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The Homeland Defense Role of the US Navy

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Abstract

In the late 1990s, the US national security policy community was debating the role of the US Navy in coastal warfare and continental defense. The author of this paper sought to contribute to this emerging debate by examining the US Navy's contribution to these aspects of homeland defense over time. Written in 1998, this paper provides a chronological discussion of the US Navy's history regarding coastal warfare and continental defense. It intended to illuminate historical US Navy functions that generally received less attention than others. The author's goal was to provide decision-makers with necessary background knowledge as they made policy decisions that would affect the future of the US Navy.

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What this paper is about

The issue

Should the Navy carry out homeland defense functions? If so, which ones?

Recently there has been a flurry of thinking in the US national security policy community regarding the role of the US Navy in coastal warfare and continental defense—although those terms themselves are seldom used. (The buzz-words today are “OOTW” and “homeland defense.”)

Some—especially on the political right—would have the Navy provide platforms and weapons for a new National Anti-Ballistic Missile System, in the face of what they see as emerging high-intensity threats to national security. Others—often on the political left—question the need for a forward-engaged, war-fighting Navy in the post-Cold War world, and would rather see its considerable assets used in what they see as more relevant low-intensity tasks—like stemming the flow of drugs and illegal migrants into the country.

Both groups are asserting that US Navy littoral warfare—like charity—begins at home. Others, however—especially within the Navy itself—are wary of tying down cruisers as stationary anti-missile platforms, and even more leery of getting more deeply entangled in what they regard as Coast Guard—not Navy—Caribbean interdiction missions. The Navy remains focused on forward operations: forward presence, forward regional contingencies, and forward war-fighting. Littoral warfare, to the Navy, means fighting on *somebody else's* littorals, not our own.

Why a history?

Looking at the Navy's history regarding homeland defense can contribute to current Navy decision-making. History can provide important background information and context, illuminate past alternatives and choices, and provide insights as to why things are as they are today.

This paper seeks to contribute to the emerging debate on the Navy's homeland defense function by looking back at the Navy's contribution to homeland defense over time. *Such a look has not, to our knowledge, been done elsewhere.* It can yield—as we hope to show—some important insights as well as necessary background knowledge for present and future policy decisions.

Discussion

This is, in a sense, an “anti-history” of the US Navy. It outlines a “dark side” of the US Navy's historical functions, one that gets far less attention than others. Coastal defense—more than mine warfare or naval gunfire support or any of the other “usual suspects”—is the Navy's true proverbial “crazy uncle who lives in the attic.” He won't go away, but nobody even wants to admit he exists.

Today there are earnest arguments over to what extent the US Navy of the present and future should be a forward war-fighting force or one focused principally on naval forward presence and Operations Other Than War (OOTW).

Senior US Navy officers today remember the Cold War policy battles between the advocates of the Forward Maritime Strategy and those who would have had the Navy focus on the protection of the trans-oceanic sea lines of communication (SLOCs).

And students of US naval history do not lack for texts outlining the debates of earlier times between the partisans of forward fleet action and those advocating a policy of *guerre de course* and cruiser warfare.

Often lost in the noise of all these debates, however, is any discussion of the role of the US Navy in *coastal defense*. All these debates revolve around various alternative *forward* postures for the US Navy. And yet coastal defense has always been one of the Navy's roles, albeit not one of the Navy's favorites. Given the potential of homeland defense roles to intrude on Navy forward missions today and tomorrow, this paper seeks to revisit the Navy's historical record as a coastal defense force.

In doing so it deliberately isolates and highlights US Navy coastal defense policies, programs, and operations. It does so, admittedly, at the expense of showing much of the context within which those policies,

programs, and operations were developed and implemented. This is a calculated shortcoming: we do not lack for general histories of the Navy that provide such context—and the purpose of this paper is to shine a light on an often neglected strand of the US naval experience, not to present a unified field theory of US naval policy.

It is, however, hoped that, through publication of this paper and any further research and analysis it might engender, future histories of the Navy yet unwritten will provide a more balanced view of the Navy's past, and one that places coastal defense in its proper place.

Sources

The paper relies chiefly on secondary sources, i.e., it relies on others to have done the basic research. Also, the secondary sources used are all fairly recent, i.e., since World War II. And there are a lot of them.

Approach

The paper begins with a presentation of its conclusions. These conclusions are insights gained from patterns found in the data presented. The paper then provides that data—a detailed chronology of the Navy's role in the nation's homeland defense efforts. The chronology is broken into sections, with each section prefaced by an overview. (Within the chronology, events directly related to US Navy coastal defense are printed in **BOLD UPPER CASE**; other events are printed in **bold lower case**.)

The *chronology* format is used to:

- Lay out the historical data systematically for easy examination.
- Allow patterns to be identified in the data.

The *overview* format is used to:

- Enable insights to be drawn from those patterns.
- Present those insights in easily digested form.

The paper has seven sections, corresponding to periods in American history. Each period represents a particular era of US Navy coastal defense policy and operations, with its own special characteristics. The seven eras are:

- **Early period: 1790-1814: Frigates and gunboats**
- **19th century: 1815-1889: From floating batteries to monitors**
- **Late 19th and early 20th centuries: 1890-1918: Coastal defense vessels and Naval Districts**
- **Interwar period: 1919-1941: From coastal submarines and airplanes to netlayers and blimps**
- **World War II: 1941-1945: Patrol landplanes and Sea Frontiers**
- **Early and mid-Cold War: 1945-1980: Mobile Inshore Undersea Warfare, Vietnam interdiction, and little else**
- **End-Cold War and Post-Cold War eras: 1981-Present: Maritime Defense Zones, the Drug War, and the national missile defense debate**

How to read this paper

The busy staff officer or decision-maker will want to *review the overviews*, and only skim the chronologies, pausing perhaps at those headlined in **BOLD UPPER CASE**.

Analysts, specialists, and scholars will want to read through the whole paper from start to finish. Hopefully, based on their own research and analyses, they will find still other patterns in the data presented, and draw additional insights beyond those noted here.

Conclusions

Summary

The US Navy has *never* liked coastal defenses roles. Given the option, *it has always opted for a forward strategy*, whether in peacetime, times of crisis, or war. The Navy's strategy slogan of the 1990s, "Forward . . . From the Sea" could just as well have been entitled "Forward . . . From the Start."

Coastal defense has very seldom been a primary responsibility of the US Navy, and has never been a preferred one. The Navy has consistently argued for the primacy of forward defense missions since its very beginnings in the last decade of the 18th century, although the nature of those missions has varied over time (commerce-raiding, ship-vs.-ship operations, naval presence, battlefleet engagements, power projection, etc.).

Likewise, the US Navy has never been the chief or sole service responsible for coastal defense. Responsibility for US coastal defense has been a military "hot potato," assigned to an ever-changing amalgam of active Navy, Naval Reserve, Army, Air Force, and Coast Guard commands, and their predecessors, as outlined below. The active Navy catches the potato more than it would like and much more than most conventional treatments of US Navy history would imply.

As alluded to above, there has been a flurry of recent thinking regarding the role of the US Navy in coastal warfare and CONUS defense. This too has strong historical precedents. However much the US Navy might have wanted to focus on forward operations on the far side of the ocean, it has often been forced—by higher authority or its own threat assessments—to spend time and money on the coastal defense problem, and to coordinate with its sister services.

No matter how hard many in the Navy have tried to divorce the service from the coastal defense role, they have never completely succeeded. The Navy has often revitalized—although never

emphasized—its coastal defense role, especially in times of strong Navy defense budgets, when a rising tide seems to lift all boats.

This paper chronicles those grudging and often unwilling efforts, in an effort to put the current debate in some historical perspective.

Patterns in the data and insights

- What we call “homeland defense” today is the direct lineal descendent of what used to be called “coastal defense” and “continental defense.”
- Coast defense has been the responsibility of all services, to varying degrees. See Table 3.
- Relations among the services with regard to sharing of coast defense responsibilities have ranged from cooperative to acrimonious.
- The Navy likes to defend the US homeland far forward. Left to its own devices, it will neglect most— but not all— forms of coast defense in favor of forward operations.
- This is true not only of the Navy as a whole, but of its various branches— even those with ostensibly a prominent coast defense role. Thus coastal boat submariners, lighter-than-air and heavier-than-air patrol aviators, patrol craft sailors, minemen, etc., all have preferred forward to coastal defense tasks.
- The Naval Reserve (and the Naval Militia before it) have always had coastal defense as a function. But, as is generally the rule, they prefer forward tasks.
- The US coasts have had to be defended in practice only twice— during the War of 1812 and World War II.
- In both cases, all services worked together to defend the coasts. Cooperation was pretty good during the War of 1812, and marked by both cooperation and acrimony during World War II.
- Threats to the coasts have always been at both ends of the threat-intensity spectrum (See Table 1).
- High-end threats have included:

- **Surface fleets— British, French, Spanish, and later German— in the 19th and early 20th centuries. This threat died with the American victory in World War II.**
- **Carrier air threat— from Japan in the 1930s and 40s. This peaked with a vengeance in 1941, but then also died in World War II.**
- **Intercontinental air and missile threat— potentially from the Germans in the last year of World War II, and then from the Soviets during the Cold War.**
- **Submarine threats— beginning in World War I, when submarines transitioned from being coastal defense to trans-oceanic weapons systems. During the interwar and early World War II period, the submarine threat was seen as being to coastal ports and bases, then to coastal shipping during the middle of World War II.**
- **Post-World War II high-end threats to the coast have been seen as largely air and subsurface launched, especially missiles, but also including air- and submarine-laid mines.**
- **Current high-end threats are seen as intercontinental submarine-launched and land-launched ballistic missiles that would cross the Pacific coastline on their way to the target.**
- **The US Navy has participated in coastal defense measures against *all* of the above high-end threats.**
- **Low-end threats have included: smugglers, slavers, disease-carrying civilian ships, rum-runners, saboteurs, landed enemy agents, drug runners, and illegal immigrants. The Revenue Marine— now the core of the Coast Guard— has been largely (but not exclusively) responsible for combatting these threats in time of war under the Navy aegis.**
- **The Navy has periodically helped the Revenue Marine in low-end threat coastal defense, starting with enforcement of the Embargo of 1807 and continuing through the Drug War of the 1980s and 90s, although the Navy would generally not like to get involved.**
- **The Army played a big role— often the largest role— in coastal defense from the early days of the nation through 1950. Likewise, coast defense was sometimes the biggest role the Army had. During**

some periods, unlike the Navy, the Army embraced the coast defense function with ardor. Then the Army got out of the business, except for participating in continental air defense with the Air Force.

- The *Air Force* (and its predecessor Army organizations) sought a major coast defense role in the 1920s and 30s, to defend the coasts from sea and air attack but also to prove what it considered the demise of surface ships as defensible platforms, to keep the Navy out of the land-plane business, and to keep alive a dream of strategic bombardment in an era when there was nothing it could strategically bombard besides ships at sea.
- The Marine Corps is the one service that usually doesn't go in for coastal defense, but even that got into the act at least once, with Marine Defense Battalions defending US Pacific island possessions and Guantanamo Bay during World War II.
- Today, all armed services focus on forward operations, and keep coast defense in the background. Even the Coast Guard touts its forward capabilities more than previously. They are the armed services of the remaining superpower, and that superpower has many important global interests far from home.
- A wide variety of hardware systems has been devised over the past two centuries to provide coast defense (see Table 2):
 - Surface platforms: Forts, ships, and submarines
 - Aircraft: Land-based heavier than air and lighter than air
 - Weapon systems: Guns, mines, torpedoes, depth charges, and missiles
 - Protective systems: Fortifications, underwater nets, minesweepers
 - Sensors: Lighthouses, life-saving stations, beach patrols, off-shore patrols, radar, sonar, and satellites
- The Gulf and Florida coasts have been particularly vulnerable over time to low-end threats.

- The Navy doesn't like using scarce shipbuilding money to build low-end coastal defense surface ships and craft in peacetime, reasoning that they can be quickly built during wartime if required.
- Even during wartime, it takes pressure from outside the Navy to pump up coastal warfare surface combatant numbers.
- In the 20th century, the Navy created special commands specifically to handle coastal defense. Each created a big operational splash upon its creation, then was loaded up with other duties and allowed to fade. They included *Naval Districts* (founded in 1903, loaded down with administrative duties by the 1920s, and gone by 1980; *Sea Frontiers* (founded in 1941, loaded down with logistics and maintenance functions at the end of World War II and gone by the 1970s); and *Maritime Defense Zones* (created in the 1980s but moribund today).
- 1942-43 marks the high water mark of modern US military coast defense efforts. Starting in 1943, the waning threat has occasioned a fall-off in US homeland defense efforts that has continued—with the occasional blip—through today (1998).

Table 1. Evolution of perceived threats to the US coasts

Years	Smugglers	European Surface Fleet	Asian Surface Fleet	European Subs & Mines	Asian Carrier Aviation, Subs, & Mines	European Aviation	Soviet Subs & Mines	Soviet Aviation	Soviet Missiles	Other Missiles
1790s	•	•								
1800s	•	•								
1810s	•	•								
1820s	•	•								
1830s	•	•								
1840s	•	•								
1850s	•	•								
1860s	•	•								
1870s	•	•								
1880s	•	•								
1890s	•	•	•							
1900s	•	•	•							
1910s	•	•	•	•						
1920s	•	•	•	•	•	•				
1930s	•	•	•	•	•	•				
1940s	•	•	•	•	•		•	•		
1950s	•						•	•		
1960s	•						•	•	•	
1970s	•						•	•	•	
1980s	•						•	•	•	
1990s	•									•

Table 2. Evolution of major US service coast defense weapons systems

Years	RS/CG Cutters	CGCOTP Forces	Ar Forts & Coast Artillery	Ar Controlled Mines	Ar AAA	Ar SAMs	Ar/AFLBA	Na GBs & PBs	Na Monitors & Rams	Na Contact Mines	Na Coastal Submarines	Na Coastal Minesweepers	Na Nets	Na Blimps	Na L-BMPA	Na MIUW Sensors
1790s	•		•													
1800s	•		•					•								
1810s	•		•					•								
1820s	•		•													
1830s	•		•													
1840s	•		•					•								
1850s	•		•													
1860s	•		•						•							
1870s	•		•						•	•						
1880s	•		•						•	•						
1890s	•		•					•	•	•						
1900s	•		•	•				•	•	•		•				
1910s	•	•	•	•	•			•	•	•	•	•	•			
1920s	•	•	•	•	•		•			•	•	•	•	•		
1930s	•	•	•	•	•		•			•	•	•	•	•		
1940s	•	•	•	•	•		•	•		•	•	•	•	•	•	•
1950s	•	•				•	•				•	•	•	•	•	•
1960s	•	•				•	•					•		•	•	•
1970s	•	•					•	•						•	•	•
1980s	•	•					•					•		•	•	•
1990s	•	•					•					•		•	•	•

Table 3. Major US military organizations responsible for coast defense

Years	Lighthouse Service	Revenue Service	Lifesaving Service	Coast Gaurd	Army Engineers	Army Coast Artillery	Army ADA	Army AF/USAF	Naval Stations & Yards	Naval Districts	Navy Sea Frontiers	Navy Fleet CINCs	Navy 10th Fleet	Navy MIUWUs	Navy/CGMDZs	Marine Defense Battalions	Unified Commands	JTFs&JIATFs
1790s	•	•			•				•									
1800s	•	•			•				•									
1810s	•	•			•				•									
1820s	•	•			•				•									
1830s	•	•			•				•									
1840s	•	•			•				•									
1850s	•	•			•				•									
1860s	•	•			•				•									
1870s	•	•	•		•				•									
1880s	•	•	•		•				•									
1890s	•	•	•		•				•									
1900s	•	•	•		•	•			•	•								
1910s	•	•	•	•		•				•								
1920s	•			•		•				•								
1930s				•		•		•		•								
1940s				•		•		•		•	•	•	•			•	•	•
1950s				•			•	•		•	•	•					•	•
1960s				•			•	•		•	•	•		•			•	•
1970s				•			•	•		•	•	•		•			•	•
1980s				•			•	•	•		•	•		•			•	•
1990s				•			•	•	•		•	•		•	•		•	•

Early period: 1790-1814: Frigates and gunboats

Overview

The high-end threat—especially from Great Britain but perhaps also from France or Spain—to the US East and Lake Coasts (there are no others) is real. This threat is principally in the form of enemy sail-propelled, cannon-armed battle fleets and accompanying troop transports.

The low-end threat includes customs-evaders, smugglers, slavers, and pirates.

In response, when Congress creates a US Army and then a US cutter service, each is given coastal defense responsibilities. The principal coastal defense force will be the Army, whose fortifications and coast artillery are intended to protect important coastal points and provide places of refuge for the nation's maritime forces. The cutter service operates at the low end of the threat spectrum, chasing smugglers as well as ensuring that customs are collected.

A navy comes along a little later. Congress first gives the Navy tools (frigates) for forward offense, ranging out far to sea to attack the enemy from bases secured by the Army's forts. Later, at a new administration's urging, Congress gives the Navy other tools (gunboats) to provide direct coastal defense itself. But the Navy's heart is always with the former. In any event, the resultant US Navy is a small if often capable one, especially compared to the huge European fleets of the period.

Meanwhile, when war comes to the coast in 1812—the most serious time it will—Army coastal defenses will shelter Navy frigates and Navy gun-boats will help protect them, as intended, in true joint synergy. The revenue cutters will attach themselves to the Navy. The system will work, even if the resources devoted to it should have been greater. When they can get out of port and break the British blockade, the frigates will acquit themselves well, far forward, against British warships and commerce. But they will not be able to get out as much as they would

like. Meanwhile, the Army will battle the British around the Great Lakes and at New Orleans, as well as provide coastal defenses in both areas.

Chronology¹

1789

August 7. **Federal lighthouse system established.** President Washington approves an act of Congress incorporating local and state lighthouses along the Atlantic seaboard into a federal system. This Lighthouse Establishment will be assigned to the Department of the Treasury as the very first federal government agency. It will subsequently be used by the Navy for coastal defense purposes, especially during the Spanish-American War. In 1903 the Lighthouse Service will become the model for the establishment of Naval Districts for coastal defense, and in 1939 will be incorporated into the US Coast Guard.

1790

August 4. **System of cutters authorized by Congress.** Created under the Treasury Department to enforce customs regulations and to defend coastal shipping from pirates, the "Revenue Service" (or "Revenue Marine") will receive 10 small armed schooners between 1791 and 1793. Coastal anti-smuggling operations will begin in 1791. For several years, protection of the customs will be the only statutory duty assigned to the service. Officered initially by Revolutionary War Navy veterans and predating establishment of the Navy, the service possesses at-sea coastal defense capabilities from the start. A century and a quarter later, it will form the core of the modern US Coast Guard.

1. (Within the chronology, events directly related to US Navy coastal defense are printed in **BOLD UPPER CASE**; other events are printed in **bold lower case**.)

1794

March 20. Congress authorizes first US Army coastal artillery and fortification system. Occasioned by a British war scare, this is the first of a series of Army harbor defense programs to deter and defend against enemy naval attack that will continue through World War II. Congress authorizes 20 locations on the Atlantic Coast to be fortified, and creates a Corps of Artillerists and Engineers to build and garrison the new fortifications. Enthusiasm for fortifying the coast, however, wanes, and little work is done after 1795 on what will later be termed the First American System of fortifications. These fortifications are earthworks, normally mounting twelve 24- and 32-pounders.

March 27. NAVAL WARSHIPS AUTHORIZED. Congress authorizes building of US naval vessels by the War Department. Vessels authorized are six ocean-going frigates for commerce protection overseas, not coastal defense at home.

1797

July 1. Cutters to defend the coasts. Congress authorizes the President to employ the cutters to defend the seacoasts and repel hostility to US vessels and commerce. Cutter crews are increased, and marines are authorized to be assigned to cutters.

1798

April 30. NAVY DEPARTMENT ESTABLISHED.

May 28. QUASI-WAR WITH FRANCE BEGINS. First use of the new US Navy, supplemented by cutters. Three coastal sectors are immediately established within which the Navy's new warships conduct coastal patrols. *The war will largely be fought forward, in the Caribbean, but the US Navy's very first task assigned is coastal defense.*

July. Cutters begin to turn over to the Navy. Ten new cutters large enough for defense roles are now built. Some are turned over to the Navy and will deploy forward with that service to the Caribbean; some remain on revenue duty, but are also charged with defending the seacoast. During the early

stages of the Quasi-War the cutters' role is essential; they are America's first line of defense against France.

Army rehabilitates and completes some existing fortifications and builds some new ones.

