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On 9 July 1941, President Roosevelt tasked the Army and the Navy to draft a report identifying their broad material and personnel requirements if the US were to enter the World War. There is a historical gap as to how the Navy developed its portion of the Victory Program Document. This paper analyzes the processes and analytical methodologies the Navy used develop both the overarching national strategy and naval requirement included in the Victory Program.

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"NAVIES CAN NOT BE IMPROVISED:" WORLD WAR II U.S. NAVAL SHIP REQUIREMENTS AND THE VICTORY PROGRAM

An Essay

Submitted to

The Faculty of the

United States Naval War College

In Partial Fulfillment

of the Requirements for the

Graduate Certificate in Maritime History

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by
Mr. Daniel J Simonsen, GS-15, DAF

May 13, 2022

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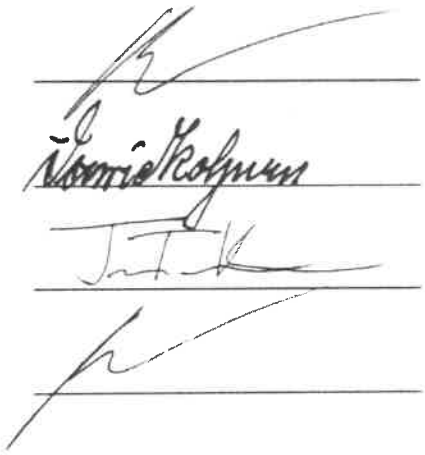

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"Navies Cannot Be Improvised:" World War II U.S. Naval Ship Requirements and the Victory Program

Introduction

By 1941, the likelihood that the United States could remain neutral in the ongoing world war seemed increasingly unlikely. France had fallen in the European /Atlantic Theater, and the United States was providing material support to Great Britain via Lend Lease. Tensions in the Pacific were also rising as Japan worked to increase its span of control to secure natural resources for its growing empire. Faced with these potentialities, on 9 July 1941, President Franklin D. Roosevelt sent a memo to the Departments of War and Navy requesting that the two departments identify air, land, and naval material and personnel requirements for a potential world war. The president requested the two departments provide a consolidated response.

On 30 August 1941, Roosevelt sent an amplifying memorandum to the War Department, further specifying the task and identifying the due date of 10 September 1941.[1] Officially called the "Joint Board Estimate of United States Over-All Production Requirements," the consolidated response became known as the Victory Program.[2] The Navy's portion of the overall plan often referred to as the Victory Sea Plan, became Appendix 1 of the document. Writing the Navy's portion of the Victory Program fell to the Naval War Plans Division under the shepherding eye of the Chief of Naval Operations (CNO), Admiral Harold Stark. The Navy portion of the plan identified the warship, personnel, aircraft, auxiliary ship, and maritime shipping requirements.

This research project will focus on identifying how the Navy developed its warship requirements estimate included in the Victory Program. Warships represented the heart of a

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[1] Memorandum, Franklin D. Roosevelt to William S. Knudson, 30 August 1941, Box 84, Stimson File, Personal Secretary File, Franklin D. Roosevelt Presidential Library (Hereinafter Roosevelt Library).
[2] The Victory Program is also interchangeably known as the Victory Plan.

Navy. While there are linkages between the five requirements categories, congressional and presidential interests and civilian industrial base considerations affected each differently. The unique complexity and histories of developing personnel, aircraft, auxiliary ships, and maritime shipping requirements are such that they merit separate studies. As a result, the processes used to develop those requirements are beyond the focus of this study. Warships represent the core of the naval requirements in the Victory Program and thus are the primary focus of this research.

Historiography

While many Army and Air Force historians have written about the Victory Program, focusing on their respective portion of the program, the Navy's portion of the Victory Program is underexplored in U.S. military history and U.S. naval history.[3] In contrast to the Army and Air Force, after the war, none of the key participants who developed the Navy's portion of the Victory Program an autobiography, a memoir, or work that discussed the Victory Program.[4] Nor have naval historians provided appreciable coverage of the Naval portion of the Victory Program. In the biography of *Admiral Harold R. Stark: Architect of Victory, 1939-1945*,

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[3] The main works regarding the Army's portion of the Victory program include: Mark S. Watson, Watson, Mark S. *The United States Army in World War II: Chief of Staff: Prewar Plans and Preparations*. (Washington D.C.: Center of Military History, United States Army, 1950); and Mark S. Watson, "Development of the Victory Program of 1941," *Military Review,* March 1950: (3-13) and April 1950: (51-62). https://cgsc.contentdm.oclc.org/digital/collection/p124201coll1/search/searchterm/1950!English%20Edition/field/date!all/mode/exact!all/conn/and!and/order/nosort/ad/desc; General Albert Wedemeyer, U.S. Army (Ret), *Wedemeyer Reports!* (New York, NY: Henry Holt and Company, 1958); As a major, Wedemeyer served as eh Army's lead action officer for the Victory Program and Charles Kirkpatrick, *An Unknown Future and A Doubtful Present: Writing the Victory Plan of 1941*, (Washington, D.C.: Center of Military History of United States, 1992). The main works regarding the Air Force's portion of the Victory program include: Haywood Hansell, Jr. *The Air Plan that Defeated Hitler*. (Atlanta, GA: Higgins-Mcarthur/Longino and Porter, 1972.); Haywood Hansell, Jr. *The Strategic Air War Against Germany and Japan: A Memoir*. (Washington D.C.: Office of Air Force History, 1986); and Haywood Hansell, Jr. *The Strategic Air War Against Japan,* (Maxwell AFB, AL: Air Research Institute, 1980). Major General Haywood Hansell Jr., one of the four primary authors of Air War Plans Division Plan/1 (AWPD/1), wrote three books focusing only on the air portion of the Victory Program and its implementation. Most recently: James C. Gaston, *Planning the American Air War: Four Men and Nine Days in 1941,* (Washington D.C.: National Defense University Press, 1982). Gaston focused solely on the Air Forces portion of the Victory Program.

[4] The Navy's key participants include: Admiral Harold Stark, Rear Admiral Richmond K. Turner, Rear Admiral Robert Ghormley, Captain Robert Crenshaw, and Captain (later Admiral) Charles "Savvy" Cooke. Secretary of the Navy Frank Knox was also a key participant; however, he died unexpectedly in office in 1944.

B. Mitchell Simpson III discussed Stark's "Plan Dog" memorandum but failed to reference the naval requirements portion of the Victory Program. According to Simpson, Stark recognized the need to press the president for a major policy decision regarding a potential world war strategy.[5] Rear Admiral Richmond Kelly Turner led the Navy's War Plans Division during the writing of the Victory Program. In his biography of Turner, Vice Admiral George Carroll Dyer dedicated a chapter of his book to capturing Turner's time as Chief of the War Plans Division.[6] Dyer addressed Turner's interactions with Stark and Turner's Army counterparts; however, missing from Dyer's discussion is an in-depth analysis of the Victory Program. His only reference to the Victory Program was the investigation of the leaking of the Victory Program to the Chicago *Tribune* and Washington *Times Herald.*[7]

Finally, Dr. James Lacey, in multiple publications, put forward the argument that Roosevelt ignored the Victory Program.[8] Lacey contended that Stark's "Plan Dog" memorandum provided the most significant contribution to the Victory Program. Lacey further contended that three economists, particularly Mr. Stacey May, who calculated U.S. production capabilities, developed the actual requirements for World War II.

So, Who Wrote the Naval Portion of the Victory Program, and how did they do it?

The answer to how the Navy developed its portion of the Victory Program remains unanswered. To address this historical gap, this research product will use primary sources, including Joint Board documents, personal diaries, congressional records, naval documents, and

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[5] B. Mitchell Simpson III, *Admiral Harold R. Stark: Architect of Victory, 1939-1945*, (Columbia, SC: University of South Carolina Press, 1989), 66.
[6] VADM George Carroll Dyer, USN (Ret), *Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner*, (Washington, D.C.: U.S. Government Printing Office, 1969), 156-7.
[7] Ibid, 197.
[8] James Lacey, *Keep From All Thoughtful Men: How U.S. Economists won World War II.* (Annapolis, MD: Naval Institute Press, 2011); and James Lacey, *The Washington War: FDR's Inner Circle and the Politics of Power That Won World War II.* (New York, NY: Bantam, 2019); and; James Lacey, "World War II's Real Victory Program," *The Journal of Military History* 75 (July 2011): 811-834.

secondary materials, to analyze the question and draw conclusions about how the U.S. Navy developed its material requirement for World War II. As part of this research project, particular attention will be paid to identifying the processes the U.S. Navy utilized to develop its material requirements for World War II. The research will analyze the various pieces of prewar legislation and associated documentation to assess their influence over naval requirements identified in the Victory Sea Plan. The research will examine the U.S. Navy's participation in the development of the Victory Program to provide a brief but holistic picture of the Department of the Navy's process for developing the warship requirements as captured in the Navy's portion of the plan.

The Naval War Plans Division served as the primary author of the naval appendix to the Victory Program. Planners such as Captains Russell Crenshaw and Charles "Savvy" Cooke, along with Rear Admirals Richmond Kelly Turner and Robert Ghormley, all participated in the extended process of developing the naval requirements. Unlike the Air War Plans Division, with its core team of four, who drafted their appendix of the Victory Program in only nine days, the Navy's appendix represented a culmination of work over several years. CNOs William Leahy and Harold Stark, along with Naval War Plans Division, knew it took years to build a navy. For example, before World War II, a battleship took over four years to produce. The process of replacing an overage battleship exceeded a single CNO's tenure. The planners used their earlier analysis to justify naval legislation to increase the size of the Navy and continually update to reflect changes in threat data and the global environment. When Stark wrote his "Plan Dog" memorandum to capture his perceived view of national priorities, it worked to refine requirements further. This, combined with other Navy reports, further adjusted the concepts for building an American Navy capable of meeting the challenge of a global war.

