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The Administrative, Financial, and Logistical Foundation of British Naval Power

1649-1654

by

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The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the United States Army or Navy. Professor Rich Megargee read the drafts of this paper and provided very useful ideas about how to improve the organization and flow of the material. But all mistakes are mine alone.

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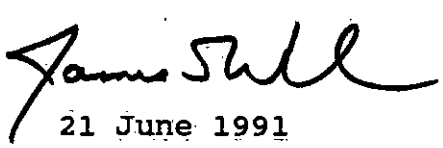

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Abstract of
THE ADMINISTRATIVE, FINANCIAL, AND LOGISTICAL
FOUNDATION OF BRITISH NAVAL POWER, 1649-1654

English naval administration was reorganized in 1649 by the republican Commonwealth. This coherent administrative system provided the financial and logistical support necessary to support the English navy as it defeated the Royalist navy in British waters (1649-50), supported the conquests of Ireland and Scotland (1649-52), reconquered all former overseas possessions of the English monarchy (1651-52), and defeated the Dutch navy in the First Dutch War (1652-54). The dependence of the navy on the government and the naval administrative system for financial and logistical support is clearly shown. This work proves that successful naval operations required adequate administrative, financial, and logistical support from England. During the period 1648 to 1654, the English government provided such support with two exceptions. The first failure occurred in 1648, before the Commonwealth established itself or reorganized the navy's administration. The result was the most serious mutiny in the navy's history. The second failure occurred when the Commonwealth government failed to provide enough money to pay for the supplies needed to get the entire fleet to sea to fight the Dutch fleet in November 1652. After this defeat, the English government provided sufficient money to its naval administration to allow for the adequate support of the fleet, enabling the fleet to defeat the Dutch in a series of bitter battles in 1653,

leading to victory. Appendix A provides a historiography of English naval power, 1642 to 1659, and Appendix B describes how the English operated a system of deficit finance for their navy forty years before the creation of a national debt.

Introduction

The English established the foundation of the enduring power of Great Britain during the Interregnum of 1649 to 1660. English conquests of Ireland and Scotland and the defeat of the Dutch navy in the 1650's ensured Britain's place as a great power in Western Europe. These military accomplishments were absolutely dependent on the financial, logistical, and administrative support provided by the English Commonwealth.

Naval power was the key to the successful consolidation of Britain by the English. Ireland and Scotland could not have been conquered without the navy's protection of the army's supply lines. English commerce could not have competed effectively in the world without the protection of the navy in the North Sea, the English Channel, and the Mediterranean. It is impossible to conceive of a successful British state without a successful navy.

The development of English naval power has been the subject of widespread study and is a story whose operational history requires little elaboration. However, the financial, administrative, and logistical accomplishments of the English navy during the Interregnum have not received adequate attention, even though they were essential

components of the operational success of the navy.[1] A thorough study of English naval finance, logistics, and administration, in the context of the operational history of the navy during the 1650's, will show how the English succeeded in sustaining their fleet and will prove that such support was essential to operational success.

England's seventeenth century naval and political successes were part of a Western European transformation known as the "military revolution".[2] The naval aspects of this historical development have not received as much attention by military historians as those affecting land forces: This study contributes to a better understanding of this important military-political part of European history.[3]

The military revolution was technical, tactical, political, and administrative. The integration of firearms

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[1]See Appendix A for a thorough discussion of the historiography of the English Navy, 1649-1659.

[2]Michael Roberts, The Military Revolution, 1560-1660, (Belfast: University Press, 1956); Geoffrey Parker, The Military Revolution: Military Innovation and the Rise of the West, 1500-1800, (Cambridge: Cambridge University Press, 1988).

[3]Geoffrey Parker, Military Revolution, ch. 3 is the exception to the rule and a first-rate account of the naval aspect of the military revolution. Parker, unlike Creveld, has done the detailed research into the origins of the modern military age in the sixteenth and seventeenth century and recognizes that England's success as a great power in the 1650's depended on "the excellence of naval administration under the Republic, which kept the fleet properly supplied with men, munitions, and stores...;part was also due to the superior financial resources of the Republican navy...."p. 102.

and cannon into military technology transformed military tactics and operations. Naval tactics practiced for over two thousand years were made obsolete as cannon were adapted to ships. Set-piece collisions at sea, like the Battle of Lepanto in 1571, where a few large cannon armed galleons served as castles around which ram-equipped galleys swirled, gave way to running sea fights where cannon broadsides were relied on to destroy the enemy. This process of technical and tactical change spanned the sixteenth and early seventeenth centuries. By the 1640's, fast frigates designed to operate in open seas were the main fighting ships of the Dutch and English fleets. During the 1650's, effective tactical and operational methods were developed to allow the efficient use of fleets numbering up to 100 warships.

The tactical and technological changes in naval warfare were accompanied by a marked growth in the size of navies, the duration of campaigns, and the range of operations from home. Financial and logistical considerations were critical to successful naval operations. Consequently, the administrative apparatus of the state which provided manpower, munitions, food, and money to the forces grew.

Changes in tactics, technology, and operations required accompanying changes in the scale of financial and logistical support provided by the state to its forces. This process of change from 1500 to 1700, therefore, fit grimly a simple social Darwinist view. Successful use of the new

technologies depended on the solution of the administrative, financial, and logistical challenges which accompanied them. Nation-states which failed to solve these challenges could not maintain themselves for long as major powers.[4]

England mastered the challenges of the military revolution in the seventeenth century. Great Britain was created by English military forces which exploited the new technologies, tactics, and organizations. These military forces were able to operate on a sustained basis because the English developed ways to provide the financial, logistical, and administrative support needed by such forces operating at increasing distances from home. Many historians, however, have failed to recognize England's successful mastery of the financial, logistical, and administrative challenges of the military revolution in the 1650's. For example, John Brewer, in his masterful study The Sinews of Power: War, Money, and the English State 1688-1783, incorrectly concludes that England "was not a major participant in the so called "military revolution" of sixteenth and seventeenth century Europe" and only became a major force in Europe after 1688.[5] Martin van Creveld, in his classic study of logistics Supplying War, omits any reference to sixteenth or

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[4]Charles Tilly, ed., The Formation of National States in Western Europe, (Princeton, NJ: Princeton University Press, 1975).

[5]John Brewer, The Sinews of Power: War, Money and the English State 1688-1783, (NY: Alfred Knopf, 1989), p.7.

seventeenth century British military operations and concludes that "no logistic system of the time could sustain an army embarked on operations in enemy territory."[6] The evidence indicates otherwise.

English armies in Ireland and Scotland in the 1650's depended on logistical and financial support from England for extended periods of time.[7] English fleets operating off the coasts of Portugal and Spain, and in the Mediterranean relied on the home island for most of their food, munitions, and manpower for months on end. The English developed the administrative system needed to provide their forces with sufficient support to enable them to succeed militarily without resorting to looting or piracy. Consequently, the English consolidated Britain and its place as a major naval power in the 1650's.

The English developed their naval power and the administrative system to sustain it in three stages, from 1648 to 1654. Therefore, this work analyses English naval operations and the financial, logistical, and administrative support provided to them in three chapters. A separate appendix, which describes the way in which the financial

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[6]Martin van Creveld, Supplying War: Logistics from Wallenstein to Patton, (Cambridge: Cambridge University Press, 1977), p.7.

[7]Mark Fissel,ed., War and Government in Britain, 1598-1660, (Manchester, UK: Manchester University Press, 1991), ch. 2, J.S. Wheeler, "Logistics and Supply in Cromwell's Conquest of Ireland", pp. 38-56.

system of the navy operated, is also included because it demonstrates how the English solved the financial challenge without a national bank or funded state debt.[8]

During the first stage, from 1648 to late 1650, the English republic prevented the disintegration of its navy in the face of a Royalist mutiny, established a coherent administrative structure to direct navy financial and logistical operations, started an expansion of the navy, and drove the Royalist navy out of British waters. In the second period, from 1650 to early 1651, naval operations expanded dramatically in scope and range as the navy played a crucial role in the conquests of Ireland and Scotland and pursued the Royalists to the coasts of Portugal and into the Mediterranean. Then, during the Dutch War of 1652 to 1654, the navy became one of the two largest in Western Europe, defeated the Dutch in six major sea battles, and made England a major European power as its modern professional navy emerged. The English won the Dutch war by again expanding their naval logistical and administrative systems and by finding a way to finance their naval operations forty years before they developed a national debt and national bank.

A narrative of naval operations provides the chronological structure of the following chapters. Within

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[8]See Appendix B.

this narrative framework, an analysis of the financial, administrative, and logistical aspects of naval operations is provided. The reason for this structure is because naval operations were directly dependent on the provision of adequate logistical and financial support for success, and the changes in the administrative systems which provided the logistical and financial support to the navy occurred in reponse to the changing operational requirements of the navy.

Chapter One: Prelude to Power: The Crisis of 1648 and the Foundation of English Naval Power in 1649

England's Second Civil War ended in 1648 with the triumph of the New Model Army. The navy had been largely neglected until it mutinied in the spring. Until early 1649 most of the attention of Englishmen was focused on the resolution of the struggle between monarch and Parliament. Charles I's execution in January 1649 led to the creation of the Commonwealth of England. This republican government was beset immediately by challenges to its survival from Royalists who had fled to Holland and who acquired a significant navy with the ships that mutinied in 1648. The republic also faced a hostile Ireland which was seen as a possible spring board for Royalist attacks against western England. During 1649 the Commonwealth met these challenges successfully because it provided adequate financial and logistical resources to the navy and established a naval administrative structure to support the fleet. The navy ensured the survival of the republic and supported its conquest of Ireland only because this support was provided.

Parliament had faced only a limited Royalist naval threat to its commerce and ports during the First Civil War. This situation changed dramatically in 1648 as the fleet mutinied, the Second Civil War erupted, and the victorious Parliamentarians fell out amongst themselves, giving the

Royalists their last opportunity to defeat the Parliamentarians.

The naval mutiny in the spring of 1648 was very dangerous. Of the thirty-nine ships preparing to go to sea in the summer guard, twelve at one time or another were in mutineer hands, and the remainder were paralyzed by the refusal of loyal crews to move against the mutineers.[1] The mutiny was caused by political rather than material grievances and was connected to the larger political issues facing the nation as the fissures within the Parliamentary cause widened to a chasm in 1648.

The most important of these issues concerned the role the defeated king was to play in the government and what religious settlement was to be made for the realm. The mutineers favored a political settlement based on a personal treaty with Charles I, allowing the king to play an active part with Parliament in the government, and the establishment of a Presbyterian government for a national church.[2] Opposed to these solutions was the New Model Army and its allies in Parliament. They believed that Charles I was totally untrustworthy and favored a religious settlement

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[1]Bernard Capp, Cromwell's Navy, pp. 19-24; J.R. Powell, The English Navy in the Civil Wars, ch. 10-12.

[2]Ibid..

allowing greater "independence" for congregations and personal consciences than envisioned by the Prebyterians.[3]

Amidst this political crisis, the fleet mutinied. By June 1648, however, the Independents and the army closed ranks against the king, the Presbyterians, and the mutineers. Army troops ended the mutiny in the dockyards, and helped loyal captains recapture ships from mutineers.[4] As the army moved against the Royalists and their Scottish allies in the Second Civil War, the mutineers on the eleven remaining disaffected ships declared their loyalty to the king and sailed to Holland to join the Prince of Wales in exile.[5] Thus, for the first time, the Royalists had an effective navy and the ability to strike at the commercial wealth so important to the Parliamentarians during the civil wars.

Most of the fleet remained loyal to Parliament during the mutiny and Second Civil War. Parliament recalled the popular Earl of Warwick on 29 May 1648 to serve again as Lord Admiral. (His replacement in late 1647 by the

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[3]There is a huge literature about the English civil wars or "revolution" of 1642-1660. The most recent single volume military history of note is J. P. Kenyon, The Civil Wars of England, (1989); The classic, and still unsurpassed history is S.R. Gardener, History of the Great Civil War (4 vols, 1893) and History of the Commonwealth and Protectorate, (4 vols, 1903).

[4]Capp, Cromwell's Navy, p.22.

[5]Ibid., p. 29.

Independent Colonel Thomas Rainborough was thought by many have been the trigger of the mutiny.[6]) Warwick's return helped retain the fleet's loyalty, but it was a fleet unwilling to exert its force aggressively against comrades in the Royalist navy. The Prince of Wales became the Royal Navy commander in June and returned to English waters with his fleet in late July. His fleet was unmolested by superior forces under Warwick, and had an opportunity to contribute to Royalist fortunes by either picking off Parliament's warships piecemeal, or by strangling the commerce of London. Either of these strategies might have made a dramatic difference in the civil war in August as the Scots' army invaded England on behalf of Charles I. The prince did neither. Instead he acted as a privateer, irritating Presbyterian merchants of London with his sporadic seizure of their ships and his financial extortion for their release. He failed to blockade London's commmerce in an attempt to drive London merchants with Presbyterian sympathies to open action against the army and Independents.

Meanwhile, Warwick refused to drive Charles's fleet off or to engage it. This naval stalemate was broken by Cromwell's stunning victory at Preston over the Scots in August. This blow ended the Second Civil War and made the army supreme in England, thus ending Charles I's hopes

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[6]Ibid.

forever of exploiting the Presbyterian-Independent split in the parliamentary cause. The militarily ineffective Royalist navy, short of money, food, and water, withdrew to its base in Helvoetsluys, Holland on 1 September.

Warwick followed the Royalists to Holland a fortnight later with a superior fleet. But his only action was to blockade the Royalists in Helvoetsluys in hopes of coaxing the mutineers to return to their previous loyalty. Eventually several ships rejoined Warwick, but the blockade tied down the main English fleet for months, allowing pirates and privateers to prey on English merchantmen in the Channel and British waters. The English navy was not large enough in 1648 simultaneously to blockade an enemy fleet and to provide sufficient escorts to protect commerce. Two months later, in November, Warwick withdrew to England short of supplies,[7] leaving behind a small but credible Royalist navy.

Warwick arrived in England just as the political struggle between Independents and Presbyterians was forcefully resolved by Pride's Purge of Parliament in December 1648. The Independents of the Rump Parliament quickly tried and executed the king in January and established the republican Commonwealth in February and

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[7]Bodleian, Rawlinson MSS A223, p. 90; By 10 October 1648 the ships were out of food and the shore magazines were empty.

March.[8] Warwick, Presbyterian in sympathy, slipped from the naval scene, leaving a fleet poorly paid and maintained, with uncertain loyalties, and threatened more than ever at sea by Royalists.

England's greatest foreign crisis since 1588 had arrived. Charles I's execution was uniformly condemned by the major European powers. To the north the Scots declared Charles II as king and began a drift toward another war with England. Across the Irish Sea, the English rule in Ireland was reduced to precarious toeholds in Dublin and Londonderry, and Irish and English Royalists were coalescing into a confederation with the intent to expel the republican garrisons. Closer to home, the Scilly and Channel Islands were in Royalist hands, allowing privateers to join French and Irish pirates in attacks on English merchantmen. Domestic government had nearly stopped as taxes went unpaid and uncollected.

In January Charles II appointed the aggressive and brave Prince Rupert to command his fleet. Rupert, seeing the strategic opportunities offered by the Irish situation, moved his fleet from Holland to Kinsale, Ireland.[9] By this

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[8]C.H. Firth, and R.S. Rait, Acts and Ordinances of the Interregnum, 1642-1660 (London: HMSO, 1911), vol. I, pp. 1253-1363, vol. II, pp. 2, 18, 24, 122.

[9]R.C. Anderson, "Operations of the English Fleet, 1648-52", English Historical Review, 1916, p. 414.

move the Royalists had a chance to unite Ireland under the king, expel the Commonwealth forces, and then to use Ireland and Scotland as bases for the reconquest of England. This combination posed a mortal strategic peril to the republic as it struggled to consolidate its hold in England and to gain a firm grip on its administration, finances, and navy.

The regicides desperately needed an effective navy to defeat the Royalists. However, severe financial and administrative problems had to be solved before a fleet could be sent to sea.

The Rump Parliament moved with speed and deftness to solve its internal problems and provide the resources and organization needed to face its foreign and domestic enemies. A Council of State of forty one members was created as an executive. Elected annually by Parliament, it was composed of the leading members of the Independent faction to include army officers, members of Parliament, and merchants.[10] The Council of State met 319 times its first year and issued hundreds of instructions to various state agents concerning every conceivable action of government. Parliament met nearly as often, dealing with both policy-strategic matters and mundane issues.[11] Between the

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[10]Acts and Ordinances, vol. II, p. 2.,

[11]CSPD, 1649, pp. xiv-xv.

Council of State and Parliament, the Commonwealth received sound executive leadership and strategic direction.

The immediate objectives of the Commonwealth were clearly expressed by the following parliamentary mandate to the Council of State:

> [To] order and direct all the militias and forces both by sea...and land, of England and Ireland, and the dominions for preserving the peace and safety thereof....To raise and arm such forces as you judge necessary....To use all good ways and means for the reducing of Ireland...and all other parts and places belonging to the Commonwealth of England, not yet reduced.[12]

Parliament also vested the Council of State with the former duties of the office of Lord Admiral so that the fleet could play its crucial role in Commonwealth strategy.[13]

The office of Lord Admiral was part of the traditional system of naval administration which had been adequate for the challenges facing the navy in the First Civil War. The crisis of 1648 and the mutiny revealed that a more energetic and professional administration was necessary for the threats now facing England. Warwick's unwillingness to attack the Royalist fleet also showed the need for a unified and coordinated command structure.

The Council of State created two administrative bodies to deal with naval affairs: 1) The Committee for the Affairs

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[12]Commons Journal, Vol. 6, pp. 138-39; hereafter cited as CJ.

