea of economic sanctions. Jefferson's successor, James Madison, declared that merchants could trade with all nations except Britain and France. But that didn't work either.

In addition to economic sanctions, Jefferson and Madison wanted to find a practical way to defend the American coast. Jefferson thought it was possible to provide some degree of protection by building scores of small, defensive gunboats.

Although the idea was controversial, the gunboats cost only about $5,000 each, and they had proved effective in the Mediterranean. So, when the Barbary War ended in 1805, Jefferson asked Congress for 25 of them to protect American ports and harbors.

Eventually, the United States built 172 gunboats. To Jefferson and his supporters, a gunboat navy was like a naval militia that could be called upon to rally in times of crisis.

Most naval historians ridicule the idea of a gunboat navy, arguing that it didn't accomplish what it was intended to do. But it's not clear that any other naval policy would have been more effective. The root of America's conundrum was simply that it was too weak to stand up to the great powers.

The War Begins

Perhaps there was another way. Between 1810 and 1812, a group of mostly western and southern congressmen argued that Britain could be brought to heel by threatening to seize Canada.

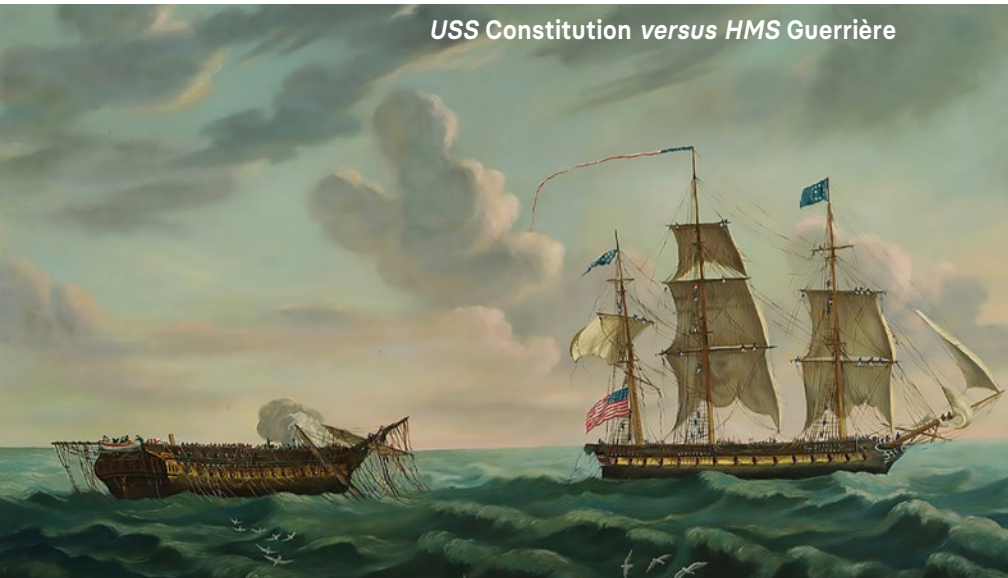
History had labeled this group of bellicose congressmen the War Hawks. They argued that an American militia force could march into Canada from New York and Ohio and occupy it either as a permanent addition to the United States or as a hostage for British good behavior. Such a campaign, the War Hawks insisted, would not involve the navy at all. They even voted down a proposal to build a dozen new frigates.

Only a few months later, in June 1812, they voted for war. The war with Britain began with an American invasion of Canada. The United States dispatched two armies toward Canada: one across the Niagara River and another across the Detroit River. It did not go well. In short, it was a complete bust. And the War of 1812 turned out to be mostly a naval war after all.

An American naval squadron of three frigates and two sloops set out from New York almost the moment war was declared. Commanded by Commodore John Rodgers, its goal was to intercept a huge convoy of British ships from Jamaica. They searched for 2 months without ever finding the convoy, losing the opportunity to inflict an early defeat on the British.

The British quickly established a naval blockade of the American coast, which stifled most US overseas trade. Unable to challenge the blockade, the Americans sent out their few frigates and sloops separately, hoping they might inflict some damage on Britain's trade and perhaps even win a few victories against individual British warships.

On August 19, 1812, Isaac Hull, who commanded the USS *Constitution*, met the British frigate *Guerrière* in the North Atlantic. The superior weight of the *Constitution*'s broadside quickly made a wreck of the *Guerrière*, and the British captain struck his flag. News of this victory was a tonic to American morale. And more good news followed.



***USS* Constitution *versus HMS* Guerrière**

Stephen Decatur, the hero of the war with Tripoli, in command of the frigate *United States*, outmaneuvered and outfought the British frigate *Macedonian* off the northwest coast of Africa in October 1812. And in December, it was the *Constitution* again, now under William Bainbridge, outslugging the British frigate *Java* off the coast of Brazil. These were humiliating defeats for the proud Royal Navy.

The British evened the odds a bit in June 1813, when HMS *Shannon* captured the US frigate *Chesapeake*, commanded by James Lawrence, who was mortally wounded in the battle.

All of these frigate duels were fought in the Atlantic, but US Navy ships fought in the Pacific, too. However, the most strategically important naval battles of the War of 1812 were on lakes in the American West.

Freshwater Battles

Roads were few in the American West, so armies and their supplies had to move on the rivers and lakes. Following the failed US invasion of Canada, the British threatened to invade Ohio Territory, but they needed to control Lake Erie to do it. Both sides built naval squadrons there and met in September 1813.

The commander of the American squadron was 28-year-old Master Commandant Oliver Hazard Perry. His flagship was the *Lawrence*. His other big ship, the *Niagara*, was commanded by Lieutenant Jesse Elliott. When the two fleets met at the Battle of Put-in-Bay on September 10, 1813, Elliott held back and kept the *Niagara* out of the fight. That allowed the British to concentrate their fire on the *Lawrence*. When she was so badly battered she could no longer fight, Perry did not surrender. Instead, he transferred to the undamaged *Niagara*, took command, and sailed her back into the fight.

Perry then compelled every ship in the British squadron to surrender, thus securing American control of Lake Erie. Knowing that Perry's victory would compel the British to retreat, the army commander—and future president—William Henry Harrison began a campaign to regain Detroit,

Perry transferring to the undamaged Niagara

then moved into Canada, defeating the British army in the Battle of the Thames. In short, Perry's victory on Lake Erie completely reversed the military situation in the Northwest.

There was a second freshwater battle on a different American lake—Lake Champlain—almost exactly one year later. The opposing fleets were comparable in size. The difference in the outcome hinged on the careful plans laid by the American commander Thomas Macdonough. He'd anchored his ships behind a prominent headland and carefully set out double anchors so that his ships could turn their broadsides in several directions, including, if necessary, all the way around to present their other broadside. This allowed Macdonough to dominate the battle. The victory compelled the British army to retire.


Thomas Macdonough

Saltwater Battles

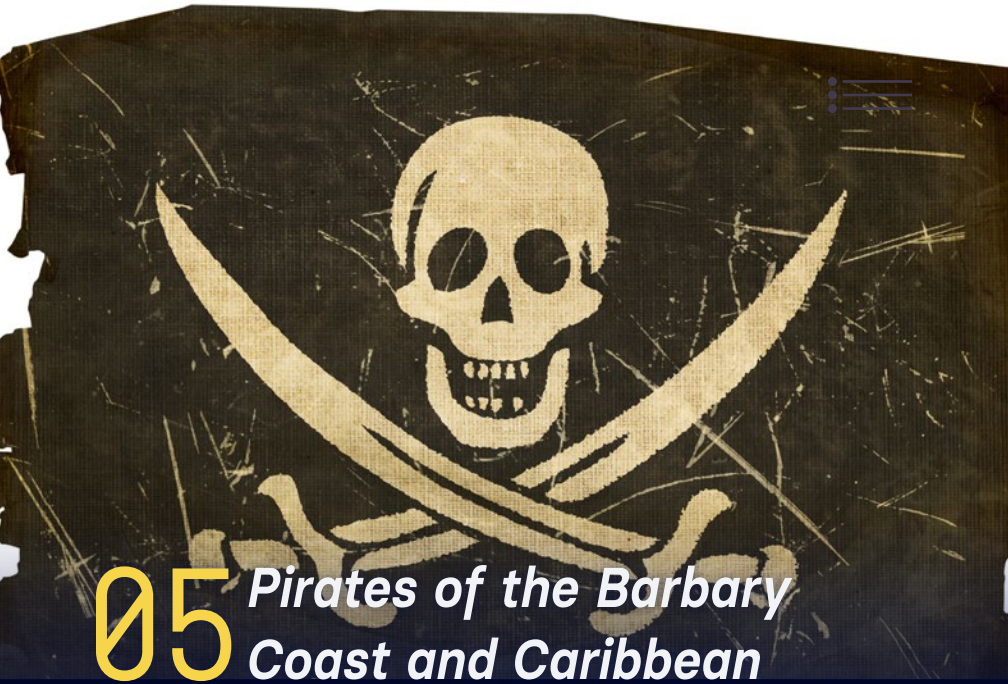
The Americans prevailed in these battles because the British could not move their huge saltwater navy onto the lakes of the American West. Indeed, as the war lengthened, the British increased their domination on saltwater. In the summer of 1814, a British fleet entered Chesapeake Bay and landed an army in Maryland. The British defeated an American militia army in the Battle of Bladensburg and then marched into Washington. They burned several of the public buildings, including the White House.

The British fleet then sailed to Baltimore, where they initiated a bombardment of Fort McHenry. Watching it from one of the British warships was Francis Scott Key, who was on board to negotiate a prisoner exchange. The bombardment lasted most of the night, and when the sun came up the next day, the American flag still flew over the fort. The British fleet called off the campaign and headed back down the bay. Key later wrote a poem about it.

Burning of the White House

The United States did not win the War of 1812. The best that can be said is that it did not lose it. But that was enough. By 1815, the issues that had provoked the war had all been resolved. In addition, Napoleon's defeat meant that the British no longer needed to maintain such a huge navy. And that ended the need for further impressment.

And so, on Christmas Eve in 1814, in Ghent, in modern-day Belgium, British and American negotiators agreed to end the war. But even if the United States did not win the War of 1812, it felt like a win.



05 *Pirates of the Barbary Coast and Caribbean*

The War of 1812 had a profound impact on the American psyche. Most Americans believed, or at least felt, that the United States had won that war. That sense of victory—if not quite the reality of it—gave rise to a national euphoria that some historians have labeled the Era of Good Feeling. That spirit of robust nationalism was further enhanced by another success in the Mediterranean against what Americans called the Barbary pirates. This lecture examines the overseas issues that led the US Navy—and the United States—to establish a global presence by the mid-19th century.

The Second Barbary War

The Mediterranean shore of Africa was called the Barbary Coast after the Berbers, its original inhabitants. The United States had fought a war with the North African city-state of Tripoli in the early 19th century, rendering it, as well as Algiers, temporarily quiescent. During the War of 1812, however, while the United States was preoccupied with Britain, the ruler of Algiers—who was called a dey—sensed an opportunity and declared war on the United States.

As long as the War of 1812 continued, there was little the administration of James Madison could do about it. But as soon as news of the Treaty of Ghent reached Washington, Madison asked Congress for authority to respond to the new threat, and within days the United States began to assemble two US Navy squadrons to deal with Algiers.

The first squadron was commanded by William Bainbridge, who had served in both the First Barbary War and the War of 1812. He planned to use the big ship of the line *Independence* as his flagship, but it was not quite ready for sea, and that delayed his departure. The commander of the second squadron was Stephen Decatur, who had also served in the War of 1812. Decatur got to the Mediterranean first, arriving at Gibraltar on June 12, 1815. When he caught up with the Algerine warfleet a few days later, the American ships pounded the Algerine flagship *Mashouda* until, with her captain dead and 160 casualties on her deck, she struck her flag. Decatur then captured a second warship, leaving Algiers with almost no navy left. Thus, when Decatur arrived off Algiers, the dey hesitated only briefly before agreeing to a new treaty with no tribute payments.

William Bainbridge

Decatur then secured similar agreements in Tunis and Tripoli. Consequently, by the time Bainbridge and his squadron arrived, the war was virtually over, though he also visited each of the Barbary States to flaunt America's naval might as a deterrent to their future bad behavior.

But the dey of Algiers tore up the treaty the moment the Americans left. So, the United States prepared a third squadron. This one, as it turned out, was not needed. That's because the United States was not the only country that was fed up with Barbary predations.

In August 1816, an Anglo-Dutch fleet commanded by a British admiral, Sir Edward Pellew, arrived at Algiers. He shelled the ships in the harbor and the city itself so ruthlessly that the dey agreed to free all his prisoners and foreswear the Barbary system forever. Still, the pillaging of merchant ships did not end completely until 1830, when Algiers became the French colony of Algeria.

The Second Barbary War marked the establishment of a regular US presence in the Mediterranean. For the next 45 years—until the outbreak of the Civil War—the US Navy would maintain a squadron of warships in the Mediterranean.

In the wake of the Second Barbary War, Congress passed two pieces of legislation that at last fulfilled the navalist vision of what a navy should be. One of them established a Board of Navy Commissioners, which gave serving officers a voice in both policy and operations. Congress also appropriated more than $1 million a year—quite serious money in 1816—to gradually increase the size of the navy. The legislation specified that the United States would build 9 new ships of the line, each of at least 74 guns, plus a dozen heavy frigates of 44 guns each.

Passage of these two bills in 1816 marked a turning point. Previously, many Americans had conceived of the navy as an emergency force to be called up in time of crisis. Now, it became a standing force capable of not only defending the coast but also extending American influence to the Mediterranean or to any other part of the world where American interests were under threat.

Piracy in the Caribbean

In the Caribbean, piracy was making a comeback, largely because of ongoing revolutionary movements in the colonies of Spanish America. Inspired by both the American and French revolutions, the Spanish colonies in Central and South America sought their own independence. Simón Bolívar and José de San Martín led revolutions in Venezuela, Colombia, and elsewhere. And several of these self-proclaimed republics issued letters of marque for privateers to prey on Spanish merchant shipping.

The boundary between privateering and outright piracy had always been tenuous. This was especially true when privateers sailed in the name of self-proclaimed governments that may not have been universally recognized. And as far as Spain was concerned, all the privateers that sailed from Colombia and Venezuela were also pirates.

For some of them, it was an accurate designation. Once these would-be privateers were at sea, many found that while there were relatively few Spanish merchant ships for them to attack, there were quite a few American ships in the Caribbean. Some privateers found the temptation to seize them too great to resist.

By 1818, there were so many privateers-turned-pirates that the United States sent a diplomatic mission to convince Venezuela to be more discriminating in issuing letters of marque. And in 1822, the United States sent a naval squadron to the Caribbean. The commander, Commodore James Biddle, discovered almost at once that his big frigates, while certainly impressive looking, were all but helpless in hunting pirates.

Most pirate vessels were tiny. Many had only a single mast and often only a single gun. But they were crammed full of men, and they seized their prizes by boarding. If a larger warship caught them, they might simply run their little vessel onto the beach of a nearby island and flee into the countryside.

After a year, Biddle was succeeded in command of the West Indies squadron by David Porter, who retired most of the big ships and relied instead on 10 small Chesapeake Bay schooners—vessels not unlike those used by the pirates themselves. Indeed, Congress was beginning to wonder if it had made a mistake in authorizing those big ships of the line and heavy frigates just 5 years before. In 1821, Congress cut the appropriation for those big ships in half and spent the money saved on more small ships to combat the pirates.

Chesapeake Bay schooner

Piracy in South Asia

By 1825, while piracy in the Caribbean was not ended, it was severely curtailed. But there were pirates elsewhere, including in South Asia, and especially through the critical passage of the Strait of Malacca: the narrow stretch of water between the Malay Peninsula at the southernmost extremity of the Asian mainland and the island of Sumatra.

Pirates operating out of Sumatra attacked mostly British and Dutch vessels, but occasionally they also attacked American shipping. A particularly notorious example was an attack on the merchant vessel *Friendship* out of Salem, Massachusetts. In 1831, it was anchored off the village of Quallah Batoo on the west coast of Sumatra. Pirates killed her officers and ransacked the ship. The *Friendship*'s skipper managed to reclaim the ship with the assistance of friendly locals and sail her back to Salem, where there was an immediate public outcry against this outrage. President Andrew Jackson dispatched the navy frigate USS *Potomac* under Captain John Downes to find the pirates and punish them. Before it was over, 150 Malayans had died at the cost of 2 Americans killed and 11 wounded.

In 1838, Malay pirates attacked another American merchant ship, killing everyone on board and looting the ship. The US sent another squadron to Quallah Batoo. After an hour's bombardment, the forts and the town surrendered. The local chief pledged that no American ship would ever again be attacked in the strait.

Slave Ships

Congress had outlawed the slave trade in 1808, and one element of the Treaty of Ghent, which had ended the War of 1812, obligated both Britain and the United States to work toward ending the international traffic in slaves.

For a while, the United States maintained a small naval force on the west coast of Africa. But Southern congressmen objected because the very existence of such a force implied that there was something wrong with slavery. Indeed, Southern congressmen were sensitive about any perceived

criticism of slavery in the wake of the growing abolitionist movement. As a result, the US Navy stopped its slave trade patrols, and it was left to the Royal Navy to patrol the illegal slave trade.

In an effort to elude the British patrols, slave traders that were being pursued would often raise the American flag. Not fooled by this obvious subterfuge, the British usually stopped them anyway and succeeded in returning thousands of enslaved persons back to Africa.

But rather than applaud this, the United States objected to it. American diplomats insisted that even if it was a ruse, the US did not want Royal Navy warships to stop any ship flying an American flag. The British were perplexed by this. The ships were not really American, they argued—it was the slavers who were abusing the American flag. American diplomats argued that it didn't matter, that "the American flag is sacred and not to be interfered with."

In 1842, the US secretary of state, Daniel Webster, and the British foreign secretary, Lord Ashburton, worked out an arrangement. The British agreed that they would no longer stop any ship flying the American flag, but in return, the Americans had to keep their own naval squadron off the African coast to deal with those slave traders who did so.

The man who commanded this African squadron was Matthew Calbraith Perry, the younger brother of Oliver Hazard Perry, the hero of the Battle of Lake Erie. The younger Perry was a dedicated and efficient commander, but he was hamstrung by his rather curious orders to make sure the British kept their word. It was a measure of the value that Americans attached to the sanctity of the American flag, even when it was being misused.

Not for another 20 years—in 1862, in the midst of the American Civil War—did the United States agree to allow Royal Navy ships to stop and search slave ships that illegally flew the American flag.

06 *Navy Expeditions from Antarctica to Japan*

This lecture examines the shifting role of the US Navy in the mid-19th century. During this time, it explored uncharted territory, fought a successful overseas war with Mexico, and conducted a large-scale amphibious landing at Veracruz. And like other Western navies, it was also transitioning from sail to steam. With the changing times also came the need for a more formal naval training program.

The Wilkes Expedition

By the 1800s, the great age of exploration had long since ended. But several European nations continued to sponsor expeditions to learn more about the largely unknown areas of the world. The most famous of these was the voyage of the *Beagle* between 1831 and 1836, with young Charles Darwin on board. And even as Darwin conducted his investigations, the US Congress appropriated $300,000 to fund an American expedition by the US Navy into the Great South Sea to find and chart new islands and to learn about the flora and fauna there.

Not everyone was enthusiastic about it, including the secretary of the navy. Most naval officers were also skeptical. The expedition was to be primarily scientific in character, and it was to last for most of 4 years. After being turned down by many captains, the command finally went to a lieutenant named Charles Wilkes. At first, he seemed to be an ideal selection, but before it was over, he would be universally hated by virtually everyone in the command due to his tyrannical behavior.

Charles Wilkes

The six ships—three sloops, one brig, and two schooners—departed Norfolk in August 1838 and headed south to Cape Horn. They continued further south into the southern ice floes along the peninsula that juts out from Antarctica. No one knew at the time that it was a peninsula or that there was a continent there. This initial foray into the ice pack was fruitless.

The expedition then headed north to Valparaíso, Chile; Callao, Peru; and on to the islands of the South Pacific and Australia. In early 1840, the ships explored the southern ice pack. Several officers, including Wilkes, claimed to see mountains rising beyond the floating ice. Afterward, a major controversy erupted about who had been the first to see land beyond

the ice pack and to determine that there was, in fact, a whole continent at the South Pole. Whoever it actually was, the land they espied was then—and still is—called Wilkes Land.

The expedition then headed back to Australia, New Zealand, Tonga, and Fiji. At each of these places, the scientists gathered specimens, which soon cluttered the ships. At most of these stops, there were also interactions with the native population, not all of them positive.

The expedition returned to New York in midsummer of 1842. In 4 years, it had circumnavigated the globe, sailing more than 85,000 miles and charting 280 previously unknown islands as well as 1,500 miles of Antarctic coast.

The Mexican War

By the time the Wilkes expedition retuned, the United States was involved in tense relations with the Republic of Mexico over the southern boundary of Texas. Thousands of Americans had immigrated to Texas, then a province of Mexico, lured there by the promise of free land. In only a few years, they secured their independence from Mexico, creating the Republic of Texas.

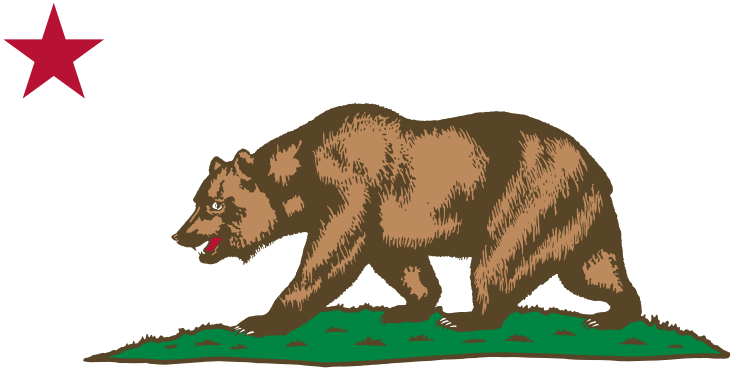
Almost at once they petitioned for admission to the United States as a state. The US Congress—concerned about provoking Mexico, which did not recognize Texas independence—fended off these overtures until 1845, when Texas was admitted as the 28th state.

Mexico disputed the location of the southern border of the new state. While Texans insisted that it was the Rio Grande, Mexico claimed it was the smaller Nueces River 150 miles north. Both Mexico and the United States sent armed patrols into the disputed territory between the two rivers, and when they inevitably clashed, the United States declared war.

The war with Mexico lasted from 1846 to 1848, and it was primarily a land war, though there were two important episodes that illustrated the shifting role of the US Navy in the mid-19th century. The first such episode involved the American naval squadron on the west coast of North America. The largest of its three ships was the frigate *Savannah*. Its commander, Commodore John Sloat, depended on news that came to him by sea, as did all the overseas squadron commanders. Consequently, by the time news arrived, it was often out of date. That made Sloat cautious.

USS Savannah

It was several months before Sloat got confirmation that war had been declared and that several battles had already been fought in northern Mexico. When he arrived in Monterey, he found that a group of Americans led by Colonel John C. Fremont, who had been surveying the Red River, had taken over the city and raised a flag in the name of the California Republic.



Sloat sent a landing party of sailors and marines ashore to replace the California bear flag with the American flag. Only then did Sloat learn that Fremont had acted without orders, and Sloat began to wonder if he, too, had acted prematurely.

Pleading ill health, he turned command of the squadron over to Robert F. Stockton, who proved to be as aggressive as Sloat was cautious. Stockton absorbed Fremont's group into his command and transported it to southern California, where he captured both San Diego and Los Angeles, though the Mexican population of Los Angeles rose in revolt and recaptured the city almost at once. The Americans took Los Angeles back again in January 1847 when 150 US soldiers under Brigadier General Stephen Kearney arrived from Santa Fe.

After that, Stockton and Kearney bickered about who was in charge. In the end, the American conquest of California was due more to the small size of the Mexican garrison than to effective or efficient American leadership. This campaign had a profound impact on the history of the United States. Indeed, American possession of California proved historic, especially when gold was discovered only a few months later and tens of thousands of new immigrants rushed into California.

Today, the US Army and Navy are both part of the Department of Defense. But in the 19th century, they were completely separate—and often rival—services, and there was no protocol about combined operations.

On the east coast of Mexico, the US Navy found itself in the unprecedented situation of having unchallenged maritime supremacy. The biggest naval action in the Gulf was the amphibious landing at Veracruz. It took place on March 9, 1847, and it was the largest amphibious assault the United States had ever attempted up to that time. Some 10,000 US Army soldiers under the command of Major General Winfield Scott climbed down into surfboats manned by sailors, who rowed them ashore.

Over the next several weeks, Scott's army captured Veracruz and then advanced inland, fighting and winning several battles en route to Mexico City. The capture of that historic city effectively ended the war.

The US victory in the Mexican War not only resolved the Texas-Mexico border issue but also added an enormous expanse of land to the national domain. This acquisition of territory triggered a furious national debate about the future of slavery in those areas and was an important milestone on the path to the American Civil War.

The Change from Sail to Steam

Advances in maritime technology were changing the very character of the US Navy—and of all Western navies. The most transformative of these changes was steam.

The change from sail to steam was not the obvious move it seems to us today. There was an enormous logistical challenge to relying on steamships because of their constant need for coal. They were appallingly inefficient, which meant they had to be refueled regularly. The United States had plenty of coal; the problem was getting it to where it was needed.

The first purpose-built oceangoing steam warships in the US Navy were the identical frigates *Missouri* and *Mississippi*, launched in 1841. They were side-wheel steamers and made their maiden voyages the next year.

Most European navies did not have such challenges. They either operated near their home bases or, in the case of Britain, possessed naval bases all around the world. The US Navy clung to sail power longer than most European navies did.

Even so, when the United States dispatched a squadron under Matthew C. Perry to Japan in 1853, his squadron included three steam warships. Perry's assignment was to convince Japan to open its ports to Western trade. Up to then, Japan had embraced an isolationist policy.

The result of Perry's efforts was the Treaty of Kanagawa, which marked an important milestone in the emergence of modern Japan. Perry had demonstrated that the US Navy could be an important tool of effective diplomacy.

Establishment of a Naval Academy

Perry, like virtually all other US Navy officers at the time, was the product of a system in which young men became naval officers by essentially apprenticing themselves to the navy as teenagers and learning on the job. It was a system that had worked for centuries, and traditionalists were loath to change it.

By the 1840s, however, the complexity of the new steamships, and of the more sophisticated ordnance on board, led many to wonder if young men aspiring to become naval officers should first get some schooling ashore. There was no naval counterpart to West Point, the army's military academy, which had existed since 1802. But an incident on the US Navy training ship *Somers* in 1842 created an impetus to the establishment of a naval academy.

The *Somers* was a sailing brig with a crew of 121, including 5 officers, 7 midshipmen, and 74 apprentice "boys" for whom the ship was a kind of seagoing schoolhouse. One of the midshipmen was 19-year-old Philip Spencer, the son of the secretary of war, John C. Spencer. Young Spencer had a history as a troublemaker. While aboard the *Somers*, he proposed to two of the ship's petty officers that they should take over the ship, kill the captain, and turn to piracy.

The absurd plot was soon betrayed to the ship's captain, Alexander Slidell Mackenzie, who had Spencer arrested, clapped in irons, and secured on deck. Spencer continued to communicate with other crewmen. Worried about morale and the ship's security, Mackenzie convened a court-martial, tried Spencer and the two petty officers for mutiny, and hanged all three of them.

Upon returning to the United States in 1843, Mackenzie faced a court-martial. The navy was determined not to undermine a captain's authority in dealing with mutiny, and the court found him not guilty. Still, the incident suggested that perhaps there were better ways to train midshipmen than by sending them to sea.

In 1845, the government established a small naval school at Fort Severn in Annapolis. Depending on their experience at sea, some midshipmen received one year of instruction and others stayed for two. Not until 1850 did the US Naval Academy establish a traditional four-year academic program.

07 *Civil War Ironclads, Torpedoes, and Submarines*

As sectional violence increased in the decades before the Civil War, the US Navy underwent a quiet technological revolution. This lecture examines the navy's role during the war and how new technology was dramatically changing the character of naval combat.

A Nation Divided

The White Lion *arrives at Jamestown*

Technically, the Civil War began on April 12, 1861, when Confederate soldiers in Charleston Harbor fired on the Union garrison in Fort Sumter. The roots of the war, however, stretch back at least to the nation's founding—and even earlier.

The seeds were planted when a British privateer, the *White Lion*, arrived at Jamestown in Virginia in 1619 with about 20 Africans. They had been kidnapped from what is now Angola by the Portuguese and then captured at sea by the *White Lion*. Buying them was not a planned decision. It was a purely pragmatic decision based on the colony's desperate need for manpower to help clear the forests and construct shelter for the coming winter. It is a cautionary tale of how short-term decisions can cast long shadows.

By the 1830s, the number of enslaved persons in the United States had grown to more than 2 million, and attitudes about slavery had both diverged and hardened. At the same time, slavery had become astonishingly profitable.

As the nation divided, the US Navy underwent a quiet technological revolution. The biggest change was the adoption of steam power. In 1843, the United States commissioned the USS *Princeton*, the first propeller-driven steam warship in the world. Alas, during a public relations cruise on the Potomac River to show off the ship's virtues, one of her

large-caliber guns exploded, killing both the secretary of state and the secretary of the navy, which temporarily muted enthusiasm for more naval experimentation.

In 1854, Congress passed the Kansas-Nebraska Act. Though slavery had been banned from that area by the Missouri Compromise, this new act would allow settlers to decide for themselves if they wanted to have slavery. The new law precipitated violent clashes in Kansas between pro- and antislavery settlers.

Advancements in Naval Ordnance

Also in 1854, completely unrelated to the sectional violence, Congress authorized the construction of six large steam-powered frigates, all of them named for American rivers. The lead ship of the class was the USS *Merrimack*. The six *Merrimack*-class frigates were followed by five *Hartford*-class steam sloops. In the 5 years between 1854 and 1859, the US Navy added 24 major new combatant warships, all of them steamers, and all armed with the latest and most sophisticated naval ordnance.

For most of 200 years, naval guns had changed little. They consisted of muzzle-loaded iron tubes that fired solid iron balls using black powder. The sizes of the guns had been determined by the weight of the iron ball they fired. But improvements in metallurgy meant that naval guns were now so large that they were categorized by the diameter of their muzzles, as in 6-inch guns or 8-inch guns.

The most common naval gun during the Civil War was a 9-inch smoothbore cannon that had been designed by John A. Dahlgren, who commanded the Washington Navy Yard and established the Bureau of Ordnance there.

Another change in naval ordnance was that some of the barrels on naval guns could be rifled—that is, have grooves cut in a spiral pattern on the inside of the barrel so that the projectiles emerged spinning, which increased both their accuracy and their range.

The projectiles themselves also changed. While the new naval guns could still fire solid iron balls, they also fired explosive shells. These innovations gave warship ordnance vastly greater range, accuracy, and destructive power just as the Civil War began.

Whereas naval battles in the age of sail often took place at a range of 100 yards or less, the newer naval guns could fire a mile or more.

The Union's Naval Blockade

The Civil War itself was triggered by the election of Abraham Lincoln in 1860. Lincoln had run for president on a platform of halting the expansion of slavery into the western territories. Because Southerners believed that limiting the growth of slavery would eventually lead to its demise, they believed that such limits were an existential threat. Consequently, when Lincoln was elected, seven Southern states announced their secession from the Union.

Several months later, Lincoln refused to withdraw the US Army garrison from Fort Sumter in Charleston Harbor, and Confederate artillerists opened fire on it. The sectional dispute that had festered for decades burst into open warfare.