The Road to Victory - "Dollars Cannot Buy Yesterday"[9]

After World War I, the U.S. Navy transitioned from the largest, most powerful navy to a drastically reduced stature. The combination of the post-World War I naval treaties and Congress's reluctance to fund the Navy resulted in the Navy's size being below approved treaty levels. Coming out of World War I and the Treaty of Versailles, the war's victors all worked to ensure peace and reduce the likelihood of future wars. At the center of this effort were a series of treaties focused on reducing and restricting the size of the signatories' navies. The Washington Treaty (also known as the Five Power Treaty) of 1922 was the first of these naval reduction treaties.[10] The Washington Treaty established maximum capital fleet sizes measured in tons and ratios for the sizes of the signatories' navies relative to each other. The British and American fleets were capped at 525,000 tons apiece and served as the benchmarks for the size of other nations. The remaining signatories' fleets were capped at a ratio of the British/Americans: Japan 5 to 3; France and Italy 5 to 1.67. The treaties remaining key items were restricting the size of capital ships, restricting capital ship armament to 16" or less, limiting the size of aircraft carriers, and declaring a ten-year holiday for the design and building of capital ships.[11] The treaty went so far as to identify which capital ships the United States would retain.

In 1927 at the invitation of President Calvin Coolidge, Great Britain, Japan, and the United States met at the Geneva Naval Conference to discuss further naval reductions. Italy and France declined Coolidge's invitation to attend. The attendees focused on reductions in auxiliary

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[9] Memorandum, Harold Stark to Husband Kimmel, 10 Feb 41, Box 4, File 1, Mitchell B. Simpson III Papers, US Naval War College Archives, (Hereinafter Simpson Papers).
[10] "The Washington Naval Conference, 1921–1922," U.S. State Department, Accessed April 8, 2022, https://history.state.gov/milestones/1921-1936/naval-conference and Office of the Historian, https://history.state.gov/historicaldocuments/frus1922v01/pg_247.
[11] "The Washington Naval Conference, 1921–1922," US State Department, accessed April 8, 2022, https://history.state.gov/milestones/1921-1936/naval-conference. Capital ships were identified as having a displacement greater than 10,000 tons. The size restriction for capital ships was 30,000 tons and aircraft carriers was 27,000 tons.

ship tonnage and cruiser limits/classification. Unable to reach an agreeable solution, the countries did not sign a new treaty.[12] Following the unsuccessful attempt at the Geneva Naval Conference, the international community negotiated another naval arms treaty in hopes of preventing an arms race.[13] Because of the Washington Naval Treaty's prohibition on capital ships, signatory nations had begun skirting treaty limitations by building cruisers whose weight placed them just below treaty consideration. Known as the London Naval Conference of 1930, the five Washington Naval Conference signatory nations (Great Britain, United States, Italy, Japan, and France) took to task reducing the total tonnage, number, individual ship size, and capabilities of other combat vessels, including cruisers (heavy and light), destroyers and submarines.[14] In addition to combat ships, the London Naval Conference also established a tonnage limit on auxiliary ships. The London Naval Conference also set a 10:10:7 (Great Britain, United States, Japan) ratio for the various classes of ships, except for light cruisers, which they set a 10:10:6 ratio. The treaty also levied new restrictions on aircraft carriers.[15] Finally, Great Britain, the United States, and Japan agreed to dispose of a negotiated number of their capital ships.[16] The Washington Naval Conference and London Naval Conferences were scheduled to expire in 1936. As a result, the U.S. Navy's size and composition were restricted in the decade leading up to the Second World War.

In 1935, the United States once again entered negotiations to continue the limitation of naval forces. The resulting treaty became commonly known as the London Naval Treaty of 1936.

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[12] "The Geneva Naval Conference, 1927," US State Department, accessed 26 May 2022, https://history.state.gov/milestones/1921-1936/geneva.
[13] "The London Naval Conference, 1930," US State Department, accessed 9 April 2022, https://history.state.gov/milestones/1921-1936/london-naval-conf.
[14] United States, "International Treaty for the Limitation and Reduction of Naval Armament," known as the London Naval Conference, 1930, http://www.navweaps.com/index_tech/tech-089_London_Treaty_1930.php.
[15] Ibid, Article 3 & 4, also known as the London Naval Conference, 1930, http://www.navweaps.com/index_tech/tech-089_London_Treaty_1930.php.
[16] Ibid, Article 2.

The treaty placed restrictions on capital ships and aircraft carriers. The maximum allowable size for both ships' classes changed: tonnage for battleships increased to 35,000 tons while tonnage for aircraft carriers decreased to 20,000 tons.[17] Unlike the previous treaties, Japan was not a signatory, having walked out of the negotiations. The treaty extended the treaties signed at the Washington Conference of 1922 and the London Naval Conference of 1930.[18] By the fall of 1939, all the treaty signatories had announced their departure from treaty obligations.

Naval arms limitation treaties were not the only restriction on the U.S. Navy. The U.S. also unilaterally decided to reduce the size of the Navy below treaty levels. When assessing national priorities, Presidents Calvin Coolidge, Hebert Hoover, Franklin Roosevelt, and Congress opted to fund other priorities.[19] The growth of the U.S. Navy leading up to World War II proved to be a slow and arduous process.

Beginning in 1933, when Roosevelt became President, the U.S. Navy began a period of slow growth and recapitalization. As a former Assistant Secretary of the Navy, much hope and eventual credit is given to Roosevelt for rebuilding the navy in preparation for World War II.[20] While the early prewar years of the Roosevelt administration did not result in a significant increase in the size of the Navy, it is important to briefly discuss the key pieces of legislation as they provide the foundation for future naval growth.[21] The first aim of the funding increase was

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[17] United States, "Treaty for the Limitation of Naval Armament," Articles 4 and 5, also known as the London Conference of 1936, accessed on April 9, 2022. http://www.navweaps.com/index_tech/tech-089_London_Treaty_1936.php.

[18] George C. Dyer, *On the Treadmill to Pearl Harbor: The Memoirs of Admiral James O. Richardson*, (Washington D.C.: Department of the Navy, 1973), 34.

[19] John C. Walter, "Congressman Carl Vinson and Franklin D. Roosevelt: Naval Preparedness and the Coming of World War II, 1932-40," *The Georgia Historical Quarterly*, Vol. 64, No. 3 (Fall, 1980), 294-295.

[20] John C. Walter, "The Navy Department and the Campaign for Expanded Appropriations, 1933-1938," (PhD Diss., University of Maine at Orono, 1972), 4-5.

[21] The following items are excellent resources for a better understanding of pre-World War II appropriations: John C. Walter, "The Navy Department and the Campaign for Expanded Appropriations, 1933-1938;" and David I. Walsh, *The Decline and Renaissance of the Navy: 1922-1944*. Washington, D.C.: US Government Printing Office, 1944; and Carl W. Enders, The Vinson Navy., PhD Diss., Michigan State University, 1970).

to replace aging ships. As the global political environment began to shift, the U.S.'s naval recapitalization shifted to an effort to increase the size of the navy.

In 1933 Roosevelt, via executive order, allocated $238 million of the Congressionally provided General Relief Fund for naval defense. Congress had originally provided the General Relief Fund to provide jobs during the depression. Roosevelt used it to create the jobs related to building thirty-two naval vessels. Most of the vessels replaced overaged vessels; thus, they did not increase the size of the navy.[22]

In 1934 Congress passed, and Roosevelt signed the Vinson-Trammel Act authorizing the Navy to build up to the naval treaties' limits.[23] Rep. Carl Vinson (D-GA) sponsored the legislation and advocated for future naval expansion. The Vinson-Trammel Act only authorized the building of the ships; the appropriation came separately. When the funding came, it primarily modernized the navy by allowing it to replace obsolete/overage vessels. Finally, the Vinson-Trammel Act also authorized the navy to procure the aircraft associated with the new ships.[24] Admiral William Leahy's testimony in support of the act provided an indication of the process the U.S. Navy would use to develop its requirements for a potential world war (the proposed increase would have the U.S. reach parity with Great Britain in 1942):

> I need only to refer to the political conditions in the world at this moment, both in Europe and in the Far East, to emphasize the fact that the navy must be prepared for the eventualities that may develop from the international situation and that our Government may be brought suddenly face to face with a situation that it has no part in creating and over which it may have no control. For this reason, in considering the estimates of the navy, conditions in the world on all sides of us must be considered, together with the strength of our Navy as compared with the strength of other great naval powers.[25]

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[22] David I. Walsh, *The Decline and Renaissance of the Navy: 1922-1944*. (Washington, D.C.: US Government Printing Office, 1944), 2.
[23] Naval Parity Act of 1934, (27 March 1934). Public Law 73-135, 73th Cong., 2d sess. (17 May 1938), 503.
[24] David I. Walsh, *The Decline and Renaissance of the Navy: 1922-1944*. 3.
[25] Henry H. Adams, *Witness to Power: The Life of Fleet Admiral William D. Leahy*, (Annapolis, MD: Naval Institute Press, 1985), 93; and House Subcommittee on Naval Affairs, To Establish the Composition of the United States Navy, to Authorize the Construction of Certain Naval Vessels, and for Other Purposes: Hearings on H.R. 9218, 75th Cong., 1st sess, 21 January 1937 (Washington D.C: U.S. Government Printing Office, 1937), 53.