[13]Acts and Ordinances, vol II, pp. 13, 17.

of the Admiralty and Navy, often referred to as the Admiralty Committee, which consisted of 12 to 15 members of the Council of State, responsible for policy and strategic direction of the navy; And 2) the Commissioners of the Admiralty and Navy, usually known as Navy Commissioners, a group of competent administrators responsible for the daily administrative affairs of the shore establishment and the pay and supply of the fleet.[14] The Council also reappointed Sir Henry Vane, Jr. as Treasurer of the Navy, responsible for all financial affairs of the navy, and selected three veteran army officers as Generals at Sea--Robert Blake, Edward Popham, and Richard Deane--to command and control the fleets.[15]

The relationships among these committees, commissioners, Generals at Sea, and the Council were worked out over time as challenges were met. The Council remained supreme under Parliament, but it seldom conducted naval business unless key members of one of the other bodies were present to take the lead. The Committee of the Admiralty and Navy's interest went beyond policy and strategy decisions into daily administration. The Navy Commissioners quickly established themselves as masters of administrative matters because of their proven business ability. However, the

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[14] Ibid., p.17; CSPD, 1649, pp. xxi-xxiv.

[15] CJ, v. 6, p. 138.

Admiralty Committee provided detailed guidance and often dealt with the details of administration.[16] The biggest problem for the Navy Commissioners was too much work for too few hands. As the fleet's operations expanded the commissioners were swamped with work.

Parliament controlled the purse strings, approving all expenditures and appointment of officers. The Council of State monitored the expenditure of money by the Treasurer of the Navy and nominated all major officers of the naval administration. Members of the Council of State served as members of the Committee of the Admiralty and Navy, overseeing and directing the affairs of the Navy Commissioners.

The Navy Commissioners met in London to decide administrative policy and to issue instructions to the commanders at sea. They took personal responsibility for the supervision of major dockyards at Plymouth, Chatham, Portsmouth, and Woolwich.[17] The routine presence of commissioners in the dockyards was a major innovation which enabled the commissioners to energize the logistical and maintenance structure of the fleet in a way seldom seen before. The commissioners worked very closely with the

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[16]CSPD, 1649-51 is full of examples of such interference.

[17]CJ, 6, p. 144, for example William Willoughby resided at Portsmouth dockyard.

Generals at Sea. In fact, the Generals at Sea were originally known as "commissioners to go to sea" in their confirmation in the House of Commons, and they functioned as commissioners afloat and ashore during the 1650's.[18] The integration of the Generals at Sea and the Navy Commissioners ashore united the efforts and objectives of "operators and supporters" to a remarkable degree.

The Navy Commissioners were salaried officials beginning in 1649. Unlike previous administrators of the navy, they were forbidden to accept fees or a percentage of the amounts of money they handled. Each was paid an annual salary of £250.[19] Likewise, the Generals at Sea received salaries of £400 each and were granted three secretaries paid £150 each annually.[20] The replacement of fees by salaries was a major innovation. The Commonwealth's civil servants were the first salaried bureaucracy in English history. This step saved a lot of money since the officials no longer received a fixed percentage of the amount of money they handled.[21]

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[18]CJ, 6, 1648-51, p. 138.

[19]Ibid., p. 148.

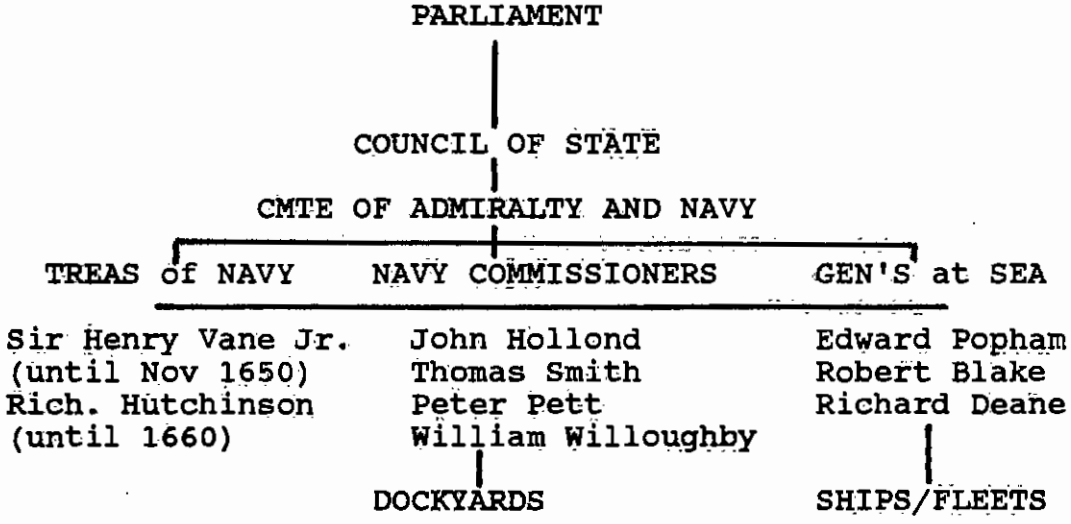
[20]Ibid., p. 150.

[21]Gerald Aylmer, The State's Servants, concludes that the bureaucracy was extraordinarily honest as well.

The Treasurer of the Navy, Sir Henry Vane, Jr., was also a member of the Admiralty Committee and the Council of State, enabling the Commonwealth to streamline and coordinate the financial, administrative, and operational aspects of the navy in a way denied to their predecessors who had labored with separate executive agencies. Sir Henry Vane received and issued most of the money for the navy until replaced by Richard Hutchinson in January 1651. Parliament approved the budgets for the service which Vane helped prepare and present. The Commons delegated the daily perusal of expenditures and contracts to the Council of State which, in turn, approved Vane's disbursements and the contracts for supplies and services negotiated by the Navy Commissioners. The Council's Admiralty Committee closely scrutinized the financial affairs of the Treasurer, the Navy Commissioners, and the Generals at Sea. Warrants were issued by both the Council of State and the Admiralty Committee to the Treasurer as authority to disburse money. These warrants were cosigned by the Secretary of the Council and endorsed by the Treasurer on issue. The warrants were endorsed by the recipient in return for services, goods, or cash and functioned as a check for the recipient's payment by the appropriate government fund. This procedure allowed auditors to determine whether or not the money was spent for its intended purpose.

The administrative structure provided coherent naval financial, logistical, and operational activities. This unity of effort was essential for meeting the severe logistical and financial challenges ahead.

Figure 1-1: Structure of Naval Administration, 1649-54



Parliament and the Council of State quickly determined that the most dangerous threat to the republic was the Irish situation. The day after the king was executed Parliament was wrestling with the need to find money to pay for the provisioning of ships needed to regain control of British waters.[22] The Council of State devoted considerable attention in the fortnight after its creation to naval matters, noting that "the Irish Sea [was] much infested with

[22]CJ, 6, p. 129.

pirates."[23] On 26 February, the Council ordered the Generals at Sea to get warships into the Irish Sea and the southern approaches to England to protect the sea lines of communication from London to the Parliamentary forces in Dublin.[24]

Concurrently, Parliament identified the first of twelve army regiments to be sent to Ireland to defeat the Royalist confederation forces.[25] However, more than two months passed before an expeditionary force to Ireland could be organized and naval forces readied for dispatch to the Irish Sea. The delay was caused by the regiments' refusal to go to Ireland until the government developed a plan to settle fairly their arrears of pay.[26] Once that was done, several regiments were sent to reinforce Dublin in April. The main expeditionary force was not dispatched, however, until August because it was not until July that Parliament could borrow enough cash to meet the arrears due the entire army

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[23]CSPD, 1649, pp.10-11 & 18.

[24]Ibid., pp. 20-23.

[25]CJ, 6, p.145.

[26]Ibid., p. 184.

and the state's creditors, and to give the expeditionary force a field treasury.[27]

The navy faced similar, if less severe, financial impediments to its operational capability in early 1649. The Commonwealth had to consolidate its political grip on the state's revenue systems and on the city of London before it could provide sufficient money to the Treasurer of the Navy to pay the fleet. The navy's debt was estimated to be £76,000 in May, and supplies were hard to get without cash.[28] However, the problem was more severe than reported, with navy debt of over £233,220 accumulated by May 1649.[29]

The Navy Commissioners determined that three naval forces were needed to operate effectively against the Royalists and privateers threatening the security and economic resources of the Commonwealth. One fleet of two squadrons was needed to defeat Prince Rupert's fleet in Kinsale and to protect simultaneously the sea lanes from England to Ireland for the army expeditionary force. Another

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[27]H.J. Habakkuk, "Public Finance and the Sale of Confiscated Property During the Interregnum", Economic History Review, vol 15, 1962. Over 3 million pounds was due the army and creditors in 1649. The sale of property from 1649 to 1656 retired between 5 and 6 million pounds in debt.

[28]CJ, 6, pp. 202-03; Rawlinson MSS A223, p. 90..

[29]PRO, E351/2287, foot of the Navy Treasurer's account for the period 1 Jan. 1648 to 12 May 1649.

force was needed to protect the south coast from pirates and privateers. A third force was needed to protect the Channel and the mouth of the Thames. Until the Treasurer of the Navy and the commissioners had cash in hand, these deployments could not be made. As late as April, suppliers were refusing to release food for warships until they received cash.[30] Even though the Council of State had decided to send a large summer guard with 6000 sailors manning forty ships to sea, all depended on the restoration of the financial credit of the state so that it could provide a steady flow of money for the support of these naval operations, estimated to cost £297,348.[31]

Parliament relied on three major sources of revenue during the civil wars: the customs, excise, and assessment. In addition, fines and confiscations had been levied against the losing Royalists, but these were far less significant in terms of amounts provided than were the three regular sources of revenue.[32] Their major contribution was to retire most of the state's debt to its creditors in 1649-51, reestablishing the government's credit.

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[30]CJ, 6, pp. 53, 81-82.

[31]Bodleian, Rawlinson MSS A223, p. 97.

[32]See Appendix B, Graph 5-2 for sources of Navy Treasurers receipts.

Most revenues were interrupted by the political and military crises of 1648, leaving Parliament with large debts to its forces and creditors, and badly damaged credit. The republican government did not get firm control of its regular revenues until the spring and early summer of 1649, thus delaying military operations.[33]

The customs provided most of the money for the navy in the 1640's, but its collection and administration was seriously impeded in late 1648 and early 1649. While from early 1643 through 1647 the customs provided the navy with over £173,000 per year,[34] during 1648 it provided only £93,000 net from total revenues, and only a further £68,000 in the first half of 1649.[35] As a result, the navy was in debt to its seamen for wages and to contractors for provisions. As a result, deliveries of supplies required cash.

The customs commissioners were Presbyterian sympathizers in 1648 and were, therefore, reluctant to loan money to the government. In addition, trade was badly disrupted by the Royalists and pirates. Consequently, the

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[33]Maurice Ashley, Financial and Commercial Policy of Under the Cromwellian Protectorate, (Oxford: OUP, 1934), ch. 4-8.

[34]Great Britain, Public Record Office, Declared Accounts, E351/643-647, hereafter cited PRO, E....

[35]PRO, E351/648 &649.

customs revenue was down and the government was unable to tap fully what revenue there was by loans advanced in anticipation of receipts.

By late spring, 1649, the republic had moved effectively to gain control of its revenues and to solve the short term cash crisis. Parliament purged the Presbyterian commissioners of the customs and found sufficient collateral for loans to provide cash to get the ships to sea in late April and early May.

The customs commissioners, purged in early 1649, were Daniel Avery, Richard Bateman, Charles Lloyd, Christopher Packe, and Walter Boothby.[36] Parliamentarians during the civil wars, they were members of the more established London merchant community and possessed Presbyterian sympathies.[37] Bateman was a member of the East India Company, Avery was an Alderman, and neither sided with the Independents in 1648. Only Packe seems to have been willing to remain active in republican affairs in the 1650's and was consequently forgiven his share of the £16000 owed by the customs collectors at the end of their account.[38]

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[36]PRO, E351/645-648, introduction to each account lists the commissioners and the duration of the period.

[37]Robert Brenner, "The Civil war Politics of London's Merchant Community", Past and Present, pp. 53-4, 82, 87, 91.

[38]DNB, v. 15, pp. 28-30; Valerie Pearl, London on the Outbreak of the Puritan Revolution, London: OUP, 1961, pp. 121, 150; Gerald Aylmer, The State's Servants, London: Routledge and Kegan Paul,

Pride's Purge of Parliament was shortly thereafter accompanied by the purge of Presbyterians from the customs administration. In January 1649, Parliament appointed a committee to review the reliability of all major members of the customs establishment and to recommend appropriate action to ensure loyalty and honesty.[39] The committee was under the control of Maurice Thompson, a merchant of Independent persuasion and representative of the merchants dealing with new sources of commercial wealth in London.[40] By May the customs felt the effects of the purge as a new set of commissioners was appointed by Parliament to begin work in July 1649.

The new commissioners were Col. Edmund Harvey, Robert Titchborne, Mark Hildesley, and Daniel Taylor.[41] Harvey and Titchborne were London merchants new to city politics in the 1640's. Independents and regicides, each consistently supported the army in 1648. Harvey's brother-in-law, Henry Laugham, became Cashier General of the customs, and

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[39]CJ, vol. 6, pp. 92-94; William Reid, "Commonwealth Supply Departments Within the Tower and the Committee of London Merchants", Guildhall Miscellany, 1966, pp. 320-328.

[40]Ibid..; Brenner, "The Civil War Politics of London's Merchant Community", Past and Present, 58.

[41]PRO, E351/649.

Titchborne became Sheriff of London in 1651, mayor later, and was called "Cromwell's creature" by John Thurloe.[42] Little is known of Hildesley and Taylor, but that indicates their newly arrived status in London power politics. These men were professional administrators rather than courtiers. They were capable of the ruthless and determined action necessary to direct the financial affairs of the customs. Their loyalty and ability was essential to the solution of the navy's financial crisis in 1649. These commissioners served the Commonwealth and Protectorate until 1656 and provided ever increasing revenues to the navy.

Due to the navy's increased protection of commerce and the loyalty of the new customs collectors, the customs gross revenue rose from £203,055 in 1648 to over £296,000 in the year from July 1649 to June 1650.[43] Also, as a result of the purge of the revenue commissioners, net money provided to the navy from the customs rose 26% from £161,589 in the period January 1648 to July 1649, to £203,455 in the much shorter period of July 1649 to June 1650, as the new commissioners executed their duties more vigorously.[44]

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[42]Maurice Ashley, Financial and Commercial Policy, p. 42.

[43]PRO, E351/648 & 650.

[44]Ibid.

Short term loans needed to provide funds to get the ships to sea were secured by anticipated revenue of the customs and excise and by anticipated proceeds of the sale of church property known as Dean and Chapter Lands. The later was also used to settle £182,034 of the debt of the navy, helping to reestablish credit.[45] The new administrators of the three regular revenues were merchants financially committed to the Commonwealth by earlier loans. Many of them were, in addition, members of the Rump, the Council of State, or the reformed government of London, and thus were politically at risk if the republic failed.[46] Once these men were in control of the revenue apparatus and promised the sale of state lands to settle over £3 million in debt from the 1640's, they willingly loaned hundreds of thousands of pounds to the Commonwealth to enable it to pay and supply its forces in the British Isles and Seas.[47] Such

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[45]CJ, 6, pp. 116, 119, 190-92; E351/2288, ff.18-19 lists the debt paid off in the period May 1649 to Dec 1650 by the Navy Treasurer. At least 36% of the cash provided to the Treasurer came from the proceeds of the sale of confiscated property in 1650.

[46]Gerald Aylmer, The State's Servants, and Brenner, "The Civil War Politics of London's Merchant Community", Past and Present, No. 58, pp. 52-54..

[47]E351/2288, roughly £77,912 in new navy debt was accumulated in the period May 1649 to Dec 1650, leaving a total debt of £129,098 in Dec 1650.

loans were absolutely essential to the logistical support of the navy in the 1650's.[48]

As a result of the success of these financial and administrative efforts, a naval squadron under Robert Blake and Edward Popham was operating off Kinsale against Rupert by the end of May. Another force under Richard Deane was preparing in Plymouth to convoy Cromwell's expeditionary army to Ireland, a third squadron under Sir George Ayscue was operating in the Irish Sea to protect the sea lanes, and a fourth was active from the Downs to protect east coast commerce.[49] These forces were maintained through the summer and fall. Their success made possible the increase in the customs revenue, the successful blockade of Rupert's fleet in Kinsale until November, the safe movement of Cromwell's army to Ireland in 115 merchant ships in August, and the security of the sea lines to Dublin during the English conquest of Ireland.

English naval operations in British waters were supported logistically from English ports such as Chester, Milford Haven, Plymouth, Portsmouth, and Chatham. Ships on station in the Irish Sea or the Channel were detached a few

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[48]See Appendix B for a discussion of the importance of these loans to the Navy Treasurer's deficit financing.

[49]R.C. Anderson, "Naval Operations, 1648-52", English Historical Review, 1916, p. 415.

at a time to return to port to replenish food and water.[50] The Navy Commissioners and the Generals at Sea established magazines in the larger ports in which to accumulate the victuals and stores needed to resupply and repair the ships as they came in for short periods of time.[51] In this manner, Blake was able to maintain a close blockade of the Royalist fleet under Rupert in Kinsale until a gale blew Blake's fleet off station in October.

Major problems existed in the logistical system of the navy in 1649. Popham found confusion in port as to who was to do what concerning the victualling of ships.[52] Ship captains were coming to resupply with no prior planning to ensure that supplies would be on hand.[53] These problems were solved by decisive action taken by the Navy Commissioners and the Generals at Sea. The Navy Commissioners expanded the administrative bureaucracy into the secondary ports used to supply the fleet and the Generals at Sea learned quickly to plan ahead in logistical operations. For example, they ordered the Navy Commissioners

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[50]Ibid..

[51]CSPD, 1649-50, pp.247-48.

[52]Ibid., 1649-50, p. 248.