One of Lincoln's first decisions as a war president was to announce a naval blockade of the Southern coast. It was startlingly ambitious. Though many of the navy's warships were relatively new and equipped with modern ordnance, there were only 42 of them in 1861. According to international convention, no nation had to respect a blockade unless there was an actual naval force offshore to enforce it. The obvious first task, then, was to get a lot more ships.

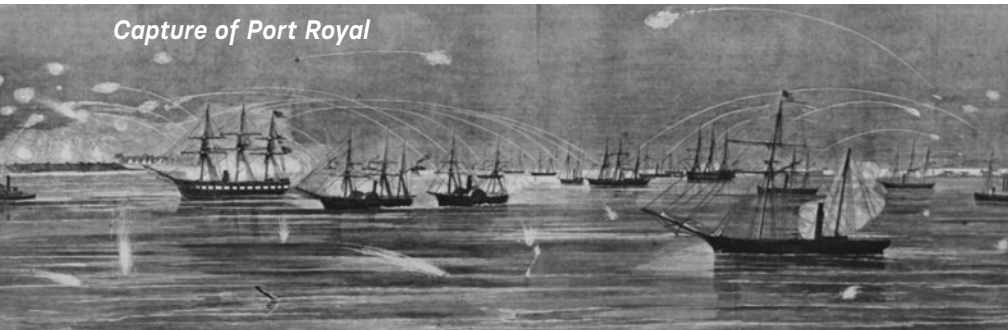
Lincoln's secretary of the navy, Gideon Welles, sent the few ships he did have to several Southern ports, including Charleston. And he ordered home all the ships in the various overseas squadrons. He also contracted with builders to build 23 new steam warships, stipulating that they had to be ready to go to sea in only 90 days. Still, that yielded a total of only about 100 ships, a far cry from what was needed.

The shortfall was mostly made up by buying scores of steam-powered civilian merchant ships that were modified to carry a few naval guns. Eventually, the United States commissioned more than 400 of these ersatz warships.

The Confederates' response to the blockade did not work. Convinced that Europe—and especially England—was desperate for Southern cotton and would do anything to get it, the Confederate Congress embargoed its own cotton exports, expecting that the British would send their navy across the Atlantic and open Southern ports to get it. But this tactic failed, as the British found alternate sources of cotton in Egypt and India.

The Union blockade was divided into four squadrons: two in the Gulf of Mexico and two along the Atlantic coast. Because all but a handful of the blockading ships were steam-powered, each squadron required a base where the ships could resupply. Three of the four squadrons had bases, but there was no place for the South Atlantic squadron—arguably the most important one—to safely operate.

So, the first major US Navy effort of the war was to capture Port Royal Sound on the South Carolina coast, about halfway between Charleston and Savannah. The expedition was led by navy captain Samuel Francis Du Pont, who attacked the Confederate forts in Port Royal on November 7, 1861.



Capture of Port Royal

The naval guns on Du Pont's ships were at least as powerful as the rebel guns ashore, and in only a few hours, the Confederate forts surrendered. The navy now had its base on the South Atlantic coast.

Maintaining the blockade was tedious work for the officers and men who had to do it. Nevertheless, it dramatically reduced the overall amount of trade. That led to shortages, contributed to inflation, and had a long-term wearing effect on Southern morale.

Confederate Naval Experiments

Because the Confederate navy had to start completely from scratch, it proved more willing to embrace experimental technology. The classic example of that is the transformation of the *Merrimack* into the CSS *Virginia.* Secessionists had turned the former steam frigate into something entirely new—an iron-covered machine of war.

After the standoff between the *Merrimack* and the *Monitor* in Hampton Roads in March of 1862, both sides built more ironclads. But with its weaker industrial base, the Confederacy could not match Northern production and never built enough to challenge Union naval superiority.

Another Confederate innovation was the underwater mine, or what was then called a torpedo. Initially, both sides considered the use of such weapons as inhumane, even dishonorable. But as the war lengthened and the casualties mounted, such considerations fell away.

Finally—and famously—the Confederacy developed a working submarine. The *H. L. Hunley* was named for her inventor and owner, who lost his life in an early trial of the submersible boat. The *Hunley* was propelled by a crew of eight men who operated a hand crank to turn her propeller. On the night of February 17, 1864, it left Charleston Harbor to attack one of the Union blockading ships, the USS *Housatonic*. To do that, it carried an explosive device at the end of a long spar extended from the bow.

Lookouts on the *Housatonic* spied the vessel approaching and shouted a belated warning. The *Hunley*'s commander, Confederate navy lieutenant John Payne, successfully detonated the torpedo. The *Housatonic* sank,

but the *Hunley* never returned. For years it was assumed that she'd been destroyed by the explosion. But the discovery of her remains in 1995 suggested that she had survived the attack and that Payne deliberately kept her on the bottom, waiting for the commotion above to pass. While he waited, the crew very likely ran out of air and quietly died. All eight men were still at their stations when the craft was recovered in 2000.

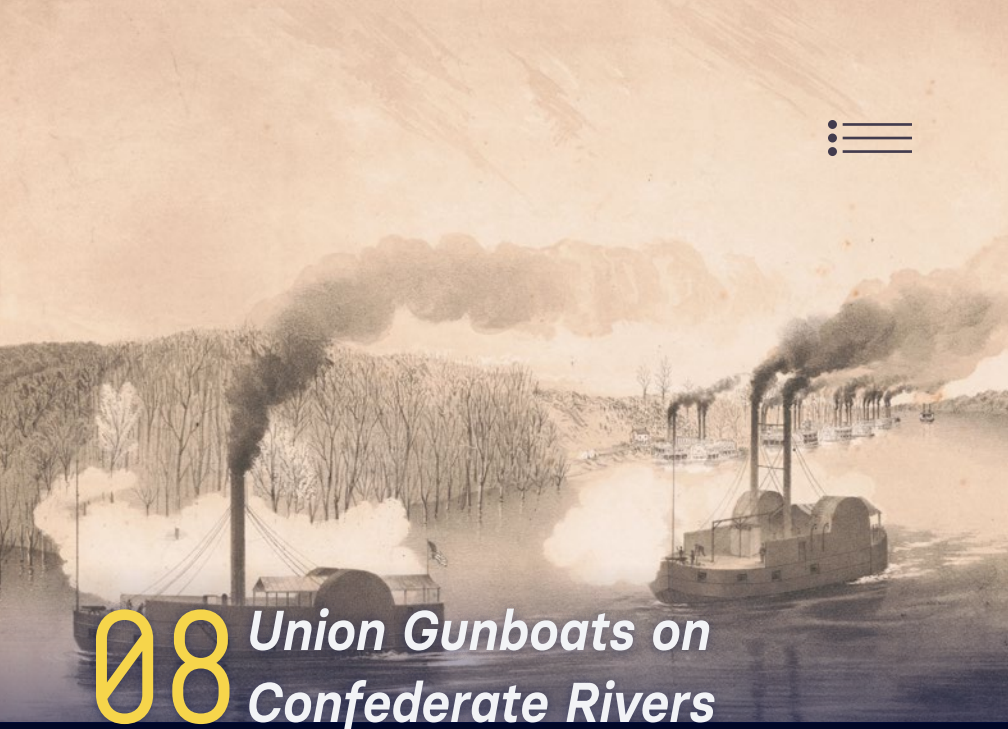
Confederate Commerce Raiding

Much of the commerce raiding in America's earlier wars had been conducted by privateers. But the principal motive of privateers is the profit to be made by bringing their prizes into port, which the South could not do because of the Union blockade. The British declaration of neutrality closed her ports to rebel prizes as well. Consequently, privateering died out quickly, and Confederate commerce raiding had to be carried out by commissioned warships, many of which were built in England.

The most successful of them was the CSS *Alabama*. Under the command of Raphael Semmes, the *Alabama* captured and burned some 64 Union merchant ships. It even defeated the US Navy warship *Hatteras* in the Gulf of Mexico—which was the first time a steam warship sunk another steam warship in battle.

The predations of the *Alabama* and her sister ships, such as the *Florida* and the *Shenandoah*, caused great alarm among Union shippers, though in the end it did not compel the Union States to weaken the blockade. Commerce raiding did not damage the Northern economy nearly as much as the blockade damaged the Southern economy.

The *Alabama* herself sank in June of 1864 after a duel with the USS *Kearsarge* off the coast of France. Eventually, the other raiders, too, were either captured or sunk. The last of them, the CSS *Shenandoah*, was still at sea in the North Pacific when the war ended. It returned to England and hauled down its flag on November 6, 1865, 7 months after General Robert E. Lee's surrender at Appomattox.



08 *Union Gunboats on Confederate Rivers*

The bloody Civil War battles in the East—at places such as Antietam, Chancellorsville, and Gettysburg—commanded most of the headlines and have drawn the focus of most historians as well. But a good argument can be made that the war was won—and lost—in the West, in the area between the Appalachian Mountains and the Mississippi River. This lecture looks at several Union victories along the Mississippi River, many of which depended on cooperation between the US Navy and Army.

Rivers as Barriers or Avenues

In comparing the western theater of the Civil War with the eastern battlefields, the first thing to note is the difference in riverine geography. Rivers in the East—notably the Potomac, the Rapidan, the Rappahannock, the York, and the James—all run from west to east. They therefore lay across any line of advance by a land army. And they constituted useful defensive barriers for Southern armies.

In the West, however, the major rivers run mostly from north to south (such as the Mississippi) or from south to north (such as the Cumberland and the Tennessee). That made them not barriers to invasion but avenues of advance for the side that was best positioned to take advantage of them, which was the North.

Another factor in this struggle was that the North could produce ships specially designed for the river war. The South depended mostly on defensive forts built along the riverbanks. As on the Atlantic coast, the new technology of iron armor and rifled guns often gave guns afloat a clear advantage over guns ashore.

Rivers are essentially watery highways. Transports could carry more men and more supplies over longer distances and do it faster, more efficiently, and more reliably than wagons or railroads.

The Evolution of Riverine Gunboats

When the war began, neither side had armed warships on the western rivers. Almost at once, however, both sides began to prepare for the struggle to control the western rivers. The Mississippi was at the center of this competition.

When US Navy commander John Rodgers showed up at Cincinnati with orders to create a squadron of gunboats, he purchased three civilian river steamers. Then, he bolted several inches of timber onto them as ersatz armor and put a few guns on board. With his little squadron of what were called timberclads, Rodgers dominated the Ohio and upper Mississippi, at least in the early days of the war.

Because of several disputes regarding the command relationship between Rodgers's squadron and US Army forces, he was later replaced by Andrew Hull Foote. Foote was given a newly created rank of flag officer, supposedly equivalent to an army major general. In time, Congress would create the rank of rear admiral to replace it. Foote's new rank gave him some leverage in dealing with his army counterparts, though interservice disputes never entirely disappeared. The idea was that when army and navy commanders worked together on a common objective, such as attacking a Confederate fort, they were supposed to cooperate.

Another factor that profoundly affected the river war was the new technology of the Civil War. It was obvious from the start that Rodgers' timberclads were unlikely to overcome any substantial Confederate shore fortifications. That inspired James Buchanan Eads, a civil engineer and inventor, to propose building some ironclad river gunboats.

Working with naval constructor Samuel Pook, Eads produced seven ironclads for the river war in only 5 months. Eventually, they built 30 of them. Despite the weight of their iron armor and heavy guns, they had flat bottoms and could operate in relatively shallow water.

The Confederacy, too, sought to build ironclads for the river war. Confederate navy secretary Stephen Mallory authorized the construction of four large ironclads: two at Memphis and two at New Orleans. The work lagged, however, partly because of a lack of skilled manpower and partly because of a shortage of armor plate.

Joint US Navy and Army Operations

Much of the river war was characterized by confrontations between Union ironclads and Confederate forts. The first such confrontation took place in February 1962 just below the Kentucky state line. Foote steamed up the Tennessee River and began bombarding Fort Henry with his gunboats, while a relatively unknown Union brigadier general named Ulysses S. Grant marched an army toward the fort over land.

The Confederates fired back, but most of their shells glanced off the armor plating of the river gunboats. They did score a success when a shell from their largest gun exploded in the boiler of the gunboat *Essex* and forced it to withdraw. Soon enough, though, the concentrated fire of the other gunboats compelled the Confederates in Fort Henry to lower their flag. Foote's ironclads had won the battle before Grant's army even arrived.

Capture of Fort Henry

Yet ironclads did not always triumph over forts. A few weeks later, the team of Grant and Foote scored another victory at Fort Donelson on the Cumberland River. This time, though, Grant's army was able to surround the fort from the landward side and compel its capitulation.

The capture of Fort Henry gave Foote's gunboats control of the Tennessee River, which allowed Grant to move his army, by river, further south to Pittsburg Landing, not far from a little church called Shiloh. The Confederates unified all their western armies there to attack the Union army on April 6, 1862.

The Federal army might have been pushed into the river and annihilated but for two Union gunboats. Anchored in the Tennessee River, they fired their big guns over the heads of the Union soldiers and into the ranks of the advancing Confederates. That and the Confederate decision to stop and ransack the Union encampment rather than continue their pursuit probably saved the Union army from destruction.

On the second day of the battle, the reinforced Federals counterattacked and won back all the ground they'd lost the first day. As at Forts Henry and Donelson, the Union victory at Shiloh was a product of cooperation between army soldiers on the ground and navy guns afloat.

The early Union victories on the western rivers demonstrated that iron-armored gunboats could stand up to, and even defeat, shore fortifications. They also proved how important it was for the army and navy to cooperate.

Victories on the Lower Mississippi

Union warships also attacked Confederate defenses at the southern end of the river below New Orleans. Confederate defenses there were much more substantial than they were on the upper reaches of the river. Seventy miles downriver from New Orleans were Fort Jackson, on the western bank, and Fort St. Philip, on the eastern side. Both were significant masonry forts that had been built by the Army Corps of Engineers before the war.

Their weakness was that they were completely surrounded by swampland and could only be supplied by boats from New Orleans. If a Union naval squadron managed to get past them, it would cut that line of supply and compel their capitulation. And that is exactly what Flag Officer David Glasgow Farragut did.

Farragut—who was destined to be the naval hero of the war—commanded the West Gulf Blockading Squadron, consisting mostly of deep-draft oceangoing warships. They were steam-powered and heavily armed, but they were also unarmored.

Farragut first had to steam into the mouth of the river from the gulf, then upriver to Fort Jackson, which he took under fire with the assistance of what were called mortar rafts. These curious vessels could lob enormous 13-inch shells into the fort from giant mortars while staying beyond the range of the fort's guns. Even so, the forts did not surrender, so in the predawn darkness of April 24, Farragut led his ships upriver to try to run past them in the dark.

Anticipating that, the Confederates had erected a floating boom across the river composed of small ships linked together by heavy chains. It took some time for Farragut's ships to breach this barrier, and then they engaged in a furious battle with the forts ashore, as well as with a Confederate gunboat squadron.

The two big ironclads that the Confederates had hoped to use to defend the lower river were still unfinished. One, christened the *Louisiana*, was moored near Fort Jackson. She was well armored and heavily armed, but

her engines had not yet been installed. She fired away at Farragut's wooden steamers, but once they passed her, she was helpless. Thus cut off, the *Louisiana*—and soon enough the forts, too—surrendered.

Farragut's big ships continued upriver and anchored off Jackson Square in the middle of New Orleans. Farragut sent a landing party ashore to raise the American flag over the US mint, though defiant citizens tore it down as soon as the landing party returned to their ships. Not until May, when 5,000 US Army troops under Major General Benjamin Butler arrived, could the Union take actual possession of the city.

The Vicksburg Campaign

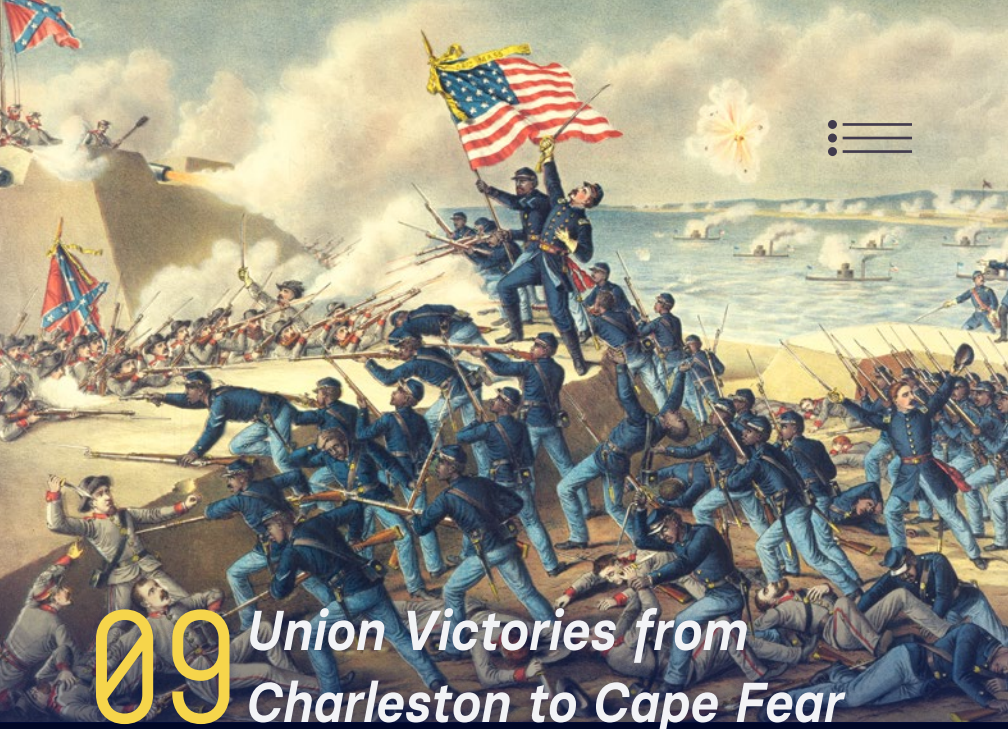
The Vicksburg campaign began in the summer of 1862 and lasted for a full year. The reason it took so long was because of the particular geography of the region. The river has since migrated so that Vicksburg today overlooks what is called an oxbow lake—the remnants of the river's former course. In 1862 to 1863, however, Vicksburg's batteries atop the bluff commanded the river.

Ulysses S. Grant saw at once that the only way to get at Vicksburg was not from the river but by attacking it from the east. After his initial attempts failed, he began his final—and successful—campaign in the spring of 1863. He began it by asking Flag Officer David Dixon Porter, commander of the Union gunboat squadron on the upper river, if he was willing to run his squadron and some army transports past the Vicksburg batteries. Then, the transports could ferry Grant's army across the river below Vicksburg and allow them to attack from behind, as he had hoped to do all along.

Porter chose the night of April 16, 1863. The Confederate gunners were alert, and they opened fire from the bluffs above the river. Porter lost one transport, but the rest of the ships made it past this gauntlet. Grant's army, meanwhile, marched from their camp above the city to the landing south of it. From there, Porter's gunboats escorted them across the river to the eastern side.

Grant then marched to the northeast, brushed aside a defending Confederate army, and captured the Mississippi state capital of Jackson. Then, he turned west to come up behind Vicksburg. With Porter commanding the river and Grant maintaining a siege on land, the defenders of Vicksburg were trapped. Still, the defenders held out through a siege of 47 days before surrendering on July 4, 1863.

The Union capture of Vicksburg is one of the great stories of the American Civil War. It gave the Union virtual control of the Mississippi River.



09 *Union Victories from Charleston to Cape Fear*

Throughout the summer and fall of 1864, the US Navy's blockading squadrons off the Southern coast grew larger and stronger, and the blockade itself became more effective. And yet, blockade runners occasionally managed to slip in and out of Southern ports. This lecture breaks down three major US Navy campaigns aimed at capturing cities with ports that were used by the blockade runners: Charleston, South Carolina; Mobile, Alabama; and Wilmington, North Carolina.

The Charleston Campaign

From literally the first day of the war, South Carolina generally—and Charleston in particular—symbolized Southern rebellion and defiance. South Carolina had the highest percentage of enslaved persons in its population, which made South Carolinians especially defensive about the future of the peculiar institution. And Fort Sumter, which sat nearly in the middle of Charleston Harbor, was where the war had begun back in April 1861.

After the Union garrison surrendered the fort, the Confederates occupied it and made it the linchpin of their harbor defenses. Union efforts to recapture it began almost at once and continued for nearly 4 years. One reason it took so long was that Union efforts were complicated by the unhelpful competition and rivalry between the Union army and the Union navy.

Secretary of the Navy Gideon Welles's idea was for the blockading fleet off Charleston to steam right into the harbor, bombard the fort into submission, and take control of Charleston Harbor, putting the city itself under the guns of his fleet. After all, Rear Admiral Samuel F. Du Pont had done exactly that at Port Royal in the fall of 1861. Couldn't he do the same thing here?

No, Du Pont told him, he couldn't. Not only was Fort Sumter a much more powerful fortification than the forts at Port Royal, but the geography of Charleston Harbor also worked against such a scenario. Fort Sumter did not stand alone; it was supported by a ring of other forts around the periphery of the harbor. Du Pont suggested that it would be better if the Union army seized one of the supporting forts first. Then, the heavy guns in those forts could batter down the walls of Fort Sumter, and that would allow his navy ships to run past it and into the inner harbor.

The Union army had a chance to do exactly that early on, but the commanders on the scene muffed it. After that, Welles renewed the pressure on Du Pont to conduct a purely naval attack. Welles sent eight of the new Union ironclads—larger clones of the original *Monitor*—to join Du Pont's blockading fleet. Du Pont also had a much larger new type

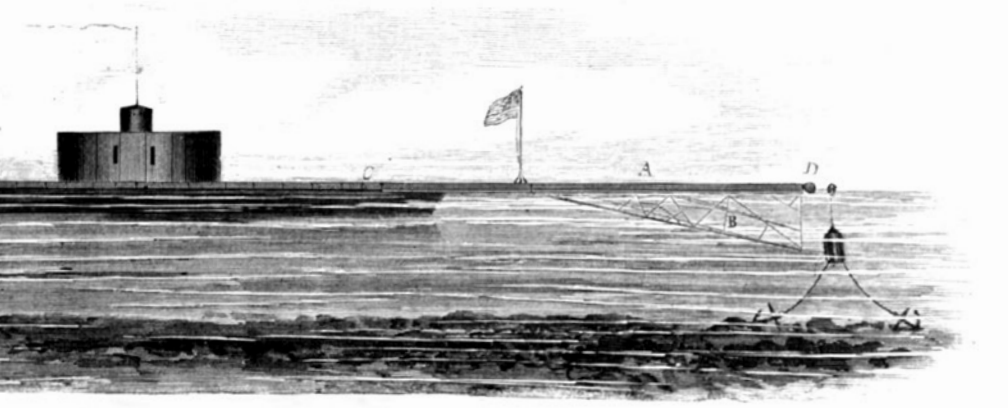
of ironclad, which—in homage to the ancient frigate *Constitution*—was christened the *New Ironsides*. It had "iron sides" that were four and a half inches thick.

Du Pont remained skeptical of Welles's idea, but he could see that he at least had to make the attempt. So, on April 7, 1863, a column of iron-armored Union warships headed into Charleston Harbor.

It went wrong from the start. The Confederates had placed mines in the harbor, with a whole string of them lined up across the shipping channel opposite Fort Sumter. To deal with them, John Ericsson, who had designed and built the original *Monitor*, fabricated a minesweeping device, which he called a devil. It was attached to the bow of the lead monitor, which was the *Weehawken*.

To this day, the campaign for Charleston remains the longest military siege in American history.

***The Ericsson Devil and* Weehawken**



Yet, as the *Weehawken* approached the fort, the so-called devil got tangled up in the rebel defenses, and the Union column of monitors came to a stop right under the guns of Fort Sumter, which pounded them mercilessly. One of them was struck 90 times and sank, and Du Pont ordered the ships to withdraw.

Welles replaced Du Pont with the ordnance expert Rear Admiral John A. Dahlgren. Dahlgren, however, didn't embrace Welles's strategy either. Instead, he teamed up with Army Major General Quincy Adams Gilmore for another joint operation against Fort Sumter.

This time, Union soldiers worked their way toward Fort Wagner, another one of the supporting forts for Sumter. With the ocean on their right and an impassable swamp on their left, the Union soldiers had to attack on a very narrow front—barely wide enough for a single regiment. Rather famously, the regiment that conducted that attack was the all-Black 54th Massachusetts, and it was all but annihilated in the effort.

After that, Gilmore and the army began an old-fashioned siege, with soldiers blasting their way toward Fort Wagner. After enduring horrific punishment for most of 2 months, the Confederates evacuated the fort. That allowed Union gunners to begin a concentrated bombardment of Fort Sumter itself. Dahlgren's monitors added their huge 15-inch shells to the bombardment, and by September, Fort Sumter had been pounded into dust.

After the fort's commander, Colonel Stephen Elliott, refused Dahlgren's demand for surrender, the Union army and navy renewed their bombardment. The fort and the city held out for another year. It did not fall until February 1865, when William T. Sherman approached it from the west after his famous March to the Sea.

The Mobile Campaign

The city of Mobile, on the Gulf Coast of Alabama, was almost as challenging. Mobile Bay is shaped like an arrowhead embedded into the Alabama coast. At the tip of the arrowhead is the city itself. Access was protected by a number of barrier islands and a long, narrow peninsula that extended out from the eastern side of the bay. At the tip of that peninsula was Fort Morgan.

Mobile Bay is enormous, encompassing more than 400 square miles. Once past Fort Morgan, an attacking naval force could avoid other rebel batteries. The man charged with this task was David Glasgow Farragut, the same man who had run past the river forts on the Mississippi below New Orleans 2 years before.

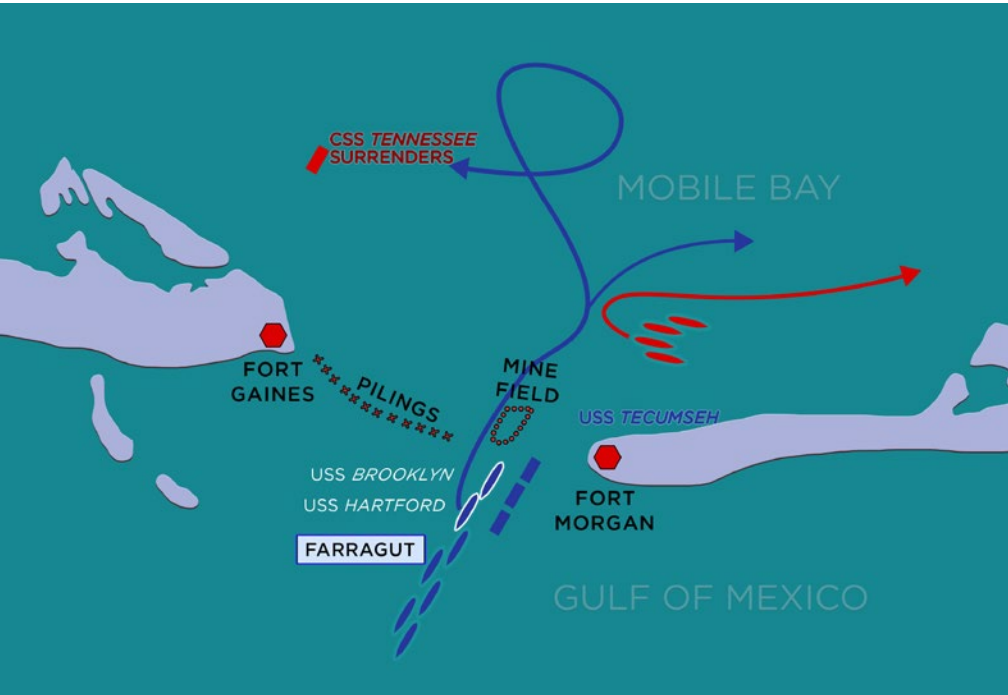
The Confederates did all they could to fortify the entrance to the bay. They drove pilings into the shallow water off Fort Gaines to narrow the navigable passageway, and in the passageway itself, they deployed scores of mines, or what were called torpedoes. That would force any ship seeking to enter the harbor to pass directly under the guns of Fort Morgan.

Farragut made the attempt on August 5, 1864. He rode the second ship in the line, the wooden steamer *Hartford*. As his twin columns of ships entered the channel—the ironclads on the right, the wooden steamers on

the left—the gunners in Fort Morgan opened fire. The lead ironclad was the 200-foot-long *Tecumseh*. It had barely entered the ship channel when it suddenly reared up out of the water, rolled over onto its starboard side, plunged downward, and disappeared. At least one of the mines had proved devastatingly effective.

James Alden, the captain of the lead wooden ship, the *Brooklyn*, ordered all stop, then slow astern. The *Brooklyn* began to back up. Here was the decisive moment. Farragut's ships were in a line-ahead formation. If the *Brooklyn* continued to back down, the whole line would collapse like an accordion directly under the guns of Fort Morgan.

Farragut, directly behind the *Brooklyn*, ordered the *Hartford* to veer out of line and pass her. The *Hartford* proceeded into Mobile Bay, followed by the rest of the ships in the column. And, after fending off the Confederate naval squadron, Farragut took control of Mobile Bay. That cut Fort Morgan off from her supplies, and the fort's commander was compelled to surrender three weeks later.



Farragut's run past Fort Morgan was an important moment strategically. The neutralization of Mobile, along with Sherman's capture of Atlanta a few weeks later, profoundly affected the impending presidential election and Lincoln's reelection. The public validation of Lincoln's war policies crushed any remaining hope in the South that the Union government would tire of the war and agree to open negotiations. But that did not mean the Confederacy was ready to give up.

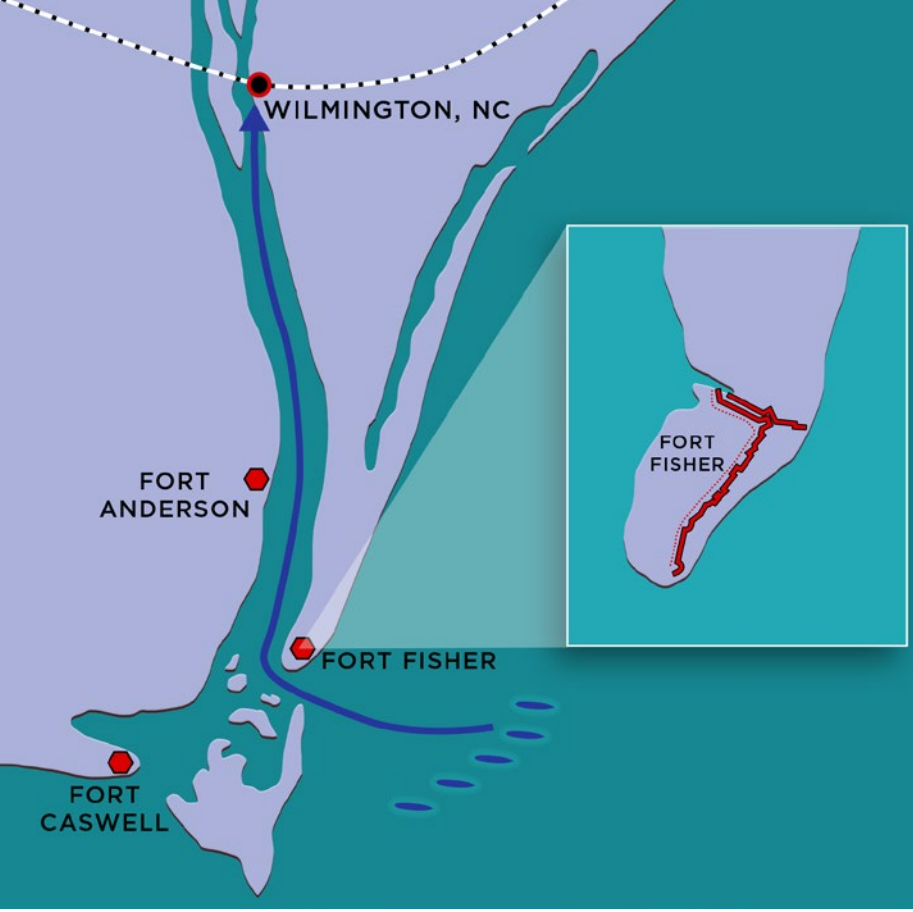
The Wilmington Campaign

There was one last port on the Atlantic coast that remained open to blockade runners, who were bringing in critical supplies for General Lee's army. Some 250 miles almost due south of Richmond, and connected to it by railroad, was the port of Wilmington, North Carolina, on the Cape Fear River.