November. **NAVY COASTAL DEFENSE OPERATIONS END.** Forward operations against the French at sea begin, in the Caribbean. The Navy finds what it considers to be its true calling.

1799

March 2. **Cutters to cooperate with the Navy.** The President is authorized by Congress to assign the cutters to cooperate with the Navy, under the direction of the Secretary of the Navy. As small Navy warships are built, however, the Navy returns most cutters to the Treasury Department. Only three cutters will be retained for the duration of the war.

1801

February 3. **End of the Quasi-War with France.**

May 14. **War with Tripoli begins.** This war, like the Quasi-War, is exclusively naval, but takes place far forward, in the Mediterranean, and has no coast defense component. The war will end in 1805.

1802

Congress creates the Army Corps of Engineers. Coastal defense is its major responsibility.

1804

January. **FIRST NAVY GUNBOATS BUILT: NAVY GETS COAST DEFENSE MISSION AND ASSETS.** President Jefferson begins to build and deploy a force of USN single- or twin-gun harbor-defense gunboats. Craft are to supplement Army fortifications in direct coastal defense of the Atlantic seaboard, the Great Lakes, and—especially—newly acquired New Orleans. Some will also deploy forward. Their number will peak at 172 in the summer of 1809, distributed among more than a dozen ports. These gunboats are generally

despised by US naval officers. When war comes in 1812 they will largely prove useless in defending American harbors, and will be gone at war's end.

1807

Importation of slaves prohibited. Between now and the Civil War, the Navy will periodically enforce the ban on slavers forward, off Africa, while the Revenue Service will occasionally enforce the ban off the Atlantic and Gulf coasts. Neither service gives these operations high priority.

June 27. Chesapeake-Leopard incident war scare spurs fortification-building. In the wake of the seizure of the American frigate *Chesapeake* by the Royal Navy frigate *Leopard*, Congress will appropriate another tranche of funds to build harbor defenses. The resultant Army fortifications will become known as the Second American System. They will be permanent works of brick or granite, fewer in number but larger in size and more heavily armed than the First System forts.

December 22. EMBARGO BEGINS AGAINST ALL FOREIGN TRADE. Reacting in part to the *Chesapeake-Leopard* incident, Jefferson and a compliant Congress embargo all American foreign trade. As a result, *Jefferson's gunboat fleet and other Navy warships help the Treasury Department cutter service to chase, detain, and arrest American merchants evading the Embargo, until its repeal.*

1809

March 15. Non Intercourse Act repeals the Embargo. USN Embargo-enforcement operations end. All Navy gunboats are laid up except those on the New Orleans Station.

1812

June 18. WAR OF 1812 AGAINST BRITAIN BEGINS. *This will be the US Navy's principal experience with coastal defense inshore warfare until the Vietnam War.* Through 1814, the Royal Navy and British Army attack US Atlantic, Gulf, and Great Lakes Coasts. The US Navy operates chiefly in sporadic offensive operations by squadrons and single ships against Royal Navy warships in the North Atlantic and the Great Lakes. But the

Navy will also help defend the coasts, especially on Lakes Erie and Champlain, on Chesapeake Bay, and before New Orleans, chiefly with defensive gunboat flotillas under the Commandants of the various coastal stations. In the course of the war at least half of all US naval personnel are engaged in coastal defense.

In the face of British coastal raids and landings, the Navy deploys its puny gunboats and other coastal defense craft, to little effect—save somewhat in the upper Chesapeake and lower Mississippi, where they delay the British operations against Washington and New Orleans. The Cutter Service participates in the defense of the Chesapeake and operates against the British off the coast as well.

Army fortifications, where they exist, provide some defense; those harbors with both strong fortifications and an effective gunboat flotilla—notably New York—will not suffer assault. While the British can and do raid and land up and down the Atlantic coast, the British capture only one port—Alexandria, Virginia—defended by harbor fortifications.

1813

February. **JOINT COASTAL DEFENSE OPERATIONS STYMIE BRITISH BEFORE NORFOLK.** Navy gunboats and Army fortifications prevent a Royal Navy squadron from taking Norfolk—and the frigate *Constellation* sheltered there in the Elizabeth River. Synergistically, the guns of the frigate help prevent the taking of the Army's shore fortifications.

1814

ARMY FORT SHELTERS NAVY FRIGATE. USS *Constitution*, fleeing from two British frigates, achieves safety under protecting guns of US Army's Fort Sewall at Marblehead, Massachusetts.

April-August. **"BARNEY'S FLOTILLA" DEFENDS WESTERN CHESAPEAKE COAST.** In the classic if eventually futile example of US Navy coastal defense warfare, Commodore Joshua Barney builds a force of small craft around a cutter and a gunboat. Operating at the Patuxent and Potomac river mouths, he delays—but cannot seriously damage or defeat—British attacks on Washington and Baltimore. Future Navy analysts conclude, however, that while Barney did better than expected with his

coast defense fleet, naval coastal defense forces are a poor substitute for a "real" forward sea-going Navy.

Given the porousness of America's coastal frontier, however, a British raiding force of only 4,000 men is able to move overland through thick woods, overwhelm poorly positioned American forces at Bladensburg, temporarily occupy Washington, and then withdraw safely after setting parts of the capital afire. Without encountering resistance, a second British expedition works its way up the Potomac for 50 miles to force the capitulation of Alexandria. It too retires safely.

September 13-14. NAVYMEN REINFORCE FORT MCHENRY DEFENSES. At Baltimore, Fort McHenry—one of the seacoast defenses of the 1794 First System program—repulses a determined British landing attempt (with Navy seamen manning water batteries ashore, below the fort). The harbor fortification holds.

December. GUNBOATS HELP DEFEND NEW ORLEANS. Commodore Daniel T. Patterson, with a flotilla of two small warships, five gunboats, and two tenders, delays—but cannot himself defeat—the British attack on New Orleans and provides flanking support to General Andrew Jackson. While Jackson will defeat the British on land before New Orleans in January 1815, neither he nor Patterson can stop them from retiring to Dauphin Island and receiving reinforcements.

December 24. Treaty of Ghent ends War of 1812.

Nineteenth century: 1815-1889: From floating batteries to monitors

Overview

The nation downgrades one coast to defend—the Great Lakes—but acquires several important new ones—in the Gulf of Mexico, the Pacific from Mexico to Canada, and then Alaska. Threats to those coasts lessen for much of the period, however, despite a few war scares, as the nation's foreign relations with transoceanic powers settle down; and the arrival of steam propulsion and the concomitant dependence on coal reduces the range of potential enemy fleets.

Except during the Mexican and Civil Wars and the occasional war scare, the Navy deploys forward in squadrons around the world, conducting naval presence, commerce protection, and smaller-scale contingency operations. During the first half of the period, the US Navy is one of the world's second-tier naval powers in size and capability—well behind the navies of Britain and even France, but often on a par with the navies of Russia, Spain, and other European naval powers. Briefly during the Civil War, the US Navy arguably becomes the most powerful navy in the world. During the last quarter-century of this period, however, the US Navy almost disappears. It still operates mostly forward on foreign stations, but with ships that are few, small, and obsolete.

Coastal defense is still principally an Army Engineers' job, utilizing coast artillery and massive coastal fortifications. The Army, of course, has other responsibilities as well—prosecuting the Mexican and Civil Wars and fighting and transporting Indians. Joint but Army-led boards are convened to recommend integrated national coastal defense systems, but Congress only partially responds to the boards' recommendations. Nevertheless, US coastal fortifications compare favorably with those of other nations. Both the Army and the Navy participate in running the nation's lighthouse system.

Naval base responsibilities include supplementing local harbor defenses and protecting unfortified stretches of the coast. The Navy experiments with floating batteries, but deploys no operational systems before the Civil War. During the major wars of the period—the Mexican and Civil Wars—the nation fights enemies which can do nothing to threaten its shores—and can scarcely defend their own.

After the Civil War, things change little for the Navy regarding coastal defense, except that a few decrepit examples of a new ship type introduced during the war—the monitor—linger on in the coastal defense role. At the very end of the period there is a brief flurry of considered thinking about the coastal defense role in the naval officer corps, soon to be eclipsed by more powerful notions of naval force employment. The Navy begins to build more monitors, new coastal torpedo boats, and a coastal ram.

The Army is in little better shape, although it experiments with controlled underwater mines and runs another joint board examining coast defense. The Revenue Service continues its normal duties, complemented by a new Life Saving Service.

Chronology

1815

March 2. **War with Algiers declared.** This second naval Barbary War is fought far forward, in the Mediterranean. Coastal defense is not in play. The war will end June 30.

Summer. **FULTON'S DEMOLOGOS TESTED.** The Navy holds sea trials of the world's first steam-powered warship, designed by Robert Fulton to break blockades of US ports. While the trials are successful, the ship is never used in that fashion and, renamed *Fulton*, it becomes a receiving ship. In 1829 it blows up. It is the first of several pre-Civil War designs for floating steam batteries for coastal defense, none of which will yield operational systems.

1816

JOINT "BERNARD BOARD" CREATED TO RECOMMEND COASTAL DEFENSE SYSTEM. In reaction to the porousness of Amer-

ica's coasts during the War of 1812, President Madison creates a Board of Engineers for Fortifications under the French Army engineer General Simon Bernard to study coastal defenses and recommend changes to the War Department. The Fortifications Board consists of Bernard, two high-ranking Army Engineer officers, and the local Army engineer and Navy commander at each contemplated local defense station.

APPROPRIATIONS FOR NAVY COAST DEFENSE. Congress appropriates money for three coast defense steam batteries, as well as a large blue-water fleet. Subsequent congresses will throttle back on this program, however, and the steam batteries will never become operational.

1817

BERNARD BOARD RECONNOITERS GULF FRONTIERS. General Bernard, Navy Commodore Daniel Patterson, and 1LT James Gadsden reconnoiter the Louisiana coast, recommending an extensive defense system.

April 28. **Rush-Bagot agreement.** US and British naval forces on the Great Lakes are limited by an arms control agreement. Navy defensive (and offensive) responsibilities on the Lakes end, although Army fortifications continue.

1819

Florida cession. Spain cedes Florida to the US. The US thus acquires extensive new continental coastline to defend on the Atlantic and the Gulf of Mexico.

1821

February 7. **BERNARD BOARD RECOMMENDS COAST DEFENSE POLICY.** The Fortifications Board's first substantive report outlines a theory of coastal defense that will remain in vogue until the 1890s. The Navy is declared the nation's first line of defense, but since it is likely to remain small, it must be backed up by Army Corps of Engineers seacoast fortifications—as well as a regular Army, an interior communications network, and a well-organized militia. While the theory will remain

influential, the wherewithal to implement it will only sometimes be forthcoming from Congress.

Army fortifications built from now through the Civil War as a result of these recommendations are known as the Third American System. Unlike their predecessors, they will be built at harbor entrances rather than near the areas they are to defend. Many will mount more than 150 guns.

1820s. **Army reorganizes.** Congress legalizes the Army's combat branches, but leaves the Artillery branch without a Corps commander. The Artillery will henceforth seek to acquire Corps status, which will occur in 1901.

1841

August 1. **NAVY HOME SQUADRON CREATED.** In response to still another war scare with Britain, a Home Squadron is created to cruise along the Atlantic coastline (there is no Pacific coastline yet). In several stages, it will eventually transform itself into the Atlantic Fleet.

1846

April 23. **War with Mexico declared.** The war will last through 1848. The US Navy will conduct forward amphibious and coastal operations on the Gulf and Pacific coasts of Mexico and California. Mexico has little naval power, and will pose no threat to US coasts.

June 15. **US acquires a Pacific coast.** By treaty with Great Britain, the US acquires the southern Oregon Country, giving it a Pacific coastline to defend.

1848

February 2. **US acquires more Pacific coast.** Under the terms of the Treaty of Guadalupe-Hidalgo, ending the Mexican War, the US acquires a new Pacific Ocean coastline to defend in California.

1852

LIGHTHOUSE BOARD ESTABLISHED. Although the Lighthouse Service remains under the Treasury Department, it is now administered largely by the military services, through a board composed

of two officers from the Army Corps of Engineers, two from the Navy, and two civilian scientists, with junior officers of the Army and Navy as secretaries. Each of the 12 lighthouse districts into which the country's coastline is divided has an Army or Navy officer assigned as lighthouse inspector. The board will continue to administer the service until 1910, although responsibility will shift from the Treasury to the new Department of Commerce and Labor in 1903.

1858

US claims Johnston Island. This mid-Pacific island will eventually become part of the outer defenses of Hawaii and require coastal and air defense.

1861

April 12. Civil War begins. The war will last through 1865. As in the Mexican War, US Navy operations are forward: enforcing a blockade, projecting power on enemy coasts and rivers, and hunting raiders out at sea. Union Civil War Navy Yard commandants, however, on occasion organize defense forces to pursue Confederate raiders making hit-and-run attacks on Union shipping within sight of Sandy Hook or Cape Cod.

Coastal defense—especially with rams, ironclads, and under-water mines (often called “torpedoes”)—becomes a major pre-occupation of the Confederate Navy (a temporary off-shoot of the US Navy).

The beginning of the war finds the seaports of both the North and the South defended by the most extensive series of harbor forts ever built by any nation up to that time. The war will show, however, that the masonry works of the Third System cannot stand up under bombardment by the newly introduced rifled artillery. As a result, the Confederates will build large, almost indestructible earthwork harbor fortifications.

On the Confederate side, former US Navy officer Matthew Fontaine Maury will be designated Chief of the Sea Coast, Harbor, and River Defense of the South.

1865

April 9. Civil War effectively ends. General Lee surrenders to General Grant at Appomattox.

This begins a period of limited military expenditures for both services, including for coast defense, that will last for three decades.

NAVY MONITOR FORCE RETAINED FOR COASTAL DEFENSE.

Invented by the US Navy in 1862, coastal monitors will remain in the Navy inventory until well after the turn of the century. Civil War-era monitors are almost exclusively dedicated to coastal defense, although one will deploy (once, and partly under tow) to Europe to demonstrate forward capabilities, and another will transfer around Cape Horn from the Atlantic Coast to the Pacific. Otherwise, the Navy re-deploys forward in squadrons for SSCs and MOOTW, until the beginnings of the battle fleet in the 1890s.

1866

Army Engineering school begins to test underwater controlled mines. An Engineering School of Application is created at Willets Point, New York, where coastal underwater controlled minefield doctrine, techniques, and equipment start to be developed. The Willets Point systems will be the Army's only coastal controlled underwater minefield systems through the end of the century.

1867

March 29. Alaska Purchase. By treaty with Russia, the US acquires Alaska and the Aleutians, and therefore the responsibility to defend a vast new North Pacific coastline. The Revenue Cutter Service will quickly become the nation's principal agent in Alaska, including coastal defense against liquor and arms smugglers.

December 28. Annexation of Midway. US takes possession of Midway Island in the central Pacific. It will eventually become part of the outer defenses of Hawaii and require coast and air defenses. (Midway will be attacked by the Japanese and defended by joint US forces in 1942.)

1870

February 4. Cutters protect Alaskan coasts against smugglers. President Grant proclaims the importation of liquor into Alaska Territory illegal and bans the importing of firearms and ammunition to Saint Paul and Saint George Islands. Later, the importing of breech-loading rifles and fixed ammunition to the entire territory will be banned. The Revenue Cutter Service will be charged with policing these bans.

1871

Congress adds underwater harbor defense mining to duties of Army Engineers. Throughout the late 19th century the Engineers conduct harbor defense mining experiments and promulgate mining doctrine.

1874-5

NAVY BEGINS BUILDING NEW COAST DEFENSE MONITORS. Five Civil War-era monitors will be "reconstructed"—actually built as completely new vessels. They will commission between 1891 and 1896. Although nominally ocean-going monitors—one will cross the Pacific during the Spanish-American War—they will actually be suitable only as coast defense ships.

1878

US Life-Saving Service established. Spun off from the Revenue Service, it becomes a separate Treasury Department agency comprising 189 stations—including 139 on the Atlantic Coast and five on the Gulf. The Navy will use these posts for coastal defense during the Spanish-American War, and the service itself will amalgamate with the Revenue Service to form the Coast Guard in 1915.

1884-5

Cutters quarantine coast against disease. Revenue cutters impose a virtual blockade of the Delaware and Chesapeake Bays, and the Gulf and Lake Coasts, cooperating with the Public Health and Marine-Hospital Service in an effort to prevent the introduction of cholera and yellow fever from abroad.

1885

March. ARMY-NAVY-CIVILIAN COASTAL DEFENSE BOARD DIRECTED. In the 1885 Fortifications Appropriations Act, Congress directs the President to appoint a joint board, headed by Secretary of War Endicott, to examine the nation's coastal defenses. The "Endicott Board" will include two prominent Navy line officers— Commanders William T. Sampson and Caspar Goodrich. Each will subsequently become an important flag officer.

1886

January. ENDICOTT BOARD RECOMMENDS NEW COASTAL DEFENSE POLICY. The board basically reaffirms the purposes to be served by coastal fortifications as they had been defined by the Bernard Board in 1816. Its concern is with the defense of US harbors and port cities against naval bombardments, forcing of the harbor channels, and blockade. It recommends— in addition to Army artillery, mines, searchlights, and fortifications—Navy floating batteries, gunboats, 175 torpedo boats, 18 rams, and underwater mines, to be deployed at 27 coastal points. *The Navy will eventually deploy one new monitor, one harbor defense ram, and a flotilla of torpedo boats to implement these recommendations.*

The Army will embrace the coastal defense mission as laid out in the Endicott Board report, since it gives the service a meaningful role with the winding down of the Indian Wars. At this time—1886—the Army's coastal (and field) artillery has probably reached its post-Civil War nadir. By 1890, however, the Corps of Engineers will embark on yet another large fortification construction program, implemented in fits and starts through 1910 and known henceforth as Endicott Period fortifications. These fortifications will be armed with widely spaced and carefully hidden batteries, and include both searchlights and controlled underwater mines.

The Artillery branch will move to eclipse the Engineers to become the key Army player in implementing coast defense. This, however, will lead to a schism within the branch between coast and field artillery practitioners.

August. FIRST NAVY TORPEDO BOAT AUTHORIZED. This is USS *Cushing*, Torpedo Boat No. 1, which will not be commissioned until 1890. Torpedo boats will be coastal defense units armed primarily with

torpedoes and only secondarily with guns. They are seen as an arm of an integrated coastal defense organization, midway between the Navy's larger coastal defense ships and monitors and the Army's forts and controlled underwater minefields. Descendants of Jefferson's gunboats and ancestors of modern destroyers, torpedo boats will be symbolic of the transition of the Navy from a coastal defense-cum-cruiser warfare force to a force capable of con-testing the command of the sea through the operations of a battle fleet. Thirty-five will be built and commissioned through the 1890s, until 1904. By 1898, however, US Navy interest will have shifted to building a new small war-ship type capable of operating far forward with the main battle fleet—the destroyer.

1887

NAVY COAST DEFENSE MONITOR AUTHORIZED. To be commissioned in 1893, *Monterey* is a product of the Endicott Board and the first monitor to be laid down as part of the new steel navy of the 1880s. Although not designed for ocean cruising, it will cross the Pacific during the Spanish-American War, and endure in the fleet—at the end as a submarine tender—until 1921.

1888

FIRST STATE (MASSACHUSETTS) NAVAL MILITIA FORMED. Under state control as components of individual state militias, the *mission of the Naval Militias is coastal and harbor defense*. Each state militia is to protect its own coastline in time of war. The mission will expand to include coastal defense of the entire country. Twenty-four state militias will be formed by 1917.²

2. Dates of creation of state naval militias: Massachusetts (1888); New York, Pennsylvania, Rhode Island (1889); California (1891); Maryland, Vermont, South Carolina (1892); North Carolina, Michigan, Georgia, Illinois, Connecticut, Virginia, New Jersey (1893); Louisiana (1894); Florida, Ohio (by 1898). By 1917, 24 states have naval militias. In 1998, only three states (California, Illinois, and New York) retain naval militias.

THEORY OF USN COAST DEFENSE PROPOUNDED. CAPT W. L. Sampson, USN, publishes "The Naval Defense of the Coast" in the US Naval Institute *Proceedings* (15:169-232), in what then substitutes for the Institute's annual Prize Essay. Sampson had been a US Navy member of the 1885-6 Endicott Board and would go on to command the US Navy squadron at the Battle of Santiago during the Spanish-American War. Sampson elaborates on what he sees as the potential threat to the coasts as well as what he regards as proper US Navy courses of action. He would call upon the Coast Survey, the Life Saving Service, and the Revenue Marine to fight, using their shore facilities as communications centers. He also calls for the creation of Navy coastal defense districts.