Leahy's testimony linked U.S. naval growth to the size/strength of potential adversaries' fleets. The Vinson-Trammel Act represented the first of four highly significant pieces of legislation sponsored by Vinson that proved crucial to building the U.S. Navy's World War II Fleet.

With the likelihood of a world war increasing, Congress took steps to put the U.S. Navy on equal footing with other nations. The Naval Expansion Act of 1938, also known as the Second Vinson Act, authorized an increase of the U.S. Navy tonnage to twenty percent above the Washington Naval Conference of 1922 limits.[26] The twenty percent increase specifically identified the approved increase by ship type and its respective tonnage.[27] While attention is often focused on the combat vessels authorized by the legislation, the legislation also included provisions for auxiliary ships.[28] The practice of including auxiliary ships in the break out of naval requirements continued into the Victory Program.

Nineteen-forty proved to be a seminal prewar year for increasing the U.S. Navy. Vinson introduced two major pieces of legislation to increase the size of the U.S. Navy: the Naval Expansion "11 Percent Act" (14 June 1940) and the Naval Expansion Act "Two-Ocean Navy Act" (19 July 1940).[29] The effort to develop the legislation began at the end of Leahy's tenure as CNO (1939) and was completed under Stark's tenure (1940). As was the practice, the CNO and the War Plans Division were heavily involved in providing the necessary data to Vinson. Stark

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[26] Naval Expansion Act of 1938, (May 17, 1938). Public Law 75-528, 75th Cong., 3d sess. (17 May 1938), 401.
[27] Naval Expansion Act of 1938, (May 17, 1938). Public Law 75-528, 75th Cong., 3d sess. (17 May 1938), 401; and Special to the New York Times, "$553,266,494 BILL FOR NAVY REPORTED: House Committee Recommends Measure After Leahy Warns of War Menace DEBATE WILL START TODAY Provisions Made for Ships and Planes Pending Defense Message From President Message May Contain Warning Sees Danger In Far East Provides For New Ships Says Canal Meets Navy Needs," *New York Times (New York, NY)*, January 18, 1938, 12. The act funded 2 battleships, 2 cruisers, 8 destroyers, 6 submarines, a mine sweeper, a submarine tender, a fleet tug, an oiler and 319 airplanes (many of the aircraft were replacement but legislation increased the total number of aircraft 117), 500 enlisted marine increase to 17,500. At the same time the House approved the Vinson-Trammell Act, the Senate approved the 15,000,000 to modernize the *Lexington* and *Saratoga*.
[28] Naval Expansion Act of 1938, Public Law 75-528, Sec 3 (a) thru (i).
[29] Naval Expansion "11 Percent Act" of 1940. Public Law 76- 629. 76th Cong., 3d sess. (14 June 1940), 394; Naval Expansion Act "Two Ocean Act" of 1940. Public Law 76-757. 76th Cong., 3d sess. (July 19,1940), 779; and James F. Cook, *Carl Vinson Patriarch of the Armed Forces*, (Macon, GA: Mercer University Press, 2004), 150-151.

and his War Plans Division worked the requirements for both pieces of legislation simultaneously. A review of Stark's CNO calendar highlights multiple meetings between the CNO and officers from the War Plans Division to discuss the requirements for the two pieces of legislation.[30] On 4 November 1939, Stark sent Vinson an eight-page memorandum providing the requested supporting information for the "11% Percent Act."[31] A review of the memorandum provides insight into how the War Plans Division focused on a holistic approach that included U.S. war plans, potential adversary fleets and courses and action, and U.S. shipbuilding capacities to develop the requirements to increase the navy.

In his memorandum to Vinson, in addition to providing the ship data, Stark indicated that the existing American shipbuilding industry could support the proposed increase.[32] This type of comment appeared again in the Victory Program. Stark could make such a comment because the Naval War Plans Division had recently completed a detailed "Shipbuilding Study."[33] Thus, the Navy's architects of the Victory Program were well aware that American shipbuilding capacity impacted the feasibility of additional naval construction and resulted in their adjusting their numbers accordingly.

The final significant prewar naval expansion legislation was the 1940 Vinson-Walsh or "Two-Ocean Navy Act."[34] Work on this legislation began when Vinson contacted the CNO

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[30] "Diary of Harold Stark, CNO 1939-1942," Box 4, File 3, Harold R. Stark Papers, US Navy History and Heritage Command Archives, Harold Stark Papers, 35-40. (Hereinafter Stark Diary, 1939-1942.)

[31] Memorandum, Harold Stark to Carl Vinson, 4 November 1939, Box 13, Folder 6, Simpson Papers, U.S. Naval War College Archives. The memorandum provided data for a 25% increase in the size of the Navy. While the bill was working its way through Congress, Rep. Vinson realized that there was not sufficient support for that large of an increase and reduced the increase to an 11% increase.

[32] Memorandum, Harold Stark to Carl Vinson, 4 November 1939, Box 13, Folder 6, Simpson Papers. The memorandum provided data for a 25% increase in the size of the Navy. While the bill was working its way through Congress, Rep. Vinson realized that there was not sufficient support for that large of an increase and reduced the increase to an 11% increase.

[33] Memorandum, Vincent R. Murphy to Director War Plans Division, "Shipbuilding Study," 2 October 1939, Box 13, Folder 6, Simpson Papers.

[34] Naval Expansion Act "Two Ocean Act" of 1940. Public Law 76-757. 76th Cong., 3d sess. (19 July 1940), 779.

Leahy on 24 April 1938 to request a study be made of the need for naval expansion to prepare against attacks in both oceans at the same time."[35] The task of conducting the study fell to the Naval War Plans Division. According to then-Captain Robert Carney, who was working to protect Atlantic shipping while key naval expansion documents were being drafted, Captains Russell Crenshaw and his deputy Charles "Savvy" Cooke were the officers primarily responsible for developing the "products relating to expanding the Navy."[36] Cooke provided the initial response to Admiral Leahy via the 10-page "Two Ocean" memorandum, dated 2 May 1939.[37] In the memorandum, Cooke walked through the methodology used to calculate the figures and the operational capabilities and risks contained within the total estimate and the various sub-estimates.

To develop the memorandum, Cooke provided a series of estimates broken down by Atlantic and Pacific theaters. Using the existing and projected adversary fleet sizes, Cooke and the War Plans Division calculated the U.S. fleet increase for a series of ratios. Cooke developed two estimates for the Atlantic theater: 4 to 3 ratio and force parity. In the Atlantic, Cooke concluded a 4 to 3 ratio advantage was sufficient for the U.S. Navy to "control the Atlantic and prevention of successful aggression against the Western Hemisphere." Cooke developed estimates for force ratios of 6 to 3, 5 to 3, 4 to 3, parity, and a 3 to 4 disadvantage for the Pacific theater. For each of the calculated ratios, Cooke provided a brief summation of the U.S. Navy's capability at that ratio.

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[35] "Diary of William Leahy, CNO Diary 1938-39," 62, U.S. Naval War College Harry Eccles Library, Microfilm 449 Reel 2. Hereinafter Leahy Diary, 1938-39.
[36] Letter, Admiral (ret) Robert Carney to B. Mitchell Simpson, 27 September 1977. Box 8 File 17 B., Simpson Papers. Admiral Carney later served as CNO from 1953-1954.
[37] Memorandum, Charles M. "Savvy" Cooke to Harold Stark, "Two Ocean Navy," 2 May 1939, Box 13, Folder 6. Simpson Papers.

After Cooke completed the "Two Ocean" Memorandum, it went across the desk of Rear Admiral Robert Ghormley, Director of the War Plans Division and Assistant Chief of Naval Operations. Ghormley wrote at the bottom of the last page: "This does not consider auxiliaries and non-combatant vessels."[38] This handwritten comment indicates that Ghormley and whoever else he shared the memorandum understood that any requirements for a two-ocean Navy must be all-encompassing. It appears that Ghormley then returned the memorandum to Cooke so he could include the additional data. Attached to the original document is a two-page addendum dated 20 September 1939. The addendum included estimates for "Auxilary [sic] Ship Requirements – Both Oceans" and "Aircraft Required – Two Ocean Navy."[39]

Admiral Harold Stark replaced Admiral Leahy as CNO, who retired at the end of August 1939, before the War Plans Division could complete their "two ocean" requirements study. Cooke's initial memorandum was later re-encapsulated in a memorandum for the CNO by Capt. Crenshaw, also of the War Plans Division, entitled "Two Ocean Navy- Numbers and Types," dated 26 September 1939.[40] The Crenshaw "Two Ocean Navy – Numbers and Types" clarified its differences from the "previous memoranda and tables." While the Cooke memorandum had based his tables on total tonnage as to the various types, Crenshaw's memo focused on the number of ships. Crenshaw stated, "tonnage basis is, in my opinion, not only artificial but more or less useless as a basis for determining our future construction programs." He further noted the:

> estimate of the number of each type must be guided by the following:
> Numbers of battleships in the two oceans must be sufficient to provide
> (a) at the minimum, a parity of battle line strength at any time in the area of operations.
> (b) Numbers of other types must be sufficient (1) to support the battle line, and (2) to carry out other necessary operations required in the prosecution of successful campaigns

[38] Memorandum, Charles M. "Savvy" Cooke to Harold Stark, "Two Ocean Navy," 2 May 1939, Box 13, Folder 6. Simpson Papers.
[39] Ibid.
[40] Memorandum, Robert Crenshaw to Harold Stark, "Two Ocean Navy – Numbers and Types," 26 September 1939, Box 13, Folder 6. Simpson Papers.