Wilmington was protected by a number of forts, none of them more important than Fort Fisher. The first Union attempt to take the fort occurred in December 1864. Major General Benjamin Butler, a so-called political general from Massachusetts, thought it might be possible to blow up the fort with a giant bomb—235 tons of black powder. The explosion was pretty spectacular, but after the dust and smoke had cleared, it was evident that it had done virtually no damage at all to the fort.

The next attempt came later. In December 1864, Welles had assembled an enormous fleet of more than 50 warships—the largest collection of US Navy warships in history up to that moment—under Rear Admiral David Dixon Porter. On Christmas Eve, that fleet opened a sustained bombardment of Fort Fisher. It lasted for most of 2 days, and yet when the firing ceased, the fort still stood.

Porter tried again two weeks later, this time assigning specific targets to each ship. As a result, the bombardment was more accurate and much more effective, dismounting or wrecking entirely all but two of the fort's big guns.



Yet the key to Union victory at Fort Fisher was the attack by a land force of 4,000 army soldiers under Major General Alfred Terry and roughly 1,600 sailors and marines from the fleet, who charged across the sand to assail the northern face of the fort.

The naval landing party attacked along the beach against the northeast angle of the fort and met furious resistance. They were soon pinned down. However, by drawing the attention of the fort's defenders, General Terry's soldiers at the western side of the fort's defenses were able to clamber over the parapet and begin a fierce hand-to-hand battle. After more than six hours of combat, the fort's defender, Colonel William Lamb, surrendered.

By the end of the Civil War, a navy that once consisted of a mere 42 active warships when hostilities began had grown to 671 warships. Nearly all of them were steamships, and more than 100 of them were armored.

The fall of Fort Fisher opened the way for Porter's ships to enter the Cape Fear River. That ended blockade-running at Wilmington and cut the city off from outside help. It capitulated six weeks later on February 22, 1865. With Wilmington closed, the logistic base from which Lee's beleaguered army at Richmond could draw supplies had all but disappeared.

Besieged on his front by Grant's army, and with William T. Sherman's army approaching through the Carolinas, Lee had few options left. On April 2, he abandoned the Confederate capital and fled westward toward the small village of Appomattox Court House.

The US Navy did not win the Civil War. The outcome was a product of hard fighting by more than 3 million men over 4 years on battlefields from Pennsylvania to Mississippi. Still, the navy had played a critical role throughout the war.

10 *Mahan's Navy and the Spanish-American War*

During the decade and a half after the end of the Civil War, the United States retreated into its former isolation, and the US Navy returned to its prewar role of chasing pirates and protecting US trade. As Americans turned their focus toward their own domestic issues, there were still occasional international incidents that demonstrated the importance of maintaining a strong navy. This lecture examines some of the factors that influenced a revival of the US Navy, including several conflicts around the world.

The Post–Civil War Navy

By 1870, hundreds of the navy's ships were sold off, scrapped, abandoned, or laid up in ordinary—mothballed, if you will. The navy that had numbered more than 600 warships in 1865 totaled only 52, most of them wooden-hulled. Though these ships had steam engines, they generally navigated from place to place under sail power to conserve coal. The Civil War had been hugely expensive, and the popular view was that maintaining a large peacetime navy was not only unnecessary but also irresponsible.

The public's attention had also shifted to other issues, including Reconstruction of the Confederate South and the exploration—and exploitation—of the American West. Of course, there were occasional overseas disputes.

In 1871, the administration of President Ulysses S. Grant sent five navy ships to Korea under Civil War veteran Rear Admiral John Rodgers with instructions to open the so-called Hermit Kingdom to Western trade, much as Matthew Perry had opened Japan in 1853.

It went wrong from the start. The Koreans prohibited foreign ships from ascending the river leading to Incheon and Seoul without permission. When Rodgers nevertheless sent several small boats upriver to sound its depth, one of the Korean forts fired at them. Rodgers's ships fired back. Two American sailors were wounded in the exchange.

Rodgers demanded an apology, and when it was not forthcoming, he landed 700 sailors and marines along with several pieces of artillery to administer punishment. They captured the Korean forts, losing only three men while killing hundreds of the defenders. Having made his point—though failing in his mission—Rodgers sailed away.

This event illustrates two characteristics of the US Navy during the post–Civil War years. First, it shows the determination of American naval officers to respond, often disproportionately, to any perceived insult. Second, it is an example of the kind of discretion routinely exercised by naval officers on distant missions. Absent the ability to consult with political authorities in Washington, naval officers overseas could decide

for themselves what actions deserved a military response and how much, though it was more complicated when the perceived transgressor was a European power.

The Virginius *Affair*

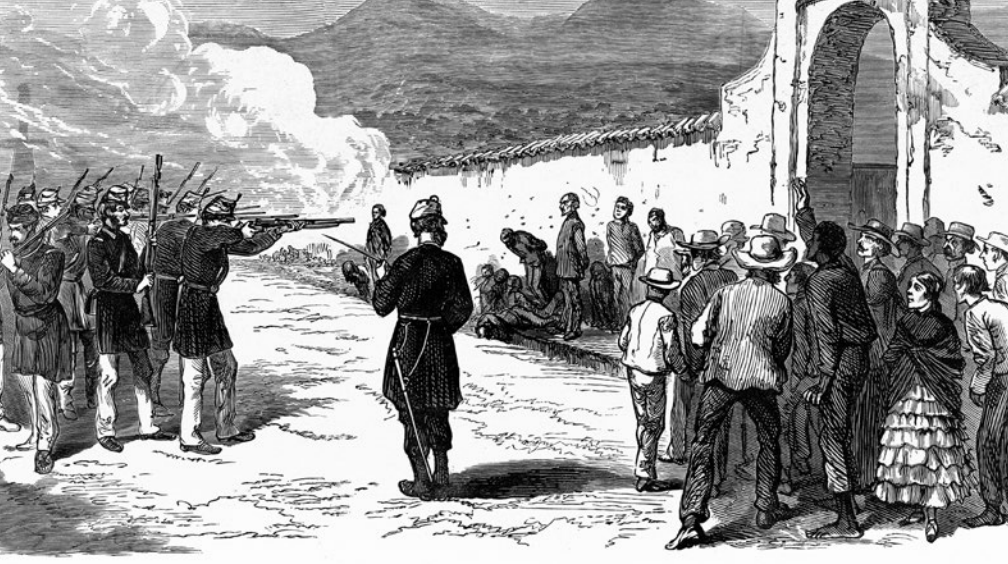
Other incidents during this era revealed how the absence of a robust modern navy could limit the ways the nation could respond to a crisis. Here's an example: By 1868, Spain had lost almost all of its once-vast American colonial empire to independence movements. Only Cuba and Puerto Rico still flew the Spanish flag. So, when a Cuban independence movement broke out that year, Spain was determined to suppress it.

Americans rooted for the Cubans. Some did more than that. In 1873, two Americans purchased a side-wheel steamship named the *Virginius* and registered her as an American vessel. Their intent was to smuggle men, arms, and munitions to the rebels in Cuba. The *Virginius*'s crew was a mixed bag of British and American citizens, some of whom may have been ignorant of the plan.

A Spanish warship intercepted the ship at sea and took it to Santiago on Cuba's south coast, where the *Virginius*'s captain, Joseph Fry, and his entire crew were quickly tried, condemned as pirates, and sentenced to be shot by firing squad. Fifty-three of them, including Fry, were killed.

The British threatened to bombard the city if any more executions were carried out. Americans were equally outraged. President Grant sent an ultimatum to Spain, demanding first that the *Virginius* and any surviving crew members be immediately given up, second that Spain apologize, and third that the perpetrators of the executions, including the governor, be punished. Meanwhile, Grant ordered the navy to mobilize, though that was easier said than done.

In the end, the crisis was resolved without anyone firing a shot. The public temperature cooled quickly. Yet the so-called *Virginius* affair exposed to many the ill wisdom of failing to maintain a robust standing navy, even in peacetime. Because America lacked a navy that could be a legitimate deterrent, American threats could safely be ignored.



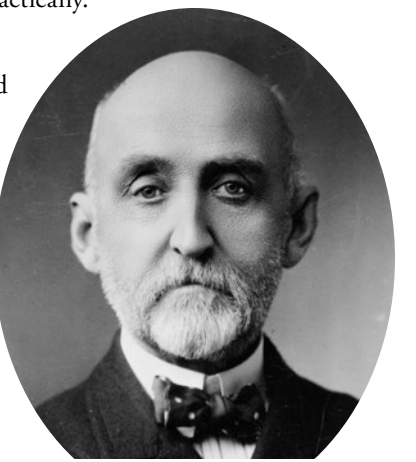
A Naval Revival in the Making

In 1881, the secretary of the navy asked Congress for appropriations to build four new steel-hulled warships. His objective was not to enlarge the navy so much as it was a recognition that the navy's old wooden-hulled ships were wearing out. The result was what were called the ABCD ships, named for the first letter in their names—*Atlanta*, *Boston*, *Chicago*, and *Dolphin,* the dispatch ship. They were a significant improvement on the ships they replaced, yet it was not quite a naval revolution. In short, they were a new tool designed to do the usual jobs more efficiently.

In 1886, Congress authorized the construction of two battleships to be named *Maine* and *Texas*, thus establishing the precedent of naming battleships for states and cruisers for cities—a tradition that continued through the end of the Second World War.

Another significant milestone in the coming naval renaissance was the founding in 1884 of the US Naval War College at Newport, Rhode Island. The purpose of the new school was to prepare middle-grade navy officers for high command responsibility by encouraging them to think strategically—even globally—as well as tactically.

A central figure in the transformation of the US Navy during the 1890s was Alfred Thayer Mahan. The navy captain, and later rear admiral, had written a book about the navy in the Civil War. He was invited by Rear Admiral Stephen B. Luce, the founder and president of the Naval War College, to become one of the college's first instructors.



Alfred Thayer Mahan

Mahan worked up a series of lectures focusing on the history of the Royal Navy in the 17th and 18th centuries. In 1890, he collected these lectures into another book. His central theme was that a dominant battleship fleet brought its possessor command of the sea, from which everything else followed: colonies, trade, wealth, and, ultimately, power.

The same year that Mahan's book appeared, Congress authorized three more battleships: the *Indiana*, *Massachusetts*, and *Oregon*. By 1897, the US Navy had six modern battleships. The United States now had a navy that was capable of responding if another crisis occurred. And, of course, one did.

The Cuban Rebellion

The Cuban rebellion of 1868 had sputtered out a decade later, but it erupted again in 1895. Spain sent General Valeriano Weyler to Cuba as governor general with full powers to do whatever was necessary to quash the uprising. Weyler initiated many of the tactics we now associate with anti-insurgency warfare. His policies were so harsh they turned much of the populace against him.

USS Maine

In the United States, popular sympathy lay with the rebels. Under tremendous public pressure, President McKinley approved sending the battleship USS *Maine* to Havana to signal American concern. Anchored in Havana Harbor on February 15, 1898, the *Maine* suddenly exploded. Two hundred and sixty American sailors were killed, and the ship was a total loss.

Today, we are pretty sure how it happened. Like all other steamships at the time, the *Maine* was fueled by coal, and coal dust is extraordinarily volatile. A single spark—even from a nail in a boot heel striking a steel plate—could trigger an explosion. Almost certainly, that is what happened to the *Maine*. An investigation of the wreck site years later showed that the flanges of the hull were bent outward from an internal explosion.

But no one in 1898 wanted to hear that. To Americans, it was patently obvious that the Spanish were to blame. President McKinley sought to tamp down the public and editorial outrage, but the pressure was too great. He issued an ultimatum demanding that Spain end its war against the Cuban rebels. And when Spain rejected it, he asked Congress for the authority to intervene. Spain responded with a declaration of war.

The Battle of Manila Bay

Spain's navy was not inconsequential, but it was much older than America's navy. The result was a swift American victory punctuated by two naval battles—one on each side of the world.

Spain had two fleets: one in Cádiz, Spain, and the other in Manila Bay in the Philippines. Orders went out from the Navy Department—written by Assistant Navy Secretary (and future president) Theodore Roosevelt—for the American Asiatic Squadron to keep full of coal and, if hostilities began, to attack the Spanish fleet in Manila Bay.

In the early hours of May 1, 1898, Commodore George Dewey led his ships into Manila Bay. He expected to find the Spanish fleet anchored near the city of Manila, but the Spanish commander had instead anchored it across the bay near the Spanish Navy Yard. Dewey immediately attacked him there.

The ensuing battle was a gun duel between armored cruisers. In the end, the firepower of the American ships overwhelmed the Spanish. By the afternoon, all of the Spanish ships were either sunk or captured.

Having fulfilled his mission, Dewey could have simply sailed away. Instead, he remained in Manila Bay and sent a request to Washington for an army of occupation. That request changed American history, for it was the first small step toward an American overseas empire.

The Battle of Santiago

The second naval battle of the Spanish-American War took place in Cuban waters. When the war began, Spain sent its home fleet under Admiral Pascual Cervera y Topete across the Atlantic from Cádiz to Cuba. It ended up in the harbor of Santiago on Cuba's south coast.

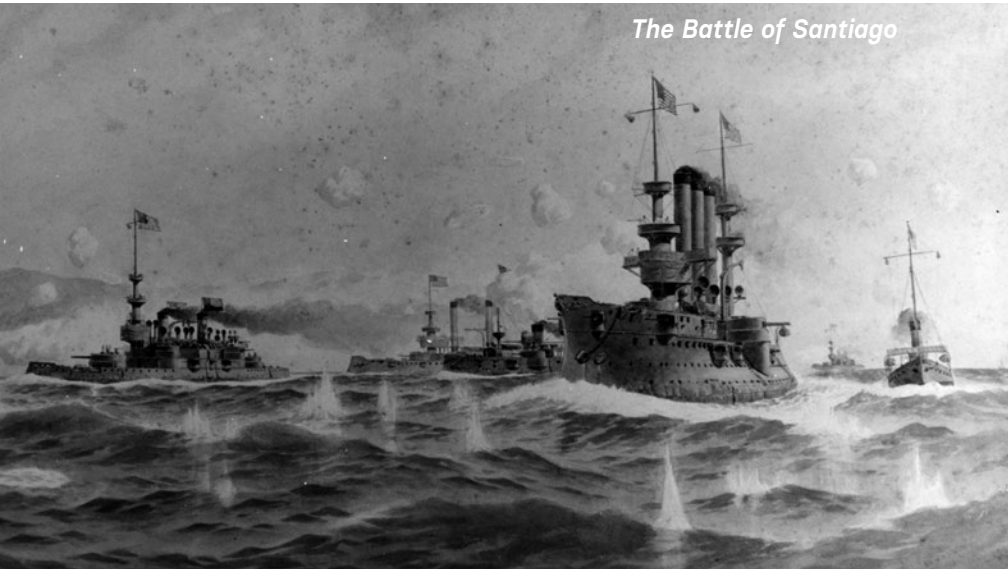
The Spanish-American War of 1898 marked the moment the US Navy emerged as a global naval power.

Almost at once, a larger American squadron under Admiral William T. Sampson arrived to blockade him there. The harbor entrance was too narrow and well protected for Sampson to force an entrance. So, to compel Cervera to leave, an American army under Major General William Shafter landed 15 miles down the coast at Daiquiri and approached Santiago over land.

When the American army, including the famous Rough Riders, captured the high ground of San Juan Hill and Kettle Hill outside Santiago, Cervera realized he had to make a break for it or be captured. He saw an opportunity when Sampson took his flagship away from the blockade to confer with Shafter off Daiquiri.

Sampson's second-in-command was Rear Admiral Winfield Scott Schley. And when he saw Cervera coming out of the harbor entrance, heading directly for his ship, the *Brooklyn*, he assumed it was a torpedo attack. He ordered a sharp turn to starboard—that is, to the east—to avoid it. But Cervera turned west. Instead of reversing his rudder, Schley continued his starboard turn until he completed a full circle and then headed after him. He was later accused of turning to run from the enemy, which he disputed.

Sampson, too, joined the chase, and over the next several hours, the American ships caught up with and destroyed the Spanish ships. It was a victory at least as complete as Dewey's at Manila.



The Battle of Santiago

The Spanish-American War was an extraordinary debut for the new US Navy. It was also a turning point for the country. Although the initial US declaration of war against Spain had foresworn any territorial ambitions in Cuba, a subsequent amendment set strict conditions for the removal of American forces from the island. And soon afterward, the United States secured an indefinite lease on Guantanamo Bay on Cuba's south coast. The treaty that ended the war also transferred control of both Puerto Rico and Guam to the United States, and it allowed the United States to purchase the Philippines for $20 million.

All that territorial acquisition overseas changed more than the world map. By 1900, the United States had become a global power.

11 *Teddy Roosevelt and the Battleship Age*

Battleships—the very name conjures up a certain majesty. Winston Churchill called them “castles of steel.” Yet the era of the battleship was actually relatively short, lasting only about 50 years, from around 1890 to about 1940. This lecture takes us through this era into the first decades of the 20th century, when the battleship represented the pinnacle of a particular kind of naval warfare—ships with guns fighting other ships with guns.

Early American Battleships

The first American battleships were the *Maine* and the *Texas*, each commissioned in 1895. They established the tradition that American battleships would be named for states, and cruisers for cities. The naval architects who designed these early battleships struggled to find a way to employ three different, and even contradictory, elements of warships in that era: the naval broadside, the revolving turret, and the long-range capability of the new heavy naval guns.

USS Texas

Their compromise was to build a ship with a mixed battery. The first American battleships had four large rifled 10-inch guns housed in two turrets, plus six 6-inch guns and a dozen or so smaller guns. And the turrets were placed on the sides of the ship: a forward turret on the starboard side, which could fire forward or to starboard; and another further back on the port side, with guns that could fire astern or to port. It was an awkward compromise, and it didn't last.

At the time, these American battleships were the largest warships ever built for the US Navy. Each displaced about 6,500 tons. The next three American battleships, the *Indiana*, *Massachusetts*, and *Oregon*—all launched in the late 1890s—displaced more than 10,000 tons. They had a more symmetrical, and frankly a more modern, look, and because of that, many naval historians consider them to be the first true American battleships.

This first generation of American battleships had their baptism of fire during the Spanish-American War in 1898. The national enthusiasm generated by the victories during the war gave added impetus to further naval expansion. Another big boost came from the ascension of Theodore Roosevelt to the presidency.

Roosevelt Expands the US Navy

T. R., as Theodore Roosevelt was known, had been a naval enthusiast all his life. He was serving as McKinley's assistant secretary of the navy when the Spanish-American War began. Determined not to miss out on the action, he resigned his post and helped recruit a regiment of cavalry famously known as the Rough Riders. As a public icon, he was catapulted first to the governorship of New York and then onto the Republican national ticket in 1900 as William McKinley's running mate. When McKinley was assassinated a year later, Teddy Roosevelt became president.

From the start, he urged Congress to speed up the construction of more battleships. There were skeptics, but as far as Roosevelt was concerned, it was essential—even inevitable—that the United States become a great world power.

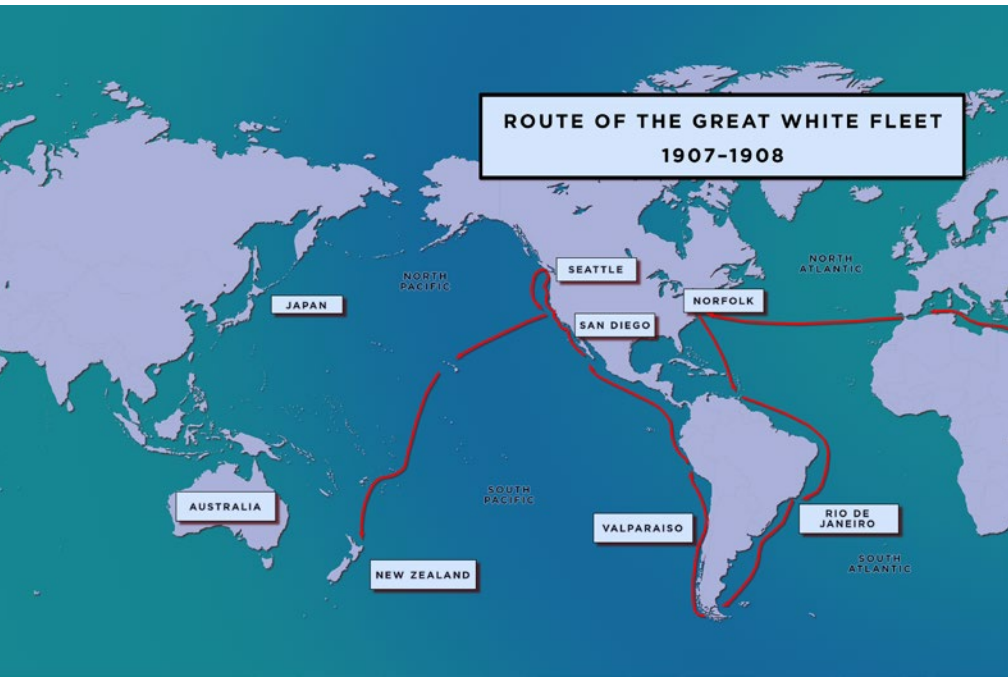
Roosevelt was fond of quoting what he claimed was a West African proverb that a man should "speak softly and carry a big stick." In other words, the United States should not bully other countries, but those countries should know that if push came to shove, the United States could defend its interests.

Naval expenditures jumped from 10% of the national budget in 1901 to more than 20% in 1905. Today, it's 3.5%.

Roosevelt also advocated a more assertive foreign policy, one that employed the navy as an instrument of diplomacy. One outcome of this new policy was a treaty with Panama that led to the completion of the Panama Canal and granted the United States control of a canal zone.

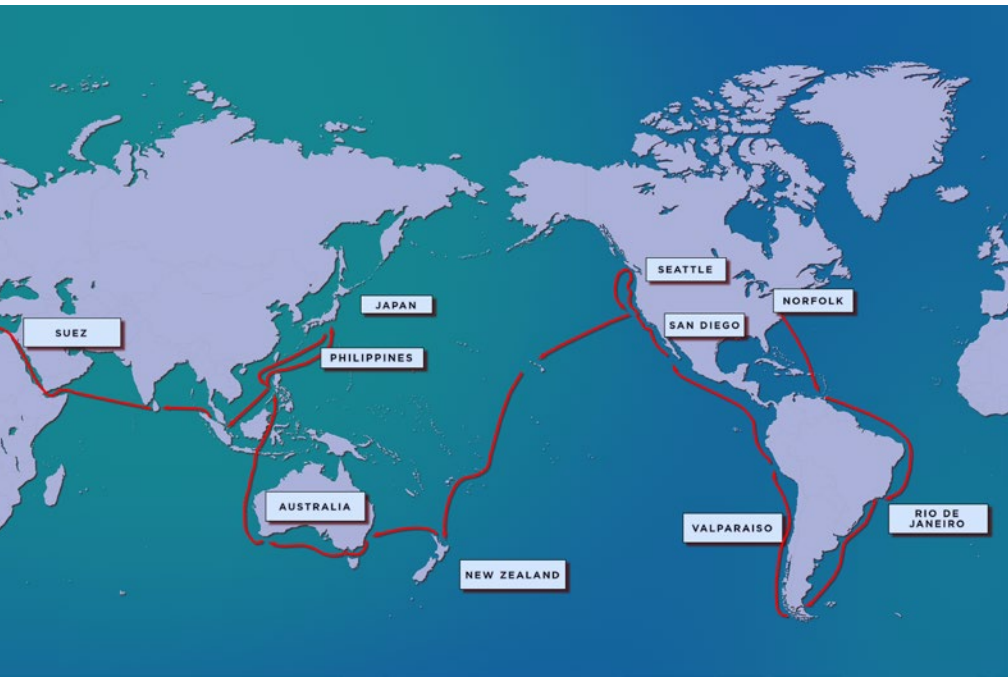
The Great White Fleet

In 1907, Roosevelt ordered the Atlantic battleship fleet to undertake what was billed as a goodwill tour into the Pacific. He was eager to show off America's big stick, and a lengthy cruise would offer an opportunity to test the ability of the new ships to sustain themselves on a long voyage. Because all 16 battleships were painted a peacetime white, this came to be known as the cruise of the Great White Fleet.



The fleet left Norfolk, Virginia, in December 1907. It headed south, stopping at Rio de Janeiro, transiting the Strait of Magellan, then up the coast of Chile to Valparaíso, before steaming further north to California and Washington. After crossing the broad Pacific, making stops in both New Zealand and Australia, the fleet visited Yokohama in Japan. This was a fraught visit because American relations with Japan had become severely strained. Japan, like the United States, was an emerging naval power.

From Japan, the fleet headed south to Manila in the Philippines, America's outpost in the western Pacific. And it returned by crossing the Indian Ocean, transiting the Suez Canal into the Mediterranean, and steaming back across the Atlantic to Norfolk, thus completing a circumnavigation of the globe that lasted 14 months and covered 40,000 miles.



A New Class of Battleships

The United States and Japan were not the only countries building up their battleship fleets. Britain's Royal Navy remained the most powerful maritime force on the planet, but Germany, under Kaiser Wilhelm II, was making a bid to challenge it and began to build battleships as fast as the United States, or even faster. Ironically, it was an innovation by the Royal Navy that appeared to give Germany a realistic chance to catch up.

From the first, battleships had carried a mixed battery. That is, they had a few very large guns plus a dozen or more smaller guns for close-in defense. But a confrontation between battleship fleets was likely to be decided at long range by the big guns before the two fleets ever got close enough for the smaller guns to come into play. So why bother with the smaller guns at all?

In recognition of that, Congress authorized the construction of two battleships armed only with the largest caliber of guns in 1905, and they were laid down in 1906. Absent a particular rush, however, they were not completed until years later.

So, it was the British who actually launched the first all-big-gun battleship in 1906. Rushed to completion in only 4 months, it was christened the *Dreadnought* after the personal motto of the British first sea lord Admiral John "Jacky" Fisher: "Fear God and dread nought." It had ten 12-inch guns, which gave it the long-range firepower of two, or even three, conventional battleships.

***HMS* Dreadnought**

That changed the whole calculation of global naval power. From 1906 onward, all battleships were classified as either dreadnoughts or predreadnoughts. All of the existing Royal Navy battleships, as well as those of the US Navy, were predreadnoughts. That encouraged Germany to think that it now had an opportunity to close the gap.

The result was a naval arms race, conducted almost exclusively in dreadnought-type battleships. It exacerbated tensions between Britain and Germany and encouraged Britain to seek alliances with both France and Russia. That put the great powers of Europe into opposing camps and was a key factor in the outbreak of the First World War.

America's first dreadnought-type battleship was the USS *Michigan*, which was launched in 1910. Three more dreadnoughts were commissioned later that same year, and 10 more over the next 5 years.

Another important change in this era was a shift from coal to oil for propulsion. It was not just because fueling a ship with coal was a dirty business but also because oil fuel produced an increase of speed, which could be critical in a naval engagement. The changeover was a no-brainer for the US Navy since at the time America was the world's largest producer and exporter of petroleum oil. However, the change greatly affected foreign relations for island countries such as Britain and Japan, which depended on imported oil.

German U-Boats in World War I

The war that broke out in 1914 was, of course, predominately a land war. The United States remained neutral, at least at first. But most Americans cheered for the Anglo-French Allies and viewed Germany as the villain. That perception was reinforced when Germany inaugurated a program of submarine warfare in 1915 and sought to impose a blockade by using submarines, or what the Germans called U-boats, instead of surface ships.

But U-boats were fragile and had small crews, which made it difficult for them to come alongside a merchant ship, inspect its papers, and put a prize crew on board. Some merchant ships had deck guns, and when the U-boat

surfaced, they would blow her out of the water. U-boat skippers realized pretty quickly that their best chance was to shoot first and ask questions later—a protocol known as unrestricted submarine warfare.

Naturally, the British portrayed this as inhumane. The sinking of the British passenger liner *Lusitania* off Ireland on May 7, 1915, seemed to confirm the charge. Nearly 1,200 people died, including 128 Americans. President Woodrow Wilson issued a stern warning to Germany, which renounced its policy of unrestricted U-boat warfare.

US attitudes were hardening. Wilson began to argue for national preparedness—not to get into the war but to protect and defend the United States in case Germany won it. And the best way to prepare for such an eventuality was to augment the US Navy.

The Naval Act of 1916 authorized 10 additional dreadnought-type battleships; 6 battle cruisers, which were also considered capital ships, though they had less armor; and 10 regular cruisers and 50 destroyers.

> The Naval Act of 1916 promised a US Navy that was "second to none." Here was the first public acknowledgement of an ambition to become the greatest naval power in the world.

In February 1917, Germany's U-boats resumed their full assault on trade. Wilson broke diplomatic relations, and in April, he asked Congress for a declaration of war.

US Role in the War

Once the United States joined the war, US Navy Admiral William S. Sims met with British admirals to discuss how the US could contribute. Sir John Jellicoe, commander of the Royal Navy's Grand Fleet, revealed to him the extent of recent German U-boat success, which had been kept secret, and confided that if the trend were not reversed, Britain would be forced to capitulate by the fall. What was needed was not more battleships but more escorts to fight the U-boats.

The US Navy did send a division of six old coal-burning battleships to Great Britain, but more importantly, it sent a squadron of destroyers that arrived in Queenstown on May 4, 1917, less than a month after the American declaration of war. Symbolically important, it was hardly enough to solve the U-boat crisis. But once the Anglo-Americans established a convoy system, ship losses dropped dramatically. The availability of more escorts helped, too.

The six American battleships sent to Great Britain never fired a shot in anger. The small destroyers guarded the convoys, including the troopships that brought doughboys to France for the land war. Another US Navy contribution was the laying of an enormous mine barrage between Scotland and Norway, across the exit from the North Sea, to keep the U-boats penned up.

As the land war ground on to its denouement in 1918, the new dreadnoughts and battle cruisers that had been authorized in 1916 remained unfinished. What would become of them?

12 *The Naval Threats of Nazi Germany and Japan*

After the First World War, the United States led an effort to limit the major naval powers of the world. But as Hitler's power grew and Japanese-American relations deteriorated, President Franklin D. Roosevelt greatly expanded the US Navy. This lecture explains the changes the navy went through in the 1920s and 1930s as it worked to remain strong but neutral before it entered the Second World War.

The Treaty of Versailles

November 11, 1918, is generally thought of as the moment when World War I ended. But, technically, that's not true. The Germans did not surrender; rather, they agreed to an armistice, essentially a month-long ceasefire, to discuss and resolve the issues of the war.

The terms of the armistice required the German army to withdraw from all occupied territories and pull back over the Rhine River. Germany also had to turn over artillery, locomotives, and railroad cars and agree to inter almost all of her navy. As a result, the Germans lost any bargaining leverage they might have exercised in the subsequent negotiations. In fact, German representatives were not even present during the discussions at Versailles, where the peace treaty was drafted.