His views represent the apogee of US Navy thinking on coastal defense as a fundamental US Navy course of action. Such views on coastal defense, like those on other competing US Navy functions such as forward commerce-raiding, will soon be eclipsed by the writings of the proponents of forward US Navy fleet actions at sea.

NAVY HARBOR DEFENSE RAM AUTHORIZED. This unique US Navy armored steel warship, a product of the Endicott Board, will be USS *Katahdin*. Along with a Royal Navy vessel, she will become one of only two "pure" rams ever built. Finally commissioned in 1896 after numerous construction problems, she will prove useless in any important role—although deployed briefly along the coast from New England to Norfolk during the Spanish-American War—and will be sunk as a target in 1909.

Late 19th and early 20th centuries: 1890-1918: Coast defense vessels and Naval districts

Overview

The nation experiences a military revival, at first mostly in professional military and naval thought but later in appropriations and major force improvements. Rearmament initially centers on traditional defensive strategies, including expansion of the Navy and of the Army fortification system to prevent an enemy from raiding the coast, bombarding port cities, effecting a close blockade and increasingly threatening US Navy bases. European steam naval fleets now are believed to exhibit increasing range, endurance, and lethality.

US Navy thinking to meet the threat, however, centers on massing the Navy for offensive fleet actions at sea, not direct coastal defense. Nevertheless, increased naval appropriations include increased funds for coastal defense, as well as a greatly expanded naval militia with coastal defense as a principal function. During the first decade and a half of this period, the Navy rockets from being a small and obsolescent collection of mismatched vessels to a coherent battle force at the very first rank of world naval power. The Navy commissions the last of the monitors and a short-lived force of torpedo boats, but also dozens of new harbor defense and coastal submarines and— during World War I — coastal sub-chasers.

During the Spanish-American War, the Navy mobilizes reserves and state militias, and adds the resources of the Revenue Cutter, Lifesaving, and Lighthouse Services to its coast defense posture. Despite the primacy of forward defense in Navy thinking, it retains forces at home for coastal defense until it can assure the public that no threat to the coast exists. It does the same again during World War I. US Navy participation late in World War I yields the view—ignored after

the war—that convoy, not patrol, is the key to resisting submarine attacks in coastal waters.

The US emerges as a potential great power at the same time as great power rivalries begin to heat up. The build-up of potentially hostile foreign fleets—especially by Germany, Japan, and Britain—increases the perception of a threat. With improvements in warship propulsion systems and the advent of colliers and colonial bases, the potential transoceanic range of these fleets increases as well. And the nation acquires still more coasts to defend—in the mid-Pacific, Hawaii, the Panama Canal Zone, the Philippines, and the Caribbean. The US “homeland” reaches its approximate current (1998) contours.

The Army, meanwhile, continues to embrace the new fortifications program recommended in the 1880s. With the demise of the frontier, coastal defense becomes its most significant function before the Spanish-American War. Even after that war, and despite the rise of new Army expeditionary and colonial missions, coastal defense will remain a significant Army function. Yet another board is convened, after the turn of the century, to examine the nation’s coastal defenses and recommend their improvement.

The Navy’s insistence on Army protection of its bases will keep Army harbor defenses in a high state of readiness through World War II. The Army does not contemplate completely preventing amphibious attack, given the vast length of the US coast and its suitability for amphibious landings, especially along the Atlantic. The Army intends, rather, to deny developed harbor and communications facilities to an invader and to make an advance inland difficult, while at the same time preventing the destruction of the commercial and naval centers along the coast.

The era is marked by organizational turmoil. After the turn of the century, the Army transfers its coast defense responsibilities from the Engineers to the Artillery, then splits the latter to form a Field Artillery branch and a new Coast Artillery Corps. The Lighthouse Service and Revenue Service amalgamate to form the Coast Guard. The Navy organizes into a battle fleet for forward fleet combat the first time. It also, however, formally organizes itself for the first time for coastal defense. *A Naval Reserve is formed and Naval Districts are created whose initial primary responsibility will be coastal defense*, although in World War I they will take on administrative and logistics functions, and by 1918 will be

transformed into complex organizations. Also, a Joint Army-Navy Board is formed, chaired by the service secretaries.

All these new organizations both conflict with and learn to work with one another. Various movements are put in train for even more radical changes— e.g., putting the Coast Guard and the Coast Artillery under the Navy, or putting the coastal submarine force under the Army. These are unsuccessful, however.

Also, new technological threats to the coast begin to appear: submarines and aircraft. Nevertheless, the threat to the coasts is still perceived to center on enemy battle fleets mounting naval guns, and accompanying Army transports. Increasingly, the Army coast defense role is seen as one of protecting Navy installations, vice population and commercial centers. The Army fortification system of this period gives the United States a system of harbor defenses unexcelled by those of any other nation.

Chronology: 1890-1918

1890

January 20. **NEW NAVY FORWARD FLEET STRATEGY.** A Navy Policy Board convened in July 1889 reports out to Secretary of the Navy Tracy. The board advocates a new US naval strategy to achieve command of the sea by building a long-range fleet capable of engaging enemy fleets—far forward, in their own home waters.

Coastal defense— as espoused by CAPT Sampson in the Endicott Board report on the pages of the Naval Institute Proceedings the previous year—is relegated to a secondary consideration, along with forward commerce-raiding. However, the Navy Policy Board advocates construction of both a forward battle fleet and a home defense fleet. Its views reinforce Secretary Tracy's own Annual Report for 1889, Rear Admiral Stephen B. Luce's influential 1889 Proceedings article "Our Future Navy," and CAPT Alfred Thayer Mahan's 1890 Influence of Sea Power upon History.

Although the proponents of forward operations now have the upper hand, considerable debate over the relative merits of a coast defense fleet vis-a-vs

a forward battle fleet, reflected in congressional authorizations and Navy ship designs, will last for a decade.

June 30. **FIRST "SEA-GOING COAST-LINE BATTLESHIPS" AUTHORIZED.** Congress authorizes the first three true US battleships—the Indiana class—but gives them a coastal role and limits them to a 4,500-mile range. (Designated “battleships” upon commissioning, they will briefly be re-designated “coast battleships” in 1919 before being demolished or sunk as targets in 1923.) The next 12 authorized US Navy capital ships will also be styled “coast-line battleships” by Congress. This practice will end at the turn of the century. The first and subsequent 20th-century battleships authorized by Congress will be styled “sea-going” or “first-class.”

1893

March 3. **FIRST NAVY HARBOR DEFENSE SUBMARINE AUTHORIZED.** Congress authorizes *Plunger*, the first Navy submarine torpedo boat. The boat is never finished, however, and the first submarine to serve in the fleet will be *Holland* (SS 1), commissioned October 12, 1900. A dozen submarines will follow over the next seven years, all intended for harbor defense and not capable of extended sea operations.

1898

March 18. **NAVY TAKES MEASURES TO PROTECT THE COAST FROM SPAIN.** In the wake of the sinking of USS *Maine* in Havana Harbor, the Navy anticipates war with Spain but must contend with public clamor for coastal protection. Accordingly, the Navy will deploy in five squadrons, three of which will be oriented—over Navy objections—to coastal defense:

- A flying squadron of battleships and cruisers is detached from the North Atlantic Squadron and formed at Hampton Roads for the defense of the US Atlantic seaboard.
- A northern patrol squadron of cruisers will likewise be detached on April 20, and distributed along the coast from Maine to Virginia.
- A “mosquito fleet” (which will become the Auxiliary Naval Force) is placed off the major ports for harbor defense.

- Meanwhile an Asiatic squadron prepares to descend on the Philippines.
- What remains of the North Atlantic Squadron itself prepares to deploy to the Caribbean.

April 9. Cutters transfer to the Navy. An Executive Order transfers a number of revenue cutters from Treasury to the Navy. Four patrol the West Coast against raiders; seven guard East Coast and Gulf Coast ports. Other cutters deploy forward with the Navy to Cuba and the Philippines; all return to the Treasury Department after cessation of hostilities.

April 15-May 9. Cutters patrol fortified harbors. The Navy assigns seven Revenue Service cutters to support the Army in patrolling major East and Gulf Coast harbor defenses, from Boston to New Orleans.

April 20. SPANISH-AMERICAN WAR BEGINS. The North Atlantic Squadron deploys forward from Key West to the Caribbean.

April 22. NAVY COASTAL SIGNAL STATIONS ACTIVATED. Coastal defense missions are assigned to the State Naval Militias and the US Life-Saving Service, freeing the Navy— and some cutters— for offensive operations. Militias man coastal signal stations, and patrol coastal harbors and river inlets in monitors, yachts, and patrol boats. The Navy assigns the task of coast-watching to the Life-Saving Service. As a result, two-thirds of the Navy's coastal observation stations will be Life-Saving Stations.

May 1. NAVY COASTAL PROTECTION SQUADRONS DISESTABLISHED. Flying Squadron and Northern Patrol ships rejoin the North Atlantic Squadron in the Caribbean, once the Spanish fleet has been located and judged no longer to threaten the US Atlantic coast.

May 26. AUXILIARY NAVAL FORCE AUTHORIZED. This formalizes activities already under way, as the Navy had already anticipated congressional approval. The Auxiliary Naval Force or "Mosquito Fleet" stationed off major ports takes on many local defense functions. It includes eight recommissioned single-turret Civil War-era monitors, as well as improvised gun vessels, rams, and torpedo boats. To decentralize control of the force, nine districts are established— six on the Atlantic, two on the Gulf, and one on the Pacific Coast. (These are direct precursors of the Naval Districts established five years later.)

Meanwhile, the US Army attempts to defensively mine New York harbor with underwater controlled mines, protected by New York naval militia deployed on tugs.

August 12. **Hawaii annexed.** The US annexes the Kingdom of Hawaii to the homeland, and thereby acquires the responsibility to provide for the coastal defense of the islands. (Hawaii will be fortified, but successfully raided by the Japanese in 1941.)

August 12. **Armistice with Spain.** The strategic effect of the victory is to end the argument over the coast defense role of the Navy's capital ships. From now on, the United States will authorize, build, and operate an ocean-going battle fleet. Coastal defense is a job for secondary naval forces and for the Army.

October. **CONTRACTS LET ON LAST FOUR NAVY COAST DEFENSE MONITORS.** These will be the Arkansas class, to be commissioned in 1902 and 1903 and mounting 12-inch guns. They will not see combat during World War I, but will instead be used as coastal submarine tenders.

December. **US acquires the Philippines, Puerto Rico, and Guam.** The Paris Peace Treaty with Spain gives the US new overseas possessions to defend. The Philippines will be particularly exposed to attack. The Navy will contribute to the direct coastal defense of the Philippines with torpedo boats, coastal submarines, and patrol seaplanes. Guam is acquired as a cable station and potential naval station, but will not be developed as a defended base. (The Japanese will successfully overrun the defenses of the Philippines and take Guam as well in 1941-1942.)

Palmyra annexed. An uninhabited atoll in the Line Islands of the Pacific, Palmyra will become part of the outer defenses of Hawaii and require air and coastal defense. (Palmyra will be raided by the Japanese during World War II.)

1899

January 17. **Wake Island annexed.** The US formally takes possession of Wake Island in the Pacific for a cable station. It will eventually become part of the outer defenses of Hawaii and require Navy coastal and air defense. (Wake's coastal defenses will be overwhelmed by the Japanese in 1941).

1900

NAVY GENERAL BOARD ESTABLISHED. Its mission is to "insure efficient preparation of the fleet in case of war *and for the naval defense of the coast.*"

February. **American Samoa annexed.** The US acquires six small islands of the Samoan Group for a naval station at Pago Pago, and the Navy gains a requirement to provide for their coast defense.

October 12. **FIRST NAVY HARBOR DEFENSE SUBMARINE COMMISSIONED.** The harbor defense submarine *Holland* (SS 1) is the first submarine to serve in the US fleet. A dozen similar submarines will follow over the next seven years, all intended for harbor defense and not capable of extended sea operations.

1901

February 2. **Congress authorizes an Army Artillery Corps with two branches.** Increasing specialization of weapon systems leads Congress in the Army Reorganization Act to direct the Army to re-organize its artillery branch into 30 batteries of field artillery and 126 companies of coast artillery. The Artillery finally gets its own Corps commander, as well as the coastal defense mission from the Engineers. The Engineers keep their watercraft, however.

1902

NAVY SETS UP PROTOTYPE NAVAL DISTRICTS. The Navy announces that, to enhance naval coastal defense, it is setting up experimental districts on stretches of the East, Gulf, and West Coasts.

1903

JOINT ARMY AND NAVY BOARD CREATED. In the aftermath of the Spanish-American War, a joint board comprising the military and civilian leadership of the two services is created by order of the two service secretaries, to confer on matters calling for interservice cooperation, *including coastal defense.* It will have no command responsibility.

May 7. NAVY ESTABLISHES FIRST NAVAL DISTRICTS FOR COASTAL DEFENSE. Thirteen such districts are set up around the perimeter of the continental United States, reporting to the Secretary of the Navy through the Chief of the Bureau of Navigation. Coastal defense is the only duty assigned, to be effected by district "mosquito fleets" of motor boats, yachts, and obsolete monitors. Boundaries originally correspond generally to existing Lighthouse Service districts.

Navy Yards retain administrative, logistical, and other responsibilities, however, responding to the other bureaus. Naval District commandants and Navy Yard commanders are, where possible, double-hatted—a situation that will obtain until World War II. Consequently, district responsibilities will usually be relegated to second place, behind Yard duties.

Until World War I, however, the Naval Districts will be largely paper planning constructs to be fully constituted only in time of war, and without full-time staffs of their own. Naval Districts will endure, in one form or another, until abolished in 1980.

May 22. Cuba cedes Guantanamo Bay. The United States gains a naval station at Guantanamo, and the Navy gains yet another requirement to provide coastal defense.

August 29-September 6. JOINT ARMY-NAVY EXERCISE TESTS COASTAL DEFENSE. The first joint US Army and Navy exercise is held in Narragansett Bay and New London to test the ability of the Artillery Corps to defend the US coastline and the Navy to operate against a hostile shore. The Artillery plants a controlled underwater minefield at New London, and claims it successfully "sinks" Navy battleships.

Lighthouse Service shifts from Treasury Department. The service now comes under the new Department of Commerce and Labor. The joint Army-Navy-civilian Lighthouse Board will continue to administer the service until 1910, however, and the service will return to the Treasury in 1939, when it will become a part of the Coast Guard.

1904

January. Army makes abortive bid for coast defense submarines. After a successful test of a submarine designed by Simon Lake, the Army

School of Submarine Defense at Fort Totten, New York, recommends that the Army purchase five harbor defense submarines, initially as bottom workboats to repair controlled underwater mine field junction boxes. A torpedo-carrying submarine is seen as a natural extension of the fixed shore torpedo tubes then under Army discussion.

Despite Senate approval, however, the concept of an Army submarine dies. The Navy, claiming responsibility for all mobile elements of coastal defense, maintains jurisdiction over all submarines.

First Army mine planters. The first four vessels especially designed for mine planting are built, to War Department specification. They will be allocated to East Coast ports. Periodically, additional classes will be added to the Army's fleet, in part to cover West Coast and overseas ports: A class of four in 1909, a class of one in 1917, and a class of nine in 1919. In 1922 the total fleet will be cut back to seven, plus a cable layer. One new mine planter will be built in 1938, and a new (and last) class of 16 will be authorized in 1940 and 1941.

Mine planters will be the only US Army warships, i.e., vessels directly operating a weapons system.

1905

ANOTHER BOARD MAKES RECOMMENDATIONS ON COASTAL DEFENSE. The "Taft Board" concludes that fixed defenses offer little protection, endorsing mobile warships (submarines and destroyers and minefields). Fortifications built henceforth and through the 1930s as a result of the Taft Board recommendations are known as "Taft period" fortifications. A total of 41 sites in the US and 8 overseas are recommended for development of underwater controlled submarine mine batteries. By 1910, all but 4 US and five overseas posts will have mine equipment ordered or in place.

1906

November 23. **FIRST NAVY COASTAL SUBMARINES COMMISSIONED.** These are the first submarines of the C class, more capable than the earlier US Navy harbor defense submarines. They are sea-going boats capable of deploying off the coast and attacking enemy battleships.

They will be followed by several other classes of coastal defense submarines, some of which will serve through World War II. The US Navy's submarine force will remain a coastal defense force until after World War I, with the arrival of the first long-range, sea-going fleet boats. Initially, obsolete coast defense monitors will serve as coastal submarine tenders.

1907

January 25. Congress creates US Army Coast Artillery Corps. The Army Corps of Artillery is reorganized by the Army Artillery Reorganization Act into separate Coast Artillery and Field Artillery Corps, with the former receiving 44 additional companies, chiefly to provide controlled underwater minefield detachments. (In 1908 the Coast Artillery will include over 17,000 troops—almost a quarter of the Regular Army, while the Field Artillery would number less than 5,000—only 6 percent of the service). The Coast Artillery Corps' mission is to operate the platform-mounted heavy guns and controlled underwater minefields protecting US ports, harbors, and naval bases. The Chief of Coast Artillery is made a member of the Army's General Staff Corps, unlike the Infantry, Cavalry, and Field Artillery branch chiefs.

(The Coast Artillery Corps will remain separate from the Field Artillery until 1950, despite attempts by the latter—increasingly important after World War I—to re-integrate them earlier. It will be regarded by the rest of the Army as chiefly an auxiliary of the Navy.)

A subsidiary Army Mine Planter Service (AMPS) is also established, to organize the Army mine planter fleet. A commissioned officer of the Coast Artillery Corps is assigned to each mine planter as commanding officer.

Navy agrees to Army Coast Artillery use of Lighthouse Service boats. The Navy agrees that when Lighthouse Service vessels are incorporated into the Navy at the beginning of a war, 31 pre-designated Lighthouse Service vessels will be made available to the Army for mine planting. With the signing of this agreement, the Army will purchase and store at each defended harbor suitable equipment to convert these vessels into mine planters.

March 25. JOINT BOARD APPROVES NAVY COASTAL DEFENSE REGULATIONS. Regulations for the Government of the Naval Districts

of the United States, drawn up by the Navy General Board, are approved by the Joint Army-Navy Board. They comprise "detailed instructions for carrying into effect in time of war the Naval District work, including the Naval Patrol, . . . which embody the General Regulations approved by the Joint Board regarding Defensive Sea Areas, channels through minefields, and cooperation of Army and Navy."

District "mosquito fleets" are to serve primarily as lookouts or pickets for early warning of raids by enemy surface vessels and as communications relay platforms between the shore and the fleet. They are to include Harbor Entrance Patrols by inshore craft; District Scouts or Offshore Patrols by coastal vessels operating 50-75 miles at sea; shore-based Naval Patrol Stations (including Navy, Lighthouse, Lifesaving, Weather Bureau, and Army Signal Stations); and Coast Defense divisions of monitors, coastal submarines, and other available warships.

August 1. First US Army aviation office. An Aeronautical Division of the Signal Corps is set up, destined to evolve into the US Air Force. From now until the 1940s, the ever-increasing over-water range and capability of US Army land-based military aviation will heavily influence the development of USN coastal defense policy, organization, and operations.

August-November. Army debates assignment of Coast Defense to the Navy. An internal debate rages within Army staffs and in service journals regarding possible transfer of the coast defense mission and forces to the Navy. In the end, no such transfer is formally proposed. Similar ideas will crop up in various quarters over the next decade, but will not go anywhere.

1911

February. Army Coast Artillery Districts formed. The Army inserts a new command level between the Chief of the Coast Artillery and each harbor defense command. In the new command structure, commands are responsible for coordinating coastal defense activities in their areas with the other branches of the Army and with the Naval Districts.

May 8. The Navy orders its first airplane.

1914

February 16. **NAVAL MILITIA ACT.** State naval militias are placed under Navy Department supervision. *The primary naval militia role changes from coastal defense to fleet augmentation.* The coastal defense mission is retained, however.

July 28. **World War I begins in Europe.** At the time, American harbors, protected by 75 well-armed forts armed with disappearing guns, are among the best defended in the world. By 1918, however, they will be obsolete in the face of wartime improvements in shipboard fire control.

August 15. **Panama Canal opens.** The United States is now responsible for the coastal defense of the Canal entrances. The Navy will contribute to the direct coastal defense of the Canal with torpedo boats, coastal submarines, and patrol seaplanes.

1915

January 20. **US Coast Guard created.** The US Revenue Service and US Life-Saving Service are merged to form the US Coast Guard, under the Treasury Department.