> in the two oceans. The numbers of these types depend therefore both upon the number in the navies of possible enemies and upon the character of operations required by our national strategy.[41]

Based on this logic, Crenshaw then factored in specifics relating to the German, Italian and Japanese battleships both launched and in production and derived from that the number of U.S. battleships required. The number of other types required was "derived from the estimates of operations that would be required for the accomplishment of national objectives." Several meeting entries on Admiral Stark's calendar indicated that he and the War Plans Division did not develop the requirements in a vacuum. Stark spoke to Vinson on several occasions, which he followed up with meetings with the War Plans Division. Stark's calendar includes multiple calls with Vinson to discuss the "construction of a Two-Ocean Navy."[42] After the calls, Stark held meetings with Ghormley along with Captains Crenshaw, Cooke, and Earle to discuss requirements for a "Two Ocean Navy." Stark followed this meeting up with an additional meeting with Captains Cooke and Crenshaw to discuss a "Two Ocean Navy" two days later, on 22 September 1939.[43] On 26 September 1939, Stark held an additional meeting with Ghormley, Crenshaw, Cooke, and several others to discuss the topic.[44] The key point is how Stark's calendars labeled the meeting with Ghormley and the three captains as discussing requirements. This indicates that Stark, nine months before the Victory Program tasking, was identifying the requirements that ultimately found their way into the Victory Program. The final call came on 31 October 1939, when Vinson telephoned Stark relaying a message that he wanted the naval

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[41] Memorandum, Robert Crenshaw to Harold Stark, "Two Ocean Navy – Numbers and Types," 26 September 1939, Box 13, Folder 6. Simpson Papers.
[42] Stark Diary, 1939-1942, 20 September 1939, 24.
[43] Ibid, 24.
[44] Ibid, 25.

expansion bill language with necessary supporting statements delivered to him by Friday, 3 November 1939.[45]

Not only do the "Two Ocean Navy" and "Two Ocean Navy – Numbers and Types" memoranda indicate that Stark and his staff thought about the requirements for a global conflict, the two memoranda, when analyzed in together, laid out an analytical framework that appears to have entered into the development process for the naval numbers included in the Victory Program. The requirements development process included several key aspects. First, the planners based fleet requirements on a ratio compared against an adversary's fleet size. By developing the requirements for multiple ratios and identifying what the fleet's possible, they identified risk levels. By breaking out ship requirements in numbers of ships vice merely via tonnage, they indicated an understanding of the need for ship-to-ship comparisons for keys ships such as battleships and aircraft carriers. By quantifying certain requirements on a ship-to-ship comparison level, Stark and the war planners recognized the importance of not being bogged down in a tonnage contest where larger ships were often incorrectly viewed as better than smaller ships of the same class.

Second, when viewed together, the two memoranda indicate that Stark and the war planners understood the transitory nature of the requirements. In the Cooke "Two Ocean Navy" memorandum, he highlighted that the estimates were based on "Japanese combatant ship strength, built and building, *so far as known*" (emphasis added).[46] This indicates the planners recognized that the requirements were being developed based on incomplete data and thus subject to updates as new intelligence became available. In his "Two Ocean Navy – Numbers

[45] Stark Diary, 1939-1942, 31 October 1939, 40.
[46] Memorandum, Charles Cooke to Harold Stark, "Two Ocean Navy," 2 May 1939, Box 13, Folder 6. Simpson Papers.

and Types" memo, Crenshaw expanded on this point. Crenshaw pointed out that "if in the future their [referring to German, Italian, and Japanese] construction programs are augmented above these assumptions, corresponding augmentation in our own program would be indicated."[47] Changes in the adversaries' fleet drop the need to update requirements. Incorporating this point in his memorandum, Crenshaw increased the required number of battleships from 30 to 36.

Third, by breaking out the requirements for the Atlantic and Pacific Oceans, Stark and his staff indicated that the Atlantic and Pacific fleets would operate separately from each other and not depend upon the transfer of forces between theaters. A letter from Admiral Stark to Admiral J.O. Richardson, then the Commander in Chief, United States Fleet, highlighted this second point. Before the Two-Ocean Navy Act passed on 20 June 1940, Admiral Stark wrote to Admiral Richardson:

> We recently, as you read in the papers, introduced a bill expanding the Navy sufficiently to provide for major tasks simultaneously in both oceans, and of a strength that will permit us at all times to have strong forces in each ocean. It is not our intention to have a permanent Atlantic fleet somewhat disassociated from the permanent Pacific fleet. However, there will necessarily be some decentralization in fleet command. We can talk this over when you come East.[48]

Stark's letter to Richardson indicated that Stark and his staff understood the likelihood of a potential conflict when he and his staff provided input into the Two-Ocean Navy Act.

Fourth, while the Navy certainly required combatant ships, the two memoranda also included the need to address support vessel requirements as an essential element of any requirements. After being called out by Ghormley, Cooke's memorandum included a detailed

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[47] Memorandum, Robert Crenshaw to Harold Stark, "Two Ocean Navy – Numbers and Types," 26 September 1939, Box 13, Folder 6. Simpson Papers.
[48] Memorandum, Harold Stark to JO Richardson, Serial 017312, 20 June 1940, Box 4, File 1, U.S. Navy History and Heritage Command Archives, Harold Stark Papers, (Hereinafter Stark Papers).

listing of auxiliary (support) vessels and aircraft requirements.[49] In the Crenshaw memorandum, the discussion of auxiliaries and aircraft, while still included in the memorandum, was reduced to a dollar figure. In either case, the memoranda highlight their understanding of the need to include auxiliary ships and aircraft in any overarching requirements documents. The Victory Program later included these types of requirements.

Finally, and most importantly, the two "Two Ocean" memoranda foreshadowed the need to develop requirements based on a national strategy. Specifically, Crenshaw's "Two Ocean Navy – Numbers and Types," as pointed out earlier, drew linkages between requirements and the national strategy. To accurately develop ship requirements, the Navy required a national strategy. This national strategy became codified in Stark's "Plan Dog" Memorandum and the subsequent Victory Program.

Simultaneous to the Congressional engagement, the Navy was also working to address items identified in the General Board's "Are We Ready?" Reports I (1939) and II (1940).[50] When the Secretary of the Navy asked if the navy was prepared for war, the General Board drafted the "Are We Ready [to go to war]?" report.[51] The report replied to the titled question: "No." Along with the response, the General Board provided a detailed response in which the explanation included some discussion on the material requirements. Among the issues cited were the lack of shipbuilding facilities, particularly for submarines, dive bombing sites, torpedoes, and war plans. On 8 July 1940, the Secretary of the Navy Charles Edison forwarded the report to

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[49] Memorandum, Charles M. Cooke to Harold Stark, "Two Ocean Navy," 2 May 1939, Box 13, Folder 6. Simpson Papers.

[50] Memorandum, from Secretary of the General Board to Charles Edison, "Are We Ready?" 31, August 1939, G.B. No. 425 (Serial No. 1868), Box 13, Folder 8, Simpson Papers; and Memorandum, from Secretary of the General Board to Charles Edison, "Are We Ready?" II, July 1, 1940, G.B. No. 425 (Serial No 1959), Box 13, Folder 9, Simpson Papers.

[51] VADM George Carroll Dyer, USN (Ret), *Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner*, 156-7.

Stark, the CNO, to address issues identified in the documents. He stated, "I desire that this report be utilized as a checklist by all agencies concerned within the Navy Department."[52] With this being the case, both "Are We Ready?" reports not only crossed the Naval Victory Program authors' desks, but the authors would also have been aware of the issues and addressed their items in the report. Thus, it is prudent to deduce the "Are We Ready?" Reports influenced the Naval Victory Program authors. Explained most simply, they likely deferred creating a requirement for something they knew could not be produced. If this is the case, this document likely influenced the naval requirements captured in Appendix 1, Naval Requirements of the Victory Program.

After the passage of the two Naval Expansion acts in the summer of 1940, Stark and his planners still faced the challenge of identifying the nature of the potential conflict. In October 1940, Stark met with the new chief of the War Plans Division, Captain (already selected for promotion to Rear Admiral) Richmond K. Turner.[53] Their strategy discussion led to several follow-up meetings between Stark and the staff to discuss expanding the Navy. Certainly, during the meetings, they discussed Cooke's earlier "Two Ocean" memorandum that highlighted that national strategy drove naval requirements. Absent a national strategy, any requirement levels and prioritization drafted could only be notional at best. As a result, Stark drafted a memorandum for Secretary of the Navy Frank Knox in late October.[54] Based on earlier discussions with Knox, Stark wanted to codify his view in the hope of "obtaining some light" upon the major decisions that the president may make for guiding our future naval effort in the

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[52] Memorandum, Charles Edison to Harold Stark, Letter, Subject General Board, "Are We Ready?" II, 1 July 1940, G.B. No. 425 (Serial No 1959), 8 July 1940, Box 13, Folder 9, Simpson Papers.
[53] Mitchell B. Simpson, *Admiral Harold R. Stark: Architect of Victory, 1939-1945,* 66.
[54] Ibid, 66.

event of war and in further immediate preparation for war."[55] While it is unknown if Stark and Knox discussed how they might "obtain some light" from Roosevelt, it is clear that Stark recognized the need to get guidance from the president in the form of a defined national policy for the potentiality of the United States entering into the ongoing World War.[56] Stark further recognized that the strategic guidance would directly impact the Navy's preparation for war. These preparations included the numbers and types of forces required.