[53]Ibid., pp. 281-2.

to begin to prepare supplies in August for October's winter guard.[54]

Agents were settled in most of the major ports of the realm under the direction of the Navy Commissioners. Men like Charles Walley in Chester, Powell in Bristol, William Robinson in Milford Haven, Jonathan Cooke in Barnstaple, and Richard Hatsall in Minehead made the ad hoc system work. These agents had authority to press men and ships, to commit public funds, and to contract for supplies.[55] Money was transmitted from London to them either in cash or in the form of letters of credit, allowing them to pay army and navy servicemen, to ship supplies, and to service the ships. This home port logistical system worked as long as the fleets were operating in home waters and could dispatch a steady stream of ships to port to resupply.

Not all problems could be speedily solved or worked around. The quality of the rations provided to the ships was often very low. The Generals at Sea immediately wrote to the Navy Commissioners when they found spoiled rations, and attempts were made to determine which contractors were guilty of providing bad victuals.[56] Yet such problems never

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[54]Ibid., p. 276.

[55]Ibid., p. 374.

[56]Ibid., p. 298.

ceased, even though the salaried agents in the ports helped control the quality of supplies. On the other hand, no major operations were prevented during the 1650's by lack of food, though it was a constant concern of commanders.

The navy's ability to stay at sea in 1649 produced clear results. Rupert's Royalist ships and crews deteriorated so much due to inactivity in Kinsale that when they did get away only nine of twenty-eight ships could put to sea to follow Rupert to Lisbon.[57] His flight from Ireland ended Royalists chances to use Ireland as a spring board to the reconquest of England.

The Commonwealth triumphed in its first crises in 1649. The prerequisite to its operational success was the solution of its financial crisis. The English republic provided the resources and organization to sustain and command the forces needed to conquer Ireland and to begin to clear British waters of pirates and Royalist naval forces. Cromwell's conquest of Ireland in 1649-50 was the swiftest in its history, in large part because his lines of communication were well protected and his forces were adequately supplied from England with everything needed to wage war.[58] Command

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[57]Anderson, "Royalists at Sea, 1649", Mariner's Mirror, 14, 1928, pp.320-28.

[58]E351/302, Treasurers at War Accounts, 1645-1651 and SP 25/118 list money, munitions, food, and replacements sent to support the conquest of Ireland, 1649-51. Most of the money and food needed by the army in Ireland came from England in this period.

of the sea allowed the English to use ships and boats on Irish rivers and coastal waters to move troops, supplies, and cannon rapidly in their defeat of larger Irish forces scattered through Ireland. The navy protected a steady flow of supply ships sailing from London and the western ports to Ireland, carrying the army's food, pay, munitions, clothes and replacements.

English successes as a military power in the British Isles were possible only because the republic could provide and sustain the naval forces necessary to control the Irish Sea and to simultaneously protect English commerce. These operations depended ultimately on the republic's ability to provide money, men, and materials for its navy.

Operations in 1649 were just the beginning for the navy, however. The pursuit of Rupert's Royalist fleet to Portugal would open a new chapter in English naval history. While operations continued unabated in British waters, Blake and Deane led English naval forces to the coasts of Portugal and Spain, and pursued the Royalists deep into the western Mediterranean. This expansion forced the English to raise ever larger financial and logistical resources and to learn how to support such long-range naval activities.

Chapter Two: Establishment of Naval Supremacy in British Waters, 1650-52

Sixteen fifty was a year of dramatic expansion of English naval operations because the naval and military threats to the English republic greatly increased. This expansion was only possible because the English were able to increase the financial and logistical resources needed by their fleets operating far from home ports for long periods of time. During 1650 and 1651 the English government provided the additional money needed to pay for new ships, more sailors, more food, and the operation of the port facilities required to maintain a navy which doubled in size. The operational success of the navy during this period depended on this support. Whenever a financial or logistical shortfall occurred it had a direct adverse impact on operations.

Rupert's flight from Kinsale to Lisbon in late October 1649 dramatically widened the scope of English naval operations. For the first time in its history, the English navy was forced to operate on a longterm basis simultaneously in British waters, off Portugal and the Straits of Gibraltar, and in the Caribbean Sea. Such longterm operations were expensive, required a greatly expanded fleet, and depended on levels of administrative and logistical support beyond the experience of previous English naval leaders. Consequently, the Commonwealth doubled the

size of its navy and the level of financial and logistical support provided to it. In the process of coping with years of wartime demands for worldwide operations, the English developed the naval system that would be the basis of their world military power.[1]

Prince Rupert arrived in Lisbon in late 1649 and began to refit his thirteen ships. By December the Commonwealth's Council of State received word that he had taken five prizes enroute to Lisbon and was planning to conduct operations along the commercially vital route through the Straits.[2]

Rupert's force was the most dangerous threat to English commerce and the sea lanes to Ireland. The Council and the Navy Commissioners decided that a large force of twenty warships was needed to operate against Rupert, in addition to the sixty ships required for the protection of British waters in the coming summer period of March to October.[3] Parliament agreed, and on 27 February 1650 approved appropriations for a summer guard of forty-four warships and twenty-eight armed merchant ships. This force was estimated

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[1]Michael Baumer, General at Sea Robert Blake: Robert Blake and the Seventeenth Century Revolution in Naval Warfare (London: John Murray, 1989), title says it well; Paul Kennedy, The Rise and Fall of British Naval Mastery, (New Jersey: the Ashfield Press, 1983 edn).

[2]CSPD, 1649-50, pp. 420-24.

[3]Ibid., pp. 428-441.

to cost £268,742 in addition to the £146,654 required to maintain the winter guard of 1649-50 currently at sea.[4] This amount was a large increase from the £168,000 estimated for the previous summer guard of 1649, and the £105,000 originally estimated for the 1649-50 winter guard.[5] The customs was expected to provide £200,000 for the navy in 1650, and the remainder of the £415,396 needed for the year was to be raised from the excise and the proceeds of the sale of Dean and Chapter lands.[6]

Blake gathered his main force of sixteen ships in Plymouth in a little more than two months. It was a difficult task due to the time of year and the unexpected requirement for preserved food and drink for roughly 3000 sailors manning the force.[7] The Council of sent £14,000 with Blake, £4000 in cash and £10,000 in bills of credit, to pay for incidental charges and beverage. Half of the cash was in Spanish pieces of eight for use locally. The bills of exchange could be cashed in Spanish or Portuguese ports with

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[4]Bodleian, Rawlinson MSS A 223, pp. 101-02; CJ, vi, pp. 339-40, 372.

[5]Ibid., p. 229; Rawlinson MSS A223, pp. 98-99, estimates £75,047 for the winter guard, but omitted cost of dock yards.

[6]Ibid., pp. 100-101 lists £416,796 as the estimate for the entire year; CSPD, 1649-50, p. 359.

[7]Ibid., p. 424.

English merchants and used to buy supplies.[8] The government had great difficulty finding sufficient pieces of eight and greater difficulty victualling and manning the fleet.

Blake's force was expected to be out for six months, from 20 January to 20 July 1650.[9] It was necessary to press 150 men to serve in his ships, and the rations for the squadron were taken from the stocks prepared for the forthcoming summer guard. Blake sailed for Lisbon in late February and arrived by 10 March, just in time to foil Rupert's plan to depart the Tagus.[10] The Portuguese, however, would not allow Blake to attack Rupert. Instead, their forts openned fire on Blake's ships when it appeared that he was going to attempt a coup de main.[11] It became clear by April that a blockade would be necessary and that the Portuguese and French could be expected to aid Rupert. The only silver lining to this cloud was that the Spanish would allow the English to use their ports since the English were at odds with the enemies of Spain.

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[8]Ibid., pp. 450, 452, 455-56, 489, 494-95.

[9]Ibid., 478.

[10]J.R. Tanner, ed., The Letters of Robert Blake (London: Naval Record Society, 1937), pp. 54-58.

[11]Ibid., pp. 11-12.

The blockade was to be conducted as close to Lisbon as possible to prevent Rupert's escape. A commercial blockade of Lisbon was authorized by the Council of State to force the Portuguese to grow tired of their guests and expel Rupert from sanctuary.[12] Blake's goal was to bring Rupert to battle speedily.

General at Sea Popham was dispatched from England in April with eight ships to reinforce Blake, followed in June by another eight under the command of Richard Badiley.[13] Since Blake's squadron had food for six months only, the Navy Commissioners sent a "store ship" with Popham to sustain the fleet.[14] Throughout the summer and early fall the Navy Commissioners arranged for shipment of food and drink to the Lisbon fleet. Unfortunately, much of the victuals were improperly prepared or packed and spoiled early.[15]

The fleet off Lisbon also was short of seamen. The commissioners solved this problem by ordering Deane to take 40 to 50 men from each of his ships on the Irish Sea and

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[12]CSPD, 1649-50, pp. 483-84.

[13]R.C. Anderson, "The operations of the English Fleet, 1648-52", English Historical Review, vol. 31, 1916, pp. 412-13; CSPD, 1650, pp. 95, 99.

[14]CSPD, 1650,pp. 95, 172, 229, 233.

[15]Baumer, Robert Blake, p. 86; CSPD, 1650, p. 200.

send them south. Deane, in turn, was allowed to press new crewmen in the western ports.[16]

Resupply at sea was difficult, especially for drink. Water was the greatest need of Blake's fleet off Lisbon, especially after the Portuguese refused permission for his crews to resupply at Oeiras Bay. Beginning in June, English ships in groups of four to eight were detached to sail to Cadiz and Vigo to resupply with water and to purchase beverage to mix with it. (The beverage was port or heavy wine and was mixed three parts water to one part wine.[17]) This steady diversion of the force encouraged Rupert to try several sorties from Lisbon. In each of these efforts Rupert was accompanied by the Portuguese fleet, but the Portuguese and Rupert's captains were reluctant to engage aggressively, preventing Rupert from defeating Blake's force in detail.[18]

Logistics is the key to successful long-range naval operations. Food and drink for the English navy had been provided by contractors during the civil wars. Contractors in 1649 provided rations for a predetermined number of sailors to ports designated by the Generals at Sea in support of operations off Ireland, the south coast, and the

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[16]CSPD, 1650, pp. 233, 238.

[17]PRO, Admiralty 2/1729, p. 198, cited hereafter as ADM....

[18]Letters of Robert Blake, Blake to Council of State, 14 Oct 1650, p. 64.

Channel.[19] This system worked reasonably well as long as the fleet was operating in British waters and the quantities needed were predictable. Some adjustments were made to the system. Kinsale was established as a victualling port in 1650 to save ships the voyage back and forth to England to resupply while on the Irish station.[20] The victual contractors in the 1650's were Col.Thomas Pride, John Limbry, William Beak, Thomas Alderne, Dennis Gauden, and Richard Pierce.[21] They agreed to provide food and drink for harbor duty at 7 pence per man per day, and for sea duty at 8 pence[22]. But the increasing complexity of naval operations caused rapid changes in requirements in 1650, badly straining the contract system and causing the best known historian of naval administration, Marcus Oppenheim, to conclude that the quality of victualling was declining.[23] The real problem in 1650, however, was the

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[19]Letters of Robert Blake, pp. 22-47 and CSPD, 1649-50, pp. 173 & 188 for examples.

[20]CSPD, 1650, pp. 79, 90-91. Similarly, the victualling office was moved from Yarmouth to Harwich to better support operations in the channel.

[21]PRO, Audit Office 1708, f. 96; CSPD, 1650, pp. 570-87.

[22]PRO E351/2286-96, Navy Treasurer Accounts, list amounts allowed. Hereafter cited as E351/....

[23]Oppenheim, "Navy of the Commonwealth, 1649-1660", English Historical Review, vol. xi, p. 41.

unpredicted increase in the fleet of roughly 50%. The navy was reasonably well supported in 1650, all things considered, and much of the deterioration which Oppenheim commented about was due to growing pains.

The staple ingredients of sailors rations were beer, biscuit, and meat[24]. They were varied through the week.

Figure 2-1: Weekly ration allowance: (Source, Hollond's Discourses of The Navy, 1656 (London: NRS, 1896),p.153.

Day of Week:	Biscuit	Beer	Meat	Cheese	Peas	Fish
Sun & Tues	1 lb	1 gal	2#beef			
Mon & Thur	1 lb	1 gal	1#pork		1 pt	
Wd,Fr,Sat	1 lb	1 gal		1/4#		1/8th
TOTAL:	7 lbs	7 gal	6 lbs	3/4 lb	2 pt	3/8ths

Biscuit was provided as hardtack, packed in bags and then in barrels, and was the easiest item to prepare, store and ship. Beer was easy enough to prepare, but its bulk limited the amount a frigate could carry. Beer, or water mixed with beverage, was the determinant logistical factor, as we saw with Blake's operations off Lisbon. It was not unusual for a ship to be loaded to the main deck with beer casks when she left England. As these were emptied, the barrels were dismantled and the staves and hoops returned to England for cleaning and reuse[25]. Meat was the most

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[24]ADM 2/179, pp. 143, 198; ADM 17/111, pp. 14-18.

[25]ADM 17/111, p.1, in 1655 the victuallers had 7540 old staves and 8775 new ones along with 508 old barrels and 874 new ones of various sizes in their storehouse.

difficult item to provide. Leadtime had to be given to the victuallers to allow them to purchase cattle on the hoof and move them to the port where they could be slaughtered, salted, and packed[26]. Throughout the 1650's there were failures in this process. Numerous references from ship captains to the commissioners about spoiled meat suggests that sufficient quantities were being provided. However, this evidence also indicates that beef and pork had to be properly prepared, cured, and packed if it were to be edible months later. In 1650, due to the rush to increase the fleet, this was not always done.[27]

Victuallers delivered the rations to the Navy Commissioners or their agents in the ports designated by the Generals at Sea. These agents then issued the food and beer to the pursers of the outbound ships, requiring a copy of a muster of the ship's crew to verify the number of men to be fed. The pursers also were issued small amounts of cash to pay for incidentals such as firewood and candles[28].

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[26]Ibid., pp. 2-15 lists oxen delivered live for slaughter by the victuallers in their slaughter house in the navy yard.

[27]CSPD, 1650, p.200.

[28]Henry Kitson, "The Early History of the Portsmouth Dockyard, 1649-1800", Mariner's Mirror, 34, 1948, p. 95. The fact that the history of a permanent dockyard at Portsmouth begins in 1649 speaks legions about my general thesis.

Announced and unannounced musters of ships' companies, and the end of voyage accounts of the pursers, were audited by a clerk known as the Clerk of Cheque in each designated victualling port[29]. The accounts were also certified true by the ship's captain and then forwarded to the central victualling office in London on Towerhill for clearance of the Navy Commissioners' account.

Such a system was inherently inflexible. The increased quantities of supplies for an additional fleet off Portugal strained it badly. This was one reason why the ration rate per man per day for the contractors was raised to 9 pence in 1651. The amount of money involved was large--over £332,000 from September 1651 to December 1652 for example--and the accounting procedures inadequate to prevent fraud.

Tonnages of rations required for the navy were large for a nation of less than 6 million people. For example, the following quantities of supplies were provided to one frigate, of a fleet of over 110 frigates, in 1655 for the supply of 240 sailors for 112 days.

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[29]Ibid., p. 94; Oppenheim, A History of the Administration of the Royal Navy (London: 1898) p. 349.

Figure 2-2: Rations Provided to the Frigate Tredagh, 1655.[30]

Item	Quantity
Bread	26,880 pounds
Beverage	26,880 gallons
Beef	3400 pieces
Pork	3203 pieces
Peas	92.5 bushels
Fish	1350 sized fish
Butter	1350 pounds
Cheese	2700 pounds

Parliament did its best to estimate costs in advance accurately and to demand accounts of expenditures. The following figure is a representative example of the cost estimate presented to the House of Commons on 1 January 1650 for the Navy for March 1650 to March 1651:

Figure 2-3: Estimate for 44 State's Ships, 28 Merchant Ships, 8082 men, for eight months[31]

Item:	Cost in Pounds
Grounding, graving caulking of hulls	7,000
Press money for crewmen	2,000
700 tons of cordage (£30 per ton)	21,000
Harbor Victuals	5,250
Harbor wages	6,000
Sea victuals	52,200
Sea Wages	52,200
Petty Provisions-anchors, rails, etc	9,000
Land and water carriage	1,000
Pilotage	600
Wages of 3 Generals at Sea and Admirals	3,192
3000 tons ballast	150
Medicaments for ships' surgeons	350
Travel	800
Conduct on discharge of seamen	1,500
Gunners stores, powder, shot, etc.	15,000
Merchantmen victuals, wages, freight	91,500
Total Estimate:	268,742

[30]ADM 17/111, p. 14, this is a representative sample.

[31]CJ, vi, pp. 339-40; Rawlinson MSS A223 lists such estimates made by the Navy Commissioners from 1642 to 1655.

The largest single item is the money estimated for the cost of armed merchant ships hired by the state as warships. Such use of merchant ships was common practice in the period 1500 to 1652. £91,500 was the total cost for armed merchant ships whose crews were fed by the contractors who supplied the ships. Starting in 1650 the Commonwealth insisted that the owner could not be the captain of the ship, but this was a difficult policy to enforce.[32] Such estimates, however, could not foresee the increases in fleet size which came as naval operations expanded.

By September 1650 supplementary estimates of naval costs were presented to Parliament for Blake's fleet off Portugal. The twenty ships blockading Rupert cost an estimated £38,656 for the period November through January 1651, and a further £31,730 for twelve ships which the English planned to leave on station in the Straits area for four more months.[33] These amounts were in addition to £115,294 needed for the forty ships for the winter guard in British waters through March 1651.[34]

The increase in naval operations to year round required more warships. The standard ship was a frigate mounting 30

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[32]CSPD, 1649-50, p. 450.

[33]CJ, vi, p. 467; CSPD, 1650, p. 416; Rawlinson MSS A223, pp. 104-106.

[34]Ibid.

to 40 guns. The Commonwealth built at least three new frigates in 1649 for £10,000, a further ten in 1650 for £62,765, and eleven more in 1651 for £115,786.[35] Captured ships augmented the fleet further, resulting in a fleet which doubled to over eighty warships by early 1652.