March 3. **POSITION OF CHIEF OF NAVAL OPERATIONS (CNO) CREATED.** On May 11, ADM William Benson will be appointed the first incumbent of this new position, aimed at centralizing and professionalizing control of the US Navy's operating forces, including coastal defense forces.

German Zeppelins bomb Britain. The era of long-range air bombardment, leap-frogging coasts, begins. *Coastal defense begins to be transformed into homeland defense.*

1916

U-Boat capability to threaten US Atlantic coast. A German submarine visits Newport, Rhode Island. Her transatlantic voyage shows US planners the potential of transatlantic submarine attacks, in either direction. From now through the 1980s, foreign submarine threats will radically change the nature of US Navy coastal defense operations and organization.

April 18. **NAVAL DISTRICT SYSTEM ENHANCED.** A revised set of US Navy regulations for the Naval Districts is promulgated, giving them full-time chiefs of staff and staffs, and transferring their direction from the Chief of the Bureau of Navigation to the Chief of Naval Operations (Naval Districts will continue to be directed by the CNO until their abolition in 1980). Minelaying, minesweeping, and net- and boom-laying are added to District defense functions. The system is expanded to encompass Alaska, Puerto Rico, and Hawaii. For the first time, the Naval Districts have distinct staffs of their own; in a few cases they begin to move into spaces separated from those of the Navy Yards and Naval Stations. Also, only line officers can now command Naval Districts.

August 29. **LARGE COASTAL SUBMARINE FORCE AUTHORIZED.** Congress authorizes construction of 58 coastal submarines, as well as 9 long-range fleet boats. Further authorizations follow in 1917 and 1918. These will be the "H," "R," and "S" classes. Over 70 will be commissioned between 1918 and 1925. Fifty-seven will be in commission in 1940—along with eight even older "O" boats—outnumbering fleet boats. They will see no service in World War I, but will be used for forward operations in the Pacific as well as coastal defense during the early days of World War II, and for training during the last years of the war.

August 29. **NAVAL COAST DEFENSE RESERVE CREATED.** Congress legislates creation of this force as part of newly created Naval Reserve Force. State militias are retained.

December. **US NAVY MINESWEEPERS AUTHORIZED.** These are the first US Navy ships specialized as minesweepers. By 1919, over a 100 Navy minesweepers will be built or converted.

1917

USN COASTAL SUBMARINES BEGIN COAST DEFENSE OPERATIONS FROM COCO SOLO BASE IN CANAL ZONE. Submarine operations from the base to protect the Canal entrances will continue until after World War II.

January 30. **NAVAL DISTRICTS FORM CIVILIAN MOTORBOAT PATROLS.** OPNAV directs the Naval Districts to form volunteer civilian powerboaters into harbor patrol units.

April 6. US ENTERS WORLD WAR I. Under the pressures of war, the Naval Districts direct coastal convoys but—more importantly—take on new administrative, communications, and logistical functions, dwarfing their previous sole focus on coastal defense. Full-time Naval District staffs expand. State naval militias and Naval Reserve Force are mobilized under Navy Department control. Given the nature of the German naval threat, however, Naval Coast Defense Reserve personnel are assigned forward, to ADM Sims, Commander of the US Naval Forces Operating in European Waters. They transition from coastal defense of US waters to forward anti-submarine warfare and convoy operations in the Eastern Atlantic and Mediterranean.

While significant numbers of US Navy warships will operate forward, the Navy will hold the bulk of the active battle fleet and some other ships back in the Western Atlantic to hedge against a German attack.

With little direct threat to the US coasts, the Army Coast Artillery will deploy a heavy artillery corps forward to France in support of the rest of the Army. The corps also continues to maintain and develop harbor defenses and seacoast artillery. Both the Navy and Army install anti-submarine nets in various harbors and the Corps of Engineers erects some new coastal batteries. The Coast Artillery plants no controlled minefields in US harbors during World War I, but it does replace civilians on the mine planter crews with soldiers.

NAVY LAYS ANTI-SUBMARINE NETS. To protect US ports, the Navy borrows the idea of anti-submarine nets from the British early in the war, stringing them across Atlantic harbor entrances. They will remain untested throughout the war.

April 6. The Coast Guard begins to operate as part of the Navy. Initially, most cutters will be used on coastal patrol. By July, however, six large cutters will deploy forward for duty in European waters. Personnel attached to Coast Guard stations and lighthouses are put to use as coast watchers.

May 25, 1917. German bombers raid Britain. The age of long-range bomber aircraft threats begins. Germany develops long-range bomber aircraft, notably the *Gotha* and *Riesenflugzeug*. This first intensive long-distance raid, on Folkestone and Shorncliffe, kills or wounds 286 people. A second raid, on London on June 13, kills or wounds 594. In a

generation, bomber ranges will have lengthened considerably, bringing the United States within range of aircraft flying from Eurasia, and transcending coastal defense measures.

June. Coast Guard given anti-sabotage mission. The Espionage Act of 1917 gives the Coast Guard power to protect merchant shipping from sabotage, transferring a responsibility previously belonging to the Army Corps of Engineers. As a result, the first US Coast Guard Captain of the Port positions are created in US harbors, to enforce regulations regarding the anchoring and movement of vessels in US ports. After the war, the positions will be retained.

August. FIRST NAVY SUBCHASERS COMMISSIONED. Designed for anti-submarine patrol along the US coast in the face of the German submarine offensive, the 110-foot vessels will also deploy forward to European waters. The Navy will deploy over 400 by the end of the war, about half forward and half along the Atlantic Coast.

October. Army Coast Artillery gets anti-aircraft defense role. The War Department assigns the new anti-aircraft artillery mission to the Coast Artillery on the grounds that it is the most experienced branch with problems associated with hitting moving targets.

November 28. PANAMA CANAL ZONE GETS A NAVAL DISTRICT. A Fifteenth Naval District is established for coastal defense of waters adjacent to the Canal Zone.

1918

May-November. LIMITED GERMAN ANTI-SHIPPIING SUBMARINE CAMPAIGN IN THE WESTERN ATLANTIC. Deploying only six long-range submarines across the Atlantic, the Germans run a limited mining, cable-cutting, torpedo, and naval gunfire campaign off the US East Coast. They will sink 93 ships— most very small. Naval District patrol and minesweeping vessels held on the East Coast contain the threat, through offensive patrols, minesweeping, and coastal convoys, although they sink no submarines. No US Navy ships will be recalled from European waters. The Navy's strategic focus remains on forward operations, not coast defense.

Jury-rigged American trawlers sweep German contact mines off Thimble Shoals at the mouth of the Chesapeake; Fire Island, New York; Barnegat Light, New Jersey; and as far north as Nantucket Shoals, Massachusetts. Despite these efforts, at least six American ships will be lost to German mines off the East Coast.

June 3. NAVY COASTAL CONVOYS DIRECTED. The CNO directs the four East Coast Naval District Commandants to control all coastwise shipping and institute coastal convoy operations. Substantial numbers of new submarine chasers are commissioned and used for convoy duty. Patrols will be conducted by patrol vessels, coastal submarines, aircraft, and dirigibles. Army aircraft will also be employed.

July 19. US NAVY CRUISER MINED OFF COAST. *San Diego*, an obsolescent armored cruiser, hits a German submarine-laid mine 10 miles southeast of Fire Island off the Long Island shore, in American waters close to the entrance to New York harbor. She will be the largest American war-ship lost in the war.

July 21. US NAVY SEAPLANES ATTACK GERMAN SUBMARINE OFF CAPE COD. A surfaced German submarine, firing on a tugboat and three barges three miles off Nauset Beach on Cape Cod, is attacked by Navy seaplanes from NAS Chatham (Massachusetts). The pilot of one of the aircraft is a Coast Guard captain. After firing on the aircraft, the submarine submerges and escapes. Meanwhile, Coast Guardsmen from a station on Cape Cod go out to assist the tugboat's crew.

September 29. US NAVY BATTLESHIP HITS COASTAL MINE. The pre-dreadnought *Minnesota* strikes a mine off Fenwick Shoals at the mouth of the Delaware. She is able to make Philadelphia under her own steam, however.

November 11. World War I ends. US harbor fortifications are now obsolete in the face of wartime improvements in shipboard fire control. The development of air and submarine power during the War, however, makes attack by surface ships from here on in a secondary consideration. Convoy has proven effective in protecting coastal shipping from submarines.

Interwar period: 1919-1941: From coastal submarines and airplanes to netlayers and blimps

Overview

The Nation emerges from World War I as a victorious but isolationist military Great Power, and an economic superpower. As the country turns inward, Navy force levels are drastically cut, through domestic budgetary action as well as negotiated international treaty. Still, the US Navy is now easily one of the two leading naval powers in the world. Its central conceptual focus is a forward battle fleet campaign in the Pacific against the Imperial Japanese Navy— War Plan Orange.

The Army shrinks drastically as well, but still commands larger annual budgets than the Navy. An increasing slice of the Army's resources go into its rapidly developing aviation branch.

Coast defense in the interwar period is a maelstrom of tight budgets, competing service doctrines, and emerging military technologies.

Despite the country's isolationism, US military planners continue to worry about coastal defense, especially against Britain, Germany, and—mostly—Japan. The potential submarine and air threats grow; surface fleets are seen as a secondary consideration, to be destroyed by the Navy far out at sea.

The services plan, organize, and build (a little) for wartime coastal defense. Interservice agreements are hammered and re-hammered out. Interservice and intraservice organizational relationships are hotly contested. The Navy wants to fight Japan forward, with its bases guarded by the Army. But it worries about the Army Air Corps' lengthening reach and seeks to limit the range at which it can operate from the coast against ships at sea.

Navy doctrine aims at Navy control for all combat flying done over water. The Army Air Corps— focused on strategic bombing but without suitable potential land targets within the ranges of its aircraft— actively seeks an anti-ship coast defense role as a way station to a true strategic bombing capability against land targets. It sees attacking enemy warships as its specialty. At the same time, it seeks to limit the Navy to forward-deploying seaplanes, flying boats, and carrier-based aviation— no coastal defense patrol landplanes.

Meanwhile, the Marine Corps and the rest of the Army try to focus the Army airmen on ground attack and close air support missions, not coast defense or strategic bombardment. And the Coast Artillery Corps fights to retain its status and autonomy from the Field Artillery. It develops controlled underwater mines and mine planters and mobile seacoast artillery as well as fixed harbor fortifications, the latter often armed with former Navy guns. More importantly, the Coast Artillery becomes increasingly pre-occupied with its anti-aircraft functions, involving anti-aircraft artillery, fire control, searchlights, sound-direction finders, and— later— radar.

The Navy's coastal defense system with the largest numbers is the aging coastal submarine force, completed just after World War I.

Meanwhile, the Coast Guard takes on a major coast defense job— the enforcement of Prohibition. With a fleet of destroyers borrowed from the Navy, the Coast Guard develops into a respectable at-sea coast defense force.

As war becomes increasingly likely toward the end of this period, the Navy decides to take a more active role in harbor and coastal defense, building and deploying new boom and net layers, harbor minesweepers, blimps, and patrol craft. Eventually it will even acquire land-based patrol aircraft, to the chagrin of Army airmen. Destroyer patrols are instituted beyond harbor entrances. Marine Defense Battalions are formed. When the Pacific Fleet moves forward to Pearl Harbor, fleet defense there while in port becomes a job for the fleet itself as well as for the local Naval District and the Army.

At the very end of this period, the Navy creates— mostly on paper— new Coastal frontier Commands. The Navy also takes over the Coast Guard again temporarily from the Treasury Department.

Chronology: 1919-1941

1919

NAVY MINESWEEPERS LAID UP. By 1928, only two will remain active as part of the US Fleet.

January-August. **Debate on Coast Guard-Navy relationship.** Congress, the administration, and the services debate whether the Navy should retain the Coast Guard. In the end, the President decides to return the service to the Treasury.

March 29. **"COAST BATTLESHIP" AND "COAST TORPEDO BOAT" DESIGNATIONS ASSIGNED.** In order to enable their names to be used for newly commissioned battleships and destroyers, the three oldest coastline battleships and 17 old torpedo boats — all built in the 1890s — are given new designations. The ships will perform no coast defense functions, despite their new designations, and will all be out of the fleet in a few years.

April. **Army Board recommends that Coast Artillery transfer to Navy.** An Army board under MG J. T. Dickman concludes that coastal artillery is a naval function. No decision is made to implement this recommendation, however.

September. **Coast Guard returns to Treasury control.**

1920

National Defense Act reaffirms Army Coast Artillery autonomy. The new law retains the Coast Artillery Corps and Field Artillery as separate branches. In a manifestation of inter-service rivalry, a sometimes acrimonious internal Army inter-branch debate on the wisdom of such a split will continue through 1927. The split will endure until 1950, however.

January 8. **JOINT ARMY-NAVY COASTAL DEFENSE POLICIES PROMULGATED.** The Joint Army-Navy Board delineates service responsibilities in coastal defense in *Joint Army and Navy Action in Coastal Defense*. Principal interservice issues relate to aviation responsibilities. This joint policy document, signed by the two Service Secretaries, will remain in effect until 1927, It is the first in a long line of interservice agree-

ments on the role of aircraft in coastal defense. Against the views of Army aviators, *Navy aircraft are made responsible for all over-water aerial reconnaissance operations and for all aerial attacks on hostile vessels at sea.* The coastline is accepted as a general dividing line for Army and Navy air operations.

Mine defense areas are established to protect coastal harbors and cities. The Army is responsible for planting, operating, and maintaining controlled minefields. *The Navy is responsible for the laying, operating, and maintaining of contact mines and submarine nets. Naval Districts are responsible for planting defensive fields and sweeping enemy mines that might be laid in District waters.* Stocks of mines are built up and tested by each service.

January 16. **Prohibition begins.** As a result of the entering into force of the Eighteenth Amendment, the Coast Guard begins a 13-year campaign to stem the flow by sea of illegal alcoholic beverages into the United States. Prohibition will end in December 1933.

January 30. **FIRST US NAVY FLEET SUBMARINE COMMIS-SIONED.** Between now and World War II, the submarine force will include a long-range fleet as well as coastal submarines. As war with Japan looms increasingly likely, the emphasis on submarine construction will switch almost exclusively to fleet boats.

April 15. **NAVAL DISTRICTS REORGANIZED.** Administrative, reserve, and logistical considerations predominate, *not coastal defense.* The entire US, including inland areas, is now encompassed by the Naval District system. Generally, the new district limits follow Army Corps Areas established at about the same time, although the Navy and Army numbering systems do not match.

June 4. **Army reorganizes.** The United States is divided into three Army and nine Corps Areas. Shortly thereafter, the Coast Artillery Districts are restructured to fit the new Corps boundaries. The Districts are further divided into Harbor Defense Commands, which control the individual fortifications defending a harbor.

October 14-November 4. **NAVY AIRCRAFT SINK TEST BATTLE-SHIP OFF COAST.** The Navy conducts a series of tests at

Tangier Sound in Chesapeake Bay on the effects of aerial bombs on warships—in this case, the old battleship *Indiana*.

1921

LAST USN COAST MONITORS DECOMMISSIONED. They had not been used directly for coast defense for years, serving instead as coastal submarine tenders.

Army airmen seek coast defense roles. Maj. Gen. Mason Patrick, Chief, Army Air Service, and Brig. Gen. Billy Mitchell, Assistant Chief, declare that the Army air arm should be responsible for frontier and coastal defense.

June 21-July 21. NAVY AND ARMY AIRCRAFT SINK TEST WARSHIPS OFF COAST. Off the Virginia Capes, the Navy, Marine Corps, and Army conducted a series of tests on the effects of aerial bombs on captured German warships, sinking a submarine, a destroyer, a cruiser, and the battleship *Ostfriesland*.

1922

Army mine planter force reduced to eight ships. At the end of World War I, 20 had been either commissioned or building. The Army will receive no new mine planter until 1937.

February 6. Washington Naval Treaty signed:

- **Further coast defense fortification of the Philippines, Guam, Samoa, and the Aleutians is prohibited.**
- **Navy guns begin to go to the Army.** A dozen US Navy capital ships then building are canceled, rendering surplus a large number of new Navy 16-inch and 8-inch guns. These are now made available to the Army to arm its coastal fortifications. The Army will do so, especially from 1940 on.

December 6. FLEET BASE FORCE CONSTITUTED TO SERVICE AND PROTECT FLEET. As part of a major re-organization of the fleet, a Base Force is created as a part of a new, consolidated US Fleet. The Base Force will be charged, among other duties, with protection of the fleet while in anchorage. This includes net-laying and minesweeping. By 1928,

however, only two minesweepers are active as part of the Base Force. Naval Districts retain responsibility for local harbor defense and minesweeping, irrespective of the whereabouts of the fleet.

1924

NAVY TRANSFERS DESTROYERS TO COAST GUARD FOR COASTAL OPERATIONS. From 1924 to 1926, 25 of the Navy's older destroyers are transferred to the Coast Guard for prohibition-enforcement duties. They and subsequent replacement destroyers will be returned by early 1934, after Prohibition is repealed.

Army mine planters made available for other Army tasks as well. The effect of this new Army regulation will be to downgrade the ships' mine-planting mission.

1925

February 28. **NAVAL COAST DEFENSE RESERVE ABOLISHED.** Naval Reserve Act repeals existing Naval Reserve Force legislation. *New emphasis for reserves is on fleet augmentation, vice coastal defense.* State naval militias dwindle.

LAST NAVY COASTAL SUBMARINES COMMISSIONED. With the exception of a few future specialized types that will see little operational service, these S-boats are the last of dozens of US Navy post-World War I coastal submarines to be commissioned. All surviving S-boats will retire at the end of World War II. During the early days of the war, many will have seen extensive operational service.

1927

April 23. **JOINT COASTAL DEFENSE POLICIES REVISED.** *Joint Action of the Army and Navy* is promulgated by the Secretaries of War and the Navy. It supersedes the 1920 *Joint Army and Navy Action in Coastal Defense*, and will remain in effect until superseded itself in 1935. The chapter on "Coast Defense" delineates service responsibilities, which, it acknowledges, "overlap in coastal operations." The Army is to "defend permanent naval bases"; *the Navy is to "control coastal zones and sea lanes."* Each service's air arm is to support it in these missions. The

emphasis regarding coastal defense is on protection of shipping in coastal areas, securing of military communication and industrial installations, and prevention of invasion.

1931

January 7. **ARMY-NAVY AGREEMENT ON COASTAL LONG-RANGE AVIATION** (MacArthur-Pratt Agreement). Updating earlier Joint Board actions, and against the views of naval aviators, the CNO and Chief of Staff of the Army agree to give the mission of defending US coasts and overseas possessions from enemy invasion fleets with land-based aircraft to the Army Air Corps. *The Navy retains mobile sea-based maritime patrol aviation (seaplanes and their tenders), carrier air, and surface combatant-catapulted floatplanes. The Navy gives up all land-based maritime patrol and bomber aviation.* The agreement will hold for a decade.

NAVY DISTRICT CRAFT DEVELOPMENT BOARD CREATED.

1934

December 29. **Japan withdraws from Washington Naval Treaty.** Japan gives notice that, as of 31 December 1936, she will no longer be bound by the 1922 Washington Treaty, including the clauses prohibiting fortification of islands. Accordingly, the US will regard itself to be no longer bound by the non-fortification clauses either, and will prepare plans for the coastal and air defense of its islands.

1935

September 11. **JOINT COASTAL DEFENSE POLICY REVISED AGAIN.** A revised *Joint Action of the Army and Navy* chapter on "coastal frontier defense" provides for the establishment in time of war of four overall regional coastal frontiers (North Atlantic, Southern, Pacific, and Great Lakes). Local coastal defense preparations are to be coordinated between Army Corps coast artillery commanders and Naval District commanders.

The Navy is responsible for all inshore and offshore patrol to protect shipping and defend coastal frontiers, including responsibility to "provide and operate a system of offshore scouting and patrol to give timely warning of an attack." The Army is responsible for defense of the coast itself, includ-

ing “defense of all permanent naval bases” and the “defense against air attack of all military and naval facilities ashore within a harbor area.” There is no clear delineation of service coastal air defense responsibilities or command authority.

December. **Army Air Corps runs air defense exercise.** Pursuit aircraft exercise against bombers and attack aircraft. The exercise, held in southern Florida, marks the beginning of the use of Ground-Controlled Interception (GCI) in the United States.

1937

July 2. **NAVY GAINS ARMY BLIMPS.** The Navy agrees to accept transfer of all Army airships and lighter-than-air equipment. The Navy intends to use blimps for coastal patrol.

Army receives new mine planter. Authorized in 1936, this is the only new Army mine planter commissioned between the two world wars.