The resulting "Memorandum on National Policy" indicated that Admiral Stark hoped to garner some potential resolution on solidifying a national strategy that he and his War Plans Division could plan towards. The twenty-six-page memorandum contained three main sections. In the first section, Stark provided his analysis of how the United States might become involved in the world war. Stark provided five different situations where he identified the likely combination of combatants (Japan, Germany, and Italy) and what likely events would draw the U.S. into such a conflict.[57] Second, Stark provided what he perceived to be the United States' national objectives:

> our major national objectives in the immediate future might be stated as preservation of the territorial, economic, and ideological integrity *of* the United States, plus that of the remainder of the Western Hemisphere; the prevention of the disruption or the British Empire, with all that such a consummation implies; and the diminution or the offensive military power of Japan, with a view to the retention of our economic and political interests in the Far East. It is doubtful, however, that it would be in our interest to reduce Japan to the status of an interior military and economic power. A balance of power in the Far East is to our interest as much as is a balance of power in Europe.[58]

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[55] Memorandum, Harold Stark to Frank Knox, "Memorandum on National Policy," 12 November 1940, 1, Franklin D. Roosevelt Library, Series 1, Box 4, Navy Department, Personal Secretary File, Franklin D Roosevelt Presidential Library. (Hereinafter Stark "Plan Dog" Memorandum).
[56] Stark "Plan Dog" Memorandum.
[57] Ibid, 2-3.
[58] Ibid, 3.

Stark then brought forth the true purpose of his memo by stating that the questions he is ultimately concerned with are those related to the "preparation and distribution of the naval forces of the United States, in cooperation with its military forces, for use in war in the accomplishment of all or part of these national objectives."[59] Stark drove home his point that the Navy and the Army needed to know national objectives and priorities to prepare for war. By understanding these two issues, the Navy could build a path forward, including identifying the material requirements to achieve those ends.

From this point, Stark returned his argument to discussing Great Britain as a means to support his opening statement that if Britain lost, "we might not lose everywhere, we might, possibly, not win anywhere."[60] Recognizing Great Britain's tenuous position due to German gains and the fall of France, Stark next provided his assessment of the political, economic, and military impact of the British Empire collapsing on the United States and the Western Hemisphere. Stark postulated that the Axis would eventually attempt to move into resource-rich Latin America. This, combined with the U.S. situation in Latin America, determined the "immediacy of danger" to the U.S.[61] Stark followed this point up with an assessment of the current situation of the British Empire, which he assessed as "not encouraging." Stark then worked his argument around the various key points in the British Empire (Egypt, Gibraltar, Hong Kong, Singapore, Malaysia, and India) and Asia (Malaysia, the Netherlands East Indies), quantifying the impact if each point fell under the control of the Axis powers.[62] Citing the uncertainty of Britain's survival, Stark recommended providing support to Great Britain. Stark recognized that the support was essential to Britain's survival but did not necessarily enable

[59] Stark "Plan Dog" Memorandum, 3.
[60] Ibid, 1.
[61] Ibid, 4.
[62] Ibid, 5-7.

Britain to win the war. As part of his analysis of the British Empire, Stark highlighted regions most important to Britain and those most likely to be attacked by Germany and Japan.

From this discussion point, Stark transitioned to the Far East to discuss the Dutch East Indies, the Dutch and the Japanese most likely courses of action. Stark then analyzed the "Orange Plan" within the projected threat environment and risks. The risks included a loss of prestige should the U.S. have to shift to "meet a threat in the Atlantic."[63] Based on this assessment, Stark concluded that the U.S. could not execute the Orange Plan without "accepting considerable risk" in the Atlantic Theater and without restricting material support to Great Britain.[64] As a result of his analysis of Plan Orange, Stark argued that the U.S. should look at a strategy that didn't involve completely defeating Japan. Stark put forth the idea of an economic blockade of Japan.[65] This point is key to understanding force structure requirements in the Pacific. By recommending an economic blockade, Stark indicated that the U.S. would require additional submarines.

Having addressed Plan Orange, Stark then assessed what assistance Great Britain might request should the United States ally with Britain in the Atlantic theater while not going to war with Japan. Stark contended that Britain likely wanted the United States to "protect shipping against raiders and submarine activities."[66] These tasks required capital ships and destroyers, both of which were later included in the Navy's portion of the Victory Program. Next, Stark argued that the British required American escorts, minesweeping forces, submarines, and flying boats for reconnaissance. These requirements are included in the Victory Program as well.

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[63] Stark "Plan Dog" Memorandum, 13. While Stark specifically referenced the Orange Plan, it must be noted that work on the Rainbow plans had already begun.
[64] Ibid, 14.
[65] Ibid, 14. Previously in 1938, Admiral Leahy recommended the economically blockading Japan.
[66] Ibid, 17.

Finally, Stark believed victory in the European theater required landing a force on the European continent. Because Britain did not have enough manpower, the United States had to provide ground troops. These ground troops required naval transport abroad. The Victory Program included these transports.

Having articulately laid out the situation, Stark shifted to address the purpose of the memorandum of securing an answer to the question: "where should we fight the war, and for what objective?"[67] Having stated his key question, Stark explained why he needed the answer so he "can better coordinate the future material preparation of the Navy."[68] This sentence shows a clear linkage between the "Plan Dog" Memorandum and the naval numbers in the Victory Program.

Until Stark got his question "authoritatively answered," he was at a stopping point in his planning. To secure an answer to his question, Stark provided questions that presented four possible courses of action (a through d). Of the four courses of action, Stark recommended the fourth course of action (represented as 'Dog' in the military phonetic alphabet; hence how the memo received its colloquial name): "Shall we direct our efforts toward an eventual strong offensive in the Atlantic as an ally of the British, and a defensive in the Pacific?"[69] Stark's recommendation of an Atlantic first strategy represented a shift in naval focus from the Pacific. When in 1938, the Joint Board had recommended an Atlantic first strategy, Leahy strongly disagreed, preferring to focus on the Pacific.[70] Stark made two other recommendations at the end of his memorandum. Stark recommended that if the president made any decision, the Army and

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[67] Stark "Plan Dog" Memorandum, 18-19.
[68] Ibid, 19.
[69] Ibid, 23.
[70] Henry H. Adams, *Witness to Power: The Life of Fleet Admiral William D. Leahy*, (Annapolis, MD: Naval Institute Press, 1985), 109.

Navy should develop a complete Joint Plan.[71] This recommendation influenced subsequent versions of the war plan Rainbow no. 5 (W.P.L./46).[72] He recommended the U.S. should immediately begin secret talks with the British, Canadians, and Dutch to reach "agreements and lay down plans for promoting unity of allied effort."[73] These talks began in December 1940.

After sharing the draft memorandum with his staff and fellow admirals to solicit their feedback, Stark completed his memorandum on 4 November 1940 and forwarded it to Secretary Knox eight days later. Knox showed the memorandum to Roosevelt that day.[74] Both Knox and Stark knew that Roosevelt, who had worked to keep the United States out of the war, would not provide written approval as it could restrict the president's future choices. However, Stark and Knox understood that the effort would be successful if Roosevelt did not specifically object to the plan.[75] Roosevelt did not specifically object to the plan and kept a copy of the memorandum in his safe.[76]

In January 1941, the Americans and British engaged in a series of secret conferences "to determine the best method" to "defeat Germany and the Powers allied with her, should the United States be compelled to resort to war."[77] Now known as the American British Conferences (A.B.C.), the meetings confirmed the Germany first strategy. The talks culminated in four separate agreements, including an "American-British Strategy."[78] The linkage between the

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[71] Stark "Plan Dog" Memorandum, 25.
[72] Stephen T. Ross, *U.S. War Plans 1939-1945*, (Malabar, FL: Krieger Publishing Company, 2000), 141; and Mitchell Simpson, 81.
[73] Stark "Plan Dog" Memorandum, 26.
[74] Mitchell B. Simpson III, *Admiral Harold R. Stark: Architect of Victory, 1939-1945,* 66.
[75] Simpson, 66; and Memorandum, Harold Stark to Husband Kimmel, 19 April 1941, Box 4, File 1, Stark Papers. On the second page of the memorandum, Admiral Stark indicates that President Roosevelt for an additional time provided his concurrence to the Plan Dog Memorandum; and Mitchell B. Simpson III, *Admiral Harold R. Stark: Architect of Victory, 1939-1945,* 66.
[76] Stark, "Plan Dog" Memorandum. This is indicated on the Roosevelt Digital files website. Accessed 12 May 2022, http://www.fdrlibrary.marist.edu/archives/collections/franklin/?p=collections/findingaid&id=502.
[77] Mark Watson, *The United States Army in World War II: Chief of Staff: Prewar Plans and Preparations,* 375.
[78] "American-British Strategy," Series 1, Box 1. Personal Secretary File, Roosevelt Library.

American British planning conferences is found in Admiral Stark's 25 November 1941 reply to an earlier memo from Admiral H.E. Kimmel, Commander in Chief, U.S. Pacific Fleet:

> We have sweat blood in the endeavor to divide adequately our forces for a two-ocean war, but you cannot take inadequate forces and divide them into two or three parts and get adequate forces anywhere. It was for this reason that almost as soon as I got here I started working on increasing the Navy. It was on the basis of inadequate forces that ABC-1 and Rainbow 5 were predicated and which were accepted by all concerned as about the best compromise we could get out of the situation actually confronting us.[79]

Stark's comment to Kimmel indicated that he was certainly aware of the gravity of the Navy's situation. Stark recognized that the Navy was too small for the requirements for the Pacific theater must less the requirements for a two-ocean war. He further highlighted that the first American British Conference report (ABC-1) and the United States' Rainbow 5 war plan identified this shortfall and attempted to include the necessary accommodations. Stark's stated that point in a memorandum dated (25 November 1941) coming two months after the Victory Program submission, indicating that the Victory Program's naval requirements utilized analysis comparing the fleets planned for A.B.C. Conferences and Rainbow 5 to create a true projected requirements list.