The steady demand for money by the navy can be seen by the rising estimates presented to Parliament.

Figure 2-4: Estimates of Navy Costs, 1649-52.[36]

Period	Opn Cost(pounds):	Const Cost(pounds)
Mar 1649 to Mar 1650	283,000	10,000
Mar 1650 to Mar 1651	466,680	62,765
Mar 1651 to Mar 1652	496,514	115,785

The Commonwealth found most of the money for the navy from the customs and excise revenues and the proceeds of land sales, and prize goods. But there was a growing deficit. By July 1651 the navy accounts were estimated to be £209,216 in arrears; By December 1651 the debt had increased to roughly £237,958.[37]

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[35]CJ, vii, p. 122.

[36]CJ, vi, pp. 467 & 580; CJ, vii, p. 122.

[37]Treasurer of Navy Account, as of 31 Dec 1651, E351/2289, lists this amount as depending on account to various contractors. £107,289 of this debt was for services and supplies provided in 1651, with the victuallers owed £67,926 of that amount;CJ, vii, p. 122 lists the debt as roughly £100,000, but the Treasurers accounts are more reliable and consistent.

Most of the navy's debt was owed to contractors and the victuallers. Crews were normally paid upon completion of the voyage. Blake's crews remained at sea for roughly twenty months in 1650-51. Their wages were counted as debt until paid. At any one time a large number of ships were at sea, especially in the summer. Dockyard workers' pay had traditionally been a year or more in arrears before 1640.[38] Many perquisites were given them in lieu of regular pay, such as a right to wood chips in the yard, and they somehow got by. Certainly the often slow response of the dockyards to emergencies, such as occurred in January 1650 with the need to send additional ships after Rupert, is more understandable knowing the state of dockyard workers' pay. Contractors were almost always owed money in the 1650's. During the critical period of 1649 to 1651 they seem to have been paid more regularly, but they also charged a premium for their supplies. The victuallers insisted that the government raise the ration per diem in 1650 by 12%, and this served as a disguised form of funded debt.[39] Inspite of all these problems, the English logistical system was working, though strained, in 1649-51. Blake and the other squadron commanders were able to stay at sea for extended

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[38]H.E. Richardson, "Wages of Shipwrights in H.M. Dockyards, 1496-1788", Mariner's Mirror, 33, 1947, pp. 270-71.

[39]E351/2287-2296, at its worst in 1660 the debt due to dockyard workers was £45,000 of over £1 million in debt. See Appendix B.

periods of time and received the food, drink, and money essential to operational success.

Blake and Rupert's standoff continued through the summer of 1650. The Portuguese were drawn in as reluctant allies of Rupert. Even with the Portuguese navy's help, Rupert was no match for Parliament's navy.

Blake used his position off Lisbon to good advantage. He stopped and commandeered nine large English merchantmen in Portuguese employ as they attempted the outward trip to Brazil, and he successfully attacked the inbound Portuguese Brazil fleet.[40] The capture of the Brazil fleet provided 4000 chests of sugar and four large ships for sale as prizes in Admiralty Court.[41] The four prizes and the sugar were escorted to England and the proceeds of their sale helped support the navy. In fact, during the 1650's several hundred thousand pounds worth of prizes were sold and the profits funneled to the coffers of the state.[42]

Rupert finally got away in October 1650 while Blake was in Cadiz resupplying his drink.[43] The Portuguese king

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[40]Letters of Blake, Blake to Council of State, 14 Oct 1650, p.64.

[41]Ibid.

[42]See Appendix B.

[43]Letters of Blake, p. 17.

fitted Rupert's fleet out, probably just to get rid of him and end the undeclared and costly war with the English republic.[44] Rupert's goal was the Mediterranean where he hoped to take English prizes and support his six remaining ships from French ports.

Blake determined to follow with six frigates, sending the rest of his fleet home to refit.[45] By December he had caught most of Rupert's dispersed squadron and destroyed it. Rupert's lack of ability as a naval commander was illustrated by his inability to command six ships at sea, and his decision to disperse to hunt prizes. Blake's instinct to pursue the enemy fleet to its destruction was also clear in this adventure. By January 1651 Rupert was left with two poorly maintained ships and no longer posed a major threat to English commerce or naval supremacy. With his mission accomplished, thanks to the adequate logistical support provided from England, Blake sailed home in February and received a hero's welcome.

As Blake sailed for home, William Penn arrived on station off the straits and Azores to protect English commerce and maintain a naval presence. The Commonwealth continued to station a squadron in these waters and often in the western Mediterranean for the next nine years. Only

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[44]Ibid.

[45]Ibid., p. 65.

during the Dutch War were they temporarily driven out. This naval presence was costly and required the establishment of English agents in key ports such as Cadiz, Spain and Leghorn, Italy, to provide the fleet with support.

Rupert's fleet was the last important Royalist fleet. Other naval operations, closer to home, were more important to the future power of the Commonwealth. The conquest of Ireland in 1649-50 required a large fleet in the Irish Sea, both in summer and winter. While Blake and Popham had pursued Rupert south in 1650, Richard Deane, Sir George Ayscue, and others led squadrons to protect British sea lanes, and to support the army ashore in Ireland with transport and logistical services. The demands for convoy escort grew as the fleet grew. Ships were required to convoy the Newfoundland fishing fleet, the colliers on the east coast, the ships to the West Indies, the Mediterranean, and the Iceland fishery.[46] Each of these squadrons received adequate logistical support from home.

The summer of 1650 brought another challenge to the English. Scotland, only partly assimilated by dynastic union in 1603, remained loyal to Charles Stuart when his father was executed in 1649. It took the defeats of the Irish and Rupert to drive Charles II to a very unsatisfactory

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[46]CSPD, 1649-50, pp. 393-95 and 531-35 for a list of warrants which includes orders to ship captains to convoy ships in British waters; CSPD, 1650, pp. 16, 17.

political and religious agreement with the Scots. Concluded only in June 1650, the agreement gave an independent Scotland a king who was at war with the English Commonwealth. During the spring and early summer of 1650 the Scots negotiated with Charles and prepared for war.

Charles II's return to the British Isles in late June was tatamount to a declaration of war against England. In May the English prepared for war by constituting a field or "marching" army in northern England.[47] Parliament recalled Cromwell from Ireland in May and made him commander of the entire English army on 26 June 1650.

Cromwell's plan to face the Scots was to invade Scotland and force their army to a decisive battle in defense of Edinburgh. As the two armies grew along the border, the Scots executed a scorched earth policy from the border to the outskirts of Edinburgh. The English navy was immediately called upon to blockade the Scottish coast and to protect merchant ships hired by the English on a longterm basis to haul supplies to Cromwell's 12,000 man army as it marched up the coast road.[48] Much of the increase in the size of the fleet in 1650-51 was due to the need simultaneously to pursue Rupert, cover Ireland, and now to

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[47]CSPD, 1650, pp. 65-66.

[48]CSPD, 1650, pp. 263-64. The Council of State ordered the Navy Commissioners to hire 1500 tons of merchant ship capacity to supply the army in Scotland. CSPD, 1650, pp. 237, 263-64.

operate in strength off the Scottish North Sea coast. During this period, twenty five prizes were added to the twenty four frigates built for the navy. But even a fleet of over eighty warships was too small for its missions in 1650-51.

Scotland's blockade by the navy was uneventful and generally successful.[49] Open hostilities began in August 1650. On 3 September, after a frustrating month of maneuver and counter-maneuver, the Scots decided to attack Cromwell's army at its base of Dunbar. The battle of Dunbar was decisive. Twelve thousand of the twenty thousand Scots present were killed or captured. Ten thousand firearms were taken. Cromwell followed this with the rapid occupation of Edinburgh before cold weather ended campaigning. These army operations were dependent on the logistical operations of the navy.

The English used the port of Leith, next to Edinburgh, as the terminus of an army logistical supply line originating in London, Hull, and Newcastle.[50] Since Cromwell's army was totally dependent on England for food, munitions, and replacements, the navy's protection of the sea lanes was again crucial, though unsung. The deep water

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[49]Ibid., pp.235, 372. Captain Lionel Hall was in command of the blockade. He took at least seven ships bound for Scotland with supplies from Royalists in France and Holland in July 1650.

[50]CSPD, 1651, p. 582; also the list of orders to ship captains from the Committee of the Navy illustrate the shape of the supply lines.

port of Leith was essential to protect ships in the winter in the North Sea. The navy also hauled a large number of boats from Newcastle to the army west of Edinburgh in the spring of 1651.[51] These boats were used to carry an amphibious force across the Firth of Forth in July, thus turning the flank of the strong Scottish defenses in front of Sterling.

Once Charles II's forces were turned out of their position, his operational choices were few and stark. He could retreat into the Highlands where his army could not live off the land; he could attack Cromwell's army to his front; or he could boldly strike south, cutting his supply lines and invading England. He tried to repel the English amphibious operation first, but suffered a costly local defeat at Inverkeithing. Finally, he opted to run south, hoping to rally Royalist support in England. He failed in this hope and his army of 12,000 was crushed at Worcester on 3 September 1651 by Cromwell and 40,000 English soldiers.[52]

The navy made this final military victory possible by its protection of the army's supply lines to Ireland and Scotland. It is very difficult to conclude that the army

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[51]Ibid., p. 464.

[52]There are many good accounts of the Worcester campaign. I recommend J.P. Kenyon, The Civil Wars of England (NY:Alfred Knopf, 1988), as the best single volume account of the political, military aspects of the period 1642-1651.

could have survived in either place against the Fabian tactics employed against it without secure and steady supply from England.

Expanded military activity in 1649-51 caused a fundamental change in the way in which the English thought about naval operations. Before 1651, separate winter and summer guards were fitted out each year. The former was smaller and remained at sea from November to March. The winter guard was designed to protect the smaller volume of commerce in the winter. The summer guard generally was set out for six to eight months from March to October. The civil wars forced the English to set the fleets out every year, but as long as the mission was defense of commerce in coastal waters, the size of these forces had changed little.

Increased naval operations against the Irish, Scots, and Rupert forced the English to adopt a new view toward fleet administration. A "constant guard" and a "constant convoy" were established in 1651, and used to maintain a naval presence in the Mediterranean and off the Atlantic coast of the Straits. These forces came to replace the summer and winter guard, although the English often still planned for the older fleets as well as for the newer ones.

The English attempted to anticipate their naval requirements well in advance, especially after the logistical problems of 1650. Estimates of the sailors,

ships, supplies, and money needed for the summer of 1651 were made in October 1650. A "standing fleet" of 11,500 men was planned for--with a summer guard of 8000 men and a winter guard of 3000.[53] Unfortunately, all needs could not be foreseen, and the number of merchant ships with crews needed to increase the fleet were omitted from the estimate.

An expanded navy gave the Commonwealth the wherewithal to strike out in new directions once Charles II was defeated and Lowland Scotland secured. The most famous of these directions was toward the mercantilist concept of a self-sufficient trading empire envisioned by the Navigation Act of 1651. Had England not expanded her fleet, it is doubtful that she would have passed the act.[54] Such a mercantilist trade policy was one cause of the war with the Dutch in 1652.

As the fleet grew, the consumption of financial resources grew. Richard Hutchinson, the new Navy Treasurer appointed in late 1650, reported the growing debt to Parliament.[55] The customs revenue, though greatly increased

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[53]CSPD, 1650, pp. 416, 454; Rawlinson MSS A223, pp. 108-111.

[54]The best recent pieces discussing the rationale for the act are J.E. Farnell, "The Navigation Act, the First Dutch War, and the London Merchant Community", Economic History Review, 1964, pp. 439-454; Maurice Ashley, Financial and Commercial Policy is dated but also first rate.

[55]CJ, vi, 472.

by the change of administrators in 1649 and the greater volume of trade protection afforded by the navy, provided no more than £250,000 of the roughly £496,514 estimated for 1651. An additional £115,785 was needed to pay for new ships.

Parliament had used the proceeds of land sales in 1649 to retire the debt of the navy to victuallers, and to help pay for the £415,396 needed in 1650.[56] The excise also had provided £26,714 in 1650.[57] During 1651 an additional £75,000 was provided to the navy from the sale of property, £291,000 from the customs and excise, and £40,500 from the sale of prizes captured by the fleet in 1650-51.[58] These sums got the navy through 1651 financially, but the debt grew by £108,963 to £237,958.[59]

Blake's return to England in February 1651 gave the Commonwealth the naval resources to eradicate the last Royalist strongholds in British waters. The Scilly and Channel Islands had fallen into Royalist hands in 1649 and were bases for privateer operations against all commerce along the south coast of England. The republic had too many

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[56]E351/2288, f. 2; CJ, vi, 126, 372.

[57]Ibid., 400; E351/2288, f. 2.

[58]E351/2289, f.2.

[59]Ibid., foot of account.

irons in the fire in 1649 and 1650 to be able to devote resources to their capture.

The Scilly Isles are four small islands southwest of the tip of Cornwall. The Royalist commander, Sir John Grenville, had little to defend the islands with against a determined attack. When the time came, however, he used his resources well.

English interests in the Scillies increased when they learned in March 1651 that the Dutch were planning to send Admiral Tromp with a fleet to suppress the Royalist privateers. Dutch commerce had suffered from these attacks, and the Dutch decided to put up with these losses no longer. The Council of State in London believed that the Dutch might not be willing to surrender the islands to England if Tromp captured them.[60] Thus the Scillies became an urgent matter.

Capture of the Scillies required a landing force large enough to deal with Grenville's 500 soldiers and a significant number of cannon mounted in forts. Fortunately, a reinforced regiment of infantry had been newly raised under the command of Lieutenant Colonel William Clark. This force was preparing to board a fleet, under the command of George Ayscue, about to sail to the Caribbean for the

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[60]J.R. Powell, "Blake's Reduction of the Scilly Isles", Mariner's Mirror, 17, 1931, pp. 205; The Letters of Robert Blake, pp. 95-96..

reconquest of Barbadoes from Royalists.[61] This force was combined with Blake's squadron, and the twenty-two ships were able to sail from Plymouth in early April, arriving in the Scillies by 10 April.[62]

Ayscue and Blake beat Tromp to the Scillies. They quickly blockaded Grenville's small fleet in St. Mary's harbor and embarked the landing force for an assault. The Commonwealth commanders decided to seize the island of Tresco first to establish a logistics base for the conquest. But it was easier planned than done.

The first assault was launched on 17 April by six companies of infantry manning the longboats. Colonel Clark's men were raw recruits, most of whom had never rowed a boat. The pilots guiding the assault into Old Grimsbay Harbor got lost, directing the flotilla to the small island of Northworthel. There three companies made an unopposed landing before they realized they were on the wrong beach. Northworthel was "within half musket shot of Tresco, divided by water" from it, and "the mistake discovered,...orders were given that the rest of the boats should row on into the bay" toward Tresco.[63]

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[61]Powell, "Blake's Reduction of the Scilly Isles", p. 206.

[62]Letters of Robert Blake, pp. 97-98.

[63]Quote from a contemporary account of the action found in Letters of Robert Blake, pp. 119-28.

Once on course to Tresco, Clark's men found themselves under heavy fire. Clark valiantly urged his boats into shore. As "the boats drew somewhat near, and the great, small, and case-shot flew about to some purpose", the soldiers lost their nerve and the attack failed.[64]

A night attacked was then carried out successfully. The capture of Tresco sealed the fate of Grenville's Fabian strategy.

Ayscue could not afford to wait, however, for the slow results of a blockade, and Clark's troops were too raw to ensure a swift land campaign. Therefore, Blake decided to grant very generous terms of surrender to the Royalists so as to free Ayscue's force for its mission to the Caribbean.

The final act in the civil wars was Blake's capture of Jersey, a major island of the Channel Islands off the southern coast of Normandy. Sir George Carteret held the island for the king, and he hoped to wait out any blockade by Commonwealth forces in the fall and winter.

The English republicans had learned a great deal about amphibious operations in the Scilly Isles. When they gathered their assault force in Weymouth in September and October 1651, they used a veteran infantry regiment under Lieutenant Colonel Heane, augmented with six veteran

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[64]Ibid., p.121.

companies from Waller's regiment, and two troops of cavalry.[65] The fleet totaled eighty ships and included victuallers, colliers converted to carry the horses, and merchant ships as troop ships.[66]

The fleet sailed on 17 October but was driven back by storms. It tried again, successfully, to sail on the 19th, picking up troops from the island of Guernsey enroute. Arriving off Jersey on the 20th, the fleet put into St. Wons Bay. High winds for the next two days prevented an assault, but Blake used this time to deceive Carteret as to the site of the assault. The English sailed around the island several times, stopping at promising beaches. Carteret marched and counter-marched his troops to each site in response. By the 22d the Royalists were tired and confused, allowing the navy to land the troops from their boats back near St. Wons Bay.[67]

Carteret's confused troops were prevented from opposing the initial landing forces until they reached the shore. Then a troop of Carteret's cavalry tried with no success to break up the veteran Parliamentarian infantry, and was

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[65]J.R. Powell, "Blake's Reduction of Jersey, 1651", Mariner's Mirror, 18, 1932, pp64-65.

[66]Ibid., pp. 66-71; CSPD, 1650, indicates that Heane's regiment was raised in 1650.

[67]Letter from Kempton Hilliard to William Clarke, 30 Oct 1651, in Letters of Robert Blake, pp. 136-140, written from Jersey, by Hilliard, a participant, confirmed by Blake's account, pp.140-42.

finally driven off by the musketeers closely supported by the naval gunfire.[68]

The supply and troop ships quickly offloaded once the bay was secure. Heane's troops then went overland to reduce the Royalist forts from landward.[69] By 27 October Carteret had accepted generous terms, returning Jersey to the English Commonwealth. Logistical support was essential for the success of these amphibious operations.