1938

NEW NAVAL RESERVE ACT. Repeals previous Naval Reserve legislation. Establishes, inter alia, an Organized Reserve, whose duties include fleet augmentation of mothballed anti-submarine warfare destroyers *and harbor defense*.

May 17. **CONGRESS AUTHORIZES LAST NAVY COASTAL SUBMARINES.** Only two such submarines—*Marlin* and *Mackeral*—are authorized. They will commission in 1941. They will be the first and only US Navy coastal submarines built since just after World War I. They will decommission in 1945.

November 4. Army briefly limits Air Corps to 100 miles. Army Chief of Staff informs CNO that Army aviators participating in joint exercises off New York City have been restricted to operations no farther out than 100 miles from the coast. By January 1939, however, the Navy agrees to relax the restriction.

December 1. **NAVY BOARD RECOMMENDS PACIFIC BASE DEVELOPMENT.** A board chaired by RADM AJ. Hepburn, at congressional direction, reports out on Navy Pacific base development

needs. The Hepburn Board recommends establishment of patrol-plane and submarine bases to defend Alaska, Oahu, Midway, Wake, and Guam. Efforts to implement these recommendations will begin in 1939 and accelerate in 1940 and 1941.

December 16. **NEW BLIMP DELIVERED TO NAVY.** The K-2 airship is delivered to NAS Lakehurst (NJ) for trials. This will be the prototype for the World War II K-Class patrol airships, of which 135 will be procured.

1939

July 1. **Lighthouse Service transferred to the Coast Guard.**

September 5. **PRESIDENT ORDERS USN NEUTRALITY PATROL.** Coast Guard made responsible for US shipping and waterfront area security. *The USN is to report and track any belligerent air, surface, or underwater naval forces approaching US Atlantic coasts or West Indies.* USCG tasking is in accordance with Neutrality legislation giving the Treasury Department the responsibility to protect against hostile acts in US waters of merchant ships of warring nations. Captains of the Port are given additional port security responsibilities

October 2. **ACT OF PANAMA.** The USN is to patrol Western Hemisphere Neutrality Zone some 300 miles in breadth.

November. **MARINES FORM FIRST DEFENSE BATTALION.** The Marine Corps now joins in the coastal defense effort: It forms the first of what will become 20 Defense Battalions deployed to defend US territory in Hawaii, Wake, Midway, Johnston Island, Palmyra, American Samoa, and Guantanamo Bay, as well as Iceland and islands in the Pacific seized from the Japanese. The Defense Battalions will be armed with Army Coast Artillery coastal and anti-aircraft artillery weapons, and equipped with Army Signal Corps sound-ranging and radar equipment.

1940

1940-1945. **Harbor Defense Modernization Programs improve Army Coast Artillery fortifications, weapons, and sensors.**

1940-1941. **NAVY DESIGNATES CONVERTED FISHING CRAFT AS COASTAL MINESWEEPERS (AMc).**

NAVAL DISTRICTS GET DESTROYERS FOR COASTAL DEFENSE. Recently re-commissioned World War I-era destroyers are assigned to Naval Districts for harbor defense and coastal patrol. Four go to the 11th Naval District (San Diego), four to the 12th (San Francisco), five to the 13th (Seattle), and four to the 14th (Pearl Harbor). Nine destroyers are assigned to the 15th Naval District for defense of the Panama Canal approaches. They will remain so assigned through the attack on Pearl Harbor on December 7, 1941, but many will be re-assigned in 1942 as the war situation changes.

The Naval Districts also deploy a steadily increasing number of minesweepers, harbor patrol vessels, harbor entrance control posts, magnetic loops, section bases, and civilian coastal pickets. Coastal defense submarines remain under US Fleet control, however.

Army mine planters authorized. Eight are authorized in 1940, with 8 more to be authorized in 1941. They will become operational in 1942 and 1943.

JOINT HARBOR ENTRANCE COMMAND POSTS (HECPS) ESTABLISHED. Army and Navy commanders with harbor defense responsibilities share joint spaces to coordinate Army coast artillery and minefield operations with Navy net and patrol operations.

April 2. US FLEET DEPLOYS TO HAWAII. The fleet will remain based at Pearl Harbor through December 1941. Defense of the fleet anchorage becomes a central task of the fleet, the Naval District, and local Army and Army Air Forces commanders.

May 6. NEW US NAVY PATROL CRAFT COMMISSIONS. PC-150 is the first new US Navy patrol craft since 1919. Less than two dozen World War I PCs and SCs remain in the fleet, assigned as training ships. Over a thousand PCs, PCEs, PCSs, and SCs will be built during the war. Many will be assigned to Naval Districts to operate from Section Bases along both coasts.

June 20. President invokes 1917 Espionage Act to begin intensified Coast Guard port security.

July. NAVY NET LAYER FLEET AUTHORIZED. The \$4 billion Naval Expansion Act, creating a "two-ocean navy," includes provisions for construction of an initial class of net layers, based on a British design, with rounded stems and protruding bow "horns." Ultimately, a large fleet of 77 net layers in three classes will be built and deployed during the war, supplemented by a small fleet of non-self-propelled Boom Gate Vessels (Yng).

Commanded and manned largely by Naval Reservists, they will initially be placed into service in 1941 and assigned to West Coast and Hawaii Naval Districts to provide local harbor entrance defense (net layers will be at Pearl Harbor on December 7, 1941). Atlantic Coast and Caribbean Naval Districts will receive theirs next. Most net layers, however, will later deploy forward with the fleet to protect advanced bases and fleet anchorages in Alaska and the Western Pacific. At the end of the war, they will dismantle and salvage all the nets they had laid and tended and bring them home.

Over half will be retained after the war— mostly in the Reserve Fleets. Ten will be active during the 1950s, tending nets in Japan and Korea during the Korean War and otherwise assigned to Naval Districts to be engaged in Naval Reserve harbor defense training. All will leave the active fleet by 1960. One will see service again during the Vietnam War, however, as a river and harbor salvage ship. All will be scrapped or will otherwise disappear in the 1970s.

August 1. TIBURON NET DEPOT COMMISSIONED. Located on the site of an old Navy coaling station on the north shore of San Francisco Bay, it will manufacture nets and booms and train thousands of men to handle them throughout the war. Its largest single mission includes developing and installing a net across the Golden Gate. The Depot will be closed after World War II, reopened for the Korean War, then closed again in 1958.

September 2. NEW BASES EXTEND ATLANTIC COAST DEFENSE PERIMETER. In exchange for 50 destroyers, the United Kingdom cedes to the US, for a period of 99 years, sites for naval and air bases in the Bahamas, Jamaica, St. Lucia, Trinidad, Antigua, and British Guiana, and extends similar rights for bases in Bermuda and Newfoundland. This advances US sea frontiers several hundred miles. The services will have to contribute to the coast defenses of all of these sites, reinforcing local British forces.

September 29. **MARINE 3D DEFENSE BATTALION BEGINS TO FORTIFY MIDWAY.**

November. **Army develops plans for Harbor Entrance Command Posts (HECPs).** They are to be continuously manned in wartime by Army Harbor Defense Command and Naval District duty officers.

1941

NAVY DISTRICT CRAFT DEVELOPMENT BOARD GIVEN COGNIZANCE OVER PROCUREMENT DECISIONS REGARDING PATROL VESSELS, COASTAL MINECRAFT, GATE VESSELS, AND NET TENDERS.

NAVY ADOPTS Q-ROUTES. The Navy adopts the British practice of clearing "Q" routes, i.e., Specified channels between harbors that need to be constantly surveyed and swept for protection against both submarines and mines. There are initially few forces available for this duty, however.

FIRST NAVY MOTOR MINESWEEPERS (YMS) ORDERED.

January 21-14. **Army Air Corps tests large-scale air defense operations.** Using US and British equipment and techniques, the Air Corps tests early warning, radar, GCI, IFF, command and control, and other aspects of air defense in the northeast United States.

February **Army lays defensive controlled minefields off Panama Canal.** The Navy will insist they be removed when major US warships transit the Canal, and will sweep the channels following their removal.

February **MARINE 4TH DEFENSE BATTALION BEGINS TO FORTIFY GUANTANAMO BAY.**

February. **MELVILLE NET DEPOT ESTABLISHED.** A torpedo and submarine net facility is set up at the Melville (RI) Fuel Depot in Narragansett Bay. A school will train Navy personnel in harbor net defense. Following Pearl Harbor, the depot will develop and produce netting. Never as large or important as the Tiburon Net Depot in California, its activities will continue into the late 1950s.

February 3. NAVAL COASTAL FRONTIER FORCES MANDATED. Reorganization of all US Navy operating forces includes (a) creation of new Naval Coastal Frontier Forces, whose Commanders report directly to the CNO; and (b) Naval Local Defense Forces, including minesweepers, remaining under Naval District Commanders also reporting to the CNO. These forces are all outside the authority of the newly created Atlantic and Pacific Fleet commanders.

February 19. Congress authorizes Coast Guard use of volunteer civilians for coastal patrol. Under the Coast Guard Reserve Act, a Coast Guard Reserve and a Coast Guard Auxiliary are created. The Reserve is similar in organization and purpose to the other services's reserve forces. The Auxiliary, however, is composed of civilian yachtsmen, sport fishermen, and other civilian sailors who volunteer to become "temporary reservists" and to operate their sailing yachts, motor cruisers, and fishing boats as a coastal patrol.

February 27. NAVY INSHORE PATROL ESTABLISHED AT PEARL HARBOR. Mission is to make daily mile-wide sweeps for mines from the Pearl Harbor entrance out to the 100-fathom curve.

March. MARINE 1ST DEFENSE BATTALION ARRIVES IN HAWAII. Detachments will be sent to Johnston, Palmyra, and Wake, where they will be reinforced subsequently by other defense battalions. They will be reinforced by fighter aircraft as well.

March. MARINE 7TH DEFENSE BATTALION BEGINS TO FORTIFY AMERICAN SAMOA. Navy fighter aircraft will also be assigned.

March 17. Army organizes for continental defense. The United States is divided into four regional commands—the Northeastern, Central, Southern, and Western Defense Commands. Each defense command has a complementary numbered air force, each with its own air defense interceptor command, but reporting directly to CG, GHQ Air Force, not to the defense commanders. Interceptor commands field their own organic pursuit units and mobile aircraft warning services. They also have operational control over Army anti-aircraft artillery, barrage balloons, and searchlight units attached by Army GHQ. Peacetime integrated air defense of the United States now rests in the AAF.

Each regional Defense Command is divided into Frontier Defense Districts with the same boundaries as the old Coast Artillery Coast Defense Districts. The Frontier Defense Districts are in turn divided into Subsectors and Harbor Defense commands.

The Army will re-organize its US defense commands periodically throughout the war. Subsequent Army wartime reorganizations will successively designate the Northeast Defense Command as the Eastern Theater of Operations and the Eastern Defense Command.

March 31. NEW NAVY COASTAL SUBMARINE COMMISSIONED. *Mackeral* and her sister *Marlin* (commissioned 1 August) are the only coastal submarines to enter the fleet since the post-World War I S-boats. Successful as training vessels for ASW ships and aircraft—and little else—they will both be decommissioned immediately following the war and scrapped.

May 15 NAVY COASTAL MINELAYER COMMISSIONED. *Wassuc* (CMc-3) is one of five civilian ships converted to lay coastal mines in 1940-41, and the only one that will remain at the end of the war. Most coastal mines in US waters will be controlled mines planted by the Army. Most Navy coastal mining will be forward, using submarines and aircraft.

June 1. NAVAL RESERVE CEASES SEPARATE IDENTITY. The Organized Reserve is mobilized to augment fleet and shore activities, *including coastal and harbor defense.*

June. Army Coast Artillery deploys barrage balloons to supplement existing defenses.

June. ATLANTIC FLEET COASTAL SUBMARINES BEGIN ASW PATROLS IN THE ATLANTIC AND CARIBBEAN. Coastal submarines work out of East Coast ports and Coco Solo, Panama, as well as new submarine bases in Bermuda and St. Thomas, Virgin Islands. Patrols from Coco Solo guarding the Atlantic approaches to the Canal will continue through September 1942.

Summer-Fall. Army plants defensive controlled underwater minefields off the East Coast.

July 1. NAVAL COASTAL FRONTIER COMMANDS ESTABLISHED. This implements the policy set five months earlier. Initially, six are created: the North Atlantic, Southern, Caribbean, Panama, Pacific Southern, and Pacific Northern Naval Coastal Frontier Commands. (Two additional Coastal Frontier Commands will later be established for Hawaii and the Philippines.) They will be assigned forces on September 9, with District Local Defense Forces to operate as task groups within Naval Coastal Frontier Command task forces. They are operational commands responsible for convoy escort, anti-submarine warfare, and patrols in their designated areas, each of which includes one or more Naval Districts and adjacent sea areas.

Local Naval District Commanders are now triple-hatted as Navy Yard and Coastal Frontier Commanders. Coastal Frontier land areas correspond roughly to Army Defense Commands, with which they coordinate and cooperate. They are also designated as task groups under fleet commanders. In any event, until mid-1942 they exist largely as paper organizations, with few personnel assigned and few anti-submarine forces available. Redesignated Sea Frontiers in early 1942, they will endure as Navy homeland defense operational organizations until the mid-1970s.

July 1. TIBURON NET DEPOT BEGINS LAYING GOLDEN GATE ANTI-SUBMARINE NET. The steel net will extend for three miles across the inner Golden Gate and down to 150 feet in the main ship channel. Laid inside the Army's controlled underwater minefields and coastal artillery defenses, it will have a thousand-yard-long gate off San Francisco, opened and closed by net tenders. It will be 85 percent complete by December 7, 1941, and will not be removed by net tenders until after the end of the war.

July 15. NAVY AND WAR DEPARTMENTS ORDER LAYING AND PLANTING OF PROTECTIVE MINEFIELDS IN MANILA AND SUBIC BAYS, IN THE PHILIPPINES. The fields are completed by August.

September 25. NAVY REGAINS LAND-BASED PATROL AIR-CRAFT. Marking the demise of the 1931 Pratt-MacArthur Agreement, the Navy requisitions 20 Lockheed *Hudson* PBO-1 landplanes then in production for Britain's Royal Air Force. They will operate from the US Navy Support Force's new base at Argentina,

Newfoundland. Eventually, the success of landplanes will result in the demise of the Navy's seaplanes, flying boats, and blimps.

November 1. COAST GUARD TRANSFERRED TO DEPARTMENT OF THE NAVY. Most sea-going cutters and long-range aircraft are useful mainly for anti-submarine patrol in coastal waters. They will be initially assigned to Naval Coastal Frontier commanders. *Senior Coast Guard Officers (SCGO) in Coast Guard districts report operationally to Naval District Commandants and assist Naval District Naval Local Defense Forces.* Principal coastal defense roles will include anti-submarine warfare, air-sea rescue, harbor defense, beach patrol, and port security. The Coast Guard will also operate far forward, in Europe, the Atlantic, and the Pacific, deploying a variety of amphibious and escort ships within Navy fleets.

Late autumn. USN COASTAL SUBMARINES DEPLOY TO NEWFOUNDLAND. Five submarines of Squadron Five, plus *Mackerel*, are ordered to Argentia, to begin ASW patrols. No patrols will be made, however, and the submarines will return to New London after the Pearl Harbor attack.

NAVY COASTAL DEFENSE PATROL CRAFT PROGRAMS ACCELERATE. In the face of the German anti-shipping campaign, numerous ship types are proposed and built for coastal patrol, including patrol craft (PCs and PCEs), sub-chasers (SCs), and coastal minesweepers (AMs). These programs will accelerate further in 1942, and taper off in 1943. Most of these craft will initially be assigned to Naval Districts and Sea Frontiers; later, many will deploy to operate in the war's forward theaters.

World War II: 1941-1945: Patrol landplanes and Sea Frontiers

Overview

The threat to the coasts during at least the early days of World War II is real—second in importance in US history only to the threat during the War of 1812. The Japanese attack and take some US island possessions in the Pacific, despite Army and Navy coast defense efforts. German submarines sink coastal shipping, lay mines, and land agents all along the East Coast. No enemy submarine will penetrate an American harbor during the war, however, except at Pearl Harbor. No enemy aircraft will bomb the continental United States, except for Japanese West Coast nuisance raids. No enemy surface fleet will menace US coasts, except in the Philippines, Aleutians and other forward US Pacific possessions.

The war starts with a massive failure of coastal defense—the tactically successful Japanese attack on the fleet at Pearl Harbor.

The war with Germany and Japan is fought, however, principally “over there,” not at home. Forward operations on a massive scale by all services—even the Coast Guard—predominate. To prosecute these operations, the services grow astronomically in size and capability. The Navy swells to 6,000 ships, a force that at war’s end will dwarf all other navies of the world combined.

Submarine threats to the coasts—especially to the Atlantic and Gulf Coasts including naval gunfire, torpedoes, mines, and landed agents—occur at the beginning of the war effort, but they peak early and then decline. There is little surface navy or air threat to the coasts, except in the far outlying Philippines, Aleutians, and mid-Pacific islands, and briefly in Hawaii.

Initially, Navy coastal warfare focuses principally on Pacific Island defense. It shifts to the German submarine threat off the East Coast, as a

sub-set of the overall Battle of the Atlantic. Naval "Coastal" (later "Sea") Frontier Commands are firmly established, separate from Naval District organizations. Harbor defense is still primarily an Army responsibility; harbor security is a duty of the Coast Guard. The Coast Guard becomes part of the Navy and shoulders much of the Navy's coastal defense responsibility. Navy Sea Frontier and Naval District staffs are commanded by regular line officers—usually rear admirals but often vice admirals, especially the Eastern and Western Sea Frontiers. They are manned, however, predominantly by naval reservists and recalled retired officers.

Early in the war, US Navy coastal submarines help defend the Philippines, then fall back to Australia, where they operate in the Southwest Pacific for several months. They also patrol off Alaska and the Aleutians, the Panama Canal, along the Atlantic Coast, and in the Caribbean. After less than a year of these operations, they are largely relieved by new fleet boats and relegated to training duty. Since before the war, coastal submarine forces, like the fleet submarines, have operated as part of centralized fleet submarine commands in the Atlantic, Pacific, and Southwest Pacific. They never come under Naval District or Sea Frontier control.

Marine defense Battalions deploy to Guantanamo and Iceland, but mostly to America's mid-Pacific island possessions. Many will move forward to defend captured Western Pacific Islands as the war continues.

The services create and expand on a variety of coast defense organizations. Despite the injunction of the old 1935 JAAN doctrine, however, there is little unity of command. Joint Coastal Frontiers are not established. Interservice operational relationships are largely coordinated and cooperative, rather than joint—unlike in overseas theaters. With the exceptions of Hawaii and Panama, no unified command structures will be set up for coast defense of US territory during the war. Joint command centers are set up in each harbor, but interservice relationships regarding coastal defense remain collaborative, not directive, throughout the war.

Navy-Army Air Forces relations are particularly stormy over the issue of command and control of anti-submarine warfare land-based patrol aviation operations off the East Coast. The Navy eventually gains control of both the mission and the aircraft. The Coast Guard comes under the Navy with little organizational friction, however.

The Army will plant controlled underwater minefields in fortified harbors. The Navy will supplement these with defensive contact minefields, especially off the Chesapeake, Cape Hatteras, Key West, and Alaska. The Navy will also install and operate various types of net and boom defenses, and conduct coastal sea and air patrols beyond harbor entrances. The Navy relearns, however, that coastal convoy, not coastal patrol, is the key to protecting coastal waters from submarine anti-shipping operations.

Between 1940 and 1945, the Army will emplace nearly 200 modern sea-coast guns at US coastal points, at a cost of \$220 million. In December 1941 the Army Coast Artillery makes up more than 10 percent of total Army strength. Army coastal artillery deployed during World War II is encased in heavy concrete bunkers, to withstand aerial attack. More importantly, Army Coast Artillery Corps anti-aircraft functions expand tremendously, becoming (in fact, if not in name) a new part of the Army. Meanwhile, the importance of seacoast gun defenses declines. At the end of the war, anti-aircraft artillery will be almost the sole component of the Coast Artillery Corps, which will be abolished as a separate branch soon thereafter. A small new fleet of Army mine planters will prove of little value, and will disappear at war's end.

The Coast Artillery resists all proposals to assign its antiaircraft artillery forces to Army Air Forces interceptor commands and other air defense units. Thus two separate Army air defense systems operate in the United States during most of the war.

1942-43 marks the high water mark of modern US military coast defense efforts. Starting in 1943, the waning threat will occasion a fall-off in US homeland defense efforts that will continue—with the occasional blip—through today (1998).