The Victory Program

In a 3 April 1941 memorandum, "Observations on the present international situation," sent to the Commanders Atlantic, Pacific, and Asiatic Fleets, with directions that only they and their deputies should read the document, Stark stated, "The question as to our entry into the war now seems to be when, and not whether."[80] Stark elaborated that he foresaw the U.S. being at war, potentially undeclared, with Germany or Italy as soon as June 1941. While the United States did not enter the war that summer, the questions of when and what would be required continued

[79] Memorandum, Harold Stark to H.E. Kimmel, 25 November 1941, Box 4, File 1, Stark Papers.
[80] Memorandum, Harold Stark to Franklin D. Roosevelt, "Observations on the present international situation," Serial 038612, 3 April 1941, Box 4, File 1, Stark Papers.

to linger. A tasking memorandum from Roosevelt to the War Department and Department of the Navy on 9 July 1941 asked the second of those two questions.[81]

In the tasking, Roosevelt requested the Army and the Navy explore "the munitions and mechanical equipment of all types which in your opinion would be required to exceed by an appropriate amount that available to our potential enemies." Roosevelt went on to say that he was not looking for a "detailed report;" he wanted a report of general scope that "would cover the most critical items in our defense."[82] It is unclear when the War Plans Division received its copy of Roosevelt's 9 July 1941 memorandum. Written on the bottom of a copy of the memorandum in Admiral Stark's papers is the comment: "Navy did not receive a copy of this (at least I, as War Plans Director did not) until the latter part of July. The Army had been working on the thing since the middle of June without ref to Navy or Joint Board – R.K.T. [Richmond Kelly Turner]."[83] The due date for the tasker was just three months away on 10 September 41. Turner forwarded a copy of the completed Naval Requirements document to President Roosevelt, dated 9 September 1941.[84]

Because Roosevelt requested a consolidated response, the Army and Navy coordinated on the main portion of the document. The result of the initial coordination between the Departments of War and the Navy manifested itself in two areas. The first of the areas was a Germany first major military policy. The document began with the Germany first policy and laid out the projected German and Japanese strategies followed by the United States' and associates' "major strategy." The U.S. strategy section included specific items such as the economic

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[81] Memorandum, Franklin D. Roosevelt to Frank Knox, 9 July 9, 1941, J.B. No. 355 (Serial 707), Box 4, File 1. Stark Papers. (Hereinafter Victory Program Tasking Memorandum).
[82] Victory Program Tasking Memorandum.
[83] Ibid.
[84] Memorandum, Richmond K. Turner to Franklin D. Roosevelt, 9 September 41. Serial 0102112, Turner Papers.

blockade of Germany and Japan and protection from German surface raiders and submarines. Previously Stark's "Plan Dog" memorandum identified those strategy points.[85] The three items created a greater linkage of the Naval War Department's ongoing analysis to the tasks and requirements identified in the naval appendix to the Victory Program.

The second area that surfaced during the initial coordination was a disagreement concerning the ultimate role of the Army during the conflict and a disagreement on the total size of the U.S. Army. The Navy recommended that naval and air requirements be prioritized over Army requirements. With respect to the disagreement about the size of the Army, the key issue related to the size of the Army and the number of maritime ships required to transport the personnel and their associated equipment. The Army and the Navy never reached a complete resolution of their disagreement. The result is both the Army and Navy appendixes included differing maritime shipping requirements.

The Victory Program – The Naval Requirements

At the end of the Victory Program base document, there is a specific reference to how the naval planners shaped the naval requirement numbers. The numbers included the United States and foreign navies and merchant marine fleets. The naval portion of the Victory Program represented a 21% increase in ships over the projected naval growth previously approved as part of the Two-Ocean Navy Act, plus aircraft. The final statement is, "The additional naval vessels recommended for the United States can be constructed without any increase in existing or approved shipbuilding and manufacturing facilities."[86] This paragraph drives home the point that the authors of the naval portion used their existing processes to develop their appendix.

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[85] War Plans Division. *Joint Board Estimate of United States Over-all Production Requirements,* 11 September 1941, Joint Board 355 (Serial 707), Series 1: Box 1, American-British Joint Chiefs of Staff Folder, Personal Secretary File, Roosevelt Library. (Hereinafter Victory Program).
[86] Victory Program Section IV para 27, 16.

The individual services requirements were broken into two Appendices: Navy and Army, including Army Air Forces. The Naval Requirements are the first Appendix and are only six pages. The Navy's portion of the Victory Program identified requirements in six primary areas:[87]

(A) Navy Program, for completion by 31 December 1946
    1. U.S. Navy including Aviation
        a. Naval Personnel
        b. Marine Corps Personnel
        c. Naval vessels
        d. Schedule of Naval Ship Deliveries
        e. Naval Aircraft
        f. Naval Shore Establishment
        g. Naval Munitions Requirements
        h. Marine Corps Munitions Requirements
    2. Foreign Navies
(B) Army Program – No estimate submitted
(C) Aviation Program – No estimate submitted
(D) Merchant Shipping Program, for completion by 31 December 1944.
(E) Program for Civil Needs of the United States (Requirements for this need should be established by other than military agencies)
(F) Program for Civil Needs of Friendly Powers. (Requirements for this need should be established by civil agencies in consultation with military authorities.)

As highlighted in several documents, the Navy's analytical focus of the requirements process centered on determining the structure of the combat fleet. Once planners calculated those numbers and adjusted for the realities of technological maturity and various production capacities, they could calculate the remaining requirements, such as manpower, auxiliary shipping, aircraft, and munitions.

[87] Victory Program Appendix 1 "Decision on the Production Requirements for Major Categories of Materials Recommended by the Navy."

The Victory Program data broke out the requirement into three categories: ships built, ships being built, and ships required:

	Built	Building	Additional Required	Total
Battleships	15	17	0	32
Carriers	6	12	6	24
Cruisers, Large	-	6	4	10
Cruisers, Heavy	18	8	0	26
Cruisers, Light	19	40	16	75
Destroyers	170	194	80	444
Submarines	112	72	54	238
Auxiliaries, Large*	183	95	100	378
Naval Coastal Frontier Forces	236	493	600	1329
Naval District Utility	491	102	500	1093
Auxiliary	101	104	116	210
Additional Auxiliary Tonnage Is Included For Estimate Purposes In" Merchant Shipping Program"				

Victory Program "Naval Vessels"[88]

Unlike their Air Corps' AWPD/1, Naval planners did not rapidly create the numbers; rather, they developed their requirement numbers over time and adjusted accordingly based on their awareness of the most current enemy threat information and American manufacturing capability. In many respects, the format follows the layout of previous War Plan Division documents, thus indicating a similar staff development process. Naval planners focused on their five types of ships: battleships, aircraft carriers, cruisers, destroyers, and submarines. The naval authors were mindful that over 150 of the Navy's warships were World War I era ships and thus obsolete.[89] The necessity of the situation dictated that those warships remain in service in the

[88] Victory Program Appendix 1, 1.

[89] "Proposed Statement by the Chief of Naval Operations: Augmentation of Naval Building Program," undated, Richmond K. Turner Personal Papers, U.S Navy Box 5 Section IV, Subsection C "Special File," US Navy History and Heritage Command Archives. (Hereinafter Turner Papers). The planners identified 15 battleships, 10 cruisers, 74 destroyers and 68 submarines as having entered service during the World War I era.

upcoming conflict. Additionally, the planners recognized their calculations were broad estimates that needed to address losses and combat-driven requirements changes. As such, when calculating the projected warship tonnage, they included a 5% margin increase to accommodate for changes.

Additionally, as had been included in the Two-Ocean Navy Act, the war planners recommended the Navy be authorized to adjust the total tonnage in each class by +/- thirty percent while remaining within the total authorized tonnage.[90] This provided the Navy the flexibility to rapidly adjust the numbers and types of ships slated for production. A brief scan of the numbers indicates that the authors developing the naval requirements did not consider it time to include new and untested capabilities and concepts. Absent from the plan were emerging capabilities such as escort carriers, light aircraft carriers, and destroyer escorts. The authors recognized the need to ensure the proposed requirements could be produced "without affecting other naval construction, or the merchant vessel building program."[91] More so than either the Army or Air Force planners, the Naval planners recognized that their requirements had to fit within American industrial production capacities.

A selective review of several ship types provides a better understanding of how the authors created the document. The first indication that the naval planners developed their requirements by analyzing both the projected threat and production capabilities is in the battleship requirement. The planners assessed that based on "material procurement difficulties," no new battleships could be completed by the projected end of the war in 1946/1947.[92] While the

[90] Ibid
[91] Ibid.
[92] Ibid.

planners did not forecast a need for additional battleships, they recognized the battleship's role in convoy protection.