As Jersey was taken in the fall by Blake, Ayscue and Clark reached Barbadoes. Their force was well-supplied and coordinated its activities with other English forces in the western hemisphere to achieve local naval superiority. They used bluff, bribes, and a successful amphibious operation to seize the island by January 1652.[70] In the process Ayscue captured twelve Dutch merchant ships deemed by him to be trading illegally with the Royalists. These ships carried provisions of victuals and water necessary for Ayscue's operations.[71]

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[68]Ibid., p. 137.

[69]Ibid., pp. 138-39.

[70]J.R. Powell,"Sir George Ayscue's Capture of Barbadoes in 1651", Mariner's Mirror, 59, 1973, pp. 282-90.

[71]Ibid., p. 284.

The greatly expanded naval operations in 1650 and 1651 were only possible because adequate financial and logistical support was provided to the navy by the Commonwealth. Adjustments in naval administration were made to improve the quantity of rations provided to fleets operating far from home ports. More money was raised by the republican government to pay for the ships and men needed to double the fleet. While the debt of the navy grew, the amounts of cash provided to the Treasurer of the Navy grew faster.[72] The operational successes of the navy in 1651 were due to the ability and willingness of the English to pay the price. All in all, 1651 was a great year for the English as they created Great Britain.

[72]See Appendix B, Graphs 5-1 and 5-3.

Chapter Three: The Dutch War, 1652-54

England had become a major European power due to her ability to provide adequate financial and logistical support to her military forces. The army's conquests of Ireland and Scotland and its defeat of the last Royalist army at Worcester in September established English rule throughout the British Isles. England's navy humbled the Portuguese in 1650, forcing them to pay £50,000 compensation for losses inflicted to English shipping by Rupert while he was in Portuguese sanctuary, because Blake's fleet was successfully supplied from England. Naval forces reclaimed English colonies in North America and the Caribbean in 1651 and began to operate in the Mediterranean to protect English shipping because financial and logistical support was regularly provided to them. Naval power won Spanish recognition of the Commonwealth and the cooperation of local rulers in Tunisia and Italy.

During 1652 England became involved in her costliest naval war yet. For two years the English navy fought the largest navy in Europe and won a resounding victory. This victory was totally dependent on the English ability to provide the financial and logistical resources needed to again double the size of their fleet to over 160 warships and to sustain that fleet with food, men, and munitions.

The Commonwealth was officially at peace in 1652. However, France had not recognized the republic and was still giving French privateers letters of marque against English

ships. England had banned all trade with the French and issued its own letters of marque. Since most French trade was carried by Dutch ships, English privateers were seizing Dutch vessels and taking their French cargo. Tensions between England and the Netherlands grew.

English ambassadors spent several months in Holland in 1651 to negotiate all differences between the two naval powers. These negotiations failed, but Dutch negotiators came to England in December 1651 to attempt peaceful resolution of differences.

The United Provinces, or Dutch Republic, was England's oldest friend. The two Protestant nations had stood together against the military might of sixteenth century Spain. Elizabeth I provided money, men, arms, and leaders to the Dutch in the darkest hours of their eighty four year struggle for independence from Spain. The Royal Navy's defeat of the Armadas in the 1580's and 90's sheltered the Dutch as well as the English from Spanish occupation and ensured their survival as Protestant powers. By 1609 Spain was exhausted and the seven northern provinces of the Netherlands joined to form the United Provinces.

Dutch power grew as their merchant marine became the most efficient carriers of European goods. Their cities became the Entrepot for the trade of northern and southern Europe and of Europe with the world. Only English merchants gave the Dutch any competition for world trade, and the English were mere

shadows of the Dutch.[1]

English naval power waned after 1604 as Dutch power waxed. James I and Charles I failed in their few attempts to exert English power because they were unable to sustain the financial and logistical needs of modern armies and navies. The nadir of English power was reached in 1639, when a Dutch fleet under Tromp pursued a Spanish fleet into English waters and destroyed it without English permission as the ineffectual Royal Navy looked on. English pride was badly bruised, but the Dutch prohibition of English trading stations in the East Indies was even more galling to English pocketbooks.

England's emergence as a victorious military power in 1651 dramatically altered the balance of power in western Europe. English desire to take a larger part of world trade and England's geographical position astride Dutch trade routes made war with the Netherlands likely unless negotiations settled differences.

Unfortunately, there were two disagreements between the two naval powers which made it unlikely that negotiations would succeed. The Dutch claimed that neutral ships in time of war were protected from seizure by belligerents and that neutral flags protected the goods they carried, regardless of

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[1]R.B. Wernham, The counter-Reformation and Price Revolution, 1559-1610 vol. III, The New Cambridge Modern History of Europe, (Cambridge: Cambridge University Press, 1971), chs. 9, 10; J.B. Black, The Reign of Elizabeth (Oxford: Clarendon Press, 1959), ch. 9 and 10; Charles Wilson, England's Apprenticeship (London: Longmans, 1965).

origin or destination. The English maintained that neutral ships' flags did not protect the goods of belligerents from seizure and that neutral ships could be stopped, searched, and seized if they carried goods of a belligerent. Second, the English claimed mastery in the Channel and demanded that ships of other nations dip their colors in homage to all English warships in the Channel. The Channel was a major trade route for the Dutch and they, as masters of Europe's largest navy and merchant marine, were not inclined to dip their colors to the English.

The English navy felt strong enough in 1652 to enforce its claim of supremacy in the narrow seas. Add trade rivalry, greed, and pride to these grievances, and it becomes understandable why these two nations sought war in 1652.[2]

England, hoping that peace had arrived, reduced her army in the fall of 1651 by roughly 30%, cutting costs by over £35,000 per month.[3] Garrisons in Scotland were increased somewhat, but units throughout England were reduced or disbanded, reflecting the growing stability of the state. Even with these cuts, the cost for 1652 was estimated to be

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[2]J.E. Farnell, "The Navigation Act of 1651, the First Dutch War, and the London Merchant Community", Economic History Review, 1964, pp. 439-45 for a discussion of the causes of the war. There is a great deal of debate on the role of the 1651 act in the outbreak of war. I believe the Navigation Act was a symptom of English self-confidence, rather than a cause of the war. But there are many, esp. Marxists, who disagree with me.

[3]CJ, vii, p. 25.

£1,328,579,[4] although further cuts were possible.

Naval forces were to be maintained at the level of the summer of 1651. Blake proposed the following dispositions and estimated costs for the summer guard to Parliament in January 1652.

Table 3-1: Naval Establishment and Cost, Jan. 1652:[5]

Station	Size of Unit	Cost£
Britsh Waters	56 ships, 6244 men	224,784
In Straits	10 ships 1520 men	
In Caribbean	7 ships 860 men	195,480
Off Virginia	2 ships 260 men	
In Mediterranean	7 ships 1140 men	
Total:	82 ships 10024 men	420,264

The twenty six ships outside British waters were already on station. Only the summer guard for home waters had to be put to sea. In addition, the winter guard of 1651-52 was at sea, and if the next winter's guard for 1652-53 was of similar size it would cost roughly £115,000. No new construction was anticipated in 1652 since twenty five new frigates had been built since January 1651.[6] The total estimated cost of the navy was therefore about £535,000 for 1652, with another

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[4]Ibid., pp. 24, 128.

[5]Ibid., pp. 69-70; Rawlinson MSS A223, pp. 115-117..

[6]M. Oppenheim, A History of the Administration of the Royal Navy vol. I, 1509-1660 (London: John Lane, 1896), pp. 332-7.

£237,000 in debt carried forward from 1651.[7]

The English Commonwealth was financially solvent in January 1652. It had sold over £5 million worth of state property and raised over £3.3 million in regular revenue from March 1649 to March 1652 to meet the nearly £7 million needed for its armed forces. Total cost for the army and navy for 1652 was estimated in January to be £1,864,000 and the regular revenues were anticipated to be roughly £1.8 million.[8] Receipts from sale of prize goods, the post, and Irish and Scottish revenues would come close to closing the gap. Because peace was anticipated the assessment was reduced from £120,000 to £90,000 per month and further reductions were contemplated for the army. These promising calculations were destroyed in February and March as it became clear that war with the Dutch was likely.

Dutch negotiators arrived in London on 15 December 1651. Their instructions were to demand recognition of neutrals' shipping rights, but this was a point the English were unlikely to give way on.[9] English privateers continued to seize Dutch ships carrying French goods, and word of Ayscue's seizure of twelve Dutch merchantmen in Barbadoes in October

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[7]E351/2289, f. 37; only £112,289 was new debt. See Appendix B.

[8]Carte MSS 74, pp. 58, 63, and 65.

[9]S.R. Gardiner, ed. The First Dutch War (London: Naval Record Society, 1896), vol. I, pp. 58-61. Hereafter cited as FDW....

reached the Dutch in early 1652.[10] English treatment of Dutch sailors was barbaric. (They tortured them to force them to admit that their cargo was French, even if it were not.[11]) Since negotiations were stalemated, in February the Dutch States General resolved to increase its navy by 150 ships "for the preservation and protection of the navigation and commerce."[12]

The English reacted swiftly to the increase in the Dutch navy. Blake was ordered to concentrate all available warships in the Downs, off the mouth of the Thames, and to prepare for action.[13] The victuallers were ordered to increase the number of rations for the next nine months by 2500 to 10000.[14] The Ordnance office was ordered to prepare 500 new naval gun carriages to equip additional warships, and all ships in English ports were surveyed for possible military use.[15]

No one had a clear idea of how many ships were needed to

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[10]J.P. Powell, "Sir George Ayscue's Capture of Barbadoes in 1651", Mariner's mirror, 59, 1973, p. 283.

[11]FDW, vol. I, pp. 81-82.

[12]Ibid., pp. 85-86.

[13]CSPD, 1651-52, p. 168.

[14]Ibid., p. 181.

[15]Ibid., pp. 180, 191.

face the Dutch successfully. The English had not fought a first rate naval power since the Spanish war. Initially, twenty-three merchant ships were added to the fleet, each to carry 30 to 40 guns, to be used for convoy duty.[16] These vessels were also available to reinforce the fleet in battle. However, there were severe shortages of guns, victuals, and seamen needed to get these additional hired ships and the eighty states' ships to sea.[17] By April Blake had increased the estimates for the costs of the summer guard to £729,000 for support of 117 ships.[18] No estimate was provided for the coming winter.

As war became likely in April, the Council of State put great pressure on the Navy Commissioners to get the ships to sea. Unfortunately, it was not easy to increase the force by 30% in a month. The victual contractors found a shortage of casks and barrels for storage of food and the government found it difficult to find the cash to pay the contractors for the increased and accelerated supply of rations.[19]

Meantime, Blake ordered all ship captains to careen their

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[16]Ibid., p. 192.

[17]Ibid., p.

[18]CJ, vii, p.122; Rawlinson MSS A223, pp. 118-119..

[19]CSPD, 1651-52, pp. 176, 252, 254, 272, 370, 373, 379.

ships so as to wash and tallow their hulls, and then to put to sea to join the rendezvous in the Downs.[20] Captains were given authority to press up to 25% of the crews of inbound merchant ships they encountered to fill their crews; Nevertheless, the shortage of crewmen remained severe.[21]

The shortage of cannon for the fleet was partially solved by collecting unused guns from forts and castles in England,[22] and by casting 335 new guns.[23] Shortages of seamen were harder to solve. Eventually over 2000 soldiers were sent from the army to serve on the ships as gunners, musketeers, and sailors.[24] The shortage of cash for the victuallers was solved in the short run by use of £15,826 from the proceeds of the sale of Dutch goods and ships captured by the navy.[25] However, fighting started before all of these measures took effect.

The First Dutch War started on 19 May with an inconclusive fight between Tromp's fleet of 42 ships and

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[20]Ibid., p. 245; FDW, vol. I, p. 112.

[21]CSPD, 1651-52, p. 249.

[22]FDW, vol. I, pp. 108-09; CJ, vii, p. 122.

[23]CJ, vii, p. 122; Rawlinson MSS A223, p. 119..

[24]CSPD, 1651-52, pp. 318, 321.

[25]Ibid., p. 359.

Blake's fleet of 22.[26] Both were eager for a fight and the pretext was the issue of dipping the colors. After the nearly bloodless initial engagement, both sides worked feverishly to get their main fleets to sea. During the early part of the war, however, the Dutch battle fleet often outnumbered the English while the English ships were bigger and carried more guns. The geographical advantage lay with the English, since the prevailing westerly winds gave them the upwind position, making it easier for them to bring ships out of multiple ports and concentrate for battle. Dutch commmerce was more vulnerable to attack because their sea lanes passed through British waters and because it was far more numerous. As one Dutchman noted, "the English are about to attack a mountain of gold; we are about to attack a mountain of iron."[27]

After the initial battle in May, Blake and the Council of State decided to increase the fleet by forty ships. Most of these would be merchant ships hired by the state.[28] There was talk also about building more state's ships. This was part of an expansion that added over 150 ships to the navy by the end

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[26]S.R. Gardiner, The Commonwealth and Protectorate, 1649-56 (London: Longmans, Green and Co., 1903), vol. II, pp. 178-180.

[27]Ibid., p. 180 for the quote; pp. 180-184 for English advantages.

[28]Rawlinson MSS A223, p. 120.

of 1654, with only 40 of these added before 1652.[29] The size of the main battle fleet grew from 20 ships in May 1652, to 65 ships at the Battle of the Kentish Knock in September, to 76 ships in the "Three Days' Fight" in February 1653, to over 100 warships in the battles of the Gabbard and the Scheveningen in the summer of 1653.[30]

Blake's fight in May was followed by a successful attack by Ayscue in July against a large Dutch convoy and by a serious encounter between Ayscue and De Ruyter in August off Plymouth.[31] Nonetheless, English operations were severely restricted by financial and logistical problems during the summer. The victuallers came up with a plan to supply rations to the expanded fleet in June.[32] By 14 June Blake's fleet had received rations sufficient until 1 September. He set to sea in late June in pursuit of the Dutch herring fleet, hoping to force Tromp to fight a decisive battle. Though he was able to catch the herring fleet in July, capturing its twelve escorting frigates, bad weather prevented him from forcing a

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[29]Oppenheim, vol. I, pp. 332-337.

[30]R. C. Anderson, "English Fleet Lists in the First Dutch War", Mariner's Mirror, 24, 1938, pp. 430, 435, 441, 444, 449-50.

[31]Gardiner, Commonwealth and Protectorate, vol. II, pp. 184-86.

[32]CSPD, 1651-52, p. 288.

decision with the Dutch main fleet.[33]

The victuallers were slow to expand their operation as more ships were added to the fleet because money was not forthcoming from the Treasurer. Evidently, they were unwilling to loan more money to the navy since the amounts involved had grown so large. As a result, by August Blake was forced to transfer food to outbound ships from ships inbound to repair storm damage.[34]

Only in late August did the Council find enough money from the sale of captured Dutch prizes to give the contractors cash for purchase of supplies. Even then, only enough rations for 12,000 seamen for one month were available in September, significantly hindering Blake's operations.[35]

Another solution to the victual problem was agreed to in August, and this worked reasonably well for two months. Thomas Alderne, John imbray and D. Randos, victuallers in London, agreed to provide rations on the following terms.

> We can supply 12000 men for one month if we can have present pay of what is already due, viz. £23,859 3s 8d. The balance, viz. £15,845 0s 8d could be paid by monthly installments between now and March. What is now under proposal being £11,900 to be paid in 6 equal payments, at the rate of 8 1/2d a man per day. Authority should be given for

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[33]Ibid., pp. 184-186.

[34]CSPD, 1651-52, p. 357.

[35]Ibid., p. 359.

> taking up ships to carry the provisions to the General of the fleet, and the receipts of the shipmasters for the provisions should be our sufficient discharge, in passing our accounts.[36]

Money was the crux of the problem. Until cash could be found to pay for food, the fleet's operations could not be sustained. The agreement in August was a hand to mouth solution to the problem even though it raised the rate for rations to 8 1/2 d.

Hull, Yarmouth, and Harwich were the main supply ports for Blake's fleet. Ration ships also were convoyed from London to the fleet at sea.[37] This was a shift in logistics base northward from Chatham to better support operations in the North Sea.

This system worked as long as money was provided to pay for supplies. It was supplemented by the confiscation of rations from captured Dutch ships. Nevertheless, there were serious problems again with the quality of the food and beer provided to the navy. Part of this was due to the need unexpectedly to slaughter and preserve meat in the hot months, and part was due to a cooperage shortage which hindered the proper preservation of rations once aboard ship.[38]

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[36]IBID., pp. 359-60.

[37]Ibid., p. 368.

[38]CSPD, 1652-53, p. 35.

Continually expanding requirements strained the contract system and things only got worse as the navy continued to grow.

Blake's fleet was ready for action in early September. Since the Dutch fleet was not in the channel early in the month, Blake took his fleet to the French coast and used this opportunity to destroy a French fleet off Calais as it tried to convoy reinforcements to Dunkirk.[39] Blake's action made the Spanish capture of Dunkirk possible, cemented Anglo-Spanish relations, and convinced Mazarin, chief minister of France, that bad relations with England were a luxury which France could no longer afford. This led to French recognition of the Commonwealth, ending the undeclared war between France and England.

Blake then brought his fleet back to the Channel to intercept a large Dutch merchant convoy. This forced the Dutch to fight at the Kentish Knock off southeastern England on 28 September. There Blake aggressively attacked 62 Dutch warships with his 68 bigger and more heavily armed vessels.[40] The desertion of twenty Dutch hired merchant warships made the

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[39]J.R. Powell, "Blake's Capture of the French Fleet Before Calais on 4 September 1652", Mariner's Mirror, 48, 1962, pp. 192-207.

[40]Gardiner, Commonwealth and Protectorate, vol. II, pp. 190=94.

results predictable.[41] The Dutch retreated after a bruising. Their merchant fleet had already escaped, and they lost only two warships. Blake achieved mastery of the Channel, but failed to destroy the Dutch war fleet.