The talk at Versailles was mostly of punishment. The Allies—especially the British and French—viewed Germany as responsible for the war and believed that it must now be made to pay. Woodrow Wilson strove tirelessly to convince America's cobelligerents to adopt a compromise peace. But Britain and France had suffered too much.

Wilson's foremost goal was to create a League of Nations that he hoped would prevent future wars, and to get it, he was forced to accept a number of compromises, including punitive border adjustments and the imposition of crippling reparations on Germany. He got the league, but when he returned to the United States, he found a rising swell of opposition to it, and the Senate refused to ratify the treaty. In fact, the United States never did accept the Treaty of Versailles, and technically that meant it remained at war with Germany. To end that legal absurdity, the United States signed its own separate peace with Germany in August 1921.

The Washington Conference

Most Americans were now prepared to return to what the new president, Warren Harding, famously called "normalcy." And what exactly was that for the US Navy, now the second-largest navy in the world?

The new American secretary of state, Charles Evans Hughes, invited representatives from the eight other major powers to meet in Washington: Britain, Japan, France, Italy, Belgium, Portugal, the Netherlands, and China. Excluded from the conference were both Germany and Russia. The terms of the Versailles treaty prevented Germany from rebuilding her navy, and Russia was a pariah state after having fallen to a communist revolution.

The delegates met in November 1921. In his welcoming address, Hughes tossed out a bombshell, declaring that the United States was prepared to destroy all 15 of its capital ships currently under construction and would scrap 15 more existing battleships, reducing the US Navy to a total of 18 capital ships.

Audible gasps were heard around the room. Furthermore, the Royal Navy would discontinue the construction of 4 large *Hood*-class battle cruisers, and it would scrap 19 of its existing battleships. And Japan would cancel the planned construction of 8 new battleships, stop construction of 7 others, and scrap 10 more. As one commentator remarked, in 30 minutes, Hughes had sunk more warships than all the admirals in all the wars in the history of the world.

Washington Arms Limitation Conference

The proposal formed the basis the Five-Power Naval Limitation Treaty of 1922, which limited the major naval powers of the world to an upper limit of battleship tonnage and to a prescribed ratio of battleship strength. It was the most successful arms limitation treaty in history. It forestalled an Anglo-American naval arms race and saved everyone an enormous amount of money.

The 1922 treaty led to advancements in aircraft carrier design that made them powerful striking platforms in their own right. Naval warfare had become three-dimensional: Victory was to be secured not only by battleships on the surface but also by submarines below and aircraft above.

The Great Depression

The deal made at Versailles was a major contributor to the economic disaster in 1929. Britain and France had insisted on heavy financial reparations from Germany, and Germany had to borrow at least some of the money from US banks. Britain and France then used that money to buy American goods. From the US to Germany to Britain and back to the US, this "grand tour" of the dollar worked as long as it was not interrupted.

When stock prices plunged in October 1929, it ruined many US investors, but it also broke the grand tour of the dollar. The whole global economy collapsed like a house of cards.

Naturally, governments tried to halt the slide. The conventional response was to cut spending. That squeezed the money supply even further and made things worse. By 1931, the Western world was mired in the Depression.

German Naval Rearmament

In 1930, representatives of the world's naval powers met in London to see if they could engineer another limitation of naval arms. And while they did succeed in limiting the number of cruisers, they failed to come to any meaningful agreement about submarines and aircraft carriers. Again, Germany was not invited.

Many Germans believed they had gotten a raw deal at Versailles, and in 1930, a new German political party was insisting that its terms should be ignored. When the Nazi Party won 37% of the vote in the 1932 elections, it became part of the governing coalition. Its leader, Adolf Hitler, made cooperation conditional on his becoming chancellor. Once in office, he quickly suppressed all democratic trappings and made himself dictator—Führer.

Some in the West welcomed this new, muscular Germany in the hope that its reviving economy would help fuel a wider economic recovery. Others hoped that a stronger Germany would be a useful counterweight against communist Russia.

That is why, in 1935, Britain agreed to a unilateral adjustment to the terms of the Versailles treaty. Without consulting France, it signed an Anglo-German Naval Agreement that freed Germany to build a navy that was 35% the size of the Royal Navy. It even allowed Germany to begin constructing the first German submarines since 1918. It was a foot in the door for German naval rearmament.

During the First World War, the marines had fought under their own commanders but functioned essentially as infantry. Eager to maintain their independence after the war, Marine Corps leaders sought to identify a specific skill set that would justify their continued existence. Amphibious assault—a complex and difficult element of warfare that required specialized training—became the particular property of the US Marine Corps.

FDR Expands the US Navy

The US Navy, meanwhile, had not even bothered to keep up with the limits imposed on it by the two naval treaties. A parsimonious Congress had starved it of funds, and after the stock market crash, it cut spending even further. Then, in 1933, the same year Hitler consolidated power in Germany, Franklin D. Roosevelt became president of the United States. A naval man all his life, FDR had served as Woodrow Wilson's assistant secretary of the navy during World War I.

One of his early acts as president was to funnel $238 million of public works money to naval construction, and the next year, he backed legislation to bring the US Navy up to the limits allowed by the Washington and London treaties. Two years after that, he convinced Congress to fund two more aircraft carriers and six heavy cruisers that had been authorized in 1929 but had never been built due to the Depression.

Japanese-American relations, already precarious, took a marked turn for the worse in 1937 after Japan invaded China, provoking American calls for a ceasefire. The Japanese assault on the Chinese city of Nanjing resulted in heavy loss of civilian life and especially angered Americans. That same year, Japanese aircraft attacked and sank a US Navy gunboat, the *Panay*, that had been operating on the Yangtze River. FDR accepted the Japanese apology, but he also asked for yet another naval expansion. In May 1938, Congress agreed to a 20% increase in the size of the navy.

Early Days of World War II

The outbreak of war in Europe in September of 1939 greatly complicated American naval planning. As in 1914, the US at once declared its neutrality. FDR, however, believed that America's own security was tied up in Britain's survival and the eventual defeat of Nazi Germany, and he did all he could to aid the Anglo-French Allies.

The fall of France in June of 1940 was a profound shock—so much so that Congress agreed to make more naval preparations to defend the Western hemisphere in the event of a German victory. Less than a month after the

French capitulation, Congress voted the single largest naval appropriation in American history. It was called the Two-Ocean Navy Act, and it authorized 257 new warships, including an astonishing 18 new aircraft carriers. This was the fleet that would eventually win the war in the Pacific.

Another consequence of the French defeat was a reorientation of American war planning. Admiral Harold "Betty" Stark, the American chief of naval operations in 1940, proposed a near reversal of the Orange Plan. He argued that Hitler's Germany posed by far the greater danger to US security. Roosevelt agreed, and just months before Pearl Harbor, "Germany first" became the official US doctrine.

The new focus was evident in events in the North Atlantic, where German U-boats were savaging Allied convoys carrying goods from Canada and the United States to Britain. Roosevelt responded, first by establishing what he called neutrality patrols, out to 200 miles from the American east coast. Then, he gradually expanded those patrols until American destroyers were effectively escorting the convoys.

Inevitably, perhaps, that led to a number of confrontations between US destroyers and German U-boats, even though, officially at least, the United States was still neutral in the war. But war was coming nonetheless—and soon—though it arrived not in the Atlantic but on the other side of the world, at a place called Pearl Harbor.

13 *Big Aircraft Carrier Battles of the Pacific*

The central theme of this lecture is the emergent role of aircraft carriers as the dominant weapon of naval warfare. The lecture begins with the destruction of the American battleship fleet during the Japanese attack on Pearl Harbor in 1941, and it concludes with the Battle of the Coral Sea—the first battle where all fighting was done by airplanes—and the Battle of Midway, the turning point of the Pacific War.

The Attack on Pearl Harbor

Just before 8 pm on Sunday morning, December 7, 1941, the sailors on board navy warships in Pearl Harbor were preparing for morning colors, as usual. On this morning, however, the routine was interrupted when a cloud of 183 airplanes appeared overhead.

Bombs and torpedoes smashed into the American ships. American aircraft were strafed on the runways of Hickam Field. The onslaught lasted half an hour before the enemy planes departed.

Then, after a brief hiatus, a second wave of 170 more planes arrived. This time, the Americans shot down 24 of the attacking aircraft. But four American battleships were sunk, and four others severely damaged. Altogether, the Japanese had sunk or damaged 18 US Navy warships, destroyed 188 American airplanes and damaged 159 others, and killed 2,403 US servicemen, nearly half of them on the battleship *Arizona*.

At the time, the Japanese celebrated what felt like a great victory. But it galvanized an otherwise indifferent American public and all but assured Japan's ultimate defeat in the destructive war that followed.

***USS* Arizona**

Japan's War Objectives

To understand why Japan attacked the United States, we have to go back to 1937, when Japan invaded China. In that war, Japanese armies won great victories and captured thousands of square miles of Chinese territory. But after several years of fighting, Japan's military leaders found themselves overextended, frustrated, and desperate.

To sustain the war, they needed unrestricted access to the raw materials of war, especially oil. Japan had to import virtually all of its oil, mostly from the United States. And the United States was threatening to use its economic leverage to pressure Japan to stop its war in China.

So, as the Japanese saw it, they either had to bow to American pressure or find oil somewhere else. And there was an alternative. The European colonies of South Asia—French Indochina, British Malaya, and the Dutch East Indies—were rich in the very resources that Japan needed. And they were ripe for the picking.

But would the United States stand by while Japan occupied those colonies? Japanese tankers carrying oil from South Asia back to Japan would have to steam past the American-held Philippines. Because of that, the Japanese high command decided that the Philippines, too, had to be occupied. And that meant war with the United States as well as with Britain and Holland. It was a terrible miscalculation. Given the powerful isolationist sentiment that existed in the United States at the time, it is virtually inconceivable that President Franklin Roosevelt could have convinced the American public to go to war with Japan to protect the colonies of European empires.

A second Japanese miscalculation was their assumption that after their planes knocked out the US battleship fleet, the Americans would be so demoralized they would agree to negotiate and reach some kind of settlement. Instead, it woke the sleeping giant.

The Japanese missed two other objectives that were far more strategically valuable than battleships, most of which were eventually sent back into the war. On the slopes of Makalapa Hill behind the harbor anchorage was a field of fuel oil tanks. The Japanese should have appreciated how important that stored fuel was, considering that obtaining a secure oil

supply was their principal motive for going to war. Had they destroyed the oil tanks instead of the battleships, the US Pacific fleet could have been immobilized for months.

The other strategic objective the Japanese missed was the American aircraft carriers, which they had expected to find at Pearl Harbor. They had been a high priority, but on the day of the attack, no American carriers were there. Where were they?

The *Yorktown* had been ordered to the Atlantic in April 1941 to bolster the ongoing (though undeclared) war against German U-boats. The *Saratoga* was in Bremerton, Washington, for a long-scheduled refit. The *Lexington* and *Enterprise* were delivering fighter planes to Wake Island, 2,300 miles to the west, and Midway, 1,300 miles to the northwest.

They were engaged in doing so because two weeks before the attack, Washington had sent out a warning to all Pacific commanders that war with Japan could start at any moment and that it would be advisable to reinforce vulnerable outposts.

Carrier Task Forces and Aircraft

One important characteristic of carrier operations was that they could not operate alone. For all of their offensive capability, they were vulnerable to air strikes and submarines and had to be accompanied by cruisers and destroyers. Grouping a carrier, two or three cruisers, five or six destroyers, plus an oiler or two to keep all those ships full of fuel made up a task force. And it was the carrier task force that proved to be the essential element of naval warfare in the Pacific theater of World War II.

Each of the big carriers—whether Japanese or American—hosted three types of single-engine airplanes: bombers, torpedo planes, and fighters. The bombers usually had a crew of two: a pilot in front and an air crewman behind him who was responsible for navigation, communication, and fending off hostile planes with a machine gun. Although they could bomb from altitude, the most effective type of bomber was a dive bomber. They approached an enemy target from high altitude but then dove almost straight down on the target. At about 1,500 feet, the pilot released the bomb and then pulled out, the G forces compressing him and his back seat gunner into their seats.

Dive bomber

Whereas the battleship's big guns could hit targets 15 miles away, planes from carriers could strike targets more than 100 miles away.

The torpedo planes were bigger than the dive bombers because they had to lug around a much heavier weapon. These planes came in low, often only 100 feet above the wave tops. They also came in slowly and had to get fairly close to the target.

Torpedo plane

The single-seat fighter planes were faster and more maneuverable. Their principal weapon was the machine guns they carried in their wings. Some fighter planes circled above the task force to protect it from enemy air strikes—a protocol called combat air patrol, or CAP. Others accompanied the bombers and torpedo planes on their strike missions to protect them from enemy CAP.

Fighter plane

The US Response to Pearl Harbor

The most famous carrier strike in 1942 was the one led by Army General James "Jimmy" Doolittle against Tokyo and other cities in Japan itself.

From the first days of the war, President Roosevelt and Admiral Ernest J. King, the American chief of naval operations, wanted to find a way to strike back at Japan in retaliation for the Pearl Harbor attack. One solution was to fly land-based army bombers off of a navy carrier. The bigger army planes could launch from 400 or 500 miles out. And while such planes would not land on a carrier afterward, they could drop their bombs over Japan and then fly onward to land somewhere in China. Such a raid would not be strategically meaningful, but it would be psychologically satisfying.

The raid took place in April 1942. In San Francisco Bay, 16 big two-engine army B-25 bombers were hoisted by crane onto the deck of the navy's newest aircraft carrier, the *Hornet*, which then steamed westward across the Pacific.

The mission itself was successful. The damage done to Japanese cities, including Tokyo, was minimal. But the headlines at home were gratifying. Although all of the American planes were lost, most of the Doolittle raiders eventually got home safely.

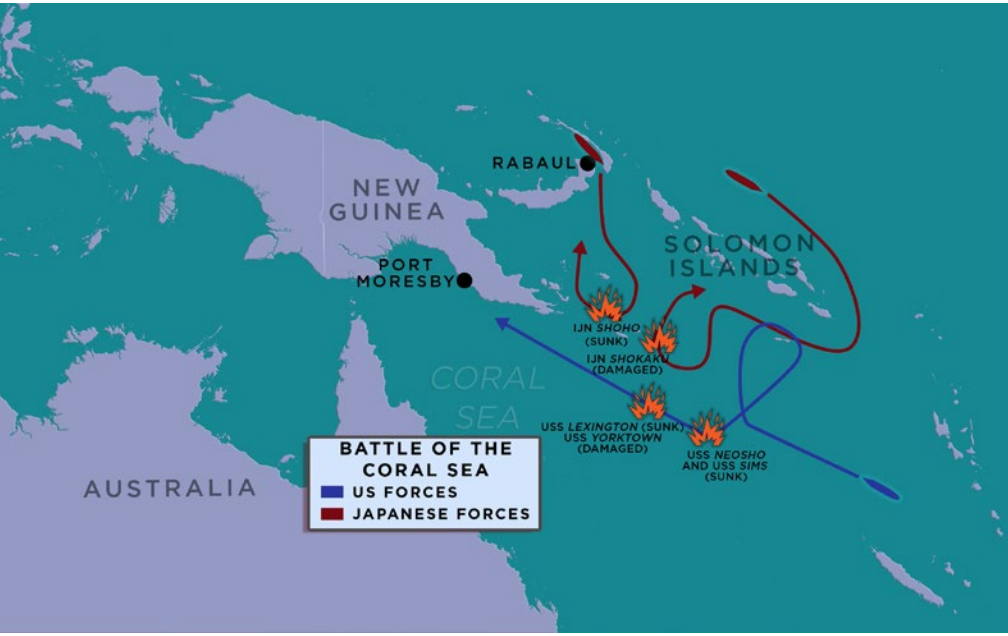
The Battle of Coral Sea

American codebreakers in Hawaii brought Admiral Chester Nimitz, the fleet commander in Pearl Harbor, news that the Japanese planned to send an invasion force through the Coral Sea to capture Port Moresby on the south coast of New Guinea. So, he sent both the *Lexington* and the *Yorktown* to stop the threat.

The Battle of the Coral Sea took place during the second week of May 1942. It was historic in several ways, including the fact that it was the first naval battle in history fought entirely by carrier-based aircraft. Neither of the opposing fleets ever actually sighted one another.

The Japanese planes sank the *Lexington*—the largest carrier in the US Navy—and damaged the *Yorktown*, and they also sank two other ships. For their part, American pilots sank the small Japanese carrier *Shoho* and severely damaged the much larger *Shokaku*. On balance, the Japanese inflicted more damage on the Americans than they received in return.

The most important result of this battle, however, was that the Japanese decided to recall the invasion fleet that was headed for Port Moresby. So, while the Japanese won a tactical victory in the Coral Sea, it was a strategic success for the Americans.



The Battle of Midway

Admiral Nimitz received another critical piece of information from the codebreakers. A Japanese force that included four or five carriers was likely to attack the American outpost of Midway Atoll, just over 1,000 miles northwest of Pearl Harbor. The attack would take place sometime during the first week of June 1942.

The man Nimitz had counted on to lead his carriers into that battle was Vice Admiral William Halsey Jr., who had led the Doolittle Raid. But he was ill and unable to command in the coming battle. Instead, the command went to Rear Admiral Raymond Spruance.

The *Yorktown* had been repaired in time to take part in the battle. The commander of the *Yorktown* task force was Rear Admiral Frank Jack Fletcher. And because he was senior to Spruance, he would exercise overall command of the three US carriers during the battle to defend Midway. In hopes of springing an ambush, Nimitz sent his three carriers several hundred miles north of Midway itself.

The Japanese launched their planned air strike on the morning of June 4. At almost the same moment, American planes on the *Enterprise* and *Hornet* took off and flew southward. About an hour later, planes from the *Yorktown* headed off in the same direction.

The American attack did not go according to plan. Most of the planes from the *Hornet* went the wrong way and never got into the fight at all. The 15 planes of the *Hornet*'s torpedo squadron, defying the orders of the air group commander, all flew to the southwest. They were the first to find the Japanese carrier force, known as the *Kido Butai*. But attacking unsupported, all 15 of them were shot down, and only one man—Ensign George Gay—survived.

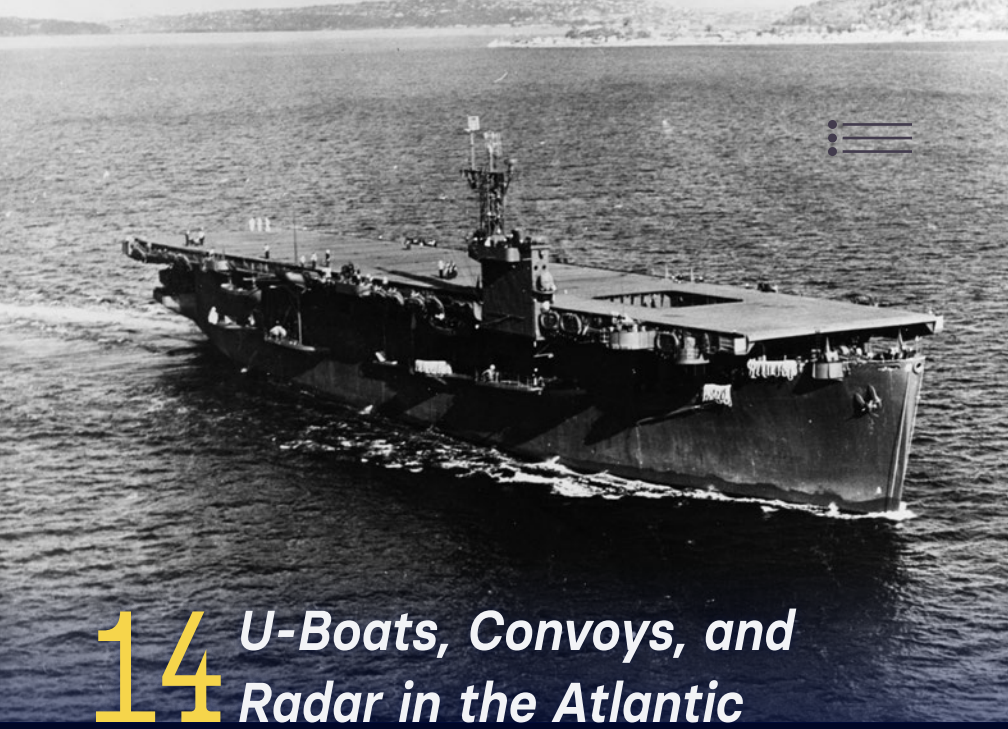
The planes from the *Enterprise* also flew southward, but they initially missed seeing the Japanese carriers. A key turning point in the battle was when that air group commander, Wade McClusky, spotted a wayward Japanese destroyer and decided to follow its track northward. He found

the *Kido Butai* at about 10:25 that morning. Entirely by coincidence, the planes from the *Yorktown*, which had launched later but flown a more direct course, arrived as well.

Within five minutes, three Japanese carriers were on fire and sinking. It was, quite literally, the turning point of the Pacific War. And it wasn't over yet. That afternoon, a second strike by American dive bombers found and attacked the fourth Japanese carrier, which sank later that night.

The Americans did not get off unscathed. Japanese planes found and hit the *Yorktown*, and it finally succumbed. Still, the destruction of four large-deck Japanese aircraft carriers in a single battle—indeed, in a single day—made the Battle of Midway one of the most transformational naval battles in history. The Japanese had held the initiative in the war ever since their attack on Pearl Harbor 6 months before. Now the initiative belonged to the Americans.

What these battles during 1942 demonstrated unequivocally was that the aircraft carrier, and not the battleship, had become the decisive weapon of naval warfare.



14 *U-Boats, Convoys, and Radar in the Atlantic*

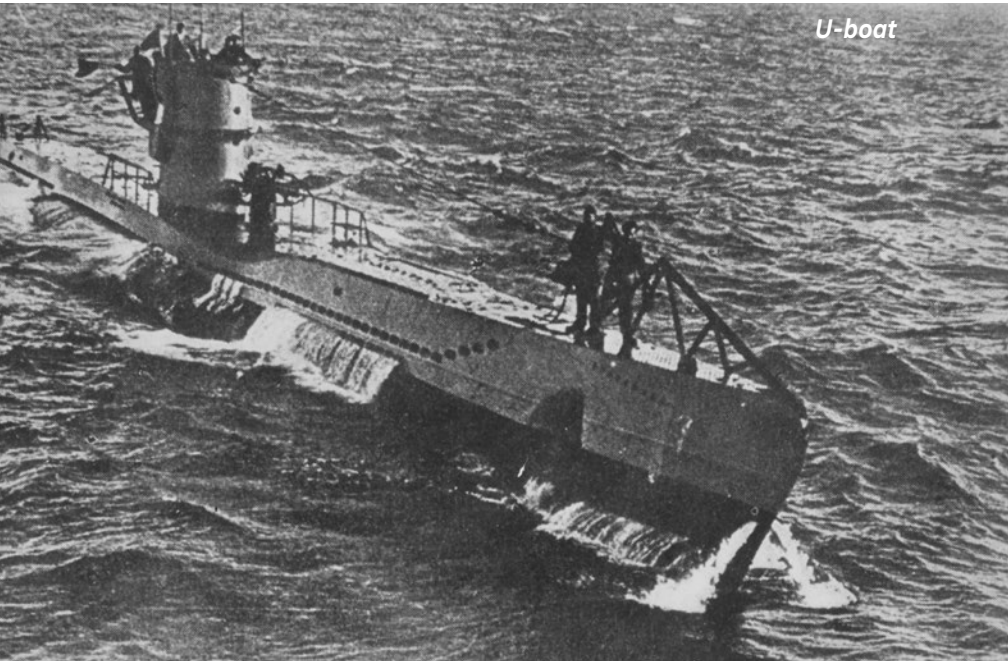
The Battle of the Atlantic during World War II was not actually a battle at all—at least not in the conventional sense. It was a campaign that lasted for 3 years of fierce, nearly unrelenting combat, as German submarines sought to break Britain's maritime supply line. The focus of this lecture is the struggle between Allied convoys and German U-boats from 1940 to 1943. It was arguably the most consequential naval engagement of the Second World War.

The German U-Boat Threat

Britain, as an island nation, was utterly dependent on trade—and on imports in particular. It imported 80% of its grain and virtually all of its oil. During the First World War, the Germans had sought to cut off those imports by employing unrestricted submarine warfare. And though it had failed in the end, it had come frighteningly close to starving Britain into surrender. When the Second World War began in September 1939, Germany would again conduct a campaign of unrestricted submarine warfare.

German submarines were called *unterseeboots*, literally "undersea boats," or U-boats. The Treaty of Versailles in 1919 had forbidden Germany from having any U-boats at all. But in 1935, the British agreed to a new arrangement that allowed Germany to build a surface navy that was a third as large as the Royal Navy. It also permitted the construction of as many submarines as the British had, which was 57. Why did the British do that?

One reason was that they hoped that a strengthened Germany would act as a buffer against Soviet ambitions. But the British also believed they had found a secret weapon that would neutralize the U-boat threat.



U-boat

This secret weapon was called ASDIC, for Anti-Submarine Sound Detection Investigating Committee—the group that designed it. It was a sound-ranging device, what Americans would later call sonar. By sending out an underwater sonic "ping" and then measuring the echo, ASDIC could detect the presence of a submerged submarine.

But what the British didn't appreciate in 1935 was that when war came, the new generation of German U-boats would not attack while submerged. They attacked on the surface, at night. ASDIC was useless against a surfaced U-boat. And in the early phases of the Battle of the Atlantic, neither side had radar. So, the U-boats remained invisible.

In addition, the new German U-boats were more technologically advanced than those of World War I. They had a much longer range—up to 7,000 miles—which meant they could hunt well out into the Atlantic. Indeed, with this new generation of U-boats, the Germans might well have succeeded in forcing the British to surrender before the United States even got into the war. But they didn't, because they never had quite enough U-boats.

The commander of the German U-boat arm was Admiral Karl Dönitz. In the 1930s, Dönitz told Hitler that with 300 U-boats, he could starve Britain into submission. Hitler replied that there was plenty of time to accumulate such a force, because he did not plan to start a war until 1945.

But Hitler was impatient, and he went to war in 1939. As a result, Dönitz had to make do with only 57 U-boats. Even with so few, the U-boats sank 165 Allied ships in the first 4 months of the war, and then 166 more in the first 6 months of 1940. Yet, serious as that was, it was not enough to be strategically decisive.

In June 1940, France fell to the German *blitzkrieg*. That gave Dönitz access to new U-boat bases on the Bay of Biscay. Now, instead of going all the way around the north of Scotland, the U-boats could get to their prime hunting grounds in the North Atlantic more quickly and stay there longer. As a result, in the second half of 1940, the U-boats sank 331 ships.

US Support for British Convoys

One reason for the slaughter was that the British simply didn't have enough escorts to protect the convoys. Because of that, British prime minister Winston Churchill all but begged Franklin Roosevelt for some of the World War I–era destroyers that were rusting away along the Atlantic coast.

The request put Roosevelt in a tough spot, but he worked out a deal: The British got 50 of the old American destroyers, and in exchange, the US got 99-year leases on a dozen British bases in the Western Hemisphere, most of them in the Caribbean. Roosevelt also authorized what he called neutrality patrols, ordering the US Navy to act in ways that were demonstrably unneutral in support of British convoys. At first, the ships merely provided the British with information about U-boats they spotted, but over time, they became more active until they were serving as virtual escorts to British convoys. Inevitably, there were confrontations between the American destroyers and German U-boats. As 1941 came to an end, it was evident that Dönitz and his U-boats were winning the Battle of the Atlantic and that Germany was winning the war.

Hitler Declares War on the United States

A day or two after the Japanese attacked Pearl Harbor, Hitler declared war on the United States. This allowed Dönitz to carry the U-boat war to the American East Coast. With U-boats attacking Allied convoys in the Arctic Ocean and Japanese forces attacking British commerce in the Indian Ocean, the Battle of the Atlantic morphed into a global war against Allied trade.

It's unclear why Hitler declared war on the United States. His pact with Italy and Japan was a defensive alliance, which meant that Germany was obligated to assist Japan only if it were the victim of an attack, not if it started a war on its own.

Dönitz sent five long-range Type IX U-boats to the American coast, which provoked a near panic in the United States. In the last two weeks of January 1942, the U-boats sunk 41 oil tankers, displacing 236,000 tons. In April alone, the U-boats sank 133 ships off the East Coast, boosting global Allied shipping losses to more than 800,000 tons in a single month. At that rate, the Allies would lose the war.

In May, Admiral Ernest J. King, the American chief of naval operations, established a convoy system around Cape Hatteras, off North Carolina. To do this, he relied partly on US Coast Guard cutters as well as a score of British armed trawlers that had been sent as a kind of payback for the 50 destroyers the United States had sent to them the year before. After that, the U-boats moved further south to Florida and the Caribbean.

Ernest J. King

Breaking the Enigma

Codebreakers played a key role throughout the Battle of the Atlantic. That was because Dönitz coordinated his wolf packs—as they were called—by radio from his headquarters on the coast of France. To encode his messages, he relied on a device called an Enigma machine.

It looked like a typewriter, and the operator input the messages by typing them on a keyboard. The letters were changed as the electrical impulse passed through a series of three rotating wheels. The wheels turned after each keystroke so that by the time the message was sent, the original letter had been modified a total of 160 quintillion times. You couldn't read it unless you also had an Enigma machine and knew the settings. Given that, the Germans were pretty confident in the security of their radio messages.


Enigma machine

And yet, the British did eventually break through this code, bit by bit, until they could read pieces of German messages. At first, it took them several days, by which time the information was often too old to matter. But over time, they got better at it and managed to get a lot of useful intel.

What the British did not know was that the Germans were also breaking British messages. In 1940, a German surface raider captured a copy of British maritime codes, and the result was a clandestine codebreaking dance in which the Germans directed their U-boats toward the convoys and the British then diverted convoys to a new course. The British proved slightly more efficient, and the number of sinkings declined.

A major glitch occurred in February 1942 when the Germans added a fourth wheel to their naval Enigma machines. Codebreakers could no longer read the messages, and sinkings spiked.

The Turning Point

The turning point in the Battle of the Atlantic came in the spring of 1943, and there were three reasons for it:

First, the Allies got more escort ships. Second, the escorts were equipped with new weaponry, including a forward-throwing depth charge called a hedgehog. That changed the dynamic between escorts and U-boats. Third, the convoys got air support, including the first escort aircraft carrier, the USS *Bogue*, early in 1943. The *Bogue* and her sister ships provided the convoys with eyes in the air all the way across the Atlantic rather than just on each end of their journey.

Hedgehog

The most important innovation was the widespread adoption of radar. Until 1942, only the largest warships, such as battleships and aircraft carriers, were equipped with radar. By early 1943, however, virtually all Allied warships had it, as did some aircraft. Radar meant that the U-boats were no longer invisible, even at night.

In May 1943, Dönitz vectored 43 U-boats against a single westbound convoy, ONS-5, from Liverpool to Halifax. It was the largest aggregation of U-boats in the war, and Dönitz expected that they would wipe out the convoy altogether. On the second night of their attack, however, the convoy was enveloped by a thick fog. The U-boats couldn't see, but thanks to radar, the escorts could. And instead of defending the convoy, the escorts went on the attack, sinking six U-boats and damaging seven

more. Not a single merchant ship was lost. Dönitz called off the attack. That marked a decisive turning point in the Battle of the Atlantic. Ships continued to be lost after May 1943, but the Germans no longer had any realistic hope that they could break the Atlantic sea-lanes.