A draft statement concerning the numbers in the Victory Program, likely written by Admiral Turner for Admiral Stark, stated that fifteen of the Navy's battleships were overage and only suited for convoy escort duty.[93] As highlighted in the body of the Victory Program, U.S. naval leaders remained concerned about German commerce raiders. An example of this was in a document titled "Ocean Escort in Western Atlantic (West of Longitude 30° West)" April 1941. Because of the threat posed by German battle cruisers *Gneisenau* and *Scharnhorst*, both of which were specifically mentioned, Atlantic convoys were to be escorted by a battleship and cruiser. If a battleship was not available, additional cruisers were required.[94]

The concern over German Capital ships is also evident in correspondence between Stark and Roosevelt.[95] It should be noted that this concern was valid; the *Scharnhorst* was not sunk until December 1943, when British surface vessels sunk while it attempted to attack a convoy.[96] The *Gneisenau* was damaged essentially beyond repair in February 1942 and was decommissioned in 1943.[97] Not only did these two German ships remain a threat well after the Victory Program was written, other German capital ships such as Prinze Eugen and the Admiral Hipper survived the war. Until the tide in the Battle of the Atlantic had turned, German commerce raiders had to be respected by the U.S. Navy's committing battleships to address the threat.

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[93] "Proposed Statement by the Chief of Naval Operations: Augmentation of Naval Building Program," undated, Box 5 Section IV, Subsection C "Special File," Turner Papers.
[94] Harold Stark, "Ocean Escort in Western Atlantic (West of Longitude 30° West)," April 1941. Box 4, File 1. Stark Papers. In document there is no specific mention of the *Tirpitz*.
[95] Memorandums, Harold Stark to President Franklin Roosevelt, 22 July 1941, Series 4, Box 59, Navy Dept, July – December 1941, Roosevelt Library.
[96] Eberhard Weichold, VADM Former German Navy, *German Surface Ships – Policy and Operations in World War II*, US Navy Office of Naval Intelligence, G.H.S./4, 138-141.
[97] Ibid, 103.

Including the aircraft carriers being built and recommended, the Victory Program requirements represented a 300% increase in the number of aircraft carriers. This increase represented the maximum number of carriers the planners estimated could be produced given the American industrial capacity.[98] It should be remembered that the aircraft carriers did not fully prove their value until after Pearl Harbor and the Battle of Midway. As Richardson pointed out, the various naval limitation treaties approved by Congress over the objections of naval leaders had heavily restricted aircraft carriers.[99] Additionally, Stark understood that aircraft carriers took a long time to build. He lamented this point in a 31 July 1941 "eyes only" memorandum to Cooke: "The fact that our new aircraft carriers will not be available until 1944 is something that is awfully hard to stomach, and I confess to considerable indigestion because of it, but whether or not there is a suitable remedy, I do not know."[100] In keeping with Stark and the War Plans Division's intent to bound requirements within American shipbuilding capabilities, it is possible that this concern affected the carrier requirement listed in the document.

The Victory Program did not include any light aircraft carriers.[101] When the naval authors of the Victory Program were calculating their requirements in the summer of 1941, smaller aircraft carriers were an unproven warship.[102] As early as 1938, Roosevelt had asked the Navy about building a light yet fast aircraft carrier.[103] Because of the amount of such a ship's roll, the Navy did not believe the concept to be suitable for future aircraft carriers. Thus, no aircraft carriers were in the fleet or production at the time of the Victory Program's creation.[104]

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[98] "Proposed Statement by the Chief of Naval Operations: Augmentation of Naval Building Program," undated, Box 5 Section IV, Subsection C "Special File," Turner Papers.
[99] George Dyer, *Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner*, 58.
[100] Memorandum, Harold Stark to Charles Cooke, 31 July 1941, Box 4, File 1, Stark Papers.
[101] A light aircraft carrier had a total tonnage of less than 9,000 tons.
[102] Paul Silverstone, *The Navy of World War II, 1922-1947*, 12-14. By 1937 the Langley had been converted to a Seaplane Tender. In 1941, the Ranger (CV-4) was the smallest Aircraft Carrier at just under 15,000 tons.
[103] Leahy Diary, 1938-39, 58.
[104] Paul H. Silverstone, *The Navy of World War II: 1922-1947,* (New York, NY: Routledge, 2008), 11-28.

After Pearl Harbor, the urgent need for aircraft carriers necessitated the conversion of nine *Cleveland*-class light cruisers to become *Independence*-class light aircraft cruisers. The Navy also converted two *Baltimore*-class cruisers in production to become *Saipan*-class light aircraft carriers.[105] The naval planners not including light aircraft carriers in their plan was not a failure. As pointed out earlier, planners opted not to include unproven capabilities but did provide for the necessary flexibility to shift production tonnage between ship classes based on the urgencies of the war.

As another means to supplement the fleet carriers and counter German U-boats in the Atlantic, the U.S. Navy, at Roosevelt's urging, began the program to convert merchant ships into what became known as escort carriers.[106] The first of these was the *Long Island* (the former SS *Mormacmail*). Launched in 1940, the *Long Island* initially encountered significant challenges. As Stark pointed out in a 14 November 1941 reply to Kimmel, the *Long Island* was "Far from satisfactory. She should have twenty (20) knots and actually hasn't sixteen (16) knots. She just doesn't have speed enough." Without the "required apparent wind across her deck. . . it is almost worthless as a carrier."[107] Stark went on to point out that the Navy was having a difficult time securing U.S. registered merchant vessels capable of making twenty knots. As a result, the war planners did not include escort carriers in their estimate. The Victory Planners could not afford to expend critical resources and significant shipyard space on such an unknown.

Additionally, at the start of the war, carrier-based aircraft had a limited capability to attack armored ships. As late as the 1940 "Are We Ready? II" report, the United States Navy was both short of torpedoes and optical sights for dive bombers. These two shortfalls critically

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[105] Ibid, *1947,* 19.
[106] William T. Y'Blood, The Little Giants: U.S. Escort Carriers against Japan, (Annapolis, MD: Naval Institute Press, 1987), 11.
[107] Memorandum, Harold Stark Husband Kimmel, 14 November 1941, Box 4, File 1. Stark Papers.

impact carrier aviation's ability to strike opposing fleets. Additionally, it was not until 12 September 1941, during a conference in the CNO's office, that Rear Admiral William Blandy, Chief of the Bureau of Ordinance, reported the successful design, testing, and ordering of a 16" armor piercing munition. The munition had to be dropped from an altitude of 10,000 feet to achieve penetration.[108]

As pointed out in the "Plan Dog" Memo and the Victory Program, protecting the Atlantic lines of communications represented an essential task required to secure victory. The destroyer served as the workhorse for protecting those convoys. In April 1941, the U.S. Navy plan was for 2 to 4 destroyers per convoy.[109] Beginning with the Quasi-War, the Navy recognized the need for additional destroyers. The Navy already had a 114% (190) increase in destroyers on the books. The Victory Program increased that amount by 47% (80). This put the total requirement above 400. This, coupled with the frontier coastal patrol boats, indicate that the War Plans Division placed great importance on the U-boat threat when they drafted their requirements.

Only behind destroyers, the plan's call for fifty-four submarines represented the second largest increase in major combat vessels. The need for more submarines related directly back to Stark's "Plan Dog" Memorandum and the Victory Program call for an economic blockade. As annotated in "Are We Ready?" II, note 30 estimated the number of submarines required was likely developed with a full appreciation of the then limited ability to produce additional submarines.[110] This appreciation is validated in the proposed statement concerning the plan.[111] The authors of the Naval portion of the Victory Program most likely did not envision the U.S.

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[108] "Notes from the Conference in the CNO Office," 1030, 12 September 1941, Box 10 Folder 7. Simpson Papers.
[109] Harold Stark, "Ocean Escort in Western Atlantic (West of Longitude 30° West)," April 1941. Box 4, File 1. Stark Papers.
[110] Memorandum, Charles Edison to Harold Stark, Letter, Subject General Board, "Are We Ready? II," 1 July 1940, G.B. No. 425 (Serial No 1959), 8 July 1940, Box 13, Folder 9, Simpson Papers.
[111] "Proposed Statement by the Chief of Naval Operations: Augmentation of Naval Building Program," undated, Box 5 Section IV, Subsection C "Special File," Turner Papers.

building submarines in Illinois, having them transit the Chicago Canal and then sail down the Mississippi River to reach the open water of the Gulf of Mexico.

While the War Plans Division factored in limited shipyard availability when they developed the warship requirements, it is clear that the War Plans Division clearly excluded destroyer escorts from the plan based on their knowledge of shipyard capacity. At the time the Navy developed its requirements for World War II, the U.S. Navy did not have any destroyer escorts in the fleet. That rapidly changed after the Victory Program's submission. By May 1941, the U.S. Navy was in the opening stages of a shooting war with Germany's U-boats.[112] The British and American navies were woefully short of convoy escort forces. The urgent nature of the Battle of the Atlantic necessitated the U.S. Navy find additional forces to escort convoys. The challenge was how to produce warships capable of escorting convoys while not impacting other warship production.