Blake's triumphant return took the sense of urgency out of English naval preparations, undoing the results of the Battle of Kentish Knock. The Dutch, on the other hand, recalled Tromp from his July retirement and redoubled their efforts to get a battle fleet of 80 warships to sea by November.[42]

English successes in the Channel in 1652 were not accompanied by victories elsewhere. On the contrary, the Danish king closed the Danish Sound to English shipping in the summer, trapping twenty English merchant ships in the Baltic.[43] An English squadron of 22 warships commanded by Andrew Ball was sent to Copenhagen in September to convince the Danes to open the sound. Ball's fleet failed to intimidate the Danes, loyal to their alliance with the Dutch, and Ball

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[41]FDW, vol. II, pp. 293-98 for Dutch account; pp. 272-280 for the English accounts. There are differences as to losses but not to results of the battle.

[42]FDW, Vol. II, pp. 321-22.

[43]R.C. Anderson, "Denmark and Holland in the First Dutch War", Mariner's Mirror, 53, 1967, pp. 55-57.

returned empty handed.[44] Loss of access to the Baltic hurt the English war effort because the Baltic region was the chief supplier of tar, hemp, and masts for the maintenance of ships. Fortunately, sufficient stocks of naval stores were on hand in 1652. As a result of the closure of the Sound, the English began to develop Scottish and North American sources as alternate suppliers of naval stores.

Affairs in the Mediterranean, where Henry Appleton and Richard Badiley commanded two small squadrons of seven ships, were even more unfavorable in 1652.[45] Appleton had been operating off Genoa and Leghorn since late 1651, protecting English merchant ships and attacking French vessels out of Toulon.[46] He and Badiley depended on Charles Longland, English agent in Leghorn, Italy, for financial and logistical support until their defeat in 1653. Longland cashed bills of exchange from England, using the proceeds to buy Spanish dollars.[47] He paid for services and supplies for the fleets with this cash, allowing Badiley and Appleton to resupply and

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[44]Ibid., pp. 57-58.

[45]CJ, vii, pp. 69-70.

[46]CSPD, 1651-52, pp. 18, 52.

[47]Ibid., p. 190; E351/2291, f.121 lists L4171 due longland.

to careen and service their hulls in Leghorn and Genoa.[48]

Badiley's three ships arrived in the Mediterranean in the summer of 1652, just in time to be cornered with Appleton by 14 Dutch warships.[51] Escape was impossible without help from home, and that was unlikely until the situation in the Channel was decisively resolved. The stalemate in the Mediterranean was broken when the English tried to break out in March, only to be intercepted and defeated by the Dutch.[52] Only a few ships with mutinous crews made it back to England with Badiley in May 1653. Dutch dominence was assured in the Mediterranean. However, longterm naval mastery of the Mediterranean was going to be decided in the decisive theater of the North Sea.

Meanwhile, Blake's victory at Kentish Knock could not be exploited because his ships only carried rations sufficient to the end of October. The English were slow to repair the damage to his ships.[53] The Council of State tried to get the supply system organized for a long war by its agreement with the victuallers and by identifying ports for the victualling of the fleet and the amount of rations to be magazined in each for fleet use in the winter.

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[48]CSPD, 1651-52, pp. 52, 112.

[51]Ibid., pp. 315-16.

[52]R.C. Anderson, "The First Dutch War in the Mediterranean", Mariner's Mirror, 49, 1963, pp. 241-65.

[53]CSPD, 1651-52, p. 384; Baumber, GGeneral at Sea, p. 138-39.

Figure 3-2: Supply Ports and Rations for Winter and Summer Guards, 1652-53:

a. Winter Guard (total 7874 men)[54]

Portsmouth	2074	Harwich	700
Plymouth	800	Yarmouth	770
ondon	1870	Hull	320
Dover	800	Kinsale	540

b. Summer Guard (total 16000 men)[55]

ondon	8000	Plymouth	1000
Portsmouth	4000	Harwich	1000
Dover	500	Hull	500
Kinsale	500		

Plans also were made in October to build 30 new frigates at a cost of £300,000,[56] but financial plans to pay for this rapid increase in construction were not made.

Financial problems crippled the logistical effort and undermined the recruitment of sailors. By October 1652 over £292,000 was owed to the sailors and another £100,000 was due on separate bills. Additional large amounts were due for rations and munitions.[57] The Navy Commissioners estimated the total debt at £510,760 and concluded that £174,000 in cash was

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[54]CSPD, 1651-52, pp. 391, 395.

[55]Ibid., p. 409.

[56]Ibid., pp. 429, 493.

[57]Rawlinson MSS A223, p. 123.

needed by 1 November to support operations effectively.[58]

The administrative system which should have matched financial resources to logistical requirements, thereby providing money to pay contractors, sailors, and dockyard workers, failed in late 1652. The accounts of the Navy Commissioners and the victuallers did not match as to amounts of food provided and money paid.[59] The Letter Book of the Navy Commissioners shows a growing preoccupation for routine matters in the fall of 1652 rather than for the pressing financial and logistical problems.[60]

Special commissioners were appointed by the Council of State to go to Blake and determine future actions. Representatives of the Navy Commissioners and the victuallers accompanied them. Unfortunately, little could be done to meet Blake's needs for the supply and pay of his fleet and the winter guard.[61] Blake presented an estimate of the costs of the current naval establishment and the forthcoming winter guard to Parliament on 4 November 1652. This estimate portrays the financial condition of English naval administration and

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[58]Ibid., pp. 124-25; E351/2290, Navy Treasurer's Account for 1652, lists debt as £335,148 in December, and £148,743 due to victuallers for 1652 alone and another £6,333 due for 1651 still.

[59]CSPD, 1651-52, p. 417.

[60]Rawlinson MSS A226, pp. 106-200.

[61]CSPD, 1651-52, pp. 442, 450, 463, 464.

helps explain operational events which followed on 30 November at the Battle of the Dungenness.

Figure 3-3: "An Estimate of the present debt of the navy, as also what monies will be requisite for carrying on the Service at Sea Until the 25th of March 1653"[62]

Item:	Cost (£)
Unpaid Summer Freight,victuals, wages	510,760
This Winters Freight, victuals, wages	363,000
Victuals for 16000 men for next Summer	89,600
Cost of 500 new cannon	22,500
Total:	985,860
Money already assigned by Parliament for Navy:	
From Customs, anticipated to Mar 1653	100,000
From sale of Dutch prizes	100,000
Other Prize Goods receipts	20,000
Receipts from sale of traitors Goods	185,000
From Excise to March 1653	10,000
Total:	415,000
Additional Cost for 30 new frigates	300,000
Total needed beyond receipts promised	875,860

Naval expenses were not the only obligation of the state in 1652. Army forces cost roughly £1,496,215 in 1652 and were estimated to be going to cost £1,443,680 in 1653.[63]Total revenue from the assessment, excise, and customs in 1652 was £1,620,000.[64] Receipts from land sales, sale of prizes, and

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[62]Rawlinson MSS A223, p. 125;CJ, vii, p. 209.

[63]Ibid., p. 224. The 1652 amount was more than the estimate made for it in late 1651 by several hundred thousand pounds.

[64]See PRO, E351/304-306 for assessment; E351/652 for Customs, and E351/1292 for excise declared accounts. I did some averaging to compensate for the slightly different periods covered by each account.

Deliquent fines provided substantial amounts, but nowhere near £800,000 remained available from these sources by 1652. Also, money from these sources came in slowly and sporadically as people paid for their land purchases over time. The Commonwealth faced a severe financial crisis by November 1652. Payment of soldiers, sailors and contractors was badly in arrears. Consequently, recruitment and replenishment of the fleet lagged.[65] Blake's fleet was hamstrung by these difficulties and only a portion of the warships were fit for sea by the end of November. Continued operational success depended on the provision of adequate financial and logistical support.

As English efforts slackened, the Dutch redoubled theirs to put forth a fleet capable of regaining control of the Channel. Dutch economic survival depended on safe sea lanes. Defeat in the fall shocked the Dutch provincial admiralties into action and forced them to give Tromp unified command as well as logistical support.[66] By late November Tromp had 88 warships at sea and a plan as to how to defeat Blake. Tromp knew that Blake's fleet was reduced due to unrepaired damage from the Battle of the Kentish Knock, shortage of seamen, and lack of money. He also knew that Blake was aggressive and probably overconfident from his earlier victories.

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[65]CJ, vii, p. 91.

[66]FDW, vol. II, pp. 377-84.

Consequently, Tromp believed that Blake would put to sea with whatever force he had ready when he saw the huge Dutch Bourdeaux merchant convoy in the Channel in late November.

Tromp positioned his warships where they could intercept Blake's fleet as it sortied.[67] Blake rose to the bait, setting sail with 40 undermanned ships to intercept the Dutch convoy. Due to a lack of money, dozens of English warships remained idle in port. On 30 November Tromp attacked the English fleet and thoroughly trounced it. To make matters worse for the outnumbered English, 20 ships hung back from the fight, possibly due to undermanning, giving the Dutch a four to one advantage.[68] Only nightfall saved the English from total defeat, as they escaped to the safety of the Downs. Command of the Channel switched to the Dutch, allowing them to use the sea lanes safely and to cut the vital coal trade from Newcastle to London.[69] This defeat was caused directly by the English failure to financially sustain their war effort. The reason for this failure may have been political, but its results were clear, as was the remedy.

Shortly before the stinging defeat of the Battle of Dungenness, Parliament held its annual election of the Council

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[67]Letters of Robert Blake, pp. 184-86.

[68]Ibid., p. 185.

[69]Ibid., p. 187; Gardiner, vol. II, pp. 207-210 gives a good account too.

of State. The results were a victory for a majority of men like Cromwell and Sir Henry Vane, Jr. who had opposed the Dutch war in the summer and now hoped for a negotiated settlement. Their hope for peace after the victory in September may account for the lack of energy in prosecuting the war, in an attempt to force negotiations.[70] The defeat of Blake, however, forced this peace party to persecute the war effort vigorously from December on since negotiations would only give favorable results if the English navy was supreme in the Channel.

Never was it more clear than in November 1652 that operational success was absolutely dependent on the provision of adequate financial and logistical support to the navy and the aggressive administration of the navy's shore establishment. Tremendous efforts were made, henceforth, to provide the support needed to maintain the fleet. These efforts were successful and directly affected the operational success of the fleet.

Money was the first requirement for success. In December Parliament increased the assessment from £90,000 to 120,000 per month, allocating a large part of it to the navy.[71] During the next two years assessment revenues provided

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[70]Gardiner believed this to be the case.

[71]C.H.Firth and R.S Rait, Acts and Ordinances of the Interregnum, vol. II, p. 653.

£726,233 to the navy,[72] in addition to the £200,000 provided in 1651.[73] The excise on coal was continued and the proceeds of the excise were dedicated to the navy.[74] And land sales were authorized to raise £100,000, fines on Deliquents were to provide another £100,000,[75] and the proceeds of the sale of Dutch prizes produced £208,655.[76]

Critical changes were also made in naval administration to revitalize the logistical system. Five special commissioners were appointed to streamline naval administration.[77] They were given authority to issue orders to the Navy Commissioners, the victuallers, and the officers of the Ordnance.[78] They met with Blake to determine his most pressing needs and to examine the conduct of his ship commanders in the Battle of the Dungenness.[79] The special

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[72]PRO, E351/305.

[73]PRO, E351/304.

[74]CJ, vii, pp. 241, 269; Acts and Ordinances, ii, p.505.

[75]British Library, Addit. MSS, 5500, f.25.

[76]British Library, Addit. MSS, 5500, f. 25.

[77]Rawlinson MSS A227, pp. 1-15.

[78]CSPD, 1652-53, p. 3; Rawlinson MSS A227, p. 1..

[79]Ibid..

commissioners energized the efforts of victuallers and dockyard workers alike, with immediate results.

Drastic action was taken to increase Blake's authority at sea and to provide the ships needed to defeat the Dutch. Six captains were relieved.[80] The Ordnance office was partially subordinated to the Navy Commissioners to expedite the resupply of munitions.[81] Work was begun on the new frigates and much better provision was made to care for sick and wounded seamen.[82] Pay was raised, sailors' share of prize goods increased, and provisions made for paying sailors' widows pensions.[83] New Articles of War were passed, giving commanders greater authority over ship captains and crews. The use of merchant ships was greatly reduced and the captains of such vessels were only to be state appointed professionals.[84]

Richard Deane and George Monck, two experienced generals, were appointed Generals at Sea to ease the burden of command of Robert Blake.[85] The fleet was organized into three

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[80]Baumber, General at Sea, p. 158.

[81]CSPD, 1652-53, p. 10.

[82]Ibid., pp. 19, 29.

[83]Ibid., pp. 42, 43.

[84]Ibid., p. 56.

[85]Ibid., p. 8.

permanent squadrons, the Red, White, and Blue, facilitating command, control, and administration. Standing orders were issued to ensure that all ships would come to the aid of their squadron and fleet commanders during battle automatically.[86]

Manning of the fleet was expanded. Fourteen thousand sailors were added to the sixteen thousand of the previous estimate. The following resupply ports were designated with their quota of rations to be maintained.

Figure 3-4: Supply Ports and Rations, 1653:

Port: rations to be stocked (total 30000)

London and Chatham	14500	Harwich	1000
Portsmouth	8000	Ireland	1000
Dover and Sandwich	2500	Hull	1000
Plymouth	2500		

The direction of future operations is indicated by the concentration of supplies in ports closest to the narrow part of the Channel. Merchant ships were also maintained to serve as underway replenishers when the fleet was out, allowing it to maintain concentration. English plans were to attack Tromp as he returned with the convoy from Bourdeaux. Therefore, the bulk of the fleet was kept in the Downs near Chatham.

A December survey of the fleet showed that sixty ships would be ready for action by 14 January, with eighteen more ready by February 14th. A further thirty ships would be available to protect the Irish Sea and Scottish coasts. Based

[86]CSPD, 1652-53, pp. 52-53, 57-58, 66-67.

on this survey a decision was made to hire forty merchant ships as quickly as possible to achieve a fleet of 148 ships by March.[87]

Two additional Navy Commissioners were appointed to help oversee the expanded logistical efforts.[88] The shore facilities were expanded in the navy dockyards to support the fleet and to give the victuallers additional space for food and drink preparations.[89] Victuallers were provided casks and barrels from captured Dutch ships, and captains were to save and return empty casks and barrels to relieve a cooperage shortage.[90] Despite these efforts there was a delay by the contractors in providing the rations sufficient for extended fleet operations.

There was a continuing shortage of seamen. As a result, 1200 more soldiers were assigned to the fleet, 500 London watermen pressed, and sailors ransomed from French captivity and brought back to England.[91] Through the efforts of all the commissioners, victuallers, and commanders a fleet of over 80

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[87]CSPD, 1652-53, pp. 52-53, 57-58, 66-67.

[88]Ibid., p. 44.

[89]Ibid., p.99.

[90]Ibid., pp. 106, 140.

[91]Ibid., pp. 115, 118, 126, 127.

ships was ready for action in the Channel by mid February.[92]

English success in putting their naval administration back together was timely and decisive. On 17 February approximately 200 Dutch merchant ships were sighted entering the Channel escorted by Tromp's battle fleet.[93] Tromp chose to attack the English fleet with his 80 ships, hoping to allow his convoy to escape up the Channel while his warships defeated the English.

Blake and Deane, in the van of 25 ships, engaged the bulk of the Dutch fleet initially, while the rest of the English fleet beat into the wind to join the fight. By 4 PM most English ships had engaged and their superior size and weight of armament quickly swung the advantage away from the Dutch. Tromp broke off in the dark, but the battle was resumed the next two days as the freshly provisioned English ships captured or destroyed 18 Dutch warships and dozens of their merchantmen. The English pushed the fight and broke Dutch cohesion. Only very skillful sailing by Tromp in the shallows off France saved the bulk of the Dutch fleet from total disaster.[94] The three day battle off Portland reestablished English control of the Channel.

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[92]Ibid., p. 150.

[93]Letters of robert Blake, pp. 206-210; CSPD, 1652-53, p. 173.

[94]Letters of Robert Blake, pp. 206-210.

Operational reforms as well as the administrative changes of December and January paid off in February. When the Dutch convoy began to break up on the 20th, Blake was able to keep his captains in the fight against the Dutch warships, rather than having them chase prizes. This allowed him to push his advantage and destroy or capture nearly one third of the Dutch warships while only losing one of his own. His smaller ships pursued the convoy, capturing the valuable prizes carrying French wine.[95]

Blake's fleet suffered heavy losses of men and material in the battle. After the battle the English ships had to anchor for a full day on the French coast to repair damaged rigging sufficiently so that they could beat into the strong winds as they went west to port.[96] Seven ship captains were killed, Blake was badly wounded, and thousands of sailors injured.[97] Nevertheless, the Dutch were routed and the English were able to immediately continue two squadrons in the Channel, cutting the Dutch direct sea route to the south.[98]

After this victory the English did not relax their efforts as they had the previous fall. In April estimates were

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[95]Ibid., p. 208.

[96]Ibid., p. 209.

[97]CJ, vii, p. 279.

[98]Letters of Robert Blake, p. 210.

provided by the Navy Commissioners that called for expenditures of £605,000 by the end of June. A further £1,115,000 was forecast for the navy for the period July to December 1653.[99] This £1.7 million included the cost of new construction and debt. During this critical period the English provided over £1.3 million in cash to the Navy Treasurer and a further £287,500 in bills of credit were issued by him to creditors.[100] The victuallers received over £249,000 in cash in 1653 and accepted bills for large amounts in addition.

News of the victory off Portland reached the commissioners ashore within two days. They redoubled their efforts to increase the size of the main fleet in the channel, care for wounded sailors, and supply the rations, munitions, and stores needed to keep the fleet at sea.[101] The mayors of Dover and Southampton organized hospitals for wounded seamen.[102] Gunpowder was gathered from forts and castles to replace the 1300 barrels of powder used in the three day battle.[103] Small ships called hoys were used to transport

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[99]Rawlinson MSS A223, pp. 127-128.