One could even argue that Dönitz had lost the battle well before that due to an entirely different factor. In 1940, Dönitz had told Hitler that "the submarine war will be a failure if we do not sink more ships than the enemy is able to build." He was right, and that proved to be the key to Allied victory in the Battle of the Atlantic, because by mid-1943, the United States did build ships faster than the Germans could sink them. It is not too much to argue that it was American industrial productivity that won the Second World War.

The suppression of the U-boat threat meant that Britain would survive. It also allowed the Allies to consider going over onto the offensive. The Anglo-American invasions of North Africa, Sicily, and Italy would have been impossible without Allied victory in the Battle of the Atlantic.

15 *Amphibious Warfare from Sicily to Saipan*

Amphibious assaults are focused microcosms of extraordinary violence that involve naval, ground, and air forces all cooperating in a precisely choreographed operation. They are among the most difficult of all military undertakings. And during World War II, the US Navy conducted dozens of amphibious landings all around the world. This lecture looks at several of those landings and what it took to execute them.

The US Invasion of Guadalcanal

Following the improbable American naval victory over the Japanese fleet at Midway in June 1942, the US chief of naval operations, Admiral Ernest J. King, sought to sustain the momentum gained there. When he learned that the Japanese were building an airstrip on Guadalcanal, one of the Solomon Islands in the South Pacific, he wanted to occupy the island before the airstrip became operational.

But at this point in the war—barely 6 months after Pearl Harbor—the United States had not yet built up the kind of reserves needed to initiate and sustain large-scale amphibious operations. The marines would probably be able to seize the beachhead; the greater challenge would be supplying them afterward with the food, fuel, and ammunition needed to hold it. The man tasked to oversee the invasion, Vice Admiral Robert Ghormley, had few resources at hand for such a daunting task.

Robert Ghormley

The initial landings were all but unopposed. The marines scrambled ashore, chased off the Japanese construction troops who were building the airfield, and staked out a defensive perimeter. But the Japanese were determined to retake the airfield, and the fight for Guadalcanal became a six-month slog.

The Battle of Savo Island

Guadalcanal was an awful place to fight. It was hot and rainy, and a thick jungle covered the entire island, including the mountains rising more than 7,000 feet above the sea. Keeping the embattled marines supplied, and eventually reinforced, was a terrible strain on Allied resources—especially shipping.

The Japanese high command wasted no time in organizing a counterattack. In one of the worst defeats in American naval history—the Battle of Savo Island—the Japanese sank four Allied cruisers, damaged a fifth, and got away unscathed.

Over the next 3 months—from August to November 1942—the Japanese rushed reinforcements to Guadalcanal and launched repeated assaults on the marines' defensive lines. Though it was sometimes touch-and-go, the marines held on, and over time they, too, received reinforcements.

When US Navy forces sought to interfere with the Japanese convoys, the result was a series of fierce nighttime surface engagements that pitted American gunnery against remarkably effective Japanese torpedoes. Two of these battles included the carrier forces of both sides, and the losses were substantial here, too. At one point during the campaign, the United States found itself with only one operational carrier left in the whole of the Pacific Ocean.

Admiral Nimitz replaced Ghormley with Vice Admiral William "Bull" Halsey Jr., which improved morale on the island and brought a new aggressiveness to American operations. The fighting on land and sea was fierce and costly. Both sides suffered severe losses in what is called the Naval Battle of Guadalcanal in November. But it was the Japanese who decided to withdraw, completing an evacuation of the island in February 1943.

So many ships were sunk in the engagements—from both sides—that the ship channel off Guadalcanal came to be called Ironbottom Sound.

Amphibious Operations Worldwide

Allied forces in the Mediterranean were also conducting amphibious operations of their own. British and American forces landed on Sicily in July 1943, and 2 months later, they landed at Salerno on the Italian boot.

The Germans rushed reinforcements into Italy, and when the Allies encountered fierce resistance along the so-called Gustav Line in central Italy, Allied naval forces conducted yet another amphibious operation behind German lines at Anzio. The landing itself was a success, but the ground campaign soon bogged down into a bloody stalemate that lasted for months.

These operations in the Mediterranean affected planning in the Pacific, because all amphibious landings required the same kinds of ships, of which there were a finite number. As a result, the Allies had to decide not only which targets to attack but also how to prioritize them to distribute the tools of war. The official Allied strategy to defeat Germany meant that the bulk of material resources—including shipping—went to Europe, including to Britain, to prepare for the pending cross-channel assault into occupied France.

The Battle of Tarawa

Despite the many claims on limited Allied resources, navy and Marine Corps forces under Nimitz began the long-anticipated drive across the Central Pacific in November 1943. To do this, the navy organized an entirely new fleet, which was labeled the Fifth Fleet. It boasted a dozen aircraft carriers with more than 500 planes, plus a dozen battleships and more than 50 destroyers. For the amphibious landings, it also included specialized attack transports and cargo ships.

Rear Admiral Raymond Spruance commanded this new fleet. His initial target was the tiny island of Betio, which was part of an atoll named Tarawa. By this time, the navy and Marine Corps team had developed a regular protocol for amphibious operations:

First, the battleships and cruisers shelled the targeted island to suppress enemy defenses ashore. Then, when the ships lifted fire, bombers and fighters from the carriers plastered the island with bombs. After that, the marines climbed down into their landing craft. Officially called Landing Craft, Vehicle, and Personnel, or LCVPs, they were almost universally referred to as Higgins boats, after their designer, Andrew Jackson Higgins. Once the Higgins boats delivered the assault force onto the beach, the marines would storm ashore to suppress any surviving enemy defenders.

One problem at Tarawa was a shallow coral shelf that extended out a quarter mile or more from Betio Island. An unusually low tide on the day the marines landed meant that the Higgins boats grounded on that coral shelf while they were still well off the beach. The marines had to climb out and wade ashore carrying their rifles and packs while Japanese machine guns ashore cut them to pieces.


Tarawa

It took the marines 3 days to take Betio, and the cost was heavy. A thousand marines were killed, and twice that many wounded. As for the Japanese, their entire garrison of nearly 5,000 men was wiped out—only 17 Japanese soldiers were taken alive.

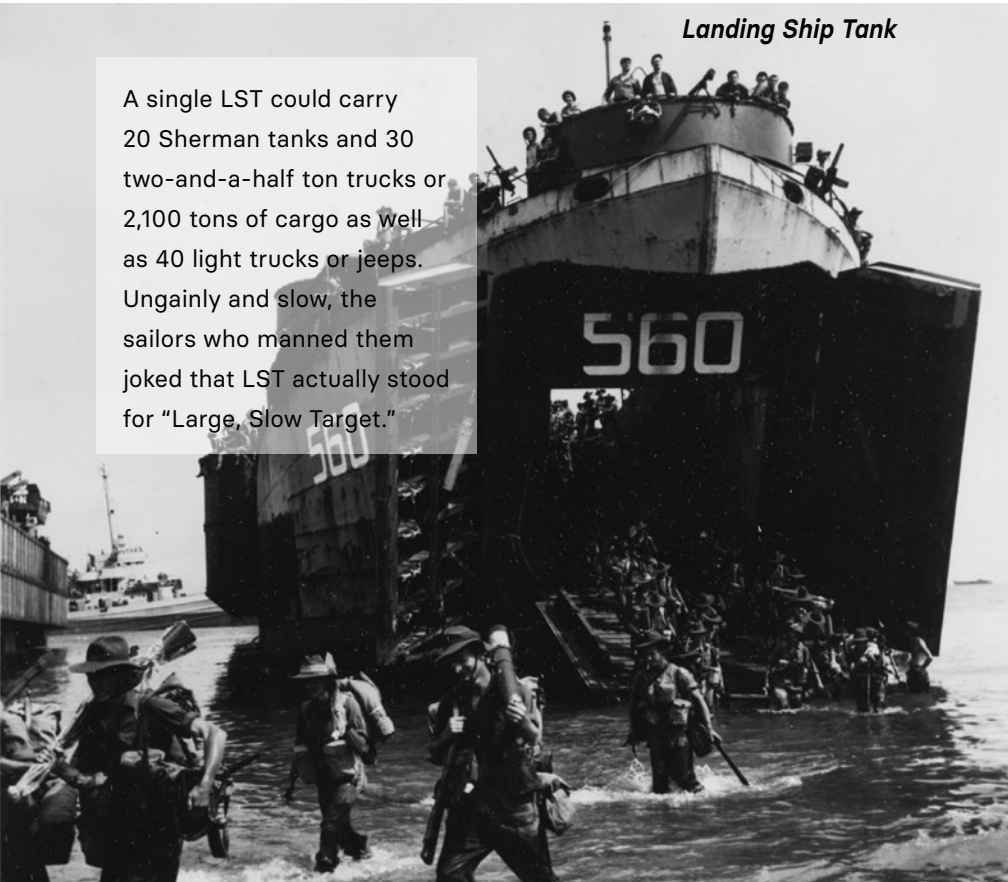
The navy and Marine Corps team learned valuable lessons from the bloodletting on Tarawa. When the Fifth Fleet next attacked the Japanese island of Kwajalein in the Marshall Islands, the preliminary bombardment was more effective, the landings were more efficient, and the capture of the islands was achieved with significantly lighter casualties.

Logistics

Since antiquity, success in war has often depended on the ability of the two sides to maintain an effective supply operation, which is called logistics. And to ensure logistical support of amphibious operations worldwide, one ship in particular was in special demand: the Landing Ship Tank, or LST.

Landing Ship Tank

A single LST could carry 20 Sherman tanks and 30 two-and-a-half ton trucks or 2,100 tons of cargo as well as 40 light trucks or jeeps. Ungainly and slow, the sailors who manned them joked that LST actually stood for "Large, Slow Target."



What made them indispensable was that because of their flat bottom and huge, cupboard-like bow doors, they could deliver fully loaded trucks, jeeps, and even tanks directly onto the beach. Getting armor ashore early was essential, and LSTs were the only ships that could do that.

Even though the United States built more than 1,000 LSTs, there were never quite enough of them. Deciding where to send them was a central element of Allied strategic planning.

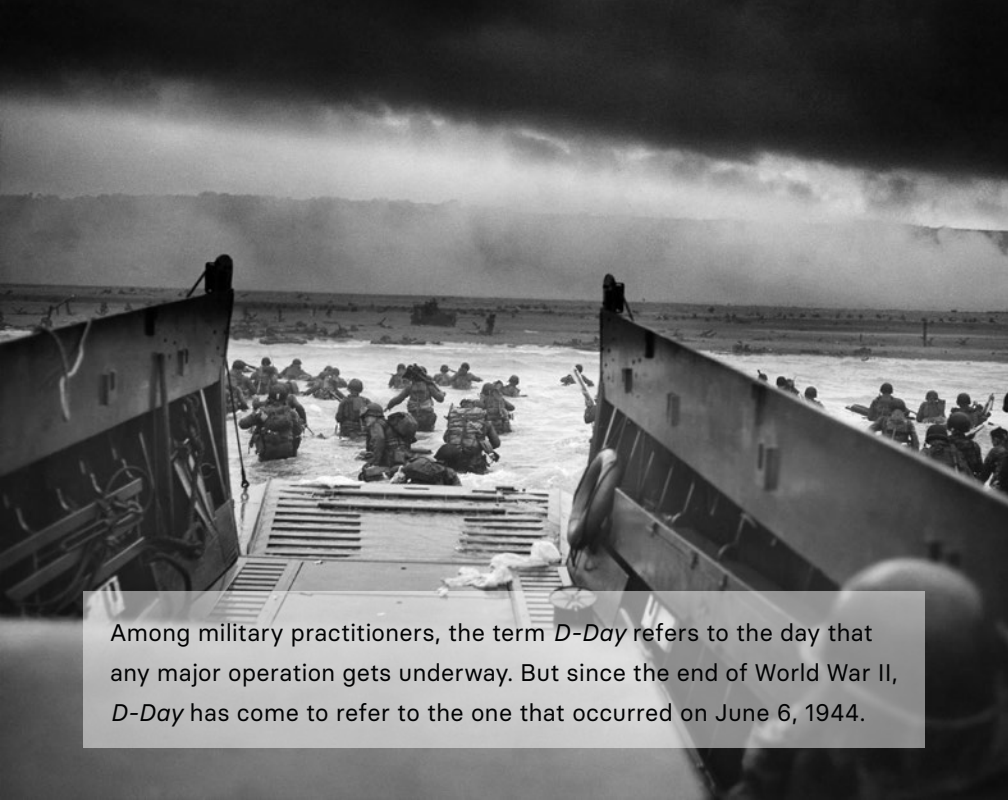
D-Day in Europe

The most pressing logistical demand was in Britain, where Eisenhower was building up resources for a cross-channel invasion of Nazi-occupied France: D-Day.

The Americans had wanted to do it sooner, but the British were more circumspect. In due time, they all agreed on May 1, 1944, as D-Day. As that date approached, however, they saw that they needed an extra month to build up the number of landing craft, so the date was postponed to June 5. Then, it was postponed one more day due to weather.

The largest amphibious operation in world history therefore took place on June 6, 1944. It included 284 warships from half a dozen countries, including Canada, France, Holland, Norway, Poland, Britain, and the United States. There were also nearly 2,000 amphibious ships, including 311 of the precious LSTs. Counting the hundreds of Higgins boats, the invasion force totaled more than 6,000 vessels. The protocols employed reflected the sequence of amphibious operations elsewhere, except on a larger scale.

On the Americans' beaches, code-named Utah and Omaha, the invaders were army soldiers, not marines. They had been told that the naval gunfire and aerial bombing would knock out most of the enemy positions and that the bomb craters would provide ready-made foxholes for cover. Neither of those things proved to be true. Indeed, on Omaha Beach in particular, the men who landed in the first wave were almost immediately pinned down. The invasion of Omaha Beach stalled.



Among military practitioners, the term *D-Day* refers to the day that any major operation gets underway. But since the end of World War II, *D-Day* has come to refer to the one that occurred on June 6, 1944.

What saved the day was a handful of British and American destroyers that were sent to provide close-in gunfire support to the men on the beach. They took up positions only 800 to 1,000 yards from the surf, with only an inch or two of water under their keels. They were so close that they were hit by rifle bullets from shore. The fire from their guns allowed the soldiers pinned down on Omaha Beach to advance and scramble their way to the top of the bluffs.

Getting the men ashore was a crucial first step. But key to success was sustaining them there and expanding the beachhead. That required the LSTs to conduct virtually continuous round trips back and forth across the channel, bringing in reinforcements and ammunition and carrying wounded Allied soldiers and German prisoners back to England—a process that went on for weeks.

Finally, a month after the landings, the one-millionth Allied soldier landed in France, and 2 days after that, George Patton arrived to take command of the newly formed American Third Army. On August 1, the Allies burst out of their continental enclave to begin Operation Cobra, racing across the French countryside toward Paris.

Stunning as that achievement was, it becomes even more remarkable in light of the fact that only 9 days after D-Day in Europe, Spruance's US Fifth Fleet carried out another full-scale amphibious landing on the island of Saipan in the Pacific.

The Japanese had not committed their main battle fleet at Guadalcanal, Tarawa, or Kwajalein. But they did this time. And their decision to do so triggered the largest naval battle yet in the Pacific: the Battle of the Philippine Sea.

16 *Kamikazes, Atomic Bombs, and America's Triumph*

By the spring of 1945, the US Navy was the largest navy in the world and more powerful than all the other navies combined. Given that, it is not surprising that the Allied juggernaut was steaming swiftly toward victory over its Axis foes. This lecture looks at the final naval battles of the Pacific theater and the conclusion of the Second World War.

The Battle of the Philippine Sea

A key turning point in the war was the American assault on the Mariana Islands in the western Pacific, 1,500 miles from Tokyo. The Japanese considered the Marianas their last important line of defense before the home islands. Previously, they had not committed their main battle fleet to defend against American assaults on Tarawa or Kwajalein. But when American forces landed on Saipan in the Marianas on June 15, 1944, the Japanese high command ordered the imperial navy to attack. The battle took place in the Philippine Sea on June 19, 1944, only 13 days after the Allied landing in Normandy.

The Japanese had more carriers and more airplanes than they had used to attack Pearl Harbor. And many of their planes were newer and more sophisticated models that had been developed since 1941. But they had lost so many skilled pilots that those who remained were younger and inexperienced.

The Americans had more aircraft carriers and twice as many planes, and the pilots were more experienced. Moreover, the American planes had both cockpit armor and self-sealing fuel tanks, which the Japanese did not. That allowed more American pilots to survive, even if they were shot down. While the outcome of the battle was entirely predictable, it was not without controversy.

The armor on American planes made them heavier than their Japanese counterparts, and that reduced their range. The American carrier group commander, Vice Admiral Marc Mitscher, wanted to get closer to the Japanese fleet so that he could attack their carriers. But his boss, Admiral Raymond Spruance, wanted the carriers to remain close to the invasion beaches on Saipan to provide cover for the marines ashore.

Consequently, the Americans stayed on the defensive during most of the air battle, shooting down the Japanese planes as they attacked. All told, the American pilots shot down 350 Japanese planes and destroyed another 100 on Guam's airfields. The Americans lost only 33 planes.

Battle of the Philippine Sea

The next day, Spruance allowed Mitscher to go on the attack. His pilots sank one Japanese light carrier and inflicted significant damage on several other ships. For the Japanese, the Battle of the Philippine Sea was devastating. And worse was to come.

The Battle of Leyte Gulf

In October 1944, American soldiers landed on the Philippine island of Leyte. The supplies that Japan needed to continue the war—especially the oil—all flowed past the Philippines. If the Americans captured—or, more accurately, recaptured—the Philippines, they could cut off those supplies.

The Imperial Japanese Navy had all but run out of carriers by now, but they still had a significant number of battleships and cruisers. They decided that their best chance was to lure the American carriers away from the invasion beach in Leyte Gulf by offering their few carriers as bait. If the Americans took the bait and went after the carriers, the Japanese battleships and cruisers could thread their way through San Bernardino Strait, charge into Leyte Gulf, and destroy the landing force. Meanwhile, a second Japanese force would work its way up from the south. It was a truly desperate plan—and it almost worked.

When scouts reported the approach of the main Japanese force of battleships and cruisers, Vice Admiral Halsey's planes attacked them so ferociously they turned around and appeared to be in retreat. So, when Halsey got another report that enemy carriers were approaching from the north, he ordered his entire fleet to head north, away from Leyte Gulf, to get those carriers. In effect, he took the bait. Meanwhile, the wounded but still potent Japanese battleship force, commanded by Admiral Takeo Kurita, headed south toward the landing beaches on Leyte.

Arguably, Halsey's decision was one of the greatest tactical errors of the war. It might have proved disastrous but for a small group of American escort ships off Leyte Gulf that fought one of the most extraordinary naval actions of the Pacific War.

As Kurita's big battleships and heavy cruisers bore down on the American beachhead in Leyte Gulf, a handful of US destroyers and destroyer escorts charged them. The destroyers fired their guns, launched torpedoes, made smoke, and did everything they could to confuse and frustrate the Japanese big ships. Planes from the American escort carriers conducted bombing runs on the Japanese ships—some of them without any bombs.

The American resistance appeared more dangerous than it was, and it convinced Kurita that he was facing Halsey's main fleet. He ordered his fleet to turn around and head north.

The Americans emerged from the Battle of Leyte Gulf with an astonishing victory. The US Navy lost the light carrier *Princeton*, two escort carriers, and several destroyers. But the landing force inside Leyte Gulf was unscathed, and the invasion continued.

The Japanese, on the other hand, lost a total of 29 warships. For all meaningful purposes, the Imperial Japanese Navy had ceased to exist as a credible fighting force. But the Japanese still hoped that they might be able to inflict such losses on the Americans that they would agree to open negotiations. So, the war continued.

The Battle of Iwo Jima

The tiny island of Iwo Jima lies 1,500 miles north of Leyte Gulf. The United States assembled another enormous invasion fleet. This time, the 20,000 Japanese defenders did not try to meet the invaders on the beach. Instead, they dug deep into caves and tunnels and challenged the marines to come and get them.

It took more than a month, and American casualties were horrific. More than 26,000 Americans fell in the fighting, including nearly 7,000 killed; 19,000 Japanese died, and 1,000 were taken prisoner. The island was declared secure on March 26, 1945, though sporadic resistance continued for several more weeks.

One month later, Adolf Hitler shot himself in the Führerbunker in Berlin, and a few weeks after that, Germany formally surrendered. The war against Japan continued.

The Battle of Iwo Jima was the only battle of the Pacific War where US casualties exceeded Japan's.

Kamikaze Attacks at Okinawa

When American soldiers landed on Okinawa on April 1, 1945, it was the first time that an alien foot had trod upon the sacred soil of Japan. Lacking a naval force to resist the invaders, Japan's leaders now embraced a truly desperate protocol.

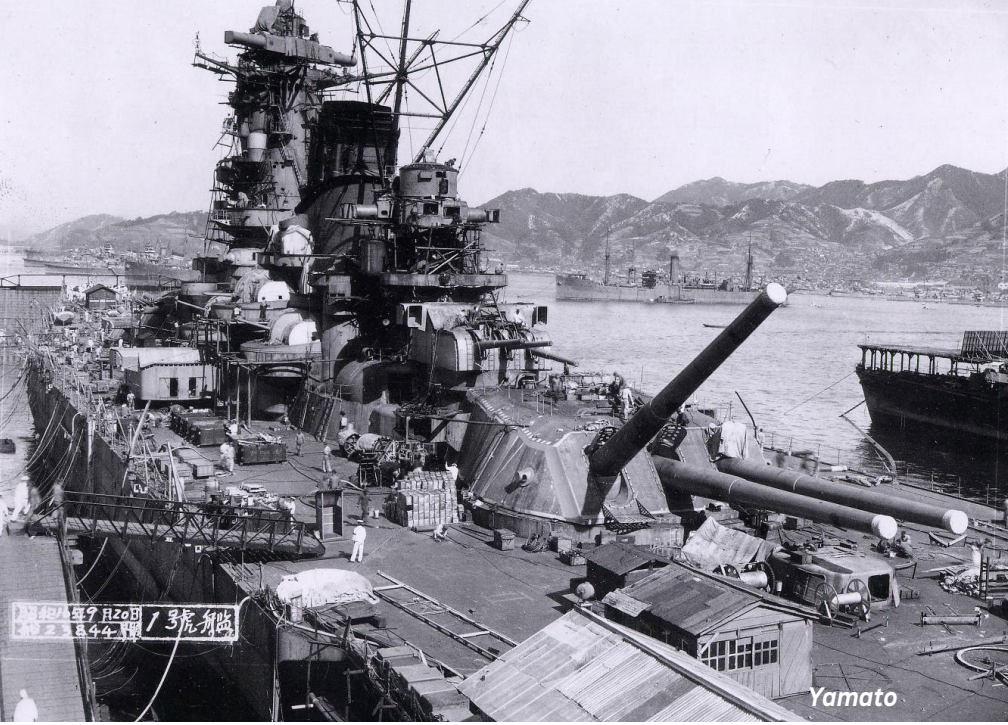
During the American invasion of Leyte, a handful of Japanese volunteers had deliberately crashed their airplanes into several American ships. This "special attack" unit, with only 12 planes, sank one small carrier and crippled five others. Now, at Okinawa, Japan expanded this experimental program into a major effort. It was called the kamikaze, which roughly translates to "divine wind." It was meant to evoke the typhoons that had twice destroyed the invasion fleets of Kublai Khan back in the 13th century. Now, as then, a divine wind would save Japan from alien invasion.

On April 6, 700 Japanese planes approached the American invasion fleet and its covering force. About half of them were kamikazes; the rest were fighter escorts and conventional bombers. Spruance, back in command of the Big Blue Fleet, had ordered a dozen or so destroyers to take up positions 30 miles north of Okinawa.

The kamikazes sunk three American destroyers and five other ships. Others struck again and again, doing so often enough to keep the Americans on constant high alert.

For the next few months, the Japanese continued to hurl clouds of kamikazes at the American invasion fleet off Okinawa. Altogether, they sank 36 American ships and damaged hundreds more. Yet, for all that, the kamikazes did not convince the American high command to call off the invasion.

On April 16, 1945, the destroyer USS *Laffey* was hit by eight kamikazes and four bombs near Okinawa. Known as "the ship that would not die," the *Laffey* became a museum ship and is open to visitors at the Patriot's Point Museum in Mount Pleasant, South Carolina, alongside the aircraft carrier *Yorktown*.



But the Japanese had one more arrow in their quiver. It was the oversize battleship *Yamato* with its 18.1-inch guns. But it had only enough fuel for a one-way trip. So, the plan was for her to steam to Okinawa, expend all her ammunition against the invaders offshore, then beach herself on the island so that her 3,500-man crew could join the fighting on land. An absurd plan with no chance of success, it was a signal that the Japanese navy preferred to go down fighting than to accept surrender.

An American submarine detected her approach almost the moment she left her anchorage, and Mitscher sent 280 planes from his carriers to attack her. Struck by scores of torpedoes and bombs over a period of several hours, the supposedly unsinkable *Yamato* exploded dramatically, the smoke rising more than a mile into the air. When the smoke cleared, the *Yamato* was gone, and with her went the last vestiges of the Imperial Japanese Navy.

World War II Ends

The Japanese stubbornly resisted the idea of surrender. The Allied demand for "unconditional surrender" signaled to some Japanese leaders that the only honorable path now was to fight to the last breath. The dilemma for the Allies in these circumstances was how to bring the war to an end.

The Americans did develop a plan for the invasion and conquest of the Japanese homeland: Operation Downfall. It called for an invasion of Kyushu first, then Honshu, and it projected losses of up to a million. Absent some supernatural intervention, it seemed unavoidable.

The supernatural intervention arrived in the form of two atomic bombs. The destruction of Hiroshima and Nagasaki—along with the Soviet declaration of war that same week—led to a decision by the emperor himself to accept the Allied terms and end the war.

American Pacific Fleet commander Admiral Chester Nimitz argued it was not the atomic bombs by themselves or the Russian declaration of war that finally achieved victory. It was the result of the persistent application of American naval power over 3 years of hard fighting that had clawed back all of Japan's conquests, destroyed her navy, and cut off her imports until she was prostrate and defeated. In his view, it was the US Navy that had won the war against Japan.

17 *The Birth of NATO and New Cold War Threats*

For the navy, the half decade after the end of World War II in 1945 was nearly as revolutionary as the war itself. The onset of the Cold War added new responsibilities for a global navy, the advent of nuclear weapons added new platforms, the creation of a Department of Defense created a new environment, and an acknowledgement of the need for racial reforms helped redefine the postwar navy. All of these topics are explored in this lecture.

Onset of the Cold War

After the surrender of Germany and then Japan, American military personnel expected to be sent home immediately. And many were. Almost as quickly, hundreds—and eventually thousands—of US Navy ships were taken out of commission and either mothballed or scrapped. By the end of the war, the US Navy had nearly 7,000 warships on its active roster. A year later, there were barely 1,000.

The main reason the navy didn't endure further reductions was the almost immediate emergence of the Soviet Union as a threat in Europe and the onset of the Cold War—"cold" because for the next 40 years, the United States and the Soviet Union never actually shot at each other, but still a "war" because each perceived the other as an existential enemy, and both nations crafted their foreign and military policies (including naval policy) accordingly.

Britain, the United States, and the Soviet Union had all fought on the same side against Nazi Germany. The Anglo-Americans had cooperated closely in the Mediterranean and during the D-Day invasion, while the Russians had fought their brutal war on the Eastern Front entirely on their own. Stalin resented that and was convinced that the Soviet Union was owed for the sacrifices of its army and the Russian people.

And as the Allied armies approached Berlin, it became clear what Stalin thought the payoff should be. He intended to occupy and retain all the territory his armies overran en route to the German capital. That included Bulgaria, Romania, Hungary, Czechoslovakia, and especially Poland. Indeed, it was the Polish issue that finally broke the alliance.

The Polish Question

Back in 1939, when Stalin had acquiesced in Hitler's invasion of western Poland, he had also sent Soviet forces into eastern Poland. Now, 6 years later, Stalin expected to keep the parts he had taken and take the rest of the country, too, by establishing a puppet government in Warsaw.

When Churchill, Roosevelt, and Stalin met at Yalta in Crimea in February of 1945, instead of standing up to Stalin on the Polish question—as Churchill wanted to do—Roosevelt merely asked Stalin to go slowly, hoping to postpone an open confrontation about Poland's future until after Japan was defeated. He also hoped that cooperation with the Soviets would make possible a postwar United Nations that could keep the peace in the future, as the League of Nations had failed to do after the First World War.

By the time Russia did enter the war against Japan, the first atomic bomb had destroyed Hiroshima. And meanwhile, Stalin consolidated his occupation of Poland. Churchill, who was no longer prime minister, famously declared that an "iron curtain" had descended across Europe. The Cold War had begun.

The Truman Doctrine and NATO

Franklin Roosevelt died in April 1945, only weeks before the German surrender. As vice president, Harry S. Truman had been out of the loop for many of the Allies' wartime conferences, and he had to adjust quickly to the new circumstances. In so doing, he departed from a long-standing American tradition of isolationism. In 1945, Truman and his advisors saw that withdrawing the United States from the European arena would leave the field open for Stalin's continued aggression in Europe.

America's transformation from isolationism to global involvement was especially evident in 1947. Britain had been providing military and economic aid to Greece to enable it to resist a communist insurgency. But in 1947, when the British government could no longer continue to provide support, the United States stepped in.

Truman asked Congress for $400 million to aid both Greece and Turkey. Moreover, Truman pledged that America would aid any nation seeking to defend itself from a communist takeover. This new outlook was almost immediately anointed the Truman Doctrine.

In 1949, the United States joined Britain, France, and several other countries in forming the North Atlantic Treaty Organization, or NATO, which continues to play a key role in European security issues today. The whole idea of NATO was that if Stalin sought to expand further into Europe, the member states of NATO would stand together to stop him.

American participation in NATO meant an expanded role for the US Navy. In addition to defending the American coast and protecting the sea-lanes, it now had to be prepared to respond to calls from threatened European allies.

Those responsibilities grew again when, in that same year of 1949, the Chinese Nationalist army of Chiang Kai-shek, America's wartime partner against Japan, was driven from mainland China by Chinese communists to the offshore island of Formosa (or Taiwan). So now, in addition to the Soviet threat in Europe, the United States had to keep an eye on the communist threat in Asia.

Nuclear Threats

When World War II ended, the United States had been the only nation with nuclear weapons, and it had proven that it was willing to use them. Stalin was keenly aware that this put the Soviet Union at a tremendous disadvantage. He ordered Soviet scientists, including several captured German scientists, to embark on a crash course to acquire nuclear weapons. Four years later, on August 29, 1949, the Russians exploded an atomic bomb in Kazakhstan. From that moment on, the possibility of a nuclear exchange overshadowed the Cold War era.

All of this meant that American military planners worked hard to ensure that the United States maintained superiority in the number of atomic warheads it possessed so that Stalin would not be tempted to use his own newly acquired nuclear weapons. The US Navy also developed a carrier-based airplane that could carry an atomic bomb and an aircraft carrier big enough to launch it.

The carrier was to be called the USS *United States*—not the first nor the last to bear that name. When fully equipped, it would be the largest aircraft carrier ever built. It was laid down in Newport News in 1948 but never finished. To explain why, we have to look at another issue that dominated the postwar era: defense unification.

***USS* United States**

Defense Unification

The army, the navy, the marines, and the US Army Air Forces had all worked together to achieve victory during World War II. Much like the Allies themselves, the individual services occasionally squabbled over strategy, command responsibility, resources, and priorities. These squabbles never seriously jeopardized operations, but there had been a number of occasions when they contributed to waste and delay.