Chronology: 1941-1945

1941

December 7. NAVY, MARINE, AND ARMY COASTAL DEFENSES IN HAWAII ARE OVERWHELMED BY A JAPANESE SURPRISE ATTACK ON PEARL HARBOR. Army and Navy coastal defense readiness at Pearl Harbor is insufficient to identify and respond to Japanese naval air attack. Coast defense responsibilities are in accordance with the provisions of the 1935 *Joint Action of the Army*

and Navy. The Navy is responsible for distant reconnaissance, but is understrength in patrol aircraft and fails to identify the approaching Japanese naval armada.

Coast defense assets on hand include Army anti-aircraft artillery and aircraft, Army air defense radars installed by the Corps of Engineers and operated by the Signal Corps, joint air reconnaissance patrols, anti-aircraft batteries on Navy Pacific Fleet warships, Fourteenth Naval District surface ship patrols of the Pearl Harbor approaches, and a Fourteenth Naval District double submarine net kept closed at night. The Marines have three recently constituted Defense Battalions on the Islands, which resist the attack with anti-aircraft and machine guns.

The Japanese also shell Midway Island, mortally wounding the Marine Defense Battalion commander.

December 7. Army Harbor Entrance Control Posts (HECP) activated in all designated US harbors.

December 8. JAPANESE ATTACK IN THE PHILIPPINES. Coastal defenses of the Navy and Army are overwhelmed. These include coast artillery, land-based bombers, mobile infantry forces, fighter aircraft, sea-based maritime patrol aircraft, surface combatants, and submarines. The last Army bastion— Corregidor— will fall in May 1942. The Philippine Sea Frontier becomes “inactive” until November 1944. The Navy unsuccessfully resists the attack with its Asiatic Fleet, composed of a couple of old cruisers, a number of destroyers, two dozen fleet submarines, a half dozen coastal submarines, gunboats, patrol seaplanes, minesweepers, and a Marine detachment. The coastal submarines are used interchangeably with the fleet boats to guard harbors and straits, subject only to their range limitations.

The Army mine planter *Harrison* becomes the first and only mine planter to come under enemy fire. She will maintain her minefield and then be scuttled in May 1942.

December 8-11. JAPANESE ATTACK MARINE DEFENSE BATTALION ON WAKE ISLAND. The Marine Defense Battalion beats off the attack, the only instance where coastal defense artillery beats off an amphibious attack during the Pacific War. The Japanese will return in strength, however. The Japanese will also harass Johnston and Palmyra Islands with naval gunfire.

December 8. Army Air Forces bombers begin over-water anti-submarine patrols off East Coast. AAF coastal defense focus begins to shift from air to submarine threats.

December 10. GUAM, UNFORTIFIED AND ESSENTIALLY UNDEFENDED, FALLS TO THE JAPANESE

Early December. US NAVY COASTAL SUBMARINE PATROL LINE ESTABLISHED OFF PANAMA CANAL PACIFIC ENTRANCE. The patrol line, guarding the Canal's Pacific approaches, will be maintained for a year.

December 17. UNIFIED COMMAND FOR PANAMA AND HAWAII DIRECTED. In the wake of the attack on Pearl Harbor, the first two US joint commands ever are set up in Panama and Hawaii. Responsibilities are primarily coastal defense. An Army commander commands in Panama; a Navy commander, in Hawaii. In Panama, the Panama Coastal Frontier (but not the Caribbean Coastal Frontier) comes under the operational control of the Commanding General, Army Caribbean Defense Command in Panama. These joint relationships will endure throughout the war.

December 20. NAVAL COASTAL FRONTIERS ASSIGNED TO COMINCH. Operating forces of the Naval Coastal Frontiers are placed under the direct command of the new Commander-in-Chief (COMINCH) US Fleet, Admiral King, vice the CNO, Admiral Stark. Naval District Local Defense forces remain under the CNO, unless operating in task groups within Naval Coastal Frontier task forces. In any event, few capable naval forces are as yet assigned to either type of coastal organization.

December 21. PHILIPPINE COASTAL SUBMARINE SUCCESS. S-38 sinks a Japanese transport in Lingayen Gulf, the only ship to be sunk by Asiatic fleet submarines in their unsuccessful campaign to block the 80-ship Japanese invasion force at Lingayen, north of Manila.

December 23. JAPANESE ATTACK MARINE DEFENSE BATTALION ON WAKE ISLAND AGAIN. This time they are successful, The Marines deploy their artillery again and meet the invaders at the water's edge with infantry, but are overwhelmed.

Army Coast Artillery Corps becomes a branch. In an Executive Order shortly after Pearl Harbor, the President abolishes the positions of Army chiefs of arms and transfers their powers and duties to the Commanding General, Army Ground Forces. The Coast Artillery, no longer a Corps, remains a separate branch under Army Ground Forces, but its former autonomy is curtailed. The Coast Artillery's Mine Depot is transferred to the Army Ordnance Department.

1942

More Navy guns go to the Army. Navy turrets removed from the carriers *Lexington* and *Saratoga* and salvaged from the sunken battleship *Arizona* begin to be installed for harbor defense by the Army at crucial points on the island of Oahu, Hawaii. Installation will not be finished, however, by the time the war ends, and the projects will then be abandoned.

January 2. FIRST NAVY BLIMP UNITS ESTABLISHED. Airship Patrol Group 1 and Airship Squadron 12 are established at NAS Lakehurst, New Jersey. The Navy will continue to deploy blimps for coastal defense until 1961.

January 12. German submarine campaign off US East Coast begins. Despite high initial successes, the Germans will move their submarines away from the coast by July in the face of US Navy and Army Air Forces defensive measures and counter-offensives.

January 17. NAVY LAYS FIRST EAST COAST DEFENSIVE MINE-FIELDS. The field is laid by three minelayers off the Virginia Capes. By May it will be followed by Navy-sown fields off Trinidad, Key West, and Cape Hatteras.

February. USN COASTAL SUBMARINE PATROL LINE ESTABLISHED FROM NANTUCKET TO BERMUDA. Submarine shortages prevent maintaining the line for long, however, although patrols north and east of Bermuda will continue through the summer.

February 6. NAVAL SEA FRONTIERS DESIGNATED. In part in response to the German submarine onslaught along the East Coast, eight Naval *Coastal* Frontiers are re-designated as the Carribean, Eastern, Gulf, Hawaiian, Northwest, Panama, Philippine, and Western *Sea* Frontiers. Principal responsibilities are direction and conduct of anti-submarine

warfare and convoy escort operations. They continue to report operationally directly to COMINCH. These are not inconsiderable commands: Eastern and Western Sea Frontier commanders will be 3-star vice admirals, and occasionally 4-star full admirals.

Naval District commandants retain Naval Local Defense Forces and continue to report directly to the CNO, although as Sea Frontier task group commanders they can respond to COMINCH as well. The change in nomenclature distances them even further from the 1935 JAAF concept of joint "Coastal Frontiers," of which they would theoretically have formed a part if any had been so designated. *Sea Frontier Forces will provide valuable convoy protection and patrols, deterring attacks, but will sink few U-boats themselves.*

EASTERN SEA FRONTIER JOINT OPERATIONS CENTER SET UP. A Joint Operations Center for coordinating Joint Army-Navy action in Frontier Defense is established at the headquarters of the Eastern Sea Frontier in New York City. Army and Navy controllers for air and surface craft are empowered to take prompt operational action as the situation requires.

February 23. Japanese submarine nuisance shellings begin against California coast targets. The Japanese will also conduct limited floatplane and balloon bombing raids on the West Coast.

February 25. NAVY RECEIVES PORT SECURITY MANDATE. An executive order gives the Secretary of the Navy responsibility for safeguarding vessels, harbors, ports, and waterfront facilities in the United States and its possessions, except those operated by the War Department. The Secretary, in turn, will assign this function to the Coast Guard by June.

March 12. COMINCH COMBINES WITH CNO. Admiral King assumes the positions of both Commander in Chief, US Fleet (COMINCH) and Chief of Naval Operations (CNO). Sea Frontier Commanders report to him in his COMINCH hat; Naval District Commandants, in his CNO hat.

March 26. NAVY OPCON OVER AAF MPA. Unity of command over Navy and Army air units operating over the sea to protect shipping and conduct anti-submarine warfare is now vested in the Navy. Commander, Eastern Sea Frontier gains operational control of certain Army Air Force units for antisubmarine patrol duty in the Atlantic. Also, the position of

Eastern Sea Frontier commander is now separated from the positions of Third Naval District Commandant and Brooklyn Navy Yard commander.

April. USN COASTAL SUBMARINES BEGIN PATROLS FROM DUTCH HARBOR, ALASKA. A squadron of six S-boats will be reinforced by eight fleet boats in June, and more S-boats that summer. All S-boats will be relieved by fleet boats in the fall, and will return to the US coasts to serve as training vessels.

April-May. US NAVY LAYS LARGE DEFENSIVE MINEFIELD ON GULF SIDE OF KEY WEST. This will be the largest US defensive minefield of the war, with 3,460 mines.

April 29. FIRST EASTERN SEA FRONTIER COASTAL CONVOY. Leaving New York for the Delaware with heavy air and surface escort, it inaugurates what will evolve into an inter-locking coastal system. As a result, German submarine operations start to yield few sinkings, and accordingly shift to the Gulf Sea Frontier. Convoy, not coastal patrol, will become the key to countering German submarine offensives in coastal waters.

May-July. German Atlantic submarine operations move into Gulf Sea Frontier area. US Navy Gulf Sea Frontier air and sea assets will be built up, however, to counter this move.

May. Army Air Forces begin to de-emphasize homeland air defense. Air defense forces in the Eastern and Western Defense Command areas begin to form units to deploy for overseas duty.

May. USN COASTAL SUBMARINES ESTABLISHED FORWARD IN PACIFIC. Task Force 42 is formed at Brisbane, Australia, from surviving former Asiatic Fleet coastal submarines and coastal submarine reinforcements from the Atlantic. Atlantic Fleet S-boats deploy 12,000 miles forward from Panama to Brisbane, with only one fueling stop. These coastal submarines will be used as fleet boats until relieved by new construction fleet submarines later in the year. The retiring S-boats will return to the US coasts to serve as training vessels.

May 4. COASTAL PICKET PATROL FLEET CREATED. COMINCH directs USCG Auxiliary to organize civilian small craft as a Coastal Picket

Patrol Fleet, to watch for German submarines off the Atlantic Coast. As directed by Naval District commandants and district Coast Guard officers, they also will conduct coastal search and rescue operations. By December 1942 more than 2,000 small craft will have been acquired by the Coast Guard, most of them for the Coastal Picket Patrol. The Temporary Reserve's involvement in the Fleet will end in December 1942. The Fleet itself— which will prove of limited use— will be terminated in November 1943.

May 12. EAST COAST DISTRICT JOINT OPERATIONS OFFICES ESTABLISHED. The Commander Eastern Sea Frontier directs establishment in each of his Naval Districts of a Joint Operations Office, under an Assistant Commandant for Operations, to coordinate all available local Army and Navy offshore assets as required. On a smaller scale, District Harbor Entrance Control Posts are also established by District Commandants to produce similar liaison between the Army and Navy.

June. NAVY DELEGATES PORT SECURITY RESPONSIBILITIES TO COAST GUARD. By the end of the war nearly 200 Captain of the Port (COTP) offices will have been established in the US and overseas.

NAVY CONVERTS 125 FISHING TRAWLERS TO COASTAL MINESWEEPERS. Despite these efforts, some American ports will be closed by mines for over a month. Ultimately 260 fishing boats will be converted to minesweepers on combined harbor patrol and minesweeping duties.

June 3-4. Army at Dutch Harbor, Alaska, defends against Japanese carrier air attack. Army Air Forces interceptors and Army anti-aircraft units inflict some damage on the attackers. USN coastal submarine patrols continue.

June 4-5. JOINT DEFENSE OF MIDWAY. The principal US forces engaged are the Pacific Fleet's forward-deployed carrier task forces and submarines. Defending the island during the battle, however, are defensive forces that include a Marine Defense Battalion (reinforced); a Navy Motor Torpedo Boat squadron; and over 100 Navy, Marine, and Army Air Forces Midway-based fighter, bomber, and patrol aircraft.

June 4. Army Coast Artillery commissions first new mine planter. The first of the 16 new mine planters, *Knox* (MP-1), is commissioned, and assigned to Fort Monroe, Virginia. The others will follow within less than a year. They will be assigned to ports up and down the East and West Coasts and in Panama. They will prove generally unneeded, however, and will be turned over to the Navy and Coast Guard during and immediately after the war.

June 7. FLEET COMMAND REORGANIZED. As part of the change, Admiral King as CNO delegates control to the VCNO of Naval Local Defense Forces and Naval District Craft. As COMINCH, Admiral King retains command of the Atlantic and Pacific Fleets and all Sea Frontier Forces.

June 7-14. Japanese occupy Attu and Kiska in the Aleutians. The islands are undefended and the Japanese land is unopposed. A US Navy-led joint task force of surface, submarine, and land-based aircraft in the area fails to intercept the Japanese invaders. The Japanese will occupy the islands for a year.

June 11-November. Sporadic German mining operations off East & Gulf Coast harbors begins. German U-boats lay over 300 influence mines in small fields off Delaware Bay; Chesapeake Bay; Jacksonville, Florida; and Charleston, South Carolina. They close ports for several days and redirect fleet MCM units to eliminating threats in home waters. German submarines re-mine the entrance to Chesapeake Bay and Hampton Roads, Virginia, sinking two ships, damaging one, and sealing off Norfolk to ship traffic for four days. US Navy counters with coastal minesweeper operations.

June 13. German submarine landings of agents begin on East Coast. USCG Beach Patrolmen detect initial landing on Long Island and FBI captures saboteurs. A few days later, four more saboteurs are put ashore south of Jacksonville, Florida, but are soon rounded up. Coordinated but separate Army and Coast Guard beach patrol systems are set up. Initial Army-Coast Guard frictions are eventually ironed out.

Army coastal defense sectors form mobile infantry forces to cover areas between their fixed harbor fortifications. These will become mechanized cavalry units in 1943.

June 21. Japanese submarine takes fort under fire. Battery David Russell at Fort Stevens, Oregon, is shelled by a Japanese submarine. It thus becomes the only seacoast fortification in the continental United States to be fired upon by an enemy naval vessel of a foreign power since the War of 1812.

July 25. Coast Guard Beach Patrol formalized. The Coast Guard Beach Patrol becomes independent of Port Security control, by order of the Coast Guard Commandant and in accordance with an Army-Navy agreement covering joint responsibilities for coastal defense. The beach patrol will at its height muster 24,000 men, 2,000 dogs, 315 small craft, and 3,000 horses—these last supplied mostly by the Army. The patrols will be charged with detecting, observing, and reporting enemy vessels, landings, or ship-to-shore communications. It will phase out, in the face of a waning threat, by mid-October 1944.

August. GULF SEA FRONTIER INITIATES CONVOY OPERATIONS. German submarine operations begin to yield few sinkings, and accordingly will move elsewhere.

October. MOST USN COASTAL SUBMARINES RETIRE. As new fleet boats enter the fleet, most S-boats are pulled back from stop-gap north and south Western Pacific operations to the US coasts, to serve as training ships.

November 10. German submarine mines New York harbor.

November 19. SEA FRONTIER OFF MOROCCO ESTABLISHED. Sea Frontier Forces, Western Task Force is set up in the wake of Operation Torch, the allied landings in French North Africa. On February 17, 1943, it will be re-designated the Moroccan Sea Frontier, and will be abolished in August 1945. It is the only forward Sea Frontier established during the war, besides the re-establishment of the Philippine Sea Frontier late in the war.

1943

Army Coast Artillery introduces new harbor defense ground mine. The ground mine allows friendly ships to pass, but has a powerful enough charge to destroy enemy vessels. Previous Army mines were buoyant.

May 20. **TENTH FLEET CREATED.** As Commander, Tenth Fleet, CNO/COMINCH Admiral King takes over direct operational control of (and allocates forces to) all ASW and convoy operations of the Eastern, Caribbean, and Gulf Sea Frontiers, and of the Atlantic Fleet.

September 1. **NAVY TAKES OVER ALL US LAND-BASED LONG-RANGE OVER-WATER MARITIME PATROL AVIATION.** The Army Air Forces turn over responsibilities—and aircraft—for anti-submarine warfare land-based air operations in the Western Atlantic to Tenth Fleet commands.

The need for US coastal defense peaks.

Late 1943-early 1944. **Army Ground Force begins to dismantle Army Coast Defense forces.** Artillery and anti-aircraft personnel begin to receive overseas orders. Some units are de-activated. Mine planters are transferred to the Navy. But for their positive psychological effect on the civilian population, the coastal defenses would have been dismantled much sooner.

December 31. **Army Coast Artillery strength declines.** The strength of the Army Coast Artillery Corps, including anti-aircraft units, stands at 591,000 men, or 7.9 percent of the entire Army. By March 1945, it will have dropped to 330,000, or 4.1 percent of the army. The great majority of these will be anti-aircraft personnel.

1944

March-November. **FLEETS GAIN COASTAL FORCES.** Responsibilities for both harbor and offshore coastal defense are gradually devolved by COMINCH and placed under the Atlantic and Pacific Fleet Commanders' cognizance. Naval District Commanders are made subordinate to Sea Frontier Commanders, who in turn begin to report operationally to the fleet commanders, instead of Washington (They still report to Washington for many administrative and logistics functions). Naval District forces now include large numbers of sub chasers, rescue tugs, motor mine sweepers, Coast Guard patrol boats, net tenders, land and sea planes, blimps, and shore facilities.

April. **NAVY GAINS ARMY MINE PLANTERS.** Half (eight) of the Army Coast Artillery's new mine planters, with little to do any more in the

war as coast defense assets, are turned over to the Navy for conversion and use as Auxiliary Mine Layers (ACM). After the war, most will be transferred to the Coast Guard, which will retain them for two decades.

April. MARINES BEGIN TO DE-ACTIVATE DEFENSE BATTALIONS. They will all be gone soon after the war.

April 15. ALASKAN NAVAL COMMANDS CREATED. A new Seventeenth Naval District is created, separated from Thirteenth Naval District. The Northwest Sea Frontier is abolished, and divided between Western Sea Frontier and a new Alaskan Sea Frontier, under CINCPACFLT.

October. Coast Guard Beach Patrol phases out.

November 8. WESTERN SEA FRONTIER GETS MAJOR LOGISTICS FUNCTIONS. The functions of the Commander, Western Sea Frontier are expanded to include coordination of all movement of ships, aircraft, and logistic support from the West Coast and eastern Pacific to the western Pacific. *The necessity for coastal defense has been greatly reduced,* while the need to eliminate logistics bottlenecks has increased. Commander, Western Sea Frontier also gains authority as Deputy Commander in Chief, US Fleet and Deputy Chief of Naval Operations, and control of the Eleventh, Twelfth, and Thirteenth Naval Districts.

Germans deploy first V-1 rockets. A new threat to traditional coastal defense and anti-aircraft weapons and fortifications—the guided missile—is born. It will put the final nail in the coffin of the Coast Artillery but spawn a long search for the anti-missile missile.

Early and mid-Cold War: 1945-1980: Mobile Inshore Undersea Warfare, Vietnam interdiction, and little else

Overview

The concept of *coastal defense* yields to that of *continental air defense*.

The Soviet Union becomes the chief enemy of the United States. The perceived threat to the US coast shifts from enemy fleets to enemy air and missile forces. More importantly, vulnerability to attack is now spread throughout the nation, and the “first line of defense” of North America against the Soviet North Eurasian superpower becomes the Arctic, not the Atlantic and Pacific. The coast loses its unique defensive significance, and the Army gets out of the coastal fortification and minefield business. No potential enemy battle fleet remains to threaten US coasts, although the potential threats of submarine and minelaying attacks on the nation’s ports remain.

Moreover, after 1947 the military threat to the US homeland becomes nuclear; in a decade it will include missiles. This yields the prospect of appalling destruction and impossible defense. Accordingly, emphasis shifts from anti-aircraft defense to anti-missile early warning.

The *intercontinental* threat, though quite real (aircraft and missiles), transcends the coasts. Unlike previous threats, the Soviet manned aircraft threat to the United States comes through the Arctic, over the North Pole, not across the Atlantic or Pacific. The Soviet missile threat—which begins in the 1960s—comes from the oceans as well as over the pole, but is not stop-pable with the technology of the times. Consequently, classic coastal defense lapses in all service, while continental air defense—largely an Air Force and Army responsibility—expands in the 1950s, then declines thereafter. New joint and combined US-Canadian

continental air defense commands are created, commanded by US Air Force generals, which will continue in somewhat evolved forms to the present day.