[100]E351/2291, ff. 2 and 124.

[101]Rawlinson MSS A227, Letter Book of the Navy Commissioners, p. 40.

[102]Ibid., p. 45.

[103]Ibid., pp. 52, 56, 60-61.

powder and food to the fleet in the Downs so that the warships could remain concentrated and to prevent seamen from leaving their ships in port.[104] Forty additional merchant ships were pressed into service and at least twelve of them were used to carry water and food and to serve as underway replenishment ships. By April sufficient rations were available to sustain the battlefleet of over 100 ships into October, greatly enhancing its operational flexibility.[105]

The letters of the commissioners and commanders for the spring of 1653 exude energy, confidence, and competence.[106] Cooperation between them and the navy and army commanders was smooth. For example, to overcome the shortage of seamen up to 4000 soldiers were offered to the navy by Cromwell. Army officers were sent with their units to the fleet, ensuring a higher degree of military efficiency on the newly pressed merchant ships.

By May the English fleet with its logistical vessels was operating off the Dutch coast near Texel.[107] A steady stream of supply ships were convoyed from Hull and Yarmouth to the fleet. The fleet thus remained concentrated in a location

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[104]Ibid., pp. 53, 54, 59.

[105]Ibid., pp. 63-66, 74, 76.

[106]Ibid..

[107]Ibid., pp. 77,82-85,87,90, 95-96.

which allowed it to intercept large Dutch merchant convoys expected to attempt to run around the northern end of the British Isles since the channel was closed.[108] The English clearly hoped to lure the enemy main fleet into battle again.

The Dutch Admiral Tromp determined to break the English blockade of the Dutch coast in late May with roughly 100 warships.[109] The two battlefleets met off of the Gabbard on June 2nd and fought for three days. By the 4th of June superior English organization, weight of guns and ships, and cohesion defeated the Dutch.[110] Tromp's fleet lost twenty ships while the English lost none. Shortly thereafter the Dutch put forth peace feelers, but English terms were too harsh. The war continued.

English efforts remained undiminished after the June victory. The main fleet remained concentrated off shore in the Downs or at sea and was resupplied with rations, sailors, and munitions carried to it by 14 victual and 6 water ships.[111] Three hundred wounded seamen were landed at Yarmouth and extra medical personnel were sent to the navy agent there, Major

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[108]Ibid., pp. 80-81.

[109]S.R. Gardiner, History of the Commonwealth and Protectorate, 1653-55, p. 34.

[110]Ibid., p. 39.

[111]Rawlinson MSS A227,pp. 97-99, 100-103.

Barber.[112] Only twelve English warships required major repairs after the battle and eleven captured Dutch ships were added to the fleet.

Once resupplied, the fleet sailed to the Dutch coast to cut commerce and attack ports. Its activities were supported from logistical rendezvous points in Yarmouth Road and Harwich.[113] This strategy brought the Dutch navy out to battle again on the 31st of July near Texel Island.

The battle of 31 July is known as the Battle of Scheveningen. It was the last major fleet engagement of the war, and the bloodiest. George Monck was the English commander since Blake was incapacitated and Deane had been killed in the Battle of the Gabbard. Monck commanded with great skill, and his fleet destroyed or captured 26 of the Dutch ships while losing only two. Tromp was killed along with 2700 of his men.[114] The English fleet was badly mauled also, but was quickly back to sea.[115]

Cromwell, who had dismissed Parliament by force in April and was now dictator, used the victory to offer peace to the

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[112]Ibid., p. 99.

[113]Ibid., pp. 100-106.

[114]Gardiner, Commonwealth and Protectorate, 1653-1655, pp. 46-48.

[115]Rawlinson MSS A227, pp. 123-125.

Dutch. After long negotiations peace and an alliance were established in January 1654. The terms of the peace were clearly in English favor due to their victories and the Dutch loss of 1500 merchant ships during the war.

Though the Dutch had had the larger merchant fleet and greater resources in 1652, superior organization and geographical position had given the English victory. Dutch financial advantage of a central bank and an established funded deficit were matched by the English ability to raise cash and to borrow money from its creditors with a disguised credit system. (See Appendix B)

The First Dutch War proved that victory at sea was only possible when adequate financial, logistical, and administrative support was provided to the navy by the state: It also that the English could provide such support. Blake's and Monck's brillant victories in 1653 were only possible once such support was provided on a steady basis. As two accute observers of war noted: "The sinews of war are infinitely money;"[116] and "to carry on war, three things are necessary: money, money, and more money."[117]

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[116]Cicero, Philippics, in 60 BCE, quoted in Dictionary of miMilitary and naval quotations , ed. R.D. Heinl, Jr., (Annapolis, MD: USN Institutes, 1966), p. 115.

[117]Ibid. , Gian J. Trivulzio, in 1499.

Conclusion

The English navy was essential to the creation of the British state in the 1650's. The conquests of Ireland and Scotland required the navy's control of British waters so that the army could be regularly supplied from England. English commerce depended on the navy's protection and the taxation of commerce was vital to the financial survival of the Interregnum governments.

Twice the English navy lost control of the sea lanes. On the first occasion, in 1648, the Royalist fleet could have cut off London's commerce and brought the Parliamentarians to their knees. On the second occasion, in 1652, the Dutch stopped the vital coal trade. Both times the English revitalized their naval administration and provided the financial support needed to ensure the successful recovery by their navy of control over the Channel.

Naval operations depended on the creation by the English of an effective naval administration and the provision of adequate financial and logistical support to the fleet. In 1649 the English created a coherent naval administration which ensured unity of command and effort for its navy. This administrative system successfully supplied and maintained the navy as long as it was provided with adequate financial resources. The administrative system

coped with the dramatic increase in the scope and range of naval operations in the 1650's brought about by the need to operate against the state's widespread enemies.

When the English failed to support their navy with adequate financial and logistical support, the navy was unsuccessful. The clearest example of this was in November 1652, when sufficient money was not provided to the navy administration to support the fleet against the Dutch. As a result, a number of warships could not be prepared for sea duty. Blake's fleet was thus badly outnumbered and outgunned in the Battle of the Dungenness, and suffered the only major defeat of the entire period. Once the government provided the money to again support the fleet, the navy was able to win a series of resounding victories against the Dutch.

The support of its navy by the English republic in the 1650's ensured that Great Britain would emerge as a major European power. The naval administrative system which made this possible was created in 1649, adjusted in the 1650's, and retained by the restored monarchy in 1660. Henceforth, England was a major naval force to be dealt with in European history.

Appendix A: Historiography of English Naval Power 1642-1659

England's navy played a decisive role in the English civil wars from 1642 to 1648, and during the English wars of conquest from 1649 to 1959. At the outbreak of the First Civil War, in 1642, the fleet declared its allegiance to Parliament.[1] Ironically, the navy's state of readiness and evident efficiency in 1642 was a result of the non-parliamentary rule and taxation of Charles I in the 1630's. Charles inherited a navy which was, at best, the laughing-stock of western Europe. The once proud Elizabethan fleet had been so neglected, through financial starvation and a lack of clear policy, that the English were unable to muster sufficient seapower to sustain expeditions to the Low Countries and France in the 1620's.[2] Charles I set out to rectify this state of affairs, but his unwillingness to work with Parliament led him to impose ship-money tax on all counties of England as a source of revenue to pay for the construction of a new fleet. While ship-money levied on the

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[1]Godfrey Davies, The Early Stuarts, 1603-1660, Oxford: Clarendon Press, 1959, p.130.

[2]C.J. Marcus, A Naval History of England, London: 1961-71, vol. 2, pp. 128-30.

coastal counties was a traditionally accepted prerogative tax, its extension to inland counties was non-traditional, even if technically legal. Nonetheless, ship-money was a great financial success from 1634 to 1638, with over 90% collected, and it became the model for the Parliamentary tax known as the assessment during the 1640's and 50's.[3]

Charles used ship-money to rebuild the Royal Navy. However, he never raised sufficient money to pay the crews regularly and to provide the logistical and administrative resources to maintain the vessels and the shipyards.[4] As a result, by 1639 the fleet was ineffective and the seamen were alienated from the king due to ill-treatment and hunger. The navy readily declared its allegiance to Parliament when civil war began in 1642. Consequently, the vulnerable commerce of London and the other Parliamentary ports was secure from effective interference by Royalist privateers or pirates. Parliament's ability to hold London and the major ports, and its navy's protection of the commerce of the ports, was financially essential to the ultimate victory of its cause. The financial resources of Parliamentary military power came from the wealth and resources of the commercial centers, and especially of London. Parliament understood this and provided

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[3]Derek Hirst, Authority and Conflict: England, 1603-1658, Cambridge, MA: Harvard University Press, 1986, pp. 177-79, 237.

[4]J. R. Powell, The Navy in the English Civil War, London: Archon Books, 1962, p. 10.

sufficient money to pay for the ships needed to defend these cities.

London was the largest city in Europe in 1642. The majority of English trade came through London. The city was absolutely dependent upon ocean commerce for the provision of the 260,000 tons of coal used annually to heat its homes and fuel its consumer industries.[5] London's trade provided the majority of the revenue of the customs, and London's merchants provided the largest pool of ready money in the kingdom. The Roundheads' war effort was dependent on the cash loaned in advance of tax revenues by London's merchants, and relied heavily on the city for manpower, armaments, and clothes for its army and fleet. Clearly, the navy's protection of London's commerce was essential to the Parliamentary cause strategically.

Parliament depended on the navy for protection from foreign support of the king, and as a means of mobility and supply for Parliamentary forces and garrisons in the British Isles. The best recent account of the navy's services during the 1640's is J.R. Powell's 1962 book, The Navy in the English Civil War. Powell describes how the fleet was able to accomplish its limited tasks of commerce and coast defense in British waters, and shows its close

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[5]C.H. Hill, The Century of Revolution, 1603-1714, NY: Norton and Co., 1966 edn, pp. 20-22; J.P. Cooper, The Decline of Spain and the Thirty Years War, 1609-48/59, (Cambridge: Cambridge University Press, 1970), p.98.

connection to the success of the Parliamentarians.[6] While the navy was not able to sweep all Royalists from the seas, it managed to accomplish much. Fortunately, in the 1640's England's potential foreign opponents--the Spanish, Dutch, and French--were fully occupied with the Thirty Years' War, and the Scottish and Irish did not possess naval forces beyond privateers.

All was not roses for the Parliamentary navy during the civil wars, however. In late 1644 the fleet could not sail due to lack of provisions as victuallers refused to provide provisions until paid in cash.[7] This crisis paralleled the general financial and military crisis of Parliament's cause in 1644-45. Scotland's entry into the war against the king in 1644, the remodeling of the army, and the passage of the Self-Denying Ordinance in the spring of 1645, accompanied by the passage of the monthly assessment, relieved the Roundheads of their immediate financial stringency and enabled them to again support their fleet adequately.[8] The assessment, a

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[6]J.R. Powell, The Navy in the English Civil War, London: Archon Books, pp. 62 and 73.

[7]Ibid., p. 76.

[8]C.H. Firth and F. Rait, Acts and Ordinances of the Interregnum, London: HMSO, 1911, vol.1, pp. 530-53 and pp. 656-60 for assessment, pp. 614-26 for the New Model Army, pp. 646 for authorization to press men for the navy, and pp. 664-65 for Self-Denying Ordinance. Hereafter cited as A & O.

modified land tax modeled on ship-money, was primarily used to support the army, freeing the custom's revenue for the navy.[9]

Adequate financial and logistical support was evidently provided for the fleet's limited operations until the Second Civil War in 1648, but the general collapse of the Parliamentary revenue system in 1648 caused Powell to conclude that the condition of the fleet was serious, with the ships foul, short of victuals and crewmen, and the sailors' pay in arrears.[10] The deplorable condition of the fleet led directly to mutiny in the spring of 1648.

Powell's discussion of the operations of the fleet is good, but he says next to nothing about the details of its financial, logistical, or administrative history. This is not surprising, since the navy was generally able to carry out its mission, except in 1644-45 and in 1648. Given the importance of adequate support to fleet operations, morale, and loyalty, however, it is important to know more about these aspects. Powell proves that if Parliament could provide the money, the naval administration under the control of Lord Admiral Warwick could administer the naval shore and sea establishment

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[9]See Maurice Ashley, Financial and Commercial Policy Under the Cromwellian Protectorate, London: Humphrey Milford, 1934, pp. 72-83, and J.S. Wheeler, "English Financial Administration, 1642 to 1660", Berkeley PhD thesis, 1980, pp. 65-139, for the best accounts of the assessment's origins, nature, uses, efficiency, and impact.

[10]Powell, The Navy in the English Civil War, pp. 184-85.

adequately to meet the relatively small challenges facing England at sea from 1642 to 1648.

Government nearly broke down in 1648, triggering political and financial crises for the Parliamentary cause. Victorious in the Second Civil War, Parliament and its army sparred about how to settle the government and what to do with the captured king. The majority of the taxes went uncollected, putting the navy and the army into a horrendous material bind. It is not surprising that the fleet mutinied and the army finally purged Parliament. What is surprising is that most of the fleet remained loyal to the Parliament in 1648, and that Royalists were only able to entice eleven warships to desert to the Royalists' base in the Netherlands.

England's strategic challenges changed dramatically in 1648 and early 1649. The Royalists now possessed sufficient naval power to threaten the channel. The king was executed in January 1649, bringing condemnation upon the newly proclaimed English Commonwealth from the western European powers. The Thirty Years' War ended, freeing the Dutch, French, and Spanish for possible naval adventures in support of the new English king, Charles II. The Scots remained implacably hostile to the English Republic. The Irish actively engaged in armed rebellion against their English conquerors, and Royalist privateers were operating out of the Scilly and Jersey Islands, the Irish coasts, and Barbadoes against English commerce.

From 1649 to 1654, the English navy came of age and faced these numerous challenges as the English Commonwealth harnessed and used its power to conquer Ireland, Scotland, the Scilly and channel islands, Barbadoes, and Jamaica. The English state faced unprecedented demands for ships, munitions, logistics, and manpower to field the armies and fleets to accomplish its political objectives. The English created the institutions and administrative practices necessary to provide the sinews of power and to sustain their military efforts over significant distances and periods of time against the leading powers of western Europe. How they accomplished these administrative, financial, and logistical tasks is the story of Great Britain's emergence as a major European power and a successful participant in the military revolution of the seventeenth century.

Until recently, histories of Interregnum naval operations focused on the tactical details of the ever-expanding navy during its successful operations in the 1650's. This was the age of the Generals-at-Sea Robert Blake, Richard Deane, and Edward Popham, and of their creation of the modern English naval tradition.[11] Numerous articles and books recount the navy's tactical operations in the defeat of the Royalists'

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[11]Blake was the most famous of the three and the best biographies of him are Michael Baumber, General-at-Sea, Robert Blake and the Seventeenth Century in Naval Warfare, London: John Murray, 1989, and J.R. Powell, Robert Blake, General-at-Sea, London: 1979.

fleet from 1649 to 1653[12], in the conquests of Barbadoes and Jamaica[13], in the defeat of the formidable Dutch from 1652 to 1654[14], and in the naval campaigns against the Portuguese, French, and Spanish from 1650 to 1659.[15] All of these studies omit analysis of the logistical, administrative, and financial underpinings of these extraordinarily successful naval operations. Often works such as Kennedy's Rise and Fall of British Naval Mastery rely on inaccurate accounts of the financial and logistical affairs of the Interregnum

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[12]Four articles by R.C.Anderson are, "The Royalists at Sea in 1648," Mariner's Mirror, 9, 1923, pp. 34-46; "The Royalists at Sea in 1649", Ibid., 14, 1928, pp.320-38; "The Royalists at Sea in 1650", Ibid., 17, 1931, pp. 135-68; and "The Royalists at Sea in 1651-53", Ibid., 21, 1935, pp. 61-89.

[13]For Barbadoes see Davis Darnell, Cavaliers and Roundheads in Barbadoes, Demerara: 1883; J.R. Powell, "Sir George Ayscue's Capture of Barbadoes in 1651", Mariner's Mirror, 59, 1973, 281-90; and Peter LeFevre, "Sir George Ayscue, Commonwealth and Protectorate Admiral", Ibid., 68, 1982, ppp. 189-200; For Jamaica see Florence Dyer, "Captain Christopher Myngs in the West Indies", Ibid., 18, 1932, pp. 168-77;

[14]Paul Kennedy, The Rise and Fall of English Naval Mastery, NJ: The Ashfield Press, 1983 paper edn, of 1976 book; Charles Wilson, Profit and Power, a Study of England and the Dutch Wars, NY: Longmans, Green & Co, 1957; R.C. Anderson, "The First Dutch War in the Mediterranean", Mariner's Mirror, 49, 1963, pp. 241-65; Julian Corbett, England in the Mediterranean, 1603-1713, London: 1917; J.R. Tanner, "The Navy of the Commonwealth and the First Dutch War", Cambridge Modern History, vol. IV, Cambridge: CUP, .

[15]J.R. Powell, "Blake's Capture of the French Fleet Before Calais on 4 September 1652", Mariner's Mirror, 48, 1962, pp. 192-201; Powell, "The Expedition of Blake and Montague in 1655", Ibid., 52, 1966, pp. 341-67; Also, Kennedy's Rise and Fall and the biographies of Blake mentioned above in note 11.

governments, giving the impression, as do Van Creveld and John Brewer, that the English could not cope with these challenges.

Until recently, only two historians undertook the task of studying Interregnum finance or naval administration and logistics in any detail. The first of these was M. Oppenheim whose 1896 book, A History of the Administration of the Royal Navy, is the most often quoted source on seventeenth century naval administration and logistics. The second was Maurice Ashley whose 1934 study, Financial and Commercial Policy Under the Commonwealth and Protectorate, is the only book in print which attempts to study in depth the financial system and the accounts of the various Interregnum governments.