Another factor that influenced reform advocates were calls for the creation of an independent US Air Force. The champions of strategic bombing insisted that putting the control of air forces in the hands of army generals or navy admirals compromised the nation's ability to win wars by strategic bombing—that is, bombing an enemy's infrastructure rather than its military forces.

The National Security Act, passed in 1947, created a Department of Defense. Now, a single secretary of defense would represent both the army and the navy as well as a new and independent air force.

The navy kept control of naval aviation—essentially of carrier warfare. And the Marine Corps stayed within the Navy Department. The man chosen as the first secretary of defense was the sitting navy secretary, James V. Forrestal. His tenure, however, was short, and Truman replaced him with Louis A. Johnson.

A Strategy of Deterrence

Unfortunately, Louis Johnson lacked the kind of people skills needed to coordinate a big structural change without antagonizing the players. The specific event that triggered an open revolt against Johnson was his cancellation of the carrier *United States*. He announced that he would use the money saved to fund a fleet of long-range air force bombers, the B-36. In his view, this sleek new bomber, carrying atomic bombs, would provide a sufficient deterrent for any future war.

The navy's reaction to Johnson's new policy has been known ever since as the Revolt of the Admirals. Some admirals were quite outspoken in testifying against the program, and a few, including the new chief of naval operations, Louis Denfeld, were openly confrontational. In the end, the Truman administration successfully defended the principle of civilian control of the military, but the responsibility for nuclear deterrence was shared out among the several services.

Louis A. Johnson

A key issue in a strategy of deterrence was—and remains—the survivability of nuclear weapons that could be used in a retaliatory strike. If deterrence was to work, the enemy had to believe that it would not be able to eliminate all of America's nuclear weapons with a preemptive strike. Airplanes on the ground, even missiles in silos, might be taken out by such a strike, but during the 1950s, the US Navy developed a nuclear-powered submarine, the *George Washington*, that could fire missiles while submerged and do so from unpredictable locations. That gave the United States a retaliatory capability that could not be preemptively destroyed.

Hyman Rickover

The guiding hand behind nuclear-powered submarines was a maverick naval officer named Hyman Rickover. He had overseen the construction and launch of the world's first nuclear-powered submarine, the *Nautilus*, in 1954 and, only 5 years later, the missile-firing *George Washington*. By the 1960s, United States defense policy relied on what was called a nuclear triad that consisted of long-range bombers, intercontinental ballistic missiles (or ICBMs), and the navy's fleet of ballistic missile submarines.

Integration of the US Military

There was another revolution in the US Navy of the 1950s. The United States had fought the Second World War with a segregated military. Non-White Americans had served in all branches of the armed forces, though in almost every case, they were restricted to particular units, or to particular assignments, because of their race or heritage.

Black Americans were particularly restricted. In the US Army, they were not only segregated into separate units—with White officers—but also relegated to the most menial assignments. It was a bit different in the navy. It was all but impossible to segregate White and Black sailors on crowded warships. Still, Black sailors were generally restricted to the most menial tasks and ratings, especially as cooks and what were dismissively called mess boys. There were very few Black navy officers, and not a single Black Marine Corps officer.

On July 26, 1948, President Truman signed Executive Order 9981. It declared that "there shall be equality of treatment and opportunity for all persons in the armed forces without regard to race, color, religion, or national origin."

Not long after these major postwar reforms, the navy was called on to fight in a new kind of war that broke out in Korea.

18 *MacArthur's Bold Landing at Incheon, Korea*

When North Korean soldiers crossed the 38th parallel into South Korea on June 25, 1950, it was the first overt aggressive move of the Cold War. This lecture examines events leading up to the Korean War and how the United States and its UN allies repelled the North Korean effort to change the map of Asia by force. During the conflict, both the US Navy and the Marine Corps proved their importance in a Cold War environment.

Division of Korea after WWII

When Japan surrendered in August 1945, her armies still occupied much of mainland Asia. The Allies agreed that the British would supervise the Japanese surrender in Burma and Siam (or Thailand), that the French would do the same in Indochina, and that Chiang Kai-shek's Chinese government would disarm Japanese troops in mainland China. The United States would occupy the Japanese home islands. But what about Japanese forces in Korea?

Japan had annexed Korea in 1910 and had treated it like a conquered province ever since. In theory, it would now become an independent and self-governing state. But, of course, some authority had to supervise that transition.

The Allies decided that Soviet troops would perform that role in the northern part of the peninsula, while American troops would do so in the southern part. The dividing line between them would be the 38th parallel, roughly halfway up the peninsula.

The 38th parallel was never intended to be a boundary. It was just a line on a map—an administrative convenience. But in the context of an emerging Cold War, it assumed the importance of a mini iron curtain separating communism from democracy in Asia.

When Soviet troops moved into the North and American troops moved into the South, each naturally encouraged the locals to embrace the values and organizational protocols of their new occupiers. The Soviet Union sponsored the creation of "People's Committees" in the North, while the United States promoted an elective democracy in the South. Elections were supposed to unify the two sections, but they never took place, and the administrative divide solidified into a de facto boundary.

In Washington, the administration of President Harry S. Truman worked hard to convince American citizens that the United States had a duty to resist Soviet ambitions worldwide. And it was in that spirit that General Douglas MacArthur, supreme Allied commander, declared in 1949 that America's new defensive perimeter ran from the Philippines to Okinawa to Japan and then to the Aleutians.

Less than a year later, American secretary of state Dean Acheson made the same point. Both men were trying to show that American interests now extended well beyond Hawaii and into the western Pacific. But if you look closely at where that line falls on a map, it did not include Korea or Taiwan. That may be why Soviet dictator Joseph Stalin green-lighted a request from North Korea's leader, Kim Il-Sung, to unify Korea by force.

North Koreans Invade the South

On June 25, 1950, North Korean troops crossed the 38th parallel. Eight divisions made swift and terrifying progress against their outnumbered and under-equipped southern counterparts, who were aided by only a handful of American military advisors. For several weeks, it looked like the invaders would drive the South Korean army and their American advisors into the sea.

But on June 30, Truman ordered the commitment of American combat troops. The next day, LSTs based in Japan carried elements of the American 24th Infantry Division from Japan to Korea. That day, too, the American chief of naval operations, Admiral Forrest Sherman, declared a naval blockade of North Korea.

In June 1950, the United States had only a few major combatant vessels in the Far East. Among them was the aircraft carrier *Valley Forge*, which immediately began to provide air support to the South Koreans. One entirely new aspect of that air support was the first combat employment of jets from a carrier.

In the first week of the war, Grumman-built Panther jets flew cover for the retreating ground units and attacked the North Korean capital of Pyongyang. Meanwhile, navy surface ships blasted North Korean troops moving south along the east coast of the peninsula.

***USS* Valley Forge**

International Resistance

At the United Nations, the United States sponsored a resolution in condemning North Korea for its aggression. Ordinarily, such a resolution would have been a futile gesture because the Soviet Union, which held a permanent seat in the Security Council, would simply have vetoed it. But the Russians were boycotting the UN in protest of its refusal to recognize Mao Zedong's government as the legitimate representative of China.

So, the Soviet delegation was not present when the resolution passed the General Assembly, and the UN authorized international resistance. Eventually, some 21 nations participated in the war in Korea.

By the end of the year, the Allies had eight carriers operating off Korea. Many of them carried jet aircraft, though the workhorse ground-attack planes were the propeller-driven Douglas Skyraiders. They were ideal for the ground support mission because they had a longer range and could carry a heavier payload than the jets.

The planes flown by the North Korean air force were hopelessly overmatched, but soon, modern MiG-15 jets appeared over North Korea. Though these advanced jets had North Korean markings, everyone assumed that they were being flown by Soviet pilots.

After the Cold War ended in the 1990s and Soviet archives were opened, it was proven true that the MiGs in the Korean War were flown by Soviet pilots.

One unspoken protocol of the entire Cold War era was that American and Soviet forces did not directly engage one another. It was just too slippery a slope from that to nuclear war, and neither side wanted to take responsibility for that. So, both sides accepted the obvious fiction that the MiGs were flown by North Koreans.

The MiG-15s were superb interceptors, and their appearance over Korea changed the air war. On the American side, US Air Force F-86 Sabre jets contested the MiGs for air supremacy.

The most effective use of American air power in Korea was the tactical support provided by the Skyraiders to troops on the ground. Coordination was better when marines on the ground worked with Marine Corps pilots in the air.

The Landing at Incheon

The North Korean army continued to push the South Koreans and their American advisors southward until, by the end of the summer, the Allies held only a small enclave around the southern seaport city of Pusan: the so-called Pusan Perimeter.

The North Koreans tried hard to collapse that pocket, but reinforcements flowed in from Japan and from the continental United States. By August, the number of UN troops in the Pusan Perimeter actually outnumbered their North Korean foes.

Douglas MacArthur wanted to make the strategic move of landing an army more than 200 miles behind the front—at Incheon, the seaport for the South Korean capital at Seoul. Its capture would cut off the North Korean army altogether.

It was risky. The ship channel into Incheon, called Flying Fish Channel, was so narrow that depending on the tide, only one ship at a time could enter or leave the port. Moreover, the 30-foot difference between tides meant that troops who landed at high tide could become trapped there once the tide went out. If the marines got into trouble, it would be all but impossible to reinforce them or withdraw them. MacArthur convinced hesitant top US commanders to take the chance. The landing at Incheon, Operation Chromite, was scheduled for September 15, less than three weeks away.

Air strikes began on September 10. Three days later, six US destroyers threaded their way up Flying Fish Channel to shell the fortified positions defending the harbor. At 6:30 am on September 15, men of the 5th Marine Regiment began landing. Rather than storm a beach, they landed in the middle of a city and used scaling ladders to climb over the seawall. The ships sustaining them hurried to get men and supplies ashore as fast as possible before low tide left them sitting high and dry on the mud flats.

Incheon invasion

The marines secured their foothold, and in doing so, they not only broke open the war—reversing the momentum of events—but also secured their future as America's shock troops. After Incheon, there was no more talk about abolishing the Marine Corps. The North Korean Army around Pusan, its supply lines cut, began a pell-mell retreat. By the end of the month, it had fallen all the way back to where it had started.

Chinese Intervention

With the enemy in full flight, MacArthur now wanted to unify Korea by force. He had the full support and cooperation of both the joint chiefs of staff and the United Nations. But there was a caveat: He could advance into North Korea provided that neither the Soviets nor the Chinese intervened in the war. MacArthur was sure that was not going to happen.

He called for a dual advance along both coasts of the Korean peninsula, which required a second Marine Corps landing on Korea's east coast in October. Soon, US troops were moving north quickly in two columns. The columns were separated by high mountains that ran along the spine of the peninsula. That meant that the Americans would not be able to support one another in case of a reverse—a problem MacArthur discounted as irrelevant.

Hints of Chinese unhappiness with these developments soon reached the United States. Few took them seriously, including MacArthur. But in November, the first elements of 300,000 Chinese troops slammed into the eastern prong of the US advance near the Chosin Reservoir. Outnumbered, the soldiers and marines began a fighting withdrawal back to the coast. The Americans fought in horrible conditions, but they made it. At Hungnam, on Korea's east coast, the navy executed a massive evacuation of soldiers, marines, civilians, and vehicles.

The Chinese continued to push south, and by the spring, they had recovered most of the ground the North Koreans had lost. MacArthur insisted that because the Chinese had entered the war, the United States should now attack China itself and support an invasion of the mainland by Chiang Kai-shek's army on Taiwan.

America's UN partners were horrified by those suggestions. They had not signed on for a global war. Truman ordered MacArthur to focus on stabilizing the front and regaining the ground lost with conventional tactics. Instead, MacArthur continued to advocate for escalation.

In what was unquestionably the most controversial decision of the war, Truman relieved MacArthur of his command and replaced him with General Matthew Ridgway. Ridgway accepted the parameters of the assignment, and over the next 2 years, UN forces under his command gradually drove the Chinese and the North Koreans back to a line approximating the 38th parallel. Once again, planes from navy carriers and gunfire support from ships offshore cooperated in the offensive.

In July 1953, both sides agreed to an armistice—not a peace, but a ceasefire—during which the terms of a permanent peace could be worked out. The two sides agreed to halt their forces in place on either side of a 2.5-mile-wide strip of land called the demilitarized zone (DMZ). It is still there. The Korean War did not end in 1953—it has not ended yet; legally, it continues to this day. The DMZ remains a no-man's-land between the two sides.

19 *Hyman Rickover and the Nuclear Navy*

This lecture examines three events that occurred during the years between the end of the Korean War in 1953 and the onset of the Vietnam War in 1965. As crises arose in the Mediterranean, in the Taiwan Strait, and near Cuba—in what was almost certainly the most precarious moment of the Cold War—the US Navy often found itself playing the role of global policeman.

The Suez Crisis

Then, as now, the eastern Mediterranean and the Middle East were especially volatile, both politically and militarily. The creation of the state of Israel in 1948 dramatically increased volatility in the region. It provoked resentment by Israel's mostly Arab neighbors and contributed to a resurgence of Arab nationalism, personified in Egypt by the rise of Colonel Gamal Abdel Nasser in 1952.

Nasser's decision to conclude an arms deal with the Soviets greatly alarmed Americans. Because of that, the United States backed out of a commitment it had made to fund the Aswan High Dam on the Nile River. When the Soviet Union stepped in, that fed more American suspicion about Nasser's allegiances and intentions.

Then, in 1956, Nasser announced plans to nationalize the Suez Canal. It had been financed and built by an Anglo-French company, which ran the canal and collected the fees. The British and French saw it as theft and prepared to reverse the decision by force. And they recruited the government of Israel to join in the effort.

Three months after Nasser's declaration, the Israeli army invaded Egypt and began driving through the Sinai Desert toward the canal. In a coordinated move, British and French naval forces prepared to execute an amphibious landing at Port Said, near the northern outlet of the canal.

These events put the United States in an awkward situation. Its navy had a powerful presence in the Mediterranean, officially dubbed the Sixth Fleet. But what role should it play in this crisis?

In this case, the Sixth Fleet did not intervene. The US warned the Soviet Union to stay out of the crisis and called on all parties to step back from the brink. In addition, Eisenhower threatened to impose economic sanctions on Britain, France, and Israel. That threat proved sufficient, and a wider war was avoided. In the end, Egypt kept the canal.

The Lebanon Crisis

In the wake of the Suez crisis, President Dwight D. Eisenhower announced that henceforth the United States would provide military and economic assistance to any Middle East nation that was threatened by communism. This came to be known as the Eisenhower Doctrine.

The first test of this new doctrine came 2 years later in Lebanon. A crisis was triggered in 1958 when the country's Christian president, Camille Chamoun, sought to amend the Lebanese constitution so that he could serve another term as president.

The announcement provoked protests in Beirut, and the editor of an opposition newspaper was murdered. Chamoun claimed that communists were responsible, and he called for the United States to intervene under the Eisenhower Doctrine. A dubious Eisenhower said no. The crisis was an internal political matter, he said, and not a communist uprising.

Soon afterward, however, another revolution broke out in nearby Iraq, and that fed fears that the entire region was about to be engulfed by violence. Eisenhower changed his mind. In the summer of 1958, the Sixth Fleet escorted three marine battalions to the coast of Lebanon, where they conducted an amphibious landing south of Beirut. The landing was unopposed, and almost comical in that the marines found the landing beach crowded with curious holiday vacationers.

The marines deployed inland and secured the Beirut airport, but after that, things got complicated. Though the Lebanese president had requested American intervention, the Lebanese army resented it and blocked the road from the airport into the city of Beirut. The two sides faced each other in a tense standoff. Representatives of the two sides met, and the Lebanese army commander agreed that the Americans could continue their march to the capital as long as they were escorted by Lebanese troops.

The crisis ended amicably. There was no communist insurgency, no outside invasion. To some, it was a tempest in a teapot. But it's noteworthy that the US chose to intervene at all. It shows the increasingly globalist role of the US Navy. The event also demonstrated that power must be accompanied by thoughtful diplomacy to be effective.

Conflict in the Taiwan Strait

During the events in Lebanon, another crisis blew up 5,000 miles away in the Taiwan Strait. Back in 1949, China's Nationalist government under Chiang Kai-shek had been driven off the mainland and onto the island of Formosa—or Taiwan. The Nationalists also controlled a few smaller islands off the Chinese coast.

But in 1958, the communist Chinese government began shelling two of those islands, Quemoy and Matsu, with long-range artillery. The Eisenhower administration had vowed to protect Taiwan from a Chinese takeover, but what about Quemoy and Matsu? Were they part of Taiwan or China?

Eisenhower ordered the Seventh Fleet into the Taiwan Strait. Eventually, it deployed six aircraft carrier groups to the region. It did not land any forces and did not exchange fire with the Chinese, though US warships did escort reinforcements and supplies to the offshore islands.

Apparently, this had the desired effect. By December, the shelling had stopped, and there were no other overt moves against the islands. Quemoy and Matsu both remain under Taiwanese control today, though the Chinese government in Beijing continues to claim sovereignty over them—and over Taiwan itself, for that matter.

Nuclear-Powered Submarines

Between 1954 and 1958, the United States commissioned four new aircraft carriers, followed by three larger carriers in the early 1960s. All these new ships were driven by steam turbines fueled by oil. But change was coming here, too, for in 1954, the United States also commissioned the world's first nuclear-powered seagoing vessel: the submarine *Nautilus*.

Nearly all the credit for the successful development of nuclear power in the US Navy goes to one iconic and controversial individual: Captain (and later Admiral) Hyman Rickover. Five years after the *Nautilus*, the navy commissioned the world's first nuclear submarine that could fire a missile while submerged: the USS *George Washington*. It gave the United States a nearly unassailable second-strike capability, which was a powerful deterrent to any nation that might be tempted to launch a preemptive attack.

In 1961, the US Navy launched the world's first nuclear-powered surface warship, the cruiser *Long Beach*, and later that same year, the USS *Enterprise* became the world's first nuclear-powered aircraft carrier.

The *Enterprise* was enormous. It displaced more than 90,000 tons, with a flight deck that covered 4.5 acres. For a decade, it was the only vessel of its type in the world.

Then, in the late 1960s, the United States began to build a whole class of nuclear-powered carriers, the first of which—and the namesake of its class—was the USS *Nimitz*. Displacing more than 110,000 tons and with a crew (including the air wing) of more than 5,000 men, it was a virtual city afloat.

The Soviet navy could not hope to match this continued expansion of US naval capability. Instead, it turned to a sea denial strategy by relying heavily on submarines. By the end of the decade, the Soviet navy had more than 400 submarines—by far the largest submarine fleet in the world.

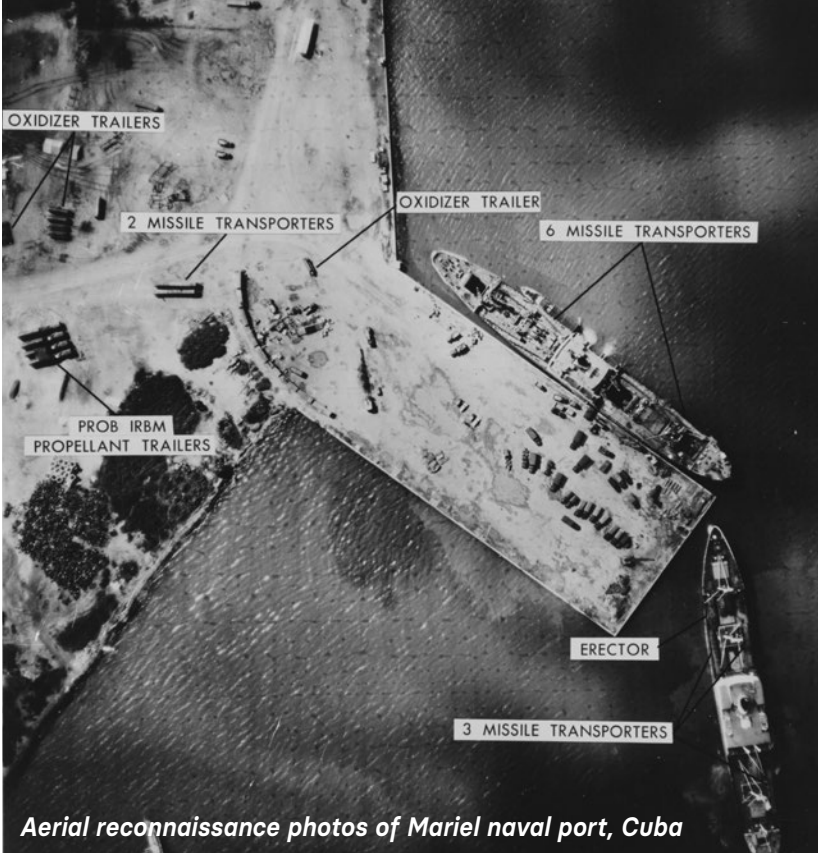
The Cuban Missile Crisis

The Soviets sought a way to close the huge American lead in deployable nuclear warheads. Though neither side seriously contemplated initiating a nuclear war, each feared that the other might use nuclear superiority as leverage in future confrontations.

In 1962 the Soviet premier, Nikita Khrushchev, worked out an arrangement with the Cuban leader, Fidel Castro, to place Soviet nuclear intermediate-range missiles in Cuba. The plan was to establish several missile bases there, each manned by Soviet personnel. Once the bases became operational, Khrushchev would reveal their existence and then presumably use them as leverage in future dealings with the United States.

But they got caught. On the morning of October 16, 1962, President John F. Kennedy was informed by his national security advisor that the Russians were putting nuclear missiles in Cuba, as revealed by photographs taken by US reconnaissance planes. This began the famous 13-day Cuban missile crisis that is still studied in war colleges and elsewhere around the world as a case study in crisis management.

Kennedy created a special team of advisors, called the Executive Committee, or EXCOMM, to come up with options for how to respond. The first option was to tell the Russians and the world that the US knew what they were up to and mobilize international public opinion against them. The second option was to conduct an immediate air strike to take out the bases. The third option was to declare a naval blockade of Cuba to prevent more missiles from coming in.



Aerial reconnaissance photos of Mariel naval port, Cuba

In the end, picking a response became an argument between the air force (which said it could take out the missile sites from the air) and the navy (which said it could impose an effective blockade). The air force chief of staff, General Curtis LeMay, was especially insistent on the need for an air strike and an invasion.

Kennedy was skeptical. If the initial air strike missed even one missile, that missile could be launched against an American city and kill millions. He decided instead on a blockade, which he called a quarantine.

On October 24, US Navy warships established a quarantine line 400 miles from Cuba. Innocent ships were allowed through, but suspicious ships were to be stopped and searched. The first Russian ship to approach the quarantine was the tanker *Grozny*. The US Navy destroyer *Joseph P. Kennedy* ordered it to stop, but there was no reply, and the ship continued to steam toward Cuba. Other American destroyers repeatedly ordered the *Grozny* to stop. It didn't. From Washington, the order came for the American destroyers to fire a salvo away from the *Grozny* as a demonstration of seriousness.

Back in Moscow, Khrushchev had to decide how far he wanted to press the issue. Apparently, he was not willing to risk a shootout. The *Grozny* stopped, turned around, and retired beyond the quarantine line without responding to the American radio messages.

In the end, the Soviet Union agreed to remove its missiles from Cuba in exchange for an unwritten understanding that the US would remove its Jupiter missiles from Turkey. Both sides saved face; war was averted. The outcome was a particular victory for Kennedy, and also for the US Navy, which had demonstrated the requisite flexibility needed to resolve the crisis.

Only much later did the US learn what a near-run thing it had been. After the fall of the Soviet Union in 1991, when Russian archives were opened, Americans learned that the missiles in Cuba were already fully operational—and that local commanders had been given the authority to launch them if the US attempted either an air strike or an invasion.

Another noteworthy element of this case study was the impact that modern communications had on the decision-making process. State leaders in both Washington and Moscow could communicate in almost real time with commanders on the scene. And deciding how much discretion to leave to those commanders was a critical element in the conduct of war—and diplomacy.

20 *The Gulf of Tonkin and War in Vietnam*

The United States had gone to war in 1965 in the hope of halting the spread of communism and helping a small country defend itself. At that time, the United States was the most powerful nation on earth, and its navy was virtually unchallenged at sea. But the difficulties and ambiguities of fighting a lengthy war in a foreign country, in a challenging climate and in an unfamiliar culture, against a wily and resourceful enemy, caused enormous frustration. In spite of innumerable examples of individual American heroism, sacrifice, and triumph, none of it brought strategic victory. This lecture examines the challenges that the American military faced during the Vietnam War and the role of the US Navy in the conflict.

The Gulf of Tonkin Resolution

In the early hours of August 2, 1964, the American destroyer USS *Maddox* was providing both intelligence and support to units of the South Vietnamese navy in the Gulf of Tonkin, 20 miles or so off the coast of North Vietnam. Its captain, John Herrick, learned that the North Vietnamese were scrambling their fleet of PT boats, so he ordered the *Maddox* to turn away from the coast to avoid a confrontation.

That afternoon, his ship's radar detected what were almost certainly North Vietnamese torpedo boats headed in his direction. He called for support from the American aircraft carrier *Ticonderoga*, some 250 miles to the southeast.

Despite several warning shots from Herrick, the North Vietnamese boats launched torpedoes. None hit, but since the *Maddox* was now under attack, Herrick ordered his gunners to fire. One boat was damaged, and the others fled. Soon afterward, a plane from the *Ticonderoga* sank the damaged PT boat. A second destroyer, the *Turner Joy*, was sent to accompany the *Maddox*, and the patrol continued.

Meanwhile, 100 miles to the south, the South Vietnamese navy conducted another attack on the North Vietnamese coast. Neither the *Maddox* nor the *Turner Joy* was involved in that attack, but the North Vietnamese apparently concluded that their presence was somehow connected, and they again scrambled their PT boat squadron. From this point on, events are shrouded in confusion and mystery.

On the night of August 4, both ships detected several small surface contacts. The *Turner Joy* opened fire on one of the contacts. But visibility was near zero, and planes from the *Ticonderoga* failed to make a visual sighting. So, it's possible that this second attack was actually a phantom.

These events had enormous significance, for they triggered what was called the Gulf of Tonkin Resolution. It authorized President Lyndon Johnson to "take all necessary measures to repel any armed attack against the forces of the United States and to prevent further aggression."

Only in hindsight did it become evident that the vague wording of that resolution gave President Johnson virtual carte blanche to do anything he deemed necessary, including fighting a war halfway around the world, without any further congressional oversight. Passed on August 7, 1964, the resolution marked the beginning of active American participation in the Vietnam War.

Vietnam's History of Occupation

Throughout the 1950s and 1960s, almost every international event was viewed and assessed through the prism of how it impacted the United States' rivalry with the Soviet Union or communist China. But some issues did not fit neatly into this communism-versus-democracy paradigm. In French Indochina, nationalist aspirations bumped up against old colonial empires, putting the region at the center of conflict in the 1950s.

The provinces of what is now Vietnam—Annam, Tonkin, and Cochinchina—had suffered through occupation and exploitation by one country or another for most of their history. China had occupied the area until the mid-19th century, leaving a legacy of hostility that still exists. Then, in 1858, French forces arrived. After defeating China in the Sino-French War of 1884–1885, France claimed sovereignty over Vietnam, as well as Laos and Cambodia, and renamed it French Indochina.

In the 1930s, the Japanese eyed Indochina as a source of raw materials, and in 1940, it seemed ripe for the picking once more after France fell to Nazi Germany. US objection to Japan's occupation of Indochina was one of the issues that soured Japanese-American relations and led ultimately to the Japanese attack on Pearl Harbor.

US participation in the Vietnam War lasted more than 9 years and resulted in more than 210,000 American casualties, including 58,209 killed.

Ho Chi Minh

During World War II in the Pacific, the indigenous Vietnamese were a kind of American ally, conducting a guerilla war campaign against the Japanese occupiers. The leader of that fight was a 51-year-old merchant sailor and restaurant cook named Ho Chi Minh—a Vietnamese nationalist who fought the Chinese, the French, the Japanese, and eventually the Americans. He was also a communist.

At the end of the Second World War, Ho announced Vietnamese independence from its French colonial masters, using language he borrowed from the American Declaration of Independence. But when the French announced their determination to reclaim Indochina, the United States supported that ambition.

Ho Chi Minh

Consequently, Ho and his followers simply shifted from fighting the Japanese to fighting the French. And they accepted aid from both Soviet Russia and communist China, which only helped confirm Americans' perception of Ho as part of the broader Cold War struggle.

Divisions of Indochina

A turning point occurred in 1954 when a large element of Ho's revolutionary army surrounded a force of some 10,000 French soldiers at the North Vietnamese village of Dien Bien Phu. The French appealed to the United States for military support, but President Dwight Eisenhower insisted that America would not go to war to sustain a French colonial empire.

The French garrison at Dien Bien Phu surrendered, and that led to negotiations in Geneva, Switzerland, to end the conflict. The delegates divided Indochina into three separate and independent countries: Vietnam, Laos, and Cambodia. The problem was that there were two contending factions claiming to be the rightful government of Vietnam: Ho Chi Minh's communists in the North and an anti-communist government in the South under Ngo Dinh Diem, which was backed by the United States.

The Geneva protocols divided Vietnam in half at the 17th parallel, the idea being that this would be a temporary division and that a general election, held later, would unify the country under one government. The United States hoped and expected that the Vietnamese would choose democracy and capitalism rather than communism and totalitarianism.

We will never know because the election was never held. For the next 10 years, the two sides engaged in nearly constant low-grade conflict, with the United States providing aid—including military aid—to the South Vietnamese. Then, the Gulf of Tonkin incident in August 1964 brought the United States fully into the war.

Operation Rolling Thunder

It was mostly a ground war, and much of the fighting took place in thick jungle between small groups. But there were also a number of large-scale battles, especially along the so-called demilitarized zone, or DMZ, at the 17th parallel. American ground troops of both the army and the Marine Corps won a number of remarkable victories, but few of them produced strategic success.

While the marines fought ashore, navy aircraft carriers conducted operations from offshore, especially from what was called Yankee Station near the Gulf of Tonkin. In addition to providing tactical air support for the troops on the ground, they played a major role in the years-long bombing campaign against the North.

In March 1965, the US began a full-scale bombing campaign, dubbed Operation Rolling Thunder. The goal was to inflict steadily increasing pain on the enemy in the expectation that at some point the North Vietnamese would give up and agree to negotiate.

But the campaign failed to do that, and it may actually have given them more leverage. Here's why: Over the 9 years of war, the United States lost more than 3,700 aircraft over North Vietnam and 2,000 American airmen. Sometimes, a pilot was able to make his way to friendly forces, but many were made prisoner.

By 1970, the North Vietnamese held more than 1,300 US servicemen, most of them pilots and air crew. And as the number of American POWs increased, pressure grew on the US government to do something to obtain their release.

Operation Market Time

Two other aspects of the navy's role in Vietnam were central to the conflict. First, in an undertaking dubbed Operation Market Time, navy vessels operated along the coast to interdict communist supply vessels that were bringing men, equipment, and ammunition into the South along Vietnam's lengthy coastline. As in every war, logistics were paramount.

To conduct the inspections, the US Navy relied heavily on a new type of vessel called a Patrol Craft, Fast—or PCF. Because they were fast, they were nicknamed "swift boats." They were only 50 feet long and had a crew of six. They were armed with two 50-caliber machine guns and an 81-millimeter mortar, which means they had a lot of firepower despite their size.