The emerging Soviet *conventional* threat to America is—like many of its predecessors—"over there," not off the coasts. The US services—now bound together in joint theater commands—focus on forward positioning and forward deployments. New joint military structures created during World War II continue and are expanded upon. The Joint Chiefs of Staff are institutionalized, as are regional and functional joint operational commands. Commands with homeland and coastal defense responsibilities include the Atlantic and Pacific Commands (headed by Navy admirals); the Alaskan, Continental Air Defense and Northeast Commands (headed by Air Force generals); and the Caribbean (later Southern) Command (headed by an Army general).

The US Navy maintains its position, acquired during World War II, as the global Navy superpower. The Royal Navy becomes a junior partner, and the Soviet navy an increasingly lethal but still second-best potential foe.

The focuses of US Navy attention are the forward deployed battle fleets—the Sixth in the Mediterranean and the Seventh in the Western Pacific. The crises and wars of the period are almost all located across the Atlantic and Pacific, although some do occur in the Caribbean. The takeover in the late 1950s of Cuba by Soviet allies sparks a revival of interest in the coastal defense of Florida and the southeastern US.

Coastal submarines disappear immediately after the war, as do almost all coastal patrol craft. There is a flurry of Navy interest in mine warfare, harbor defense, submarine nets, and naval control of shipping (NCS) in the early 1950s, coincident with the Korean War and the establishment of Allied Command Atlantic. Except for NCS, however, this lapses again in the late 1950s. Convoy, not coastal patrol or harbor defense, is now accepted as the correct defensive counter to enemy submarine anti-shiping operations in coastal waters. Patrol is now largely the domain of land-based patrol aircraft, now firmly under Navy command.

The Navy participates in the anti-aircraft early warning systems of the 1950s and 1960s, contributing barrier aircraft and ships strung out across the Atlantic and Pacific. Navy minesweeper force levels plummet, rise, and then plummet again. Navy patrol craft inventories plummet and stay low.

More significantly, the Navy views the bulk of US anti-submarine and anti-surface raider operations in wartime as taking place far forward off enemy ports and harbors, not our own. The World War II net layers that train reservists all through the 1950s disappear by the end of that decade. The 1960s see the demise of the Navy's coastal patrol blimp force, replaced along with Navy seaplanes by Navy land-based maritime patrol aircraft.

In the late 1940s, the Naval Districts return to their prewar role as Navy Department "branch offices". The Eastern and Western Sea Frontiers are transformed primarily into logistics support commands for the Fleet CINCs and mothball fleet caretakers for the CNO, while the Alaskan and Caribbean Sea Frontiers become tiny naval components of new joint commands. Coastal defense responsibilities of Sea Frontier Commanders and Naval District Commandants take a back seat to their administrative and logistical responsibilities. To the extent they do exercise operational responsibilities, especially regarding air defense and port security, all Sea Frontiers engage in extensive joint coordination with the Army, Air Force, Coast Guard, Customs and other agencies. The Naval Reserve focuses on fleet augmentation and open-ocean ASW. With the demise of the net layers, its harbor defense capabilities slide.

In the mid-1960s, the Navy and Coast Guard deploy forward to Vietnam and regain sea-based coastal warfare expertise there.

As the Cold War grinds on—especially in Europe, the Middle East, and East Asia—coastal defense continues to attract less and less interest from the US military. Missiles—and to some extent aircraft—are seen as the only threats to CONUS, and they are to be deterred by the threat of retaliation, not defended against. Army and Air Force continental air defense is downgraded, although Air Force space surveillance and early warning capabilities continue and expand.

The Navy continues to focus on forward operations of the Eurasian landmass, not coastal defense. The number of Navy patrol craft dwindles rapidly, and the type disappears completely from the Navy list by 1963—although the Coast Guard maintains a fleet of harbor defense boats with naval capabilities. The Vietnam War revives the type, with a handful of new-designs crafted, but no more than a dozen and a half—all of new design, some revolutionary—will henceforth serve at any one time in the fleet, and normally far less.

To economize on admirals and staffs, the Navy shuts down Sea Frontiers and then Naval Districts. Navy coastal warfare expertise, including mine warfare, which had increased during the Vietnam War, wanes again. It survives after Vietnam, just barely, and chiefly in the Coast Guard and the Naval Reserve.

By 1980, there isn't very much left at all of the Navy's World War II coastal defense posture.

Chronology: 1945-1980

1945

May 8. World War II ends in Europe.

June 12. TENTH FLEET DISESTABLISHED. US Navy anti-submarine warfare responsibilities, including those in coastal areas, begin to devolve from Washington to the fleets.

July 1. NAVAL RESERVE RESUMES SEPARATE ORGANIZATIONAL IDENTITY. Missions and taskings emphasize reactivating moth balled ships and aircraft and open-ocean anti-submarine warfare, not coastal defense.

August 14. World War II ends in the Pacific

September 14. NAVY SHORE ESTABLISHMENT RE-ORGANIZED. The nine Navy Yards are transformed into "US Naval Bases," to be commanded by line officers reporting to fleet commanders. *Naval District Commandant positions—normally line rear admirals—are now double-hats of the Naval Base line commanders.* The former Navy Yard industrial departments are now redesignated Naval Shipyards, to be commanded by specialist engineering officers under the management and technical control of the Chief of the Bureau of Ships (now COMNAVSEASYSYSCOM), although subject to local Naval base Commander coordination control.

November 1. Army board recommends Coast Artillery retrenchment. A War Department Seacoast Defense Armament Board (Tilton Board) recommends retention of certain coastal fortifications and de-activation of others. By 1950, however, no fortifications will be retained.

1946

NAVY REBUFFS ATTEMPT TO HAVE ITS SHORE-AND-HARBOR-BASED FIGHTER, RADAR WARNING, AND ANTI-AIRCRAFT ARTILLERY FORCES ASSIGNED IN AN EMERGENCY TO THE NEW ARMY AIR DEFENSE COMMAND.

Army Coast Artillery primary responsibility is now anti-aircraft artillery defense.

January 1. Coast Guard returns to Treasury Department.

January. FULL ADMIRAL TAKES SEA FRONTIER COMMAND. Admiral Thomas C. Kinkaid, four-star admiral and World War II Seventh Fleet commander, becomes Commander, Eastern Sea Frontier, at New York City. Relieving a 3-star, he will in turn be replaced by a 3-star in 1950.

March. Army Air Forces Air Defense Command created. As part of a general re-organization of the Army Air Forces, new functional commands are set up: a Strategic Air Command, a Tactical Air Command, and an Air Defense Command.

April 30. Army reorganizes continental commands. The Eastern Defense Command is abolished. Army harbor defenses pass to the newly established continental armies of Army Ground Forces.

December. NEW UNIFIED COMMANDS AUTHORIZED. As part of the newly promulgated Outline Campaign Plan, ancestor of the modern Unified Command Plan, a Pacific Command and later an Atlantic Command are authorized. Commanded by Navy admirals, they will be the main operational commands responsible for coastal defense from here on in, although their forward responsibilities will dominate their activities and thinking.

An Alaskan Command and a Northeast Command are also mandated by the President. Air defense of the continental United States is to be their core activity. The Alaskan Command's naval component will not have air defense responsibilities, however, and the Northeast Command will have no naval component. The Alaskan Command will endure from 1947 through 1975. The Northeast Command will be set up in 1950, but will be disestablished in 1956. The Continental Air Defense Command

successors, the Air Defense Command (ADCOM) and the US Space Command (USSPACECOM) will take over the Alaska and Northeast Commands' air defense responsibilities, as will the combined US-Canadian North American Air Defense Command (NORAD), to be established in 1957.

1947

NEW UNIFIED COMMANDS TAKE SEA FRONTIERS AS NAVY COMPONENTS. The *Panama Sea Frontier* is disestablished and its functions taken over by the Caribbean Sea Frontier. The *Caribbean Sea Frontier* becomes the Navy component of a new joint unified command -- the Caribbean Command (CARIBCOM) (later to evolve into the US Southern Command). The 10th (Caribbean) and 15th (Panama) Naval Districts remain, operationally subordinate to the Caribbean Sea Frontier. The *Alaskan Sea Frontier* becomes the Navy component of the new Alaskan Command, another unified command (today a US Pacific Command sub-unified command, with a Coast Guard commander as Navy component commander).

NAVY GETS ARMY MINE LABORATORY. The Army Ordnance Submarine Mine Laboratory is transferred to the Naval Ordnance Laboratory at White Oak MD.

March. **FIRST NAVY P2 AIRCRAFT DELIVERED TO A SQUADRON.** The P-2 *Privateer* will be the backbone of Navy land-based patrol aviation for over two decades, operating off US coasts and forward overseas. Over 1000 will eventually be accepted by the Navy.

1948

January 8. **NEW SEA FRONTIER AND NAVAL DISTRICT COAST DEFENSE COMMAND RELATIONSHIPS DIRECTED.** The *Eastern Sea Frontier* absorbs the *Gulf Sea Frontier* (effective June 30) and is assigned operationally to CINCLANTFLT; the *Western* and *Hawaiian Sea Frontiers* are assigned operationally to CINCPACFLT. (The CNO also retains command of the Sea Frontiers, however, for purposes of Naval District coordination and command of the two immense Reserve Fleets.) The area of responsibility of a Sea Frontier Commander comprises the land areas of the naval districts under his command, and adjacent sea areas.

For purposes of coastal defense, the Naval District commandants and their harbor defense forces report to the Sea Frontier Commanders, who report in turn to the fleet CINCs. (The Naval Districts will continue to report administratively to the CNO until their abolition in 1980). Naval District duties are numerous, with defense against enemy attack being only one of many.

From the end of World War II until their abolition in the 1970s, Navy Sea Frontier and Naval District staffs effect close liaison with appropriate Army, Air Force and Coast Guard commands regarding coordination of air defense, anti-submarine and harbor defense efforts.

April 21. KEY WEST AGREEMENT ON SERVICE ROLES AND MISSIONS . By agreement among the US Joint Chiefs of Staff, *all services are to provide forces for defense of the US against air attack.* Coast defense operations are not otherwise broken out from forward operations. The Air Force hopes to take over air defense components controlled by the other services. The Army and Navy resist, however. The CNO soon states that he does not envision a routine and continuing peacetime commitment of naval forces to continental air defense.

1949

Potential Soviet intercontinental bomber in production. The Soviets have 300 Tu-4 *Bull* bombers in production. The plane's range, however, is insufficient to allow it to both attack the continental United States and return home, and the Soviets have yet to demonstrate the capability of refueling the aircraft in flight. Nevertheless, the Soviets now have an rudimentary inter-continental delivery capability with which to threaten the US homeland.

Soviets explode nuclear device. The threat to the US homeland is now nuclear.

Last Army coast artillery guns are scrapped.

May 24. NAVY GAINS CONTROLLED MINEFIELD MISSIONS. The Secretary of Defense orders the transfer of responsibilities for controlled minefield operations (and their systems) from the Army. The transfer will occur in November, but the Navy (and the nation) will soon divest

(CONAD) and its itself thereafter of organizational, systems, and doctrinal mechanisms for carrying out the responsibility.

November 30. ARMY TRANSFERS ALL UNDERWATER MINE DEVELOPMENT, EQUIPMENT, AND DUTIES TO THE NAVY

December. **Last Army Coast Artillery mine planters added to the Navy List.** Five in number, they are renamed after late nineteenth-century Monitors. Not much else happens to them. They will remain in the Reserve Fleet for 10 years before being converted to civilian vessels.

1950

Army Coast Artillery branch and coastal defense organizations abolished. As a result of the Army Organization Act, the Army's homeland defense focus shifts from coastal defense using coast artillery and mines to continental air defense using air defense artillery and surface-to-air missiles. The Coast Artillery—by now taken over by its Anti-Aircraft Artillery component—is re-merged with the Field Artillery into a new Artillery branch.

In many ways, New Army anti-aircraft guns and missiles are the functional descendents of the seacoast defenses; however, they will frequently continue to be manned by organizations that are the lineal descendents of the old Coast Artillery Corps. (In 1968 these will once again attain separate status in the Army with the establishment of a new Air Defense Artillery branch.)

Army Anti-Aircraft Command created. Disagreements with the Air Force Air Defense Command on how antiaircraft artillery fit into an overall joint air defense organization remain unresolved. The Army supplements its anti-aircraft guns with missiles, developing Nike, while the Air Force develops Bomarc, an unmanned interceptor.

January 1. All Army harbor defenses inactivated.

February. CNO DIRECTS AIR DEFENSE COOPERATION WITH AIR FORCE. Fleet commanders are directed to cooperate with the Air Force for emergency deployment of Navy forces in air defense operations.

June 25. KOREAN WAR BEGINS, OCCASIONS NAVY COASTAL DEFENSE MEASURES. Concern regarding Soviet sabotage of US and

forward Japanese ports mounts. The Navy will reopen the Tiburon Net Depot for supply and repair of nets protecting Japanese and Korean ports and anchorages. Net layers will be brought back into service and deployed forward to Japan and Korea to service the nets. Harbor Defense Units will be activated under Sea Frontiers on both coasts.

August 9. Coast Guard port security powers broadened. An Act of Congress permits the President to institute port security measures without declaring a national emergency. Accordingly, on October 20, the President grants the Coast Guard broad powers for safeguarding US ports, harbors, vessels, and waterfront facilities. Coast Guard harbor patrol duties increase, and the Coast Guard begins construction of new patrol boats for that purpose.

1951

Air Force Air Defense Command and Army Antiaircraft Artillery Command move from Mitchel AFB, New York, to Ent AFB, Colorado. Air Defense Command is designated a permanent major air force combat command.

1953

Coast Guard 95-foot patrol boats begin to enter service. Twenty-six of these boats will be commissioned through 1959, intended for port security and harbor entrance patrol. The boat is optimized for harbor anti-submarine warfare, with a hull sonar and a small forward-throwing weapon.

NAVY COASTAL MINESWEEPERS BUILT. In reaction to the mining of several ships forward during the Korean War, hundreds of US Navy mine warfare vessels are built in the 1950s. Most will be ocean-going types (MSOs) or ships destined for foreign navies to use in what for the US Navy will be forward areas overseas. The Navy will retain 22 Coastal Minesweepers (MSC); although, they will seldom be operationally employed in coastal roles. The last will be discarded in 1976.

Soviets develop true inter-continental bombers. Prototypes of Mya-4 Bison and Tu-20 Bear aircraft are now in production.

NAVY-AIR FORCE AGREEMENT ON AIR DEFENSE. CNO Robert Carney and Air Force Chief of Staff Nathan Twining agree that the Navy will provide picket ships and blimps, and the Air Force will provide early warning aircraft.

July 27. Korean War Armistice.

1954

Pinetree Line completed. This is the first US-Canadian operational air defense early warning radar system line across North America, extending on both sides of the US-Canadian border. It will be followed by 1957 by more northerly lines—the Mid-Canada and DEW Lines. The Navy supports construction and resupply of these lines logistically.

JOINT CONTINENTAL AIR DEFENSE COMMAND (CONAD) CREATED, WITH NAVY COMPONENT. An Air Force- and Army-dominated command, its small naval component is Naval Forces Continental Air Defense Command, whose commander is also the joint Deputy CINC for naval forces in air defense. The Joint Commander is also the commander of the Air Force Air Defense Command. Mission is air defense of continental US. *Principal USN contribution to this mission, however, largely remains in the hands of Atlantic and Pacific Fleet commanders out at sea and overseas. It will consist of anti-air surface and air Barrier Forces and anti-submarine fixed installations, deployed ships, and aircraft.* CONAD will be disestablished in 1975.

1956

NAVY BARRIER FORCES CREATED. CINCPAC/CINCPACFLT and CINCLANT/CINCLANTFLT set up Barrier Commands of radar picket destroyers and early warning aircraft, to complement the assets of the Continental Air Defense Command (CONAD). The Barrier Commands will disappear in a decade. CONAD will hang on a little longer.

NAVY CONTROLLED MINE SYSTEM DEVELOPED. The Naval Ordnance Laboratory at White Oak, M, having taken over controlled mine research and development from the Army, develops the Control Mine Mk 2 system. This consists of bottom mines, improved magnetic detectors, cable networks, and control centers. The system is put into production and

harbor defense systems are made available for New York, San Francisco, and several other ports. The systems will be stockpiled— i.e., stored, never used— and eventually discarded.

1957

September 12. **North American Air Defense Command established.** A combined US-Canadian command, NORAD, is established in Colorado Springs to defend the continental United States, Canada, and Alaska against air attack. NORAD will be headed by the US Air Force commander of the Continental Air Defense Command, and subsequently by the commander of the Air Defense Command and the US Space Command.

August 26. **NAVY COASTAL MINEHUNTER. *Bittern*,** a “Minesweeper, Coastal (Underwater Locator)” (AMCU) is commissioned. She later becomes an MHC. She will be the only purpose-built AMCU (others planned are subsequently canceled). 49 others will be converted from other types of craft.

October 4. **Soviets launch Sputnik.** The ballistic missile that puts the satellite in orbit also heralds the long-foreseen arrival of a new threat to US continental defenses: guided missiles. Homeland defense enters a new era.

1958

NAVY LAYS LAST CONTROLLED UNDERWATER MINEFIELD. This occurs as part of a SEATO exercise in Manila Bay. Upon completion of the exercise, all equipment is turned over to the Philippine Navy.

March. **TIBURON NET DEPOT IS CLOSED.** It will remain in caretaker status, however, until 1964.

1959

Cuban Marxist Revolution succeeds. Henceforth, the revolutionary Cuban government moves increasingly into the Soviet orbit. A new series of threats to Florida and the southeastern United States will now emerge, ranging from the brief emplacement of Soviet surface-to-surface missiles and nuclear weapons to waves of refugees and other migrants. The Navy will periodically beef up forces based at Key Wes; Army and Air Force air

defense units will focus on the southeastern US; and the Coast Guard will begin to view the Caribbean as its most important area of operations.

February 27. **NEW NAVY INSHORE MINESWEEPER IN SERVICE.** The first inshore minesweeper, *Cape* (MSI), is placed in service. Only two will be built, however.

Early 1960s

NAVY HARBOR DEFENSE GOES MOBILE. The few fixed Navy harbor defense sites are disestablished in favor of a similarly small number of mobile harbor defense surveillance units, mounted in vans. Navy harbor defense operations now center on the installation, operation, and maintenance of radar and underwater hydrophones and sonobuoys, to detect, locate, track, and identify surface ships and submarines.

Mutual Assured Destruction (MAD) doctrine emerges. The doctrine of strategic nuclear deterrence and retaliation vice strategic defense has a baleful influence on the continued deployment of US coast and continental defenses, including Navy systems.

1960

First BMEWS station. The first US Air Force Ballistic Missile Early Warning System radar is operational at Thule, Greenland. Others, at Clear, Alaska, and Fylingdales Moor, England, will be operational by 1963.

Homeland defense from space begins. The US Air Force deploys the world's first active military satellites, called SAMOS (Satellite and Missile Observation System) and MIDAS (Missile Defense Alarm System).

1961

October 31. **NAVY BLIMP UNITS DISESTABLISHED.** The last units operating lighter-than-air airships are disestablished at NAS Lakehurst, New Jersey, after less than two decades of significant coastal defense and anti-submarine warfare operations.

1962

August 22. **FIRST NAVY P-3 AIRCRAFT DELIVERED TO A SQUADRON.** Replacing the P-2 as the Navy's land-based patrol plane, the P-3 will operate off the nation's coasts as well as overseas. Over 600 will be delivered by 1990.

October 8. **NAVY CUBAN MISSILE CRISIS AIR DEFENSE MEA-SURES.** A Navy fighter squadron deploys from NAS Oceana, Virginia, to NAS Key West, Florida, to strengthen the air defenses of the southeastern United States.

1963

NAVY HARBOR DEFENSE REDESIGNATED. Becomes Inshore Undersea Warfare (IUW). Both active and reserve units are formed. Capabilities include surveillance (using van-installed, truck-mobile radar, sonar, and optical sensors), C3I, and small boat operation.

NAVY PATROL CRAFT (HYDROFOIL) IN SERVICE. *High Point* (PCH 1) becomes the first and only US Navy Cold War inshore ASW craft. The concept does not pan out. She will spend her life in test-and-evaluation work, and be taken out of service in 1978. There will be no other patrol craft in the active fleet until 1967.

1964

NAVY TERMINATES RESEARCH INTO CONTROLLED UNDER-WATER MINEFIELDS.

1965

NAVY BARRIER COMMANDS PHASE OUT.