The War Plans Division architects of the "Two Ocean" memoranda and the U.S. Navy's Victory Program numbers were well aware of the production capacity of the American shipbuilding industry. They logically assumed that new types of ships detracted from the production of other combat ships. With the U.S. Navy and destroyer escort production, this turned out not to be the case. As pointed out during the resumption of a conference in Admiral Starks office on 1 January 1942, escort vessels would be produced in shipyards that were not currently producing warships for the Navy.[113] Seeing the opportunity to quickly increase the production of convey escort vessels without impacting the limited shipyard space available to build other U.S. warships, the U.S. Navy moved forward with adding destroyer escorts to its

[112] Clay Blair, *Hitler's U-Boat War: The Hunters, 1939-1942,* (New York, NY: Random House, 1996), 270.
[113] "Resume of Conference held in Admiral Stark's Office at 1430," 1 January 1942, Box 10 Folder 7. Simpson papers.

fleet. Recognizing the urgent need for protection against the German U-boat threat in the Atlantic, Secretary of the Navy Knox requested in a 15 January 1942 memorandum to President Roosevelt authorization to produce 250 "Convoy Escort Vessel (BDE)" for transfer to the Royal Navy.[114] The BDE stood for British Destroyer Escort. The U.S. Navy referred to the ships as destroyer escorts. The first of the vessels launched in April 1943, only fourteen months after Secretary Knox's production decision. Unlike destroyers designed to operate at speeds faster than a battleship, the Convoy Escort Vessels were designed to meet the slower speed requirement of merchant ship convoy escort duty. During the war, the U.S. produced destroyer escorts in seventeen different shipyards.[115] In addition to producing BDE for the Royal Navy, the U.S. also provided some of the vessels to both Brazil and France.[116] At the end of the war, the U.S. Navy had 376 destroyer escorts in service in August 1945.[117]

In addition to the ships, another key portion of the Victory Program was the aviation requirement section. With respect to understanding how the Navy developed the airplane requirements numbers in the Victory Program, they appear to be the product of the combined effort of the War Plans Division and the Bureau of Aeronautics. In a 10 September 1941 memorandum, Turner explained to Admiral John Towers, Chief of the Bureau of Aeronautics, that his team worked with Commander Forrest Sherman, who worked in the CNO's office, and that as he understood it, Sherman consulted with his fellow officers in the Bureau of

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[114] Memorandum, Frank Knox to Franklin D. Roosevelt, "British Navy Requirements in Priority Order," 15 January 1942, Series 1, Safe File, Box 4, Navy Department, File Navy Correspondence 1934-1942, Personal Security File, Roosevelt Library.
[115] Admiral Ernest J. King, *U.S. Navy at War 1941-1945: Official Reports to the Secretary of the Navy*, (Washington, D.C.: Department of the Navy, 1946), 17.
[116] Fleet Admiral Ernest J.. King, *U.S. Navy at War 1941-1945: Official Reports to the Secretary of the Navy*, (Washington, D.C.: Department of the Navy, 1946), 266-277.
[117] "US Ship Force Levels 1886-present," US Navy History and Heritage Command, Accessed April 10, 2022, https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html#1938.

Aeronautics.[118] When describing how the requirements numbers throughout the remainder of the document were developed, Turner pointed out:

> The figures [referring to the Naval requirement numbers in the Victory Program], given in the last part are based on the present naval program somewhat accelerated; upon our estimate of the additional shipping required; upon a broad estimate of what it is possible for our Army to do; and. Upon a broad estimate of the degree of material support we should provide friendly powers associated with the United States. If someone else tackled this problem, they might arrive at a somewhat different result. I believe, however, that the proposals we make may be found possible, and I believe they would give desired results.[119]

Based on Admiral Carney's identification of Captains Crenshaw and Cooke as the two primary architects of the Navy's expansion efforts, it is logical to assess that the processes they developed in "Two Ocean" memoranda carried through in the development of the numbers in the Victory Program. This point is confirmed by Turner's memo to Towers. The men of the War Plans Division created the U.S. Navy's portion of the Victory Program by building on a multi-year effort of work. Beginning in the late 1930s, the War Plans Division, in concert and under the guidance of the CNO Stark, plotted a path forward to build a navy capable of meeting the challenges of another world war. Through the "Plan Dog" Memorandum, Stark worked to get a resolution on specific national objectives that dictated which threat to focus forces upon. With that focus to guide their task, the planners were able to adjust and expand on their previous work to quantify the requirements to field a "battle fleet of superior strength, capable of dealing with

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[118] Memorandum, R.K. Turner to John Towers, "President's Directive requiring report of over-all production requirements of the United States," 10 September 1941, Box 5, Series IV C, File 12. Turner Papers; and US Navy Bureau of Navigation, *Navy Directory: Officers of the US Navy Including the Marine Corps*, (Washington, D.C.: Government Printing Office, 1941), 183.

[119] Memorandum, R.K. Turner to John Towers, "President's Directive requiring report of over-all production requirements of the United States," 10 September 1941, Box 5, Series IV C, File 12. Turner Papers.

enemy attacks in force" to maintain "control of oceanic areas for the safe movement of trade and denial of troop movements."[120]

Even with all their previous analysis, the War Plans Division planners recognized the true limits of their estimate of requirements for an "obscure future." They drove the point home in their proposed statement for Stark:

> I do not say that even after we build these ships the United States Navy will be large enough. All I say is that, considering the needs of other categories of national defense, and the requirements of other friendly nations, this is as large an increase as I believe is justified at this time.[121]

No plan, even a requirements plan, survives first contact intact, much less continued contact with the enemy. Admiral Ernest J. King, in his official report to the Secretary of the Navy after the war, noted several items that highlight how the Victory Program numbers changed based on the changes in events throughout the war.[122] The American shipbuilding industry drastically decreased the build time for several critical warships.[123] Production time for destroyers went from 14 months in 1941 to ~5 months in 1943. Aircraft carrier production times went from 32 months in 1941 to ~15 months in 1943. Finally, submarine production dropped from 15 months in 1941to ~7 months in 1943. Fifty-five different shipyards and yacht basins built ships for the U.S. Navy during the war.[124] This decrease in production time, coupled with increased shipyard capacity, enabled more ships to be produced.[125] With the increased number of

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[120] "Proposed Statement by the Chief of Naval Operations: Augmentation of Naval Building Program," undated, Box 5 Section IV, Subsection C "Special File," Turner Papers.
[121] Ibid. In his closing paragraph, Turner described the future as an "obscure future."
[122] Ernest J. King, *U.S. Navy at War 1941-1945,* 14-16.
[123] Fleet Admiral Ernest B. King, *U.S. Navy at War 1941-1945: Official Reports to the Secretary of the Navy*, 13.
[124] Ibid, 14.
[125] There are several works that provide an excellent description of how American industry mobilized to become the "arsenal for democracy.) The works include: Donald M. Nelson, *Arsenal of Democracy, (*New York, NY: Harcourt, Brace and Company, 1946); Emory Scott Land, *Winning the War with Ships*, (New York, NY: Robert M. McBride, Co. 1958); and Robert H. Connery, *The Navy and the Industrial Mobilization in World War II, (*Princeton, NJ: Princeton University Press, 1951).

ships, the U.S. was able to more rapidly turn the tide in the Battle of the Atlantic, which in turn allowed more ships to transfer to the Pacific Theater. King explained how building priorities shifted to address combat losses, such as replacing the battleships lost at Pearl Harbor and the aircraft carriers lost at the Battle of the Coral Sea.[126] When the need for battleships decreased, the Navy stopped building the *Kentucky* and *Illinois* and canceled the remaining battleships that did not have their keel laid.

The Victory Program soon became overcome by events when on 16 January 1942, President Roosevelt issued Executive Order 9024. This order established the War Production Board to "exercise general direction over the war procurement and production program."[127] This was less than four weeks after the Army claimed President Roosevelt approved the Victory Program on 21 December 1941.[128] After Pearl Harbor, the urgency of war shifted the planning effort from identifying requirements to identifying production capabilities to maximize wartime production and not waste precious raw materials.

If questioned about the accuracy of their report, the authors would likely refer back to Roosevelt's initial tasking to produce a "general report" that included the "most critical" items.[129] To that point, the authors would contend that they were developing requirements to address an "obscure future." While the focus of this paper is to develop an understanding of how the architects of the naval portion of the Victory Program developed their requirements estimate, understanding that the architects did not get the numbers "right" helps provide a further understanding of the architects' thought processes. The Victory Program and its naval

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[126] Fleet Admiral Ernest B. King, *U.S. Navy at War 1941-1945: Official Reports to the Secretary of the Navy*, 13-14.
[127] U.S. President, Executive Order 9024, "Establishing the War Production Board," 16 January 1942, https://www.presidency.ucsb.edu/documents/executive-order-9024-establishing-the-war-production-board.
[128] Grace P. Hayes, *The History of the JOINT CHIEFS OF STAFF in World War II.* (Annapolis, MD: Naval Institute Press, 1982), 40.
[129] Victory Program Tasking Memorandum.

requirements portion definitely fall into this category. While noting this point, it is essential to not completely discard the Victory Program. Today's naval war planners can learn much from the Navy's contribution to the Victory Program.

The naval portion of the Victory Program successfully developed linkages across the entire requirements development process. The "Plan Dog" Memorandum helped identify national objectives and map the associated military strategy to those national objectives. With a quantified military strategy and an understanding of available technologies and industrial base, the planners worked to develop an executable requirement document rather than a document based on hope and fantasy. Finally, they understood that while their requirements numbers might not fully and accurately account for a previously unimaginable level of conflict, they understood they were providing a foundation from which to build upon and deviate.[130]

Today's planners and our future planners also face a global challenge. The importance of the "safe movement of trade" and "the control of the oceanic areas" has never been greater. Today the Navy faces capable, and in some areas numerically superior, competitors. Now more than ever, our fiscal and industrial resources provide limits for fielding a fleet capable of winning future conflicts. Just as the Victory Program planners did in 1941, today's naval planners must deliberately chart our path through an "obscure future" to ensure the safety and security of the United States.

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[130] "Proposed Statement by the Chief of Naval Operations: Augmentation of Naval Building Program," undated, Richmond K. Turner Personal Papers, Box 5 Section IV, Subsection C "Special File" Simpson papers.

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