The swift boats, navy destroyers, and Coast Guard cutters maintained an almost continuous patrol from the 17th parallel down to Cape Ca Mau at the southern tip of South Vietnam in the Gulf of Thailand. But stopping scores of small fishing vessels every day was tedious and frustrating. Most of the vessels proved to be innocent, and success was measured in the number of vessels caught trying to bring in guns or ammunition.

Market Time did not stop the smuggling of weapons and ammunition into the south, but it did force the communists to be more creative and surreptitious. At the very least, it slowed the resupply effort and put more of a burden on the long and treacherous Ho Chi Minh Trail.

Operations in the Inland Waterways

Navy vessels also played a critical role in the labyrinth of rivers, waterways, and canals of the Mekong delta that sprawled across 15,000 square miles southwest of Vietnam's capital city of Saigon.

The Vietnamese Communists (called Viet Cong, or VC, in the American parlance) used the swamps and foliage of the delta as a sanctuary. To disrupt those sanctuaries and break up enemy concentrations, the US Navy initiated what was called Operation Game Warden.

Again, the navy relied on small, light vessels. Made of fiberglass, they were called PBRs (Patrol Boat, River) and had a crew of only four. They spent a lot of their time stopping and searching suspicious vessels, and they engaged in a remarkable number of firefights. The US Navy never succeeded in eliminating the Viet Cong presence from the delta, though Operation Game Warden compelled the enemy to exercise greater caution.

By 1968, the American public had grown impatient with the war. President Johnson was frustrated, too. On March 31, 1968, he announced that he would stop the bombing and open negotiations with the North Vietnamese in Paris. He also said that he would not run for another term as president.

From 1966 to 1968, the PBR sailors of Operation Game Warden participated in more than 700 firefights—that's more than 2 a day.

Operation Linebacker

Richard Nixon took office in January 1969, and he was determined to succeed where Johnson had failed. Peace negotiations had stalled, and Nixon's advisors assured him that ramping up the bombing campaign would force the North to get serious.

In 1972, Operation Linebacker replaced Rolling Thunder. By now, Nixon and the US simply wanted to find an honorable exit. With negotiations stalled, Nixon ordered more bombing—called Linebacker II, often referred to as the Christmas Bombing.

Eventually, the negotiators struck a deal: The United States would withdraw all of its forces from Vietnam, and the North Vietnamese would release all the American POWs. Nixon and others hoped that with American funding and American weapons, the South Vietnamese would be able to defend themselves, for a while at least. Instead, the South Vietnamese army fell apart almost at once. And in 1975, North Vietnamese forces entered Saigon.

21 *How the Navy Reformed after Vietnam*

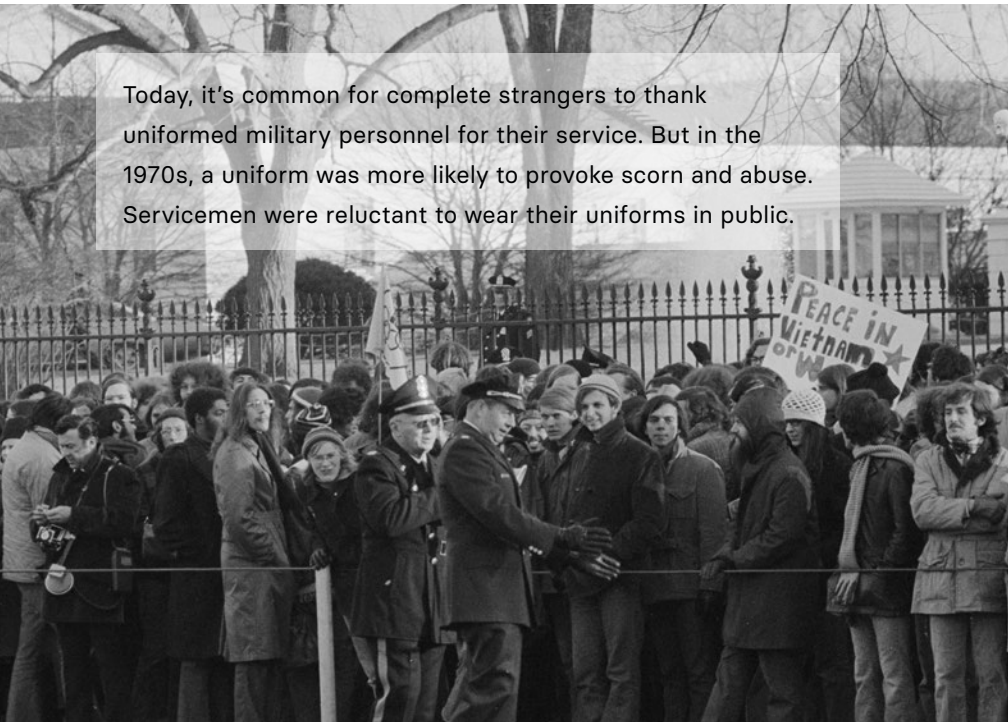
In many ways, the 1970s marked a nadir in prestige for both the nation and the military services, including the navy. And recognizing that, efforts began almost at once to repair the damage and put the nation—and the navy—back on course. Topics covered in this lecture include the impacts of reforms and the civil rights movement on the US Navy, Reagan's expansion of the navy during the 1980s, and the growing threat of terrorism.

Nixon Eliminates the Draft

Despite American hopes, the South Vietnamese government had proved incapable of sustaining itself for more than a few months once American ground troops left the country. The humiliating American departure, plus the culmination of the Watergate scandal that resulted in the resignation of President Richard Nixon the year before, marked a low point in American national morale and self-confidence.

President Nixon, if he was flawed in other ways, was nevertheless a savvy politician. He recognized that one reason the war in Vietnam was so unpopular was that much of it was fought by reluctant draftees.

And there was the fact that the draft itself was inequitably imposed. Young men of means could avoid it by enrolling in college and staying there or by getting a friendly doctor to certify that they had a physical ailment of some kind that would make them exempt. Poor Americans—and especially poor Black Americans—had more limited access to such deferments.



Today, it's common for complete strangers to thank uniformed military personnel for their service. But in the 1970s, a uniform was more likely to provoke scorn and abuse. Servicemen were reluctant to wear their uniforms in public.

Nixon was less concerned about the inequities of the system than he was by the fact that the draft itself was widely unpopular. He hoped to mute at least some of the opposition to the war by eliminating the draft and relying solely on volunteers.

In 1973, Nixon announced that he would end the system of compulsory service that had been established back in 1940. The navy was already an all-volunteer force in 1973, though the elimination of the draft affected it, too. This was because many of those who had received a draft notice during the war chose to join the navy as a more desirable alternative to serving in the jungles of Vietnam. That allowed the navy to cherry-pick the candidates with the highest scores on the Armed Forces Qualification Test. And those individuals tended to be better educated, middle-class, and White. Consequently, the navy was 95% White.

Racial Tensions in the Navy

After 1973, the number of African Americans in the navy increased from 5% to 7%. This did not immediately change navy culture, however. African American sailors continued to confront barriers that limited their service options, and they often encountered abuse from their shipmates.

All this took place during civil rights protests at home. Congress had passed the Civil Rights Act in July of 1964, only one month before it passed the Gulf of Tonkin Resolution that triggered the Vietnam War. That meant that the war and the civil rights movement were congruent events.

They were connected in other ways, too. Older, more conservative Americans tended to support the war, seeing it as simple patriotism, and they tended to regard the civil rights protests skeptically. Younger citizens, on the other hand, protested against the war and for civil rights. These circumstances occasionally led to open clashes, not only on college campuses and city streets but also on board warships of the US Navy.

Racial tensions on the USS *Kitty Hawk* had been precarious for some time. And they got worse after fights broke out on October 12, 1972. The first was between two White marines and three Black sailors, and the second was between a Black sailor and a White cook.

These incidents led some Black sailors to mount a protest. That night, there was brutal fighting between groups of Black and White sailors. Forty White sailors and six Black sailors were injured. It might have been worse but for the intervention of the executive officer, who was himself half Black and managed to calm the situation.

A subsequent investigation placed the blame on the protesting Black sailors and insisted that the disgruntled sailors had no grounds for their protests because "there were no instances of institutional discrimination" on the *Kitty Hawk*. One problem was—and is—that institutional discrimination is often visible only to those who experience it.

Later that same year, an incident on the aircraft carrier *Constellation* led White and Black sailors to fight one another. Afterward, a group of about 50 Black sailors staged a sit-in on the mess deck. When the *Constellation* returned to port, 120 Black sailors (including those who had participated in the sit-in) were brought up before Captain's Mast, which was a judicial tribunal used for a wide range of offenses. Of the 120 men charged, 35 were exonerated and received honorable discharges. The rest received various forms of punishment, from loss of pay to reduction in rank. All of them left the navy.

Collectively, these events—and others like them—demonstrated that the civil rights protests that were taking place in several American cities at the same time had a naval counterpart. Something had to be done.

Zumwalt's Reforms

The man who played the most important role in addressing the problem was Admiral Elmo R. "Bud" Zumwalt. He had been the commander of naval forces in Vietnam during the last 2 years of the war.

Zumwalt met personally with groups of sailors and issued a number of messages dealing with a wide range of concerns. He wanted to restore the "fun and zest" of going to sea and get rid of what he called "Mickey Mouse" regulations that served no purpose. And he publicly acknowledged the depth of feeling among Black sailors about racial discrimination in the navy. As but one example, he ordered that Black navy families be allowed equal access to navy housing ashore, which had not previously been the case. He also asserted that women should be allowed to serve aboard ships.

Longtime navy veterans grumbled that all this constituted a loosening of navy standards. On the other hand, junior officers and most of the enlisted force welcomed the reforms, which may well have been necessary in an all-volunteer force.

Reagan's Expansion of the Navy

In 1980, when Ronald Reagan was elected as president, there were 528 navy warships in service, more than any other navy in the world. Yet Reagan and his secretary of the navy, John Lehman, embarked on a program to expand the navy to 600 warships as a statement of American maritime supremacy.

Part of the expansion involved the modernization and recommissioning of four gigantic *Iowa*-class battleships that had been decommissioned in the 1950s. Though visually awe-inspiring, they were also expensive to operate, requiring a crew of 2,000 and consuming 167 gallons of oil per mile.

Between 1982 and 1988, the *Iowa*, *New Jersey*, *Missouri*, and *Wisconsin* were updated and recommissioned as active warships. The experiment was short-lived, however. They were simply too profligate in terms of manpower and fuel. In less than a decade, they were again retired from service. All four remain afloat today as museum ships.

The Reagan era also included the introduction of the Ohio-class ballistic missile submarine. They were as large as a World War I battleship. They had two crews that changed places after each deployment, so the sub could be nearly continuously at sea.

The Reagan-era surge brought the number of navy warships from 528 to 594, and by the late 1980s, the US Navy had largely recovered from its post-Vietnam malaise—partly by enlarging and modernizing its ships but also by modernizing its culture.

The Goldwater-Nichols Act

Another reform of this era that had a profound effect on the navy—as well as the other services—was a milestone piece of legislation sponsored by Barry Goldwater and William Nichols and signed into law in 1986. Its focus was on effective coordination between the US military services.

The navy and Marine Corps were—and still are—part of the Navy Department, which made coordination between those two branches fairly easy. But too often, the services were at loggerheads with one another over priorities, logistics, operational planning, and other issues. The Goldwater-Nichols Act was supposed to fix that.

Jointness, to use the modern euphemism, was now mandated by statute. It's based on the assumption that the separate services are part of a singular whole—that the whole can be greater than the sum of the individual parts.

There were objections to this new approach from traditionalists. Each service cherished its own history and its own traditions. Of course, many traditions of service rivalry still survive.

The term *purple-suiter* refers to someone who serves all the services, not just his or her own. Purple is the color that you'd presumably get by throwing navy blue, army green, and air force light blue uniforms in the wash together.

Terrorism in the 1980s

The Soviet Union remained America's principal rival in the 1980s, though the rivalry played out through surrogates rather than in direct confrontations. Any suggestion that the Soviets were trying to get a foothold in a third-world country brought close oversight and sometimes intervention by the United States, and the tool of that intervention was almost always the US Navy.

But in addition to the rivalry with the Soviets, a new global threat was emerging, one that would come to dominate US security interests in the next century. It was terrorism, and in the 1980s, it manifested itself in several ways.

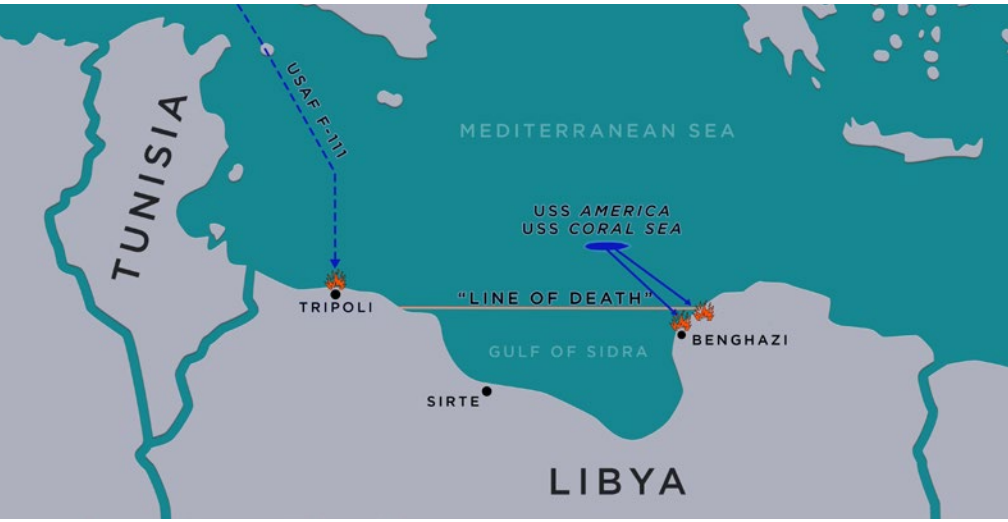
In the Middle East, resentment of American support for Israel led some Palestinians to target American assets. In September 1984, a truck bomb exploded outside the US embassy in Beirut, killing 23 and wounding the US ambassador. The following year, terrorists hijacked a TWA airliner and a passenger ship off the coast of Egypt. Several of these events seemed to be directed by—or at least supported by—the government of Libya, which was headed by the mercurial Colonel Muammar Khadafy.

Khadafy had seized power in Libya in 1969, and in 1977, he turned the country into a socialist state, though fundamentally, he was a nationalist. A conflict arose when he insisted that the Gulf of Sidra was an internal body of water to Libya and that any non-Libyan vessel that entered the bay would be destroyed.

The United States and other nations considered the Gulf of Sidra international waters, and to validate that, the United States occasionally flew planes through it. In August 1981, two US Navy F-14 Tomcat fighters were on patrol there when they were attacked by two planes of the Libyan air force. The navy planes shot them both down.

Bombing of the US embassy in Beirut

Soon afterward, a US Navy cruiser and two destroyers crossed into the Gulf of Sidra, and the Libyans fired missiles toward them from shore. In retaliation, planes of the carrier *America* attacked and sunk two small Libyan warships.



An annoyed Khadafy approved more terrorist acts, including a bombing in a Berlin nightclub where several American servicemen were killed. President Reagan authorized Operation El Dorado Canyon, a joint operation in which American aircraft carriers attacked Benghazi, while air force planes, staged out of Britain, attacked Tripoli.

The military value of these strikes was modest, but they demonstrated that there were limits to what the United States would tolerate from sponsors of terrorism. It was a lesson that had to be taught more than once.

22 Projecting Naval Power in the Middle East

This lecture examines the perilous environment in which the US Navy operated in the late 20th century. It was characterized by hazy and confusing political relationships, highly destructive ordnance, and an accelerated pace of decision-making. You will examine these three elements in the context of the Iran-Iraq War, the Six-Day War, and a confrontation between the Iranian and US navies that led to the largest surface naval battle since World War II.

Ambiguous Political Environments

On May 17, 1987, two missiles struck the American warship *Stark* in the Persian Gulf. The first one did not explode but tore a 10-by-15-foot hole in her hull. The second one did explode, causing massive damage and igniting fires throughout the ship. Damage control teams fought fires throughout the night. The next afternoon, the *Stark* limped back into port at Bahrain with 37 dead and 21 wounded on board.

In the decades following World War II, national rivalries between other countries—in this case, in the Middle East—put the US Navy in the precarious and frustrating position of being caught in the middle of a deadly war in which it was not a protagonist. It was a set of circumstances characterized by three striking and remarkable aspects of naval warfare in the late 20th century, all evident in the attack on the *Stark*.

The first was the ambiguous political environment. In 1980, the year Ronald Reagan was elected president, the Iraqi dictator Saddam Hussein ordered his army to invade Iran. His goal was to expand Iraq's tiny coastline at the head of the Persian Gulf.

The United States remained neutral in the Iran-Iraq War, even as it continued year after year, with horrifying casualties. That is not to say that the US was unconcerned. Iraq and Iran fought each other not only along a common border but also in the Persian Gulf, through which 20% of the world's oil supply passed. Both countries attacked that traffic—the Iraqis by air and the Iranians by sea. In July 1987, the United States began escorting neutral tankers through the war zone to protect the global flow of oil. So, the US Navy found itself in a war, even though it was not at war.

This made it awkward for US Navy ship captains to know how to react to potential threats. Their orders told them not to take sides. But they were charged with protecting American interests in the region. Doing both of those things at the same time was problematic, if not actually contradictory.

Modern Naval Weaponry

The missiles that struck the *Stark* were French-made Exocet AM39 air-to-surface missiles that skimmed the sea only a few feet above wave height, making them all but invisible to radar. They flew at 700 miles an hour—just below the speed of sound—so they did not create a detectable sonic boom. They arrived within seconds of being launched.

The *Stark*, too, had technologically sophisticated weapons. In addition to her array of guns, she could fire either an SM-1 standard missile or the ship-killing Harpoon missile. And to defend against missile attacks, she had what was called the Phalanx Close-In Weapon System. The navy acronym was CIWS, though virtually everyone pronounced it "C-wiz." It had an integrated radar and computer system that automatically aimed and triggered a bundle of gun barrels capable of firing 50 rounds per second.

***USS* Stark**

Accelerated Decision-Making

The third thing that the attack on the *Stark* revealed was how the time available for ship commanders to make decisions had been dramatically compressed. They might have 20 seconds—or less.

In addition, the rules of engagement under which US Navy ships operated in the Persian Gulf were complex. Their orders were to defend themselves if confronted by forces that demonstrated hostile intent or any ship taking hostile action. But intent is difficult to determine, and hostile action, once initiated, left only seconds to react.

In the case of the *Stark*, Captain Glenn Brindel knew that there was an Iraqi jet in the vicinity. But that was not unusual—it happened all the time. Usually, they flew into Iranian airspace, fired a missile or two, and then sped home.

This time, though, the Iraqi jet turned sharply toward the *Stark*. Brindel sent out a radio warning. Instead of answering, the Iraqi pilot fired two Exocet missiles.

Afterward, Brindel and the officer in the Combat Information Center of the *Stark* lost their jobs. However fair or unfair that might have been, the rules of engagement under which Brindel operated made it difficult for him to be proactive in the ship's defense. The hostile intent of the Iraqi pilot became evident only after the missiles were on their way.

US-Saudi Relations

American entanglement in the Middle East had its roots in the years immediately after World War II. If we look for a specific moment when that entanglement began, we might choose February 14, 1945. Franklin Roosevelt was returning from the Yalta Conference with Churchill and Stalin when he stopped in Egypt to meet with King Ibn Saud of Saudi Arabia on board the American cruiser USS *Quincy*.

There were two items on their agenda. The first was oil. Knowing that America's oil reserves were not infinite, Roosevelt wanted to ensure continued access to the oil of the Middle East. The other issue was Palestine, a British mandate along the eastern end of the Mediterranean—an area that was sacred to several religions.

The Balfour Declaration, issued in 1917, stated that Palestine would be set aside to become a Jewish state. And in 1922, Jews from throughout Europe began to migrate there.

King Saud, like most Arabs, opposed the creation of a Jewish state in the middle of the mostly Muslim Middle East. And he knew that his possession of vast oil reserves gave him leverage in the discussion.

The Six-Day War

In 1948, a United Nations resolution officially created the state of Israel. And American postwar industrial expansion in the 1950s began to strain US oil reserves. In response to these twin pressures—and as part of America's continuing rivalry with the Soviet Union—the US Navy created the Sixth Fleet in the Mediterranean in 1950. Officially, its mission was "to advance security and stability in Europe and Africa," though that was sufficiently vague as to leave a lot of uncertainty about precisely how it would function. That uncertainty was evident during what was called the Six-Day War in 1967 between Israel and Egypt.

The war was triggered when Egypt, despite international agreements, closed the Strait of Tiran at the southern end of the Gulf of Aqaba to Israeli traffic. Israel thereupon launched a full-scale assault in the Sinai Desert. Swiftly overwhelming the Egyptians, Israeli forces drove toward the Suez Canal.

The United States declared itself officially neutral, and the ships of its Sixth Fleet stayed away from the scene of combat. But one American ship remained in the vicinity: the USS *Liberty*. An intelligence-gathering vessel, it had all sorts of electronic antennae but carried only four machine guns.

On June 8, 1967—with the war in the Sinai at full flood—Israeli jets attacked the *Liberty* in broad daylight. The initial attack killed 8 American sailors and wounded 75. Two more Israeli jets, armed with napalm bombs, set the *Liberty* afire from stem to stern. Next, a trio of Israeli boats approached and launched torpedoes. By the time they withdrew, 30 Americans were dead and another 171 wounded.

Afterward, the Israelis declared that it had been a tragic mistake—a case of misidentification. Israel apologized and eventually awarded some $14 million to the families of the killed and wounded.

President Lyndon Johnson accepted the Israeli explanation and apology, though—both at the time and since—many have suspected that the Israelis had acted to prevent the Americans from gathering information about Israeli troop movements in the Sinai.

Like Johnson, President Reagan accepted the Iraqi explanation of pilot error for the attack on the *Stark* 20 years later. The United States was less forgiving, however, when Iran was the culprit.

The *Liberty* incident in 1967 closely presaged many aspects of the attack on the *Stark* 20 years later, including the difficulty of determining who the enemy was, the possibility of being victimized by friendly fire, and the speed of decision-making.

US-Iranian Naval Battle

On April 14, 1988, a sister ship of the *Stark*, the USS *Samuel B. Roberts*, was cruising at slow speed in the Persian Gulf when a topside lookout spotted floating mines. As the ship tried to back out of the minefield, a gigantic explosion ripped a 25-foot hole in her bottom and ignited fires that spread quickly. The crew performed heroic damage control, and the ship managed to remain afloat.

Subsequent investigation revealed that the mine had been laid by the Islamic Revolutionary Guard. This was not a formal or official part of the Iranian defense force, but the United States decided it must retaliate to deter further such transgressions.

The Reagan administration decided to destroy several Iranian-owned gas and oil separation platforms in the Gulf, known as GOSPs. And if an Iranian warship came out of port to interfere, the US Navy could sink her.

US warships executed the attack on the platforms on April 18, 1988, 4 days after the *Roberts* incident. Iranian military forces on the platforms tried to fight back, but they eventually surrendered, and the US allowed them to evacuate.

Marine combat teams then rappelled from helicopters down onto the platform and planted demolition charges. After they withdrew, the charges were detonated, and the platforms disappeared.

When Iranian forces learned that their oil platforms were being attacked, they decided to sortie with their navy. On April 18, the Iranian and US navies engaged in the largest surface naval battle since World War II.

Captain James Chandler—skipper of the US cruiser *Wainwright* and commander of a three-ship flotilla dubbed Action Group Charlie—ordered his ships to prepare for combat. The approaching vessel was the *Joshan*, a relatively small Iranian warship, but it was armed with the American-made Harpoon missile, which Chandler and everyone else knew was an effective ship killer.

Despite several warnings from Chandler, the *Joshan* fired its Harpoon missile. Almost simultaneously, the *Wainwright* detected the launch and the electronic signature of the homing device on the Harpoon. Chandler then did two things at once: He launched what is called chaff—aluminized plastic confetti that was designed to confuse the homing mechanism on approaching missiles—and he ordered all three of his ships to open fire.

The Iranian missile, confused by the chaff, passed within mere feet of the *Wainwright* and crashed into the water. All of the American missiles struck the *Joshan*, setting it afire from stem to stern. Though it was dead in the water, it remained afloat. Chandler was ordered to finish off the *Joshan*.

Yet the battle was not over. In addition to the *Joshan*, the Iranians also sortied with two other ships, the *Sahand* and the despised *Salaban*. The Americans sank the *Sahand* and heavily damaged the *Salaban*—dead in the water and burning. This time, the US Navy ships were ordered to leave the *Salaban* where it was and retire.

The events of April 18, 1988, illuminated in a particularly dramatic way the difficult and deadly environment in which the US Navy operated at the end of the 20th century.

23 America's 21st-Century Missions at Sea

The collapse of the Soviet Union and the end of the Cold War required the US Navy to reassess the role it would play in what President George H. W. Bush called "a new world order." The navy emerged as essentially the cop on the beat—maintaining order, protecting innocents, and, if necessary, distributing redemptive justice. This role became more evident during three foreign wars in Iraq and Afghanistan, which are the focus of this lecture. You will also look beyond the navy's war-fighting missions to its other contributions.

America's Post–Cold War Navy

In 1989, the Berlin Wall came down, and 2 years after that, the Soviet Union itself ceased to exist. It broke into its constituent parts, and 15 different countries emerged from the implosion. It also made the United States the world's only superpower.

As such, Americans asked if the United States had a responsibility to monitor and chastise bad actors in the world and to maintain peace. These important strategic questions are for policymakers to answer. The navy's job is to provide the best intelligence available, offer the best military advice it can, and then, once the decision is made, execute the national policy, whatever it may be. That makes the navy's role in the wars in the Persian Gulf, Afghanistan, and Iraq difficult to assess. Still, let's take a look at them.

The Gulf War

On August 2, 1990, more than 100,000 Iraqi soldiers, bolstered by 350 tanks, crossed the southern border of Iraq into the emirate of Kuwait. The goal of Iraq's leader, Saddam Hussein, was nothing less than conquest. For one thing, it would give Iraq a much-needed seaport—Kuwait City—at the head of the Persian Gulf. It would also cancel Iraq's debts to Kuwait from the Iran-Iraq War and add to Iraq's own oil assets.

In response to the invasion, President George H. W. Bush demonstrated both skill and patient diplomacy. First, he and his team assembled a huge international coalition that included several Arab states. That was important, lest the Arab nations in the region conclude that American intervention was simply a new form of Western imperialism. Then, Bush orchestrated a massive buildup of military forces in Saudi Arabia, just south of Kuwait. Eventually, the allies positioned some 700,000 troops there. After that, the allies executed a swift and decisive campaign that drove the Iraqi army out of Kuwait.

Finally—and this is critical—once the objective was secured, the war stopped. There was no attempt to go beyond the Iraqi-Kuwaiti border to occupy Iraq itself or to drive Saddam Hussein from power. Instead, it was a model of how to use military force to achieve a specific and limited objective.

And while the war itself was mostly a ground operation, the navy was a full partner in the air campaign and performed important logistic roles as well. Prior to the ground attack, coalition forces pounded the Iraqi army in Kuwait and its staging areas in Iraq with 38 days of intense bombardment.

During the first 24 hours of the air war in Iraq, the navy launched 1,400 sophisticated Tomahawk cruise missiles from locations in the Red Sea and Persian Gulf.

The navy also flew manned sorties from carriers. Dramatic improvements in ordnance and electronic guidance allowed the pilots to hit specific targets with remarkable precision. There were four US Navy carriers in the Red Sea: the *America*, *Saratoga*, *Theodore Roosevelt*, and *John F. Kennedy*. In spite of the long range to reach their targets, planes from carriers sometimes executed two strikes a day.

Carriers in the Persian Gulf, including the *Ranger* and the *Midway*, were closer to Iraq, and their planes often conducted three strikes a day. Combined with US Air Force strikes by ground-based planes from Saudi Arabian airfields, coalition forces carried out a total of 94,000 sorties over a 38-day period, delivering 60,000 tons of ordnance.

In the whole of the bombing campaign, the United States lost 41 planes, and 43 Americas were killed, but it inflicted casualties estimated at 9,000 Iraqi soldiers killed and another 17,000 wounded. In addition, the unrelenting punishment from the air led 150,000 Iraqi soldiers to desert.

Coalition forces were equally dominant on the ground. Iraqi combat losses are estimated to have been between 20,000 and 100,000 killed, while coalition forces lost 147, including 96 Americans.

President Bush had pledged to the Arab members of the coalition that the purpose of the war was to repel aggression, not to overthrow Saddam Hussein. Though some hawkish advisors to the president were disappointed, Bush called a halt to the war.

9/11 and the War in Afghanistan

The second of the three wars in the post-Soviet era had its origins in the terrorist attack on the United States on September 11, 2001, when hijackers flew commercial airliners into the Pentagon in Washington and into both towers of the World Trade Center in New York. A fourth crashed in Pennsylvania when the passengers stormed the cockpit.

Nearly 3,000 Americans were killed in the attacks, making 9/11 more costly in American lives than either Pearl Harbor or D-Day. Fifteen of the 19 hijackers involved were Saudi nationals. But the plot had been conceived and planned in Afghanistan by a group called al-Qaeda, which is Arabic for "the Base."

Al-Qaeda was able to hatch its plan in Afghanistan because the government there was under the control of an Islamic fundamentalist group—the Taliban, which tolerated its presence. When they refused to turn over the al-Qaeda leaders and plotters for trial, the United States then orchestrated a campaign to overthrow the Taliban government and capture the plotters.

Once again, the United States and its partners achieved a sweeping and overwhelming military victory. But this time, the aftermath was costly and frustrating. For more than a decade, the US maintained a heavy military footprint in Afghanistan, fighting off Taliban guerillas even as Americans built roads, schools, and hospitals. The fighting dragged on for years, and the end was as chaotic as the US withdrawal from Vietnam had been a generation earlier. On August 15, 2021, after the American withdrawal, the Taliban returned to power.

The Iraq War

The third war of this era grew out of a suspicion that Saddam Hussein was stockpiling weapons of mass destruction, which, if true, would have been a violation of the peace treaty that ended the first Gulf War. It was not true, but Saddam Hussein was coy about denying it because he wanted his enemies to think that he did have such weapons. It was foolish of him, and ultimately, it was also fatal.

Once again, the military campaign—called Operation Iraqi Freedom—was fully successful. But as in Afghanistan, the subsequent occupation was marked by years of frustration and disillusionment. This demonstrated once again that military success, however one-sided, yielded few benefits if it was not accompanied by a clear war termination plan.

In this war, the navy's primary role was logistics. The Military Sealift Command brought the military personnel, arms, equipment, ammunition, and most other elements of modern war to the theater. More than 90% of all the war-fighting equipment for Iraqi Freedom came by sea.

In addition, Navy SEAL teams conducted both early reconnaissance and action missions. They secured the oil fields before the retreating Iraqi forces could sabotage them. Other SEAL teams were dispatched to find the vaunted weapons of mass destruction, though there were none to find.

The quick victory left a vacuum of authority in Baghdad, which experienced widespread looting. US forces disbanded the Iraqi army, which in retrospect proved to be a bad idea because it turned loose tens of thousands of armed men into the countryside with no central direction. Consequently, in spite of the swift military victory, the postwar period proved a long, ugly, costly, and unhappy slog.

Navy SEAL teams conducting mission in Iraq

Other Roles of the Navy

War-fighting was not the navy's only job in the era from 1990 to 2020. It continued to perform dozens of quotidian responsibilities, some of which have always been navy duties.