March 11. **US SEVENTH FLEET CREATES VIETNAM NAVAL COASTAL PATROL FORCE.** What will become "Operation Market Time" begins, when Seventh Fleet destroyers are ordered to the coastal zone of Vietnam to help South Vietnamese vessels inspect junk traffic in order to prevent the infiltration of men and arms from North to South Vietnam. This becomes the only major USN involvement in the coast defense of a foreign country. Many more Seventh Fleet destroyers, as well as patrol

planes, are soon assigned this mission, and a Coastal Surveillance Force is created. Minesweepers and newly purchased PTFs are added. Navy IUW detachments deploy to Vietnam to support Market Time.

July. Coast Guard patrol boats assigned to Vietnam coastal surveillance. Seventeen Coast Guard 82-foot WPBs initially come under Navy command and are integrated into Vietnam coastal interdiction organization and operations. Nine more follow in 1966. All USCG patrol boats will eventually transfer to the Vietnamese Navy by August 15, 1970.

July 31. VIETNAM NAVAL COASTAL PATROL RESPONSIBILITY SHIFTS IN-COUNTRY. Responsibility for Operation Market Time shifts to Commander, Naval Component, Military Advisory Group, Vietnam—soon renamed Naval Forces Vietnam. Assets assigned form TF 115. On October 31, the first two Navy PCF (Swift) boats to participate in Market Time arrive in Vietnam. Market Time coast defenses include an outer barrier of destroyers, minesweepers, large Coast Guard cutters, and maritime patrol land-planes and seaplanes, and an inner barrier of Coast Guard WPBs and Navy Swift boats. The Vietnamese Navy deploys PCEs, PGMs, and coastal junks. The Coastal Surveillance Force will be disestablished in December 1970 and turned over to the Vietnamese Navy.

1966

August 14. NAVY ABANDONS A PLAN TO MERGE DISTRICTS. In the face of congressional opposition, the Navy drops a plan, announced in January, to reduce the number of Naval Districts—and District Headquarters—from 10 to 7. Naval Districts will hang on until 1980.

1967

May 22. Coast Guard cutters join Vietnam coastal force. The first of five Coast Guard high-endurance cutters (WHECs) provides initial gunfire support off the Vietnamese coast, supplementing US Navy destroyers and cruisers on the outer barrier of Operation Market Time. The cutters will soon withdraw. The last two will transfer to the Vietnamese Navy in December 1971.

PATROL VESSELS BACK IN THE NAVY. The pressures of the Viet-nam War result in the commissioning of new patrol

-gunboats—the Asheville class. There have been no such patrol vessels in the fleet since 1964. They will operate forward, though, not in defense of CONUS.

1968

Army Air Defense Artillery branch splits off from Field Artillery.

1969

October 5. Cuban defector gets through US air defenses. A defector from the Cuban Air Force pilots an armed Mig-17 undetected from Havana to Homestead Air Force Base, Florida. In October 1971, an unidentified plane carrying Cuban officials to a sugar cane conference will also pass completely unseen, until the pilot requests landing instructions from the New Orleans airport.

1971

April 1. FIRST NAVY HELICOPTER MINE COUNTERMEASURES SQUADRON COMMISSIONED. After 20 years of testing the concept, the US Navy opts for the helicopter as its principal coastal and ocean minesweeping platform, decommissioning dozens of Korean War-era minesweepers. Within a few years, only three minesweepers will be retained in the active fleet.

1972

May. Southern Air Defense Network created. It consists of 10 radar sites and interceptors on alert at four bases, in the face of potential Cuban air threats.

May 26. US-SOVIET ABM TREATY PROHIBITS US SEA-BASED HOMELAND MISSILE DEFENSE. The treaty prohibits deployment of ballistic missile defense systems to protect the respective homelands. Each side is allowed only one single, fixed-ground site (the US site is at Grand Forks, North Dakota), but no sea-based, air-based, space-based, or mobile land-based systems can be developed, tested, or deployed.

1973

NAVY FLAG OFFICERS CUT. In the downsizing occasioned by the end of the Vietnam War, the Navy is ordered to cut 33 admirals (a drop from 300 to 267). This is the first major Navy reduction of flag officers since 1948. Sea Frontier commanders and Naval District commandants become prime targets.

mid-1970s

NAVY SEA FRONTIERS ABOLISHED. Navy coastal defense responsibilities pass back to the Naval Districts.

1975

Joint Continental Air Defense Command and Alaskan Command established. CONAD's and ALCOM's air defense functions are assumed by the US Air Force Air Defense Command (ADCOM), now designated a specified command by the Joint Chiefs of Staff. ADCOM will endure until 1986. The CINCADCOM is also CINCNORAD, as was CINCONAD.

1977

July 9. NAVY MISSILE PATROL HYDROFOILS COMMISSIONED. *Pegasus* (PHM-1) is the first of six Patrol Combatants-Missile (Hydrofoil) to be commissioned between 1977 and 1983. Originally intended to conduct sea control operations far forward, in the Mediterranean, they will be assigned anti-drug and coast defense missions against Cuba and be stationed at Key West, Florida. Thus—unlike World War I- and II-era patrol vessels (and coastal submarines), they are forward-intended units that are later relegated to the coast defense role. Their predecessors had been units designed for coastal defense that subsequently deployed forward. All will decommission in 1993.

1980

NAVY-COAST GUARD BOARD ESTABLISHED. A joint "NavGard Board" is established to coordinate policies. The board is chaired by the Vice Chief of Naval Operations and the Vice Commandant of the Coast

Guard. It quickly focuses on examining the current and future division of labor between the two services regarding coast defense.

February. **ALL NAVY IUW GOES TO NAVAL RESERVE.** All IUW Groups and subordinate M (for "mobile") IUW Units are transferred to the Reserves by this date. MIUW is not only to provide US coastal defense, however, but also to deploy forward with the fleet.

September 30. **ALL NAVAL DISTRICTS ABOLISHED** (except for Naval District Washington). *Coastal defense missions, plus administrative and logistics functions, return to the naval station commanders from whence they had come three-quarters of a century earlier.* Integrated Navy coastal defense planning now migrates to Fleet CINC headquarters, where its priority is low. The Atlantic Fleet plans to set up, in time of war, a Coastal Defense Command (CTF 89) to direct mine countermeasures and port break-out operations in US waters and the approaches thereto.

Late-Cold War and Post-Cold War era: 1981-present: Maritime Defense Zones, The Drug War, and the national missile defense debate

Overview

The US Navy reacts to the Soviet challenge with another growth spurt, not only in ship numbers and capabilities, but also in strategy and tactics. The rising tide of the Reagan administration's defense program and the US Navy Maritime Strategy lifts all boats, including even coastal defense.

New systems enter the fleet with homeland defense capabilities or potential. These include Aegis cruisers, coastal mine hunters, and a new generation of patrol craft.

New institutions, concepts, and systems are put into place that affect or reflect US and US Navy coastal defense policies. The coastal defense responsibilities of the Coast Guard and the Naval Reserve coalesce into Maritime Defense Zones in support of the Maritime Strategy of the 1980s.

Cuba remains a thorn in the side of the US, the Caribbean hosts a potpourri of impoverished island nations and unstable regimes, and the illegal drug traffic into the US begins to swell. Consequently, the coast defense of the southeastern United States against a variety of low-end threats continues to occupy all the services somewhat, but especially the Coast Guard.

Then the Soviet Union collapses. The US Navy's lead over the rest of the world's navies increases, and a new naval doctrine is promulgated to succeed "The Maritime Strategy": "Forward . . . From the Sea." With the Soviet threat receding, the Navy refocuses from forward operations against the Soviet military to forward operations against a variety of other threats. The emphasis, however, remains on forward operations far from

the American coasts. Also, the US Navy coastal defense focus, such as it is, shifts: From US naval base harbor clearance and break-out in time of war to counter-drug surveillance and interception support operations in the Caribbean and off Southern California. The threat is now from disguised and low-profile smuggler civilian aircraft and ships—including submersibles. At sea, Navy surface and air platforms work with the Coast Guard and a plethora of other services and agencies to help stem the illegal traffic in drugs, migrants, etc.

But some discern another threat as well: land- or sea-based intercontinental ballistic missiles by “potential peer competitors” and “rogue states.” These appear to be located in the Far East, across the Pacific—not in Northern Eurasia, across the Arctic. They also appear to some to be capable of being defended against, given the promise of new anti-missile technologies. Consequently, there is discussion of Navy sea-based anti-missile contributions to national homeland defense, i.e., anti-missile cruisers parked in some fashion off the US West Coast. Pressure mounts in some quarters for abrogation of the 1972 ABM treaty.

The Navy-Naval Reserve-Coast Guard Maritime Defense Zones created just a few years increasingly become obsolete Cold War artifacts, but remain the institutional framework for US coastal defense.

A joint and Navy doctrinal binge includes development and publication of detailed new doctrinal statements on Navy coastal defense responsibilities and operations. Thus, what official thinking there is on coastal defense becomes more widely accessible.

Chronology: 1981-present

1981

THE NAVY TURNS TO THE COAST GUARD. The Navy and Coast Guard (NAVGARD) Board orders study of the feasibility of using Coast Guard organizations and assets as a framework for US coastal defense.

US NAVY PATROL CRAFT NADIR. Another low point in US Navy patrol craft force levels is reached, with only one such vessel assigned to the active fleet. The force will soon rise again somewhat with the commissioning of a PHM squadron, but then will all but disappear again in the early

1990s. A dozen PCs commissioned in the late 1990s will be principally for forward Naval Special Warfare support, not coastal defense.

1983

March 23. **President launches Strategic Defense Initiative (SDI).** President Reagan announces commitment to national ballistic missile defense research, altering policies in place for at least two decades. CNO ADM James Watkins is a chief architect of the new policy of strategic defense.

January 22. **NAVY DEPLOYS AEGIS SHIPBOARD AIR DEFENSE SYSTEM.** USS *Ticonderoga* (CG-47) is commissioned. She is the first ship to carry the Aegis anti-air weapons system.

1984

March 1984. **MARITIME DEFENSE ZONE COMMANDS ORDERED.** The Secretaries of Transportation and the Navy sign a Memorandum of Agreement (MOA) establishing Maritime Defense Zones (MDZs) and designating Coast Guard Area Commanders as MDZ commanders, *reporting to Navy Fleet CINCs.* Headquarters are to be staffed by active Navy and Coast Guard personnel, augmented by reservists from both services. MDZs will be responsible for harbor and coastal defense, including port breakouts, mine countermeasures, and IUW.

1985

June 14. **MDZLANT ESTABLISHED.** Supersedes planned wartime activation of an Atlantic Fleet Coastal Defense Command (CTF 89). Subordinate sector commanders include six Coast Guard District commanders and two US Naval Base commanders. Some Coast Guard commanders have Naval Reserve deputies.

MDZPAC will be established on January 8, 1986, taking over previous Third Fleet coastal defense responsibilities. Subordinate sector commanders include five Coast Guard District commanders and two US Naval Base commanders. As in the Atlantic, some Coast Guard commanders have Naval Reserve deputies, including the MARDEZ Commander himself.

COOP COASTAL MINESWEEPING PROGRAM ESTABLISHED. Commander, Mine Warfare Command initiates Craft of Opportunity

(COOP) program, employing Naval Reservists on Naval Academy yard patrol craft and requisitioned commercial fishing boats for limited offshore and harbor mine hunting and sweeping, for CONUS ports lacking mine countermeasures capability. First COOP craft is a "Minesweeping Shrimp Boat," a converted captured drug smuggler, placed in service in 1985. The program will die within a decade, as the Cold War recedes.

US Space Command established. USSPACECOM supersedes the Air Defense Command (ADCOM) as a combatant command. ADCOM will be disestablished in 1986. The Navy component of USSPACECOM will be the Navy Space Command (NAVSPACECOM). USCINCSpace is also CINCNORAD, as was CINCAD. NORAD will continue as a combined US-Canadian Air Force continental air defense command, armed with interceptor aircraft.

1986

October 27. **ANTI-DRUG ABUSE ACT.** The Defense Department is tasked to provide resources and assistance to help stem the inflow of drugs into the US. Increased Navy funding of E-2C AEW aircraft is specifically mandated, as is the assignment of Coast Guardsmen to Navy surface ships at sea with the power to make arrests. Navy ships and aircraft accelerate counter-drug operations in the Caribbean in the Gulf of Mexico, and off the Pacific Coast.

1989

February. **JOINT TASK FORCE FOUR (JTF4) ESTABLISHED.** JTF 4 is to coordinate the conduct of detection and monitoring operations against aircraft and surface vessels engaged in suspected drug smuggling in the Gulf of Mexico and Caribbean Sea. Headquarters is at Key West, Florida. Initial Commander is a Coast Guard vice admiral. Subsequent commanders are Navy rear admirals.

DOD DESIGNATED LEAD AGENCY FOR DETECTION AND MONITORING OF DRUG SMUGGLERS. Passage of the 1989 Defense Authorization Act brings the Department of Defense more heavily into the war on drugs by designating it as the lead agency for "detection and monitoring" of sea and air traffic bringing illegal drugs into the United

States. Accordingly, Navy commands are directed to shoulder part of the increased load.

1990

August 2. **Iraq invades Kuwait.** Operation Desert Shield will begin shortly thereafter. Massive US forces will move to the Persian Gulf.

NAVAL RESERVE MIUW UNITS MOBILIZED. For Operations Desert Shield and Desert Storm, five MIUW detachments and supporting IUW staff elements are mobilized, to provide forward port security/harbor defense for three Persian Gulf re-supply ports.

1991

January 16-February 27. **Liberation of Kuwait.** Operation Desert Storm.

December 25. **Dissolution of the Soviet Union.** The salience of the air and missile threat to the United States from Northern Eurasia recedes.

1992

September 29. **NAVY PROMULGATES NEW FORWARD STRATEGY.** . . . *From the Sea* is published. Navy policy moves from emphasizing forward operations against the Soviet Union to emphasizing forward expeditionary operations on any of the world's littorals. Coastal defense still takes a back seat. To drive the message home, . . . *From the Sea* will be followed by *Forward . . . From the Sea* in 1994.

1993

LAST PHMs DECOMMISSION.

June 30. **JOINT MINE WARFARE DOCTRINE PROMULGATED.** *Joint Doctrine for Barriers, Obstacles and Mine Warfare* (Joint Pub 3-15) is published. Includes policy on protective mining at sea, naval mine countermeasures, and Maritime Defense Zone responsibilities

August 7. **FIRST NEW NAVY COASTAL PATROL SHIP COMMISSIONED.** *Cyclone* (PC 1) is the first of a class of 13 (?) to be laid down, launched, and commissioned during the first half of the

1990s. They are intended to support special operations forces, primarily Navy SEALs. They are the first major patrol vessels to be built for the US Navy in a decade, and are the third series of such ships to be built since World War II (the others had been the PHMs of the 1970s and the *Asheville*-class patrol gunboats of the 1960s). While of the coastal patrol ship type, these vessels are intended primarily to operate forward, however. They will participate in the US operations in Haiti in 1994 and deploy to the Baltic and Mediterranean.

November 20. **FIRST NEW NAVY COASTAL MINE-HUNTER COMMISSIONS.** *Osprey*, (MHC 51) is the first of a class of 12 to be laid down, launched and commissioned throughout the 1990s. They had been originally planned in the waning days of the Cold War for harbor clearance, port breakout, and deep-water coastal mine countermeasures. An earlier planned class of air cushion minehunters had been aborted in the 1980s.

1994

June-October. **NAVY AND COAST GUARD CARIBBEAN HAITIAN MIGRANT INTERCEPTION OPERATION.** Operation "Sea Signal" is conducted.

August. **NAVAL COASTAL WARFARE DOCTRINE UPDATED.** Commander, Naval Doctrine Command promulgates NWP 39 (Rev. A), which updates NCW doctrine for US-based (and forward-deployed) forces. MDZ commanders are designated as repositories of NCW doctrine, tactics, and expertise for the US Navy. The Atlantic and Pacific MDZs may be activated to protect the United States, but forward NCW is the responsibility of overseas Joint Force Navy Component Commanders. Navy communities involved in NCW are identified as Explosive Ordnance Disposal, Inshore Undersea Warfare, Mine Warfare, Naval Control of Shipping, and Navy Salvage, as well as the four naval warfare specialties.

August 19. **CARIBBEAN CUBAN MIGRANT INTERCEPTION OPERATION** (Operation "Able Vigil"). US Navy ships join Coast Guard units in intercepting a massive exodus of Cuban migrants at sea in the Florida Straits. By August 25, ten Navy ships will be on station, with three more en route.

August 26. **JOINT-INTER-AGENCY TASK FORCE-EAST DESIGNATED.** JTF 4 is redesignated JIATF-East.

1995

March. **NAVAL INSHORE UNDERSEA WARFARE DOCTRINE UPDATED.** Commander, Naval Doctrine Command promulgates NWP 3-10.3, which updates policy and doctrine for the IUW component of Naval Coastal Warfare—both US-based and forward-deployed operations.

1996

May 28. **JOINT DOCTRINE FOR REAR AREA OPERATIONS PUBLISHED.** The Director, Joint Staff promulgates Joint Pub 3-10, which provides joint doctrine addressing relationships with *forward* naval coastal warfare. Joint Rear Areas are described as being outside the US and normally not including naval areas of operations. Joint Rear Area Operations are specifically differentiated from Naval Coastal Warfare, which comes under Naval Coastal Warfare Commanders (NCWCs) responsible to the Joint Force Navy Component Commanders for security of territorial seas contiguous to the rear area (including ports and harbors). The normal common boundary between the NCWC's area of operations and the JRA is specified as the high water mark.

November 4. **Joint Doctrine for Aerospace Defense of North America is published.** The Director, Joint Staff promulgates Joint Pub 3-01.1, which provides a doctrinal basis of how joint US forces approach the air, ballistic missile, and space defense of North America. Contemporary policy on ballistic missile defense is included. The North American Aerospace Defense Command (NORAD) is cited as being responsible for aerospace defense of North America. The role of Air Force systems is specifically highlighted. Naval forces are not specifically addressed.

Late 1990s

USN ROLE IN US NATIONAL BALLISTIC MISSILE DEFENSE DEBATED. The Navy continues to improve the Aegis anti-air radar and missile system, first developed in the 1970s and deployed in the 1980s. Capability is expanding from *fleet* missile defense to *theater* missile defense. Also, advocates of *national* missile defense, both inside and outside the Navy, see the next generation of Aegis ships as the heart of a technically feasible, affordable, and available national ballistic missile defense

system. This would necessitate revision or renunciation of the 1972 US-Soviet ABM Treaty.

1997

JOINT COASTAL DEFENSE HISTORICAL RE-ENACTMENT. The Navy relic USS *Constitution* sails again from Boston to Marblehead, re-enacting her 1814 flight to the protection of the guns of the Army's Fort Sewall, to escape two British frigates).

December. **National Defense Panel (NDP) calls for increased homeland defense effort.** This congressionally mandated "wise man" group views contemporary and future threats to the US homeland as including: strategic nuclear attack, terrorism, information warfare, ballistic and cruise missiles, transnational threats, and attacks on critical infrastructure. The NDP in particular calls for a robust *US Coast Guard* capability, against not only drug and migrant smuggling, but also *cruise missile attacks*; and a new joint *Homeland Defense Command* responsible for defending North America from air, missile, and information warfare attacks. This command would be subordinate to a *new joint Americas Command*, which would also encompass *Maritime and Air Defense Zones*.

1998

February 17. **JOINT COUNTERDRUG OPERATIONS DOCTRINE PROMULGATED.** A massive doctrinal publication, Joint Pub 3-07.4, is published. Responsibilities of the Defense Department, the combatant commanders, and the services are outlined. Significant Navy assets identified as available for counterdrug operations include Re-locatable Over-The-Horizon Radar (ROTHR) sites, early-warning and patrol aircraft, and surface combatants. Navy-Coast Guard relationships regarding Coast Guard Law Enforcement Detachments (LEDETs) on Navy warships engaged in maritime interception operations are described.

March. **CALL FOR CREATION OF "NAVAL REGIONS."** In his book *Sailing New Seas*, ADM J. Paul Reason, CINCLANTFLT, calls for establishment (under one new four-star force-providing commander) of eight "Naval Regions" (latter-day Naval Districts) as part of a total Navy re-organization. *His focus is on efficient naval installation and support administration, however, not coastal defense.*

**Summer. JCS CONSIDER CREATION OF A JOINT HOMELAND
DEFENSE COMMAND**

This report was written by CNA's Strategy, Policy, Plans, and Programs Division (SP3).

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