Its humanitarian role of aiding ships and sailors at sea is an implied responsibility of all mariners, and given the US Navy's global presence, it often fell to the navy to act as first responders. As one example, on the day after Christmas in 2004, a massive earthquake off Sumatra triggered a tsunami. It was catastrophic. A quarter of a million people died, and more than a million were rendered homeless.

Nations all over the world reacted with aid and support, but among the first to respond were the navy hospital ship *Mercy* and the aircraft carrier USS *Abraham Lincoln*. Though built for war-fighting, the *Abraham Lincoln* is also well equipped to provide lifesaving aid. Helicopters from her flight deck worked around the clock to carry food and medical supplies and to bring out thousands of injured survivors for medical treatment.

In 2010, another of the navy's large nuclear-powered carriers, the *Carl Vinson*, fulfilled a similar mission when the city of Port-au-Prince in Haiti was leveled by an earthquake.

Combating pirates in the Caribbean had been the navy's primary mission in the 1820s. Nearly 200 years later, it again became a major function, particularly off the coast of Somalia near the Horn of Africa.

To combat this menace, the US Navy organized a multinational naval task force called Combined Task Force 151, headquartered in Bahrain. Eventually, some 34 nations took part. The fight against the pirates became even more complicated in 2006 when Somalia was engulfed by civil war.

The navy also worked to interdict the drug trade, much of it in the Gulf of Mexico and along the California coast. Navy P-3 Orion aircraft would range well out to sea looking for suspicious vessels and then vector navy and coast guard ships to intercept them.

Diversity in the Navy

This era also witnessed the culmination of dramatic cultural changes in the service. The largely illiterate international crews that had manned US Navy ships in the age of sail—all of them men—who were kept in line by the carrot of a daily grog ration and the stick of the cat-o'-nine-tails have been replaced by sailors who are highly skilled technicians.

African American sailors now make up roughly 20% of the navy's enlisted force, and Black officers constitute roughly the same percentage as Black people in the general population; 10% of the Navy's admirals are Black.

Women were first admitted to the Naval Academy in 1976, and today they perform as weapons officers on ships at sea, fighter pilots on carriers, and missile technicians on nuclear submarines.

Today, women make up 18% of the navy's enlisted force and 17% of its officers. In 2014, an African American woman, Michelle Howard, became the navy's first four-star female full admiral and the vice chief of naval operations.

One more barrier fell in 2011, when the awkward "Don't Ask, Don't Tell" rule concerning gay and lesbian sailors was eliminated. For 200 years, the Uniform Code of Military Justice listed homosexuality as a crime, punishable by immediate dismissal and a less-than-honorable discharge. Now gay and lesbian sailors serve openly, and despite warnings that this would severely depress both morale and efficiency, neither turned out to be the case.

24 China's Threats to US Naval Supremacy

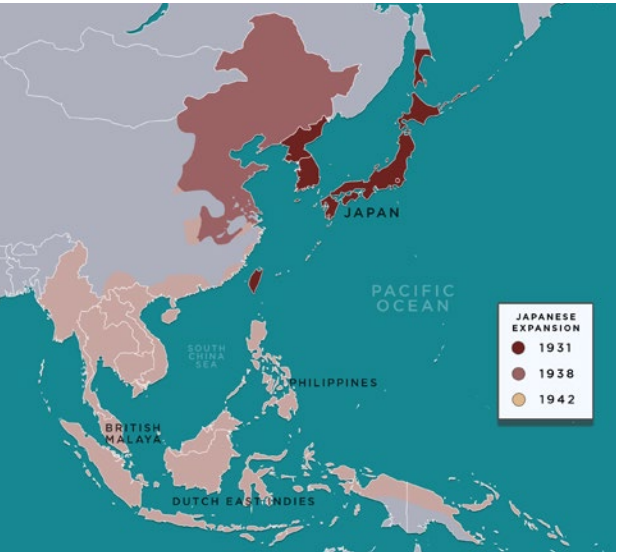
The US Navy today is the most powerful maritime force on earth. But given that China is currently in the midst of building an enlarged navy—one that is apparently intended to challenge the United States for supremacy—does that pose a threat to America and its allies? It is perhaps the foremost question on the minds of naval strategists today, and it is the subject of this final lecture.

China in the Early 20th Century

Beginning in the 17th century—and reaching a peak in the 19th century—Europeans set up trading posts all over eastern China, and especially along the coast. In an effort to get the foreigners out of China, the Boxer Rebellion broke out at the turn of the 20th century.

China's inability to defend itself from the international forces during the rebellion contributed to the collapse of the imperial regime. There were a few efforts to establish a republic, but they all failed, and the country virtually broke apart. Political authority fell into the hands of competing bands of warlords, and Western nations continued to exercise all but sovereign control over great chunks of the China coast. The US Navy even conducted warship patrols on China's inland rivers.

A major turning point came in 1937 when an incident near the Marco Polo Bridge 10 miles southwest of Peking—now Beijing—led to a full-scale war between China and Japan. The event marked the beginning of the Second World War. Japan's army won most of the battles and conquered great swaths of Chinese territory. But in time, Japan found itself bogged down.



Desperate for more resources, Japan looked to the colonies British Malaya and the Dutch East Indies. One concern, though, was that the Americans—in the Philippine Islands—could interfere with Japanese shipments of goods from the Dutch East Indies. So, Japan decided to attack the United States.

After the attack on Pearl Harbor in December 1941, China and the United States became de facto allies. And after the war, US president Franklin Roosevelt was eager to sustain the Nationalist Chinese government, which he hoped would fill the power vacuum left by the defeat of Japan. That is why China got a permanent seat on the United Nations Security Council in 1945.

US Support for Taiwan

Almost the moment World War II ended, a civil war emerged between Chiang Kai-shek's Nationalist government and Mao Zedong's communists. In 1949, Mao's forces drove Chiang's Nationalists off the mainland and onto the island of Formosa, now called Taiwan. For two decades after that, the United States insisted that Chiang's Nationalist government on Taiwan was the rightful holder of the permanent Security Council seat at the United Nations.

Then, in 1972, President Richard Nixon went to China as part of his plan to extricate the United States from Vietnam. While there, he agreed to recognize Mao's government in Beijing as the real and only China. From then until now, the United States has officially held to the "one China" policy—that the Beijing government is the rightful ruler of all China, including Taiwan.

At the same time, the United States did not abandon its support of Taiwan and repeatedly promised to defend it against an invasion from the mainland. Sustaining this policy, however, will require some deft maneuvering because China has declared that it will take Taiwan—by force if necessary—no later than 2049, which is the 100th anniversary of the communist revolution. That is the context for the current rivalry at sea between the Chinese navy and the US Navy. What role, if any, should the US Navy play in the defense of Taiwan?

China's First Island Chain

Initially, the Chinese structured their navy as a coastal defense force, consisting mostly of small patrol boats. Such vessels still make up the bulk of China's navy. Their purpose is to defend the waters inside what the Chinese call the first island chain. This is an imaginary line that runs southward from Japan to the Philippines and encompasses both the East China Sea and, significantly, the South China Sea. It includes the island of Taiwan and all of the South China Sea.

The Chinese claim to all this sea space derives from a map published by a Chinese cartographer in the 1940s. The map includes what is called the nine-dash line, which the Chinese assert establishes Chinese sovereignty over the entire area inside the line, including the Paracel and Spratly Islands. In the last few decades, China has established extensive military bases on several of the islands there.

China's claim to the islands—and to the South China Sea generally—is disputed by most other countries, including the United States, which insists that the South China Sea is international waters. To validate that, the US Navy periodically conducts what are called freedom of navigation exercises through the area.

Occasionally, these have led to dangerous games of chicken. If the Chinese succeed at getting the Americans to change course, it becomes a kind of de facto acknowledgement by the United States that the area is indeed Chinese territory, something America is unwilling to concede. So far, these incidents have not resulted in either a collision or in shots being fired. But if it did come to shots being fired, how would the US Navy fare in a contest with the People's Liberation Army Navy (PLAN) in the South China Sea?

Because the communist victory in China's civil war was won by the People's Liberation Army, or the PLA, the new government conceived of a naval force as an adjunct to the army and named it the People's Liberation Army Navy, or PLAN.

The US and Chinese Navies Today

The Chinese have about 350 combat warships in commission, compared to America's 293, though that's an imperfect index of actual naval power. Today's US Navy warship roster includes 115 major surface combatants, plus 68 submarines and 31 amphibious ships, and (here's the important difference) 11 large-deck nuclear-powered aircraft carriers, the newest of which is the USS *Gerald R. Ford*, which is not only the largest navy carrier but also the largest warship ever built, displacing more than 100,000 tons.

By comparison, much of the Chinese navy is made up of Type 22 Houbei missile patrol boats, which displace only 220 tons. So, if instead of the number of ships, we count the total displacement of the warships on each side, the US Navy is more than twice as large: 4.6 million tons to just under 2 million tons. But the key question in assessing any naval force is this: Can it do what it was designed to do?

The structure of the modern US Navy, with its emphasis on large-deck aircraft carriers, makes it a projection force—that is, a force capable of going almost anywhere on earth to represent the interests of the US.

The PLAN is not a projection navy; it is a sea denial navy—that is, it exists primarily to defend the areas of the western Pacific that China considers part of its national territory, including the South China Sea. So, while the US Navy seeks to project its power into China's sphere of influence, the Chinese cannot really project their naval power into America's spheres of influence.

Given growing international anxiety about China's intentions in the South China Sea and the security of Taiwan, however, the real question is whether the US Navy could project itself into the South China Sea, or the Strait of Taiwan, to defeat China's sea denial navy. Herein lies another interesting comparison, one involving the newest generation of naval ordnance.

America's commitment to the aircraft carrier stems in part from the final years of the Second World War, when US carrier task forces dominated the Pacific. Since then, the carriers have gotten much bigger and the planes they carry far more sophisticated—and expensive. The modern aircraft

carrier might (or might not) be the most efficient platform for projecting power. But there is no doubting its political impact. Other nations recognize that. And it may be as much to assert great power status as to command the sea that both India and China launched new aircraft carriers in 2022.

On the other hand, the emergence of ship-killing missiles has demonstrated that relatively inexpensive missiles can pose a significant threat to the largest of warships. Each of the Chinese Type 22 Houbei carries eight anti-ship missiles. In a scenario where 20 or 30 of them conduct a swarm attack against an American carrier battle group, it is not inconceivable that some of those missiles might find their target.

China's Naval Aspirations

Chinese admiral Liu Huaqing was the senior officer in the PLAN during the 1980s and 1990s. He argued that China should become a regional force, capable of projecting its influence out to what China calls the second island chain. This area encompasses the Philippines and the Philippine Sea out to Guam and the Mariana Island chain.

Liu died in 2011, and it's not certain that his vision still informs Chinese planning, though there are a number of voices in the US Navy today that argue it is at least possible that China will follow this blueprint.

US plans call for an increase in the size of its own navy from 293 warships to 330 by the year 2049, which—not coincidentally—is China's self-imposed deadline for its projected conquest and occupation of Taiwan. Meanwhile, China will likely continue to assert a right to all the seas and islands inside the nine-dash line. The Chinese also seem determined to invest more money and effort to the construction of a true blue-water fleet that contains at least a few large-deck aircraft carriers.

China's first carrier, the *Liaoning*, was commissioned in 2018, though its journey began decades earlier, after the breakup of the Soviet Union. Her sister ship, the *Shandong*, was commissioned in 2019. Each of the Chinese carriers displaces about 60,000 tons. That is just over half of the *Gerald*

R. Ford but still substantial by any standard. And in 2022, the Chinese unveiled the hull of a third carrier, an 80,000-ton behemoth to be named the *Fujian*.

Instead of a sea denial navy based on missile-firing surface ships, China seems determined to develop a projection navy centered around large aircraft carriers. How much of a concern is that?

It is not likely that the Chinese anticipate using any of their carriers to engage in a slugfest with the US Navy, a confrontation in which they would be clearly overmatched. It is more likely that they see these carriers as symbols of China's aspirations—essentially naval ornaments that signal to the world that China is a great power of the first rank.

All that sounds pretty ominous. And American naval leaders are right to be paying attention. But here's an important thing to remember: In history—including naval history—the only sure thing is change. And as you have learned in this course, the United States, and in particular the US Navy, have confronted a wide variety of challenges. And in all cases, America and its navy adjusted, survived, and ultimately triumphed.

US Navy Ships

Ship of the line—HMS *Victory* (L1)

- Sails and rigging
- 200 feet long
- Two decks of cannons
- 50–100 guns (each weighing 5,000+ pounds)
- Cannon range 60–100 yards
- 600–800 men

Early frigate (L1, L2)

- Three masts, square sails
- One row of 28–40 guns
- Smaller cannons
- Frigates not used for standard battle but for scouting, flag signals, and protection

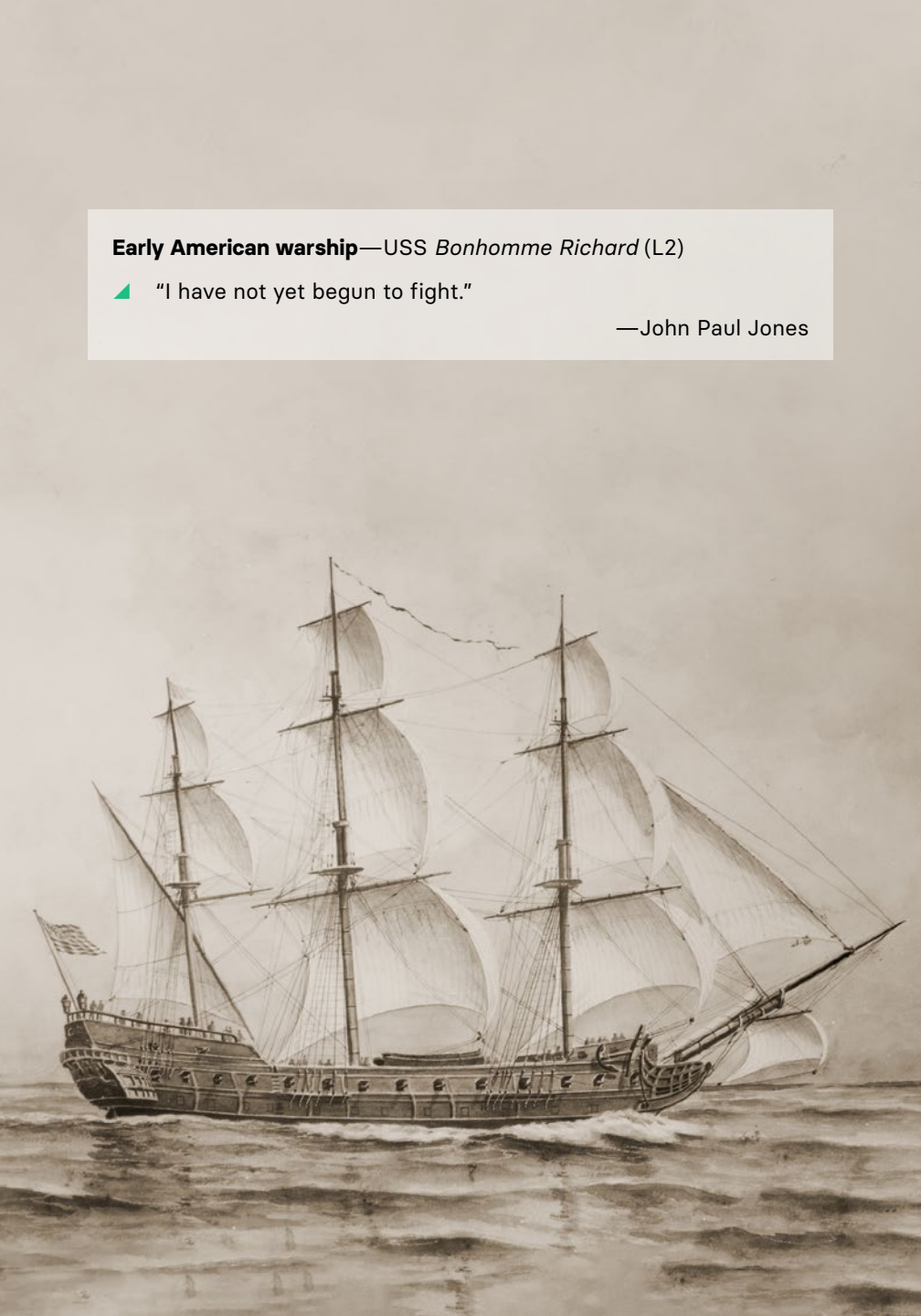
Schooner (L2)

- Most schooners are privateers—small and lightly armed and authorized to capture, burn, and destroy enemy vessels.
- Rigged like a racing yacht
- Crews paid only if they captured booty

Early American warship—USS *Bonhomme Richard* (L2)

"I have not yet begun to fight."

—John Paul Jones



Post-revolution frigates—USS *Philadelphia* or USS *Constellation* (pictured) (L3)

- Bigger, stouter, and more heavily armed than ordinary frigates
- "They were, in effect, frigates on steroids."
- 44 guns
- Seasoned oak for hulls; tall pines for masts

Gunboats (L4)

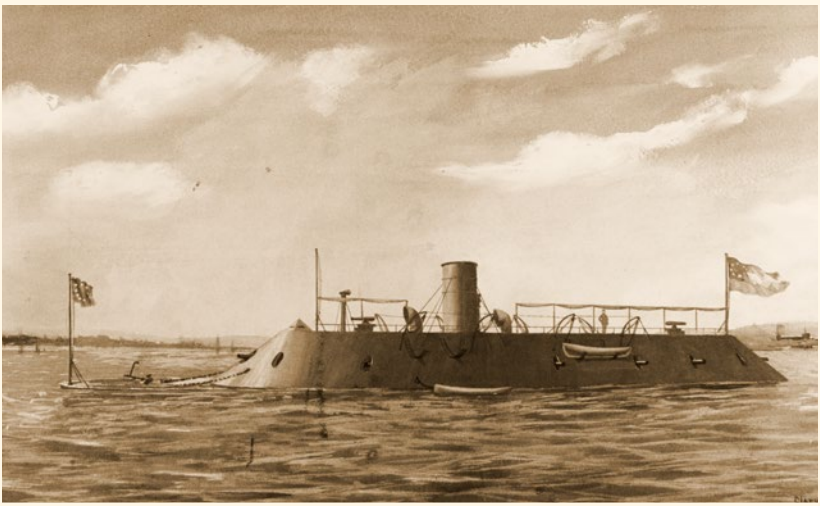
- 60–80 feet long
- Single mast
- Cost only $5,000 apiece
- Built for defense (against the British in the War of 1812)

Steam warship (L6, L7)

- The first steam-powered navy warship, the *Demologos*, launched in 1815; in 1843, the US commissioned the world's first propeller-driven steam warship, the USS *Princeton* (pictured); and at the time of the US Navy's amphibious landing at Veracruz during the Mexican-American War of 1846–1848, the steam warship *Mississippi* served as flagship.
- "An American sailing ship would be all but helpless in a fight against a Royal Navy steamship of the same relative strength. So, in the 1840s and 50s, the U.S. Navy began to embrace steam propulsion."
- "There was some discussion about whether it was better to employ paddle wheels or propellers. ... Paddlewheels churned up the water impressively, but they also occupied the space where there would otherwise be a long row of guns."

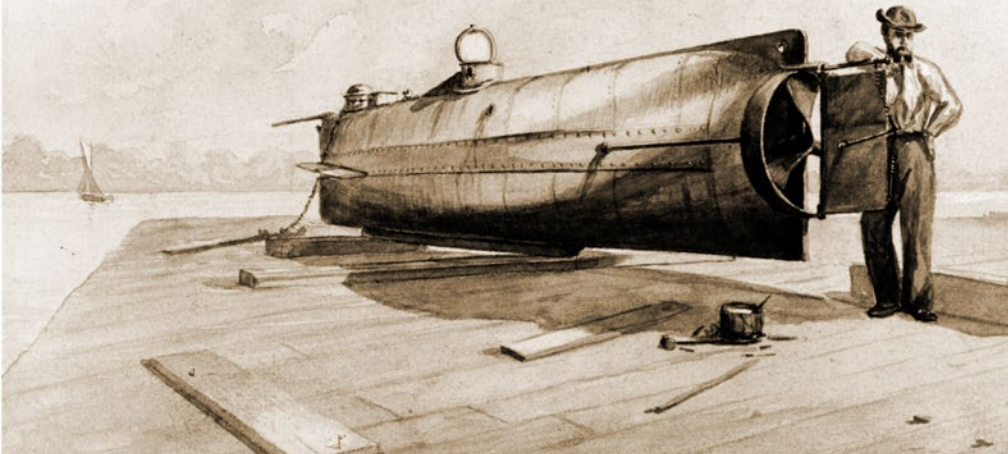
Ironclad warship—CSS *Virginia* (L7)

- Iron-armored superstructure
- No masts, spars, or rigging—not even a deck
- Built on the hull of the former USS *Merrimack*
- Top speed was only 5 knots
- "Here was an entirely new thing in naval warfare."
- Enemy shells bounced off; its iron bow speared and sunk the USS *Cumberland*.



Confederate submarine—the CSS *H. L. Hunley* (L8)

- A "log-like vessel" propelled by a crew of eight men who operated a hand crank
- Carried an explosive device at the end of a spar extended from the bow



ABCD steel-hulled cruisers, 1881—USS *Atlanta* (pictured), *Boston*, *Chicago*, *Dolphin* (L10)

- Double steel hulls
- Watertight compartments
- Equipped with electricity instead of oil lanterns
- Two 8-inch guns and six 6-inch guns

Battleships, 1886—USS *Maine*, *Texas* (pictured) (L11)

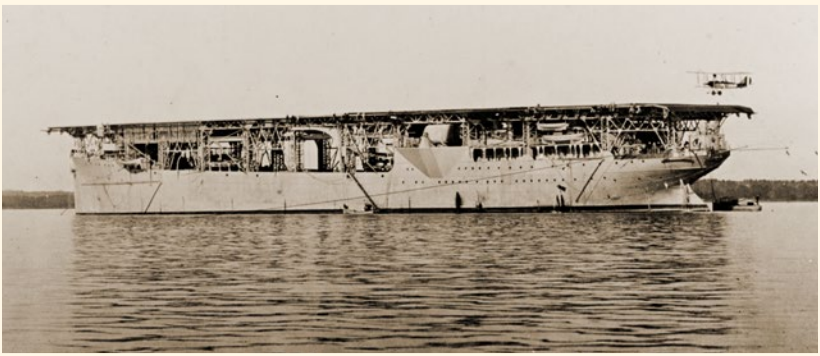
- These were the largest warships ever built for the US Navy up to this point (twice as large as ships commissioned 10 years earlier)—each displaced 6,500 tons of water.
- One named for a Northern state, the other for a Southern state
- Establishes tradition that battleships will be named for states and cruisers for cities, a custom that continues through World War II
- "Baptism of fire" is during the Spanish-American War of 1898.
- New long-range, heavy naval guns
- Four rifled 10-inch guns housed in two turrets plus six 6-inch guns
- Turrets were placed at the sides of the ship, one starboard that could fire forward and another farther back on port side, but this was "an awkward compromise" that didn't last.
- The next battleships launched in the 1890s—the USS *Indiana*, *Massachusetts*, and *Oregon*—will displace more than 10,000 tons of water.
- Battleship designation will later change to "protected cruisers," reflecting the fact that they are about the size of a World War II–era light cruiser.
- From 1906 forward, all battleships will be classified as dreadnaughts or pre-dreadnaughts.

America's first dreadnaught-type battleship, 1910—
USS *Michigan* (L12)

- Displaced 13,000 tons of water
- Four 12-inch guns
- Eight years later, the USS *Pennsylvania* (pictured) will be three times the size, with eight times the long-range firepower, displacing 32,000 tons and carrying twelve 14-inch guns.
- Fuel changed from coal to oil, increasing a ship's speed (and the US was the world's largest producer of petroleum).

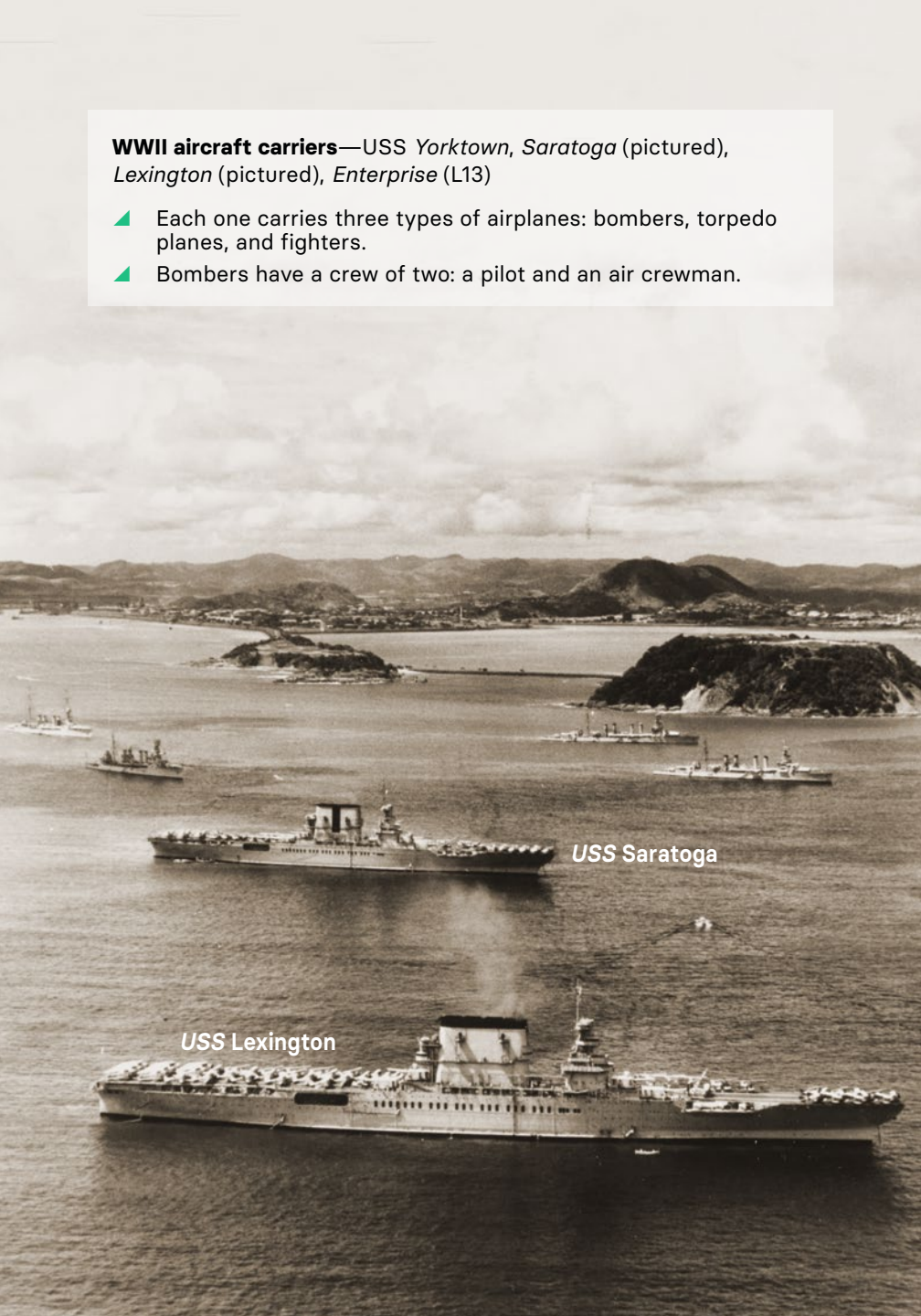
First aircraft carriers—USS *Langley* commissioned in 1922 (L12)

- The first aircraft carrier was an odd-looking vessel with a flight deck built atop the former coaling ship USS *Jupiter*. Some people said it looked like a covered wagon.



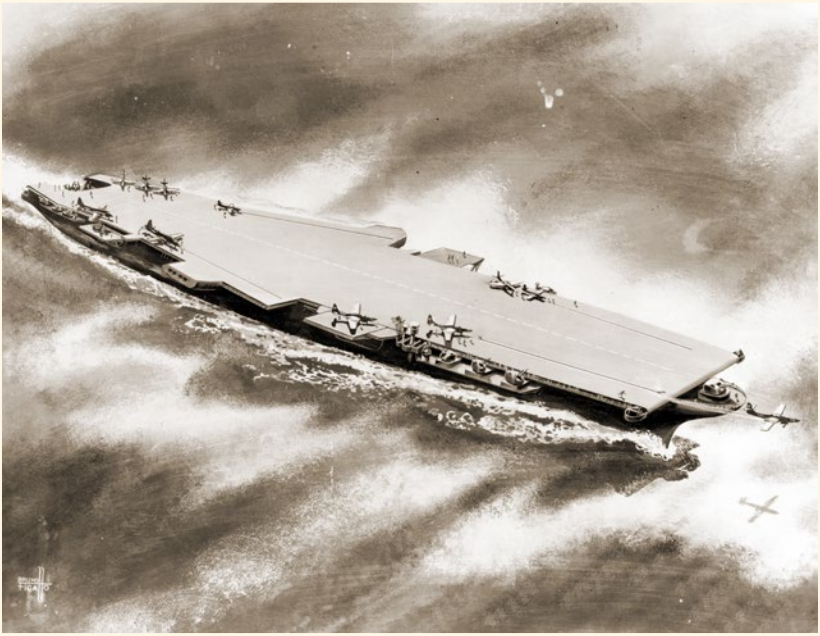
WWII aircraft carriers—USS *Yorktown*, *Saratoga* (pictured), *Lexington* (pictured), *Enterprise* (L13)

- Each one carries three types of airplanes: bombers, torpedo planes, and fighters.
- Bombers have a crew of two: a pilot and an air crewman.



WWII Liberty ship

- The workhorse of maritime transport
- A no-frills 10,000-ton merchant ship that served in every theater of the war
- While it took 250 days to build a Liberty ship in January 1942, by December, it took 50 days. Some shipyards built them in less than 30 days.



USS *United States* aircraft carrier (unbuilt)

- In 1948, the US Navy planned to build the world's largest aircraft carrier, equipped with an entire fighter squadron and 12–18 long-range bombers capable of delivering nuclear warheads across the Soviet Union. The vessel was to be more than 1,000 feet long and capable of displacing 80,000 tons of water. Started in Newport News, Virginia, it was never completed.

USS *Nautilus*, 1954

- First nuclear-powered submarine

***Forrestal* class of aircraft carriers**, 1954–1958 (L19)

- Displaced more than 60,000 tons of water

USS *Kitty Hawk* class of aircraft carriers (pictured), early 1960s (L19)

- Displaced 80,000 tons of water

USS *Long Beach*, 1961 (L19)

- First nuclear-powered surface warship

***USS* Kitty Hawk**

USS *Enterprise*, 1961 (L19)

- First nuclear-powered aircraft carrier
- Displaced more than 90,000 tons of water
- Flight deck covered 4.5 acres

USS *Nimitz*, late 1960s (L19)

- Nuclear-powered carrier that displaced more than 110,000 tons of water
- Crew of more than 5,000
- "A virtual city afloat"

Patrol craft, fast (PCF), Vietnam War era (L20)

- 50 feet long
- Aluminum hull drew only 5 feet of water, enabling it to operate close to shore
- Crew of 6
- Fast and nimble—dubbed a “swift boat”

USS *Gerald R. Ford* (pictured) (L24)

- Large-deck nuclear-powered aircraft carrier
- The largest warship ever built
- Displaces more than 100,000 tons of water

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