Oppenheim's book is a classic still relevant to the study of the English navy. He understands the importance of administrative and logistical matters to the success of the fleet, and he determines that the English seamen "for the first time in many years,...found themselves well-treated--comparatively punctually paid, properly clothed, well fed, cared for when sick or wounded, and promised advantages in the shape of prize money."[16] Oppenheim proves that the English dramatically increased the size of their battle fleet, provided hospitals for sick seamen, and pensions

[16]M. Oppenheim, A History of the Administration of the Royal Navy and of Merchant Shipping in Relation to the Navy, London: 1896, vol. I, p.307.

for widows.[17] Oppenheim also mentions the impact of state finances on the navy's administration, noting that in spite of its ability to support the navy during the early 1650's, by 1660 "not only the naval but every other branch of the administration was overwhelmed with debt."[18] Finally, he indicates that victualling was always a weak point in naval logistics, and that the "quality of food and honesty of victuallers steadily declined from 1649 on....and by 1660 contractors were unable to get credit to buy ingredients."[19] Here is a paradox: The Interregnum governments accomplished all that Oppenheim credits them with, but the financial, and therefore the logistical, situation deteriorated in the 1650's. Oppenheim fails to discuss the cost of the navy during this period, nor does he document how much of this cost was met by the state. He gives a figure of £3,000,000 as the debt of the navy in 1660, but provides no evaluation of this figure. Also, he fails to describe how the ships were supplied at sea. Given his conclusion that "victualling was poorly done", this is a significant omission.[20]

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[17]Ibid., pp. 321-22.

[18]Ibid., p.304.

[19]Ibid., pp.322 and 327.

[20]Ibid., p. 327.

Maurice Ashley's Financial and Commercial Policy is the only history dealing with the Interregnum which studies all three of the regular revenue sources of the English state: The customs, the excise, and the assessment. He also provides the most accurate single account of the irregular revenues of the Parliamentary governments: The proceeds of the sale of the king's land and goods, of the bishops' lands, of the Dean and Chapters' lands, and of the fee-farm rents; and the compositions of fines by Royalists, and sequestration and sale of Royalists goods and lands.[21] Ashley's work is quite good, but the Cromwellian Protectorate only began in 1654, and we have no comparable published study for revenues in the period 1649 to 1654. Ashley provides a three page chapter summarizing the Protectorate's expenditures from 1654 to 58, noting that the navy received £3,738,574 and had accumulated a debt of three quarters of a million pounds by 1658. The state's annual average deficit was over £670,000 from 1654 to 1658.[22] This deficit was directly attributable to war expenditures, and was roughly 25% of total revenue. Such a wartime deficit would be nothing after 1697, but the financial mechanism absent from Interregnum governmental finance was the concept of a funded national debt. This development came in the 1690's and

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[21]Maurice Ashley, Financial and Commercial Policy Under the Cromwellian Protectorate, Chs. iv and ix for irregular revenues and Chs. vi-viii for the regular revenues.

[22]Ibid., pp.46-48.

completed England's successful financial modernization.[23] The unanswered question is, how did the English conduct deficit financial operations without a national debt?

Recent scholarship dealing with seventeenth century Europe has begun to fill in the gaps concerning the financial, administrative, and logistical aspects of warfare. The most famous pioneer study dealing with the details of such matters Geoffrey Parker's The Army of Flanders and the Spanish Road. Parker's book, unlike van Creveld's chapter on logistics in early modern Europe, is based on painstaking research and analysis of the documents dealing with the operation and impact of finance and logistics on administration and operations.

The most important such works on the Interregnum navy are Bernard Capp's excellent 1989 book, Cromwell's Navy: The Fleet and the English Revolution, 1648-60, and W.B. Cogar's Phd thesis, "The Politics of Naval Administration, 1649-1660". Each builds upon M. Oppenheim's dated classic, and explores in detail naval operations from 1649 to 59.

Cogar's thesis is primarily devoted to the analysis of the politics of naval administration and does not study in detail the financial or logistical aspects of naval administration. However, he frequently mentions the impact which the availability or absence of financial resources had

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[23] Ibid., Ch. x: P.G.M. Dickson, The Financial Revolution in England, London: 1967.

on the political temper of the fleet and its administration, and he provides a useful description of the administrative bureaucracy created during the Interregnum for the support and control of naval operations. Cogar's discussion of the financial condition of the naval administration, however, is sketchy and confusing. For example, he lists the navy's debt in 1652 as £510,760 at one point, then quotes Thurloe's figure for the debt in 1653 as £600,000, and lists the 1653 debt as £1,078,941 in a third place.[24] He provides no organized discussion of the revenue and expenditures of the navy from 1649 to 1659, and yet notes that the total government deficit for the years 1652 through 1654 was less than £150,000.[25]

Cogar also discusses the importance of logistics to the political attitudes of navy personnel, but again he only provides sporadic, anecdotal inferences concerning the logistical system and success of the naval administration rather than the detailed analysis provided in Parker's Army of Flanders. Cogar concludes that the English generally supported their naval operations logistically and that "much of the success must be attributed to devoted and enthusiastic administrators, naval commanders, and seamen."[26] As the

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[24]Cogar, "The politics of Naval Administration, 1649-1660", (Oxford: PhD thesis, 1983), pp. 149,167.

[25]Ibid., p. 167, fn 3.

[26]Ibid., p. 101.

financial position of the government deteriorated from 1658, the logistical difficulties of the navy administration increased, but the navy played no active political role in the fall of the Protectorate in 1659 since "the very distance of the ships from England made this an impossibility."[27] Cogar's thesis does a superb job for its purpose of analyzing the politics of naval administration, and its confusion concerning the financial affairs of the Interregnum is understandable since we lack a good analysis of that subject. Cogar, like Ashley, points us toward the areas where further research in the manuscripts might be fruitful and useful.

Bernard Capp's Cromwell's Navy is the best account of the English navy during the period 1649-1660.[28] Capp provides a succinct and complete account of naval operations from the mutiny of 1648 to the navy's role in the Restoration of 1660. He discusses life in the fleet, the religious and political views of officers and men, and summarizes the financial condition of the navy from 1654 to 1659. His summary of the financial condition of the navy is brief and based on limited printed sources, and especially Oppenheim, Ashley, and Cogar. He concludes that the fleet cost roughly £1.4 million in 1653, £1.1 million in 1654, an average of £1/2 to £3/4 million per

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[27]Ibid., p. 221.

[28]Bernard Capp, Cromwell's Navy: The Fleet and the English Revolution 1648-60, Oxford: OUP, 1989.

year from 1655 to 1659,[29] and that by 1658 £714,000 was owed to the navy.[30] Capp pays attention to the impact of financial affairs on the operation of the navy, and his use of the available printed sources is fully acceptable. The unanswered question is that if the Interregnum governments had such large financial difficulties, how did they manage to sustain their military operations so successfuly up to 1660? (As all of the works discussed agree they did.)

Cromwell's Navy also describes some of the logistical support provided to the fleet. For example, Capp notes that the daily ration of beer was one gallon per man, and that there were clothes issued to crews. While at sea, the men received free board and room, but the "Admiralty lacked the financial resources to provide regular pay, good provisions, and adequate clothing" after 1655.[31] Capp maintains that the turning point in financial affairs was when "the Dutch war [of 1652-4] strained naval finances to the breaking point."[32] But he notes that after riots by unpaid seamen in London on 1652 "the Protectorate was determined to prevent any recurrence of such threats to public order and generally

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[29]Ibid., pp. 9-10.

[30]Ibid., p. 341, but no primary sources are listed.

[31]Ibid., p. 280.

[32]Ibid., p. 287.

succeeded in paying off the main fleets as soon as they returned to port."[33] Capp's fine history of the navy during the Commonwealth and Protectorate does not deal in detail with the logistical system of the naval establishment since that is not its purpose. Such work still needs to be done to explain the paradox that the English governments often ran short of cash to pay seamen and buy supplies, but the fleet remained loyal, fully deployed, and militarily effective throughout the ten year period.

The English overcame the financial, administrative, and logistical challenges facing their navy in the 1650's, allowing that navy to operate successfully. How they did so is still unclear in the existing historical literature, but is and but is described in the preceeding chapters for the period 1649 to 1654, and in Appendix B for 1649 to 1660. These accomplishments were the foundation for the formidable military power deployed in the next forty years by William III and Marlborough.

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[33] Ibid., p. 289.

Appendix B: Navy Finance, 1648-1660

> Now the whole art of war is in a manner reduced to money; and nowadays that prince who can best find money to feed, clothe, and pay his army, not he that hath the most valiant troops, is surest of success and conquest.[1]

Bravery was evident on both sides during the Dutch War; nonetheless, victory belonged to the English because they provided the money to feed, clothe, and pay their seamen. When sufficient money was not provided by the English to pay crews, contractors, and shipbuilders, the fleet clearly became ineffective. This situation occurred in 1648 and late 1652, and each time humiliation followed. Mutiny was the result in 1648, and defeat by the Dutch resulted in 1652. When, on the other hand, sufficient money for pay and logistical support was provided to the navy, as it was from 1649 to 1651 and in 1653 and 1654, victory at sea was possible.

English naval administration and logistical operations were dependent on a steady flow of money. The costs of naval operations spiraled upward from 1648 as the fleet and its activities increased. From 1 January 1648 to December 1654, the English provided over £4,595,000 in cash to their navy.[2]

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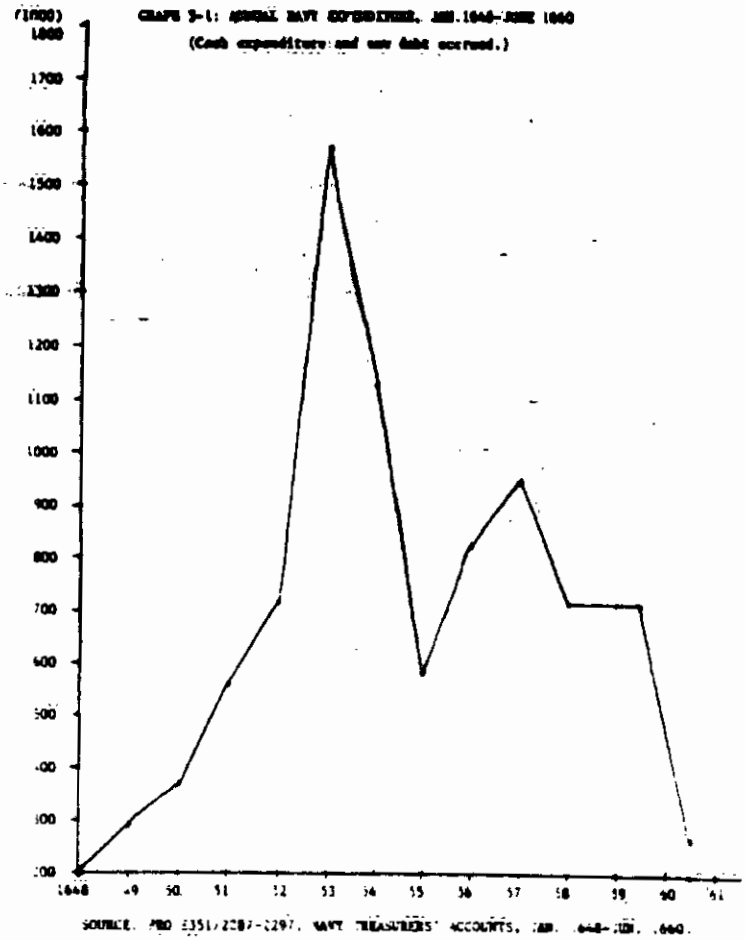
[1]Charles Davenant, Essay on the Way and Means of Supplying War, (London: 1695), quoted in Dictionary of Military and Naval Quotations, ed R.D. Heinl, Jr., (Annapolis, MD: USN Institutes Press, 1966), p. 115.

[2]E351/2287-2292.

Graph 5-1 portrays the annual expenditures of the navy from 1 January 1648 to 30 June 1661. The annual amounts include cash and net new debt for each year.



As expected from the previous chapters' discussion of English naval operations and logistics, expenditures increased dramatically during the Dutch War of May 1652 to January 1654. Expenditures then stabilized briefly before growing rapidly again during the Spanish War of 1655.

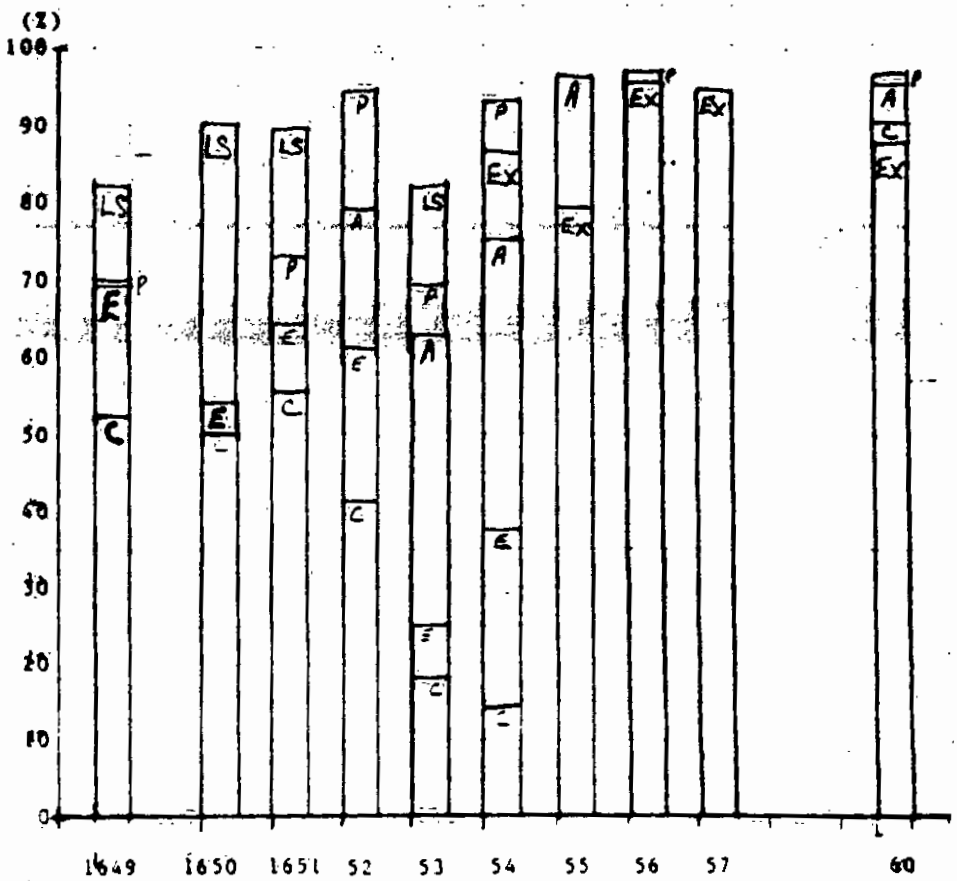
The increase during 1652 is much less dramatic than that of 1653, reinforcing the conclusion reached in Chapter Four that insufficient money was provided in 1652 to support the level of logistical operations required to win in the

Dutch War. Expenditures grew dramatically in early 1653, as naval administration was reinvigorated and provided adequate financial resources to support successful operations against the Dutch. Over 90% of the navy expenditures, from 1 January 1648 to July 1660, came from receipts and only 9.4% came from new debt. Said another way, of the total of £8,999,693 spent in cash or obligated for supplies in support of the navy, £8,149,772 came from the Treasurer's cash receipts.[3]

Most of the cash spent in support of the navy administration, logistics, and operations came from taxation, rather than from the sale of confiscated property. In the ten Navy Treasurer accounts for the period January 1648 to July 1660, the Treasurers' figures indicate that 80.7% of the £8,149,772 given to them in cash came from the customs, excise, assessment, and petty revenues like the post. Another 5.9% of their receipts came from loans and 2.7% from the sale of surplus provisions and ships. Only 6.3% of the total came from land sales and fines levied on enemies of the state, and 4.1% came from the sale of prizes captured at sea by the navy. Graph 5-2 indicates the percentages each of these sources provided from 1648 to 1660. (See Graph 5-2 next page)

[3]E351/2287-2296.

GRAPH 5-2: SOURCES OF RECEIPTS OF NAVY TREASURERS
C=CUSTOMS E=EXCISE A=ASSESSMENT LS=LAND SALES
P=PROFITS FROM SALE OF CAPTURED SHIPS EX=EXCHEQUER



SOURCE: PRO E351/2287-2297, NAVY TREASURERS' ACCOUNTS

Land sales and composition fines levied on Royalists and Catholics were important sources of money for the navy only in the period May 1649 to December 1651. The Exchequer became the only major source of money for the navy after the Exchequer was reestablished in 1654.[4] The customs, excise and most petty revenues were paid into the Exchequer after

[4]Maurice Ashley, Financial and Commercial Policy Under the Cromwellian Protectorate, (Oxford: University Press, 1934).

the middle of 1654. Proceeds from the sale of confiscated property and fines were also paid into the Exchequer and were a very insignificant part of the total Exchequer revenue.[5]

The fact that well over 80% of the money provided to the navy came from taxation is generally not known. For example, Paul Kennedy states, in his book The Rise and Fall of British Naval Mastery, that "the greatest part of the funds for the Commonwealth navy came out of sequestered royalist lands."[6] In reality the Navy Treasurers' accounts for the Commonwealth period of 1649 to 1654 indicate that only in 1650 did even as much as 37% of the receipts come from these sources.[7] During the period of May 1649 to December 1654, only 11.3% of the £4,330,000 in receipts of the Treasurers came from these sources.[8]

Nevertheless, the Navy Treasurers were never given enough money to pay for all of the costs of the fleet in any year. The debt of the navy was £208,656 at the start of our

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[5]R.D. Richards, "The Exchequer in Cromwellian Times", Economic History, Jan. 1931, pp. 213-223. Only L5662 of over L1,365,000 in revenue came from fines and land sales in the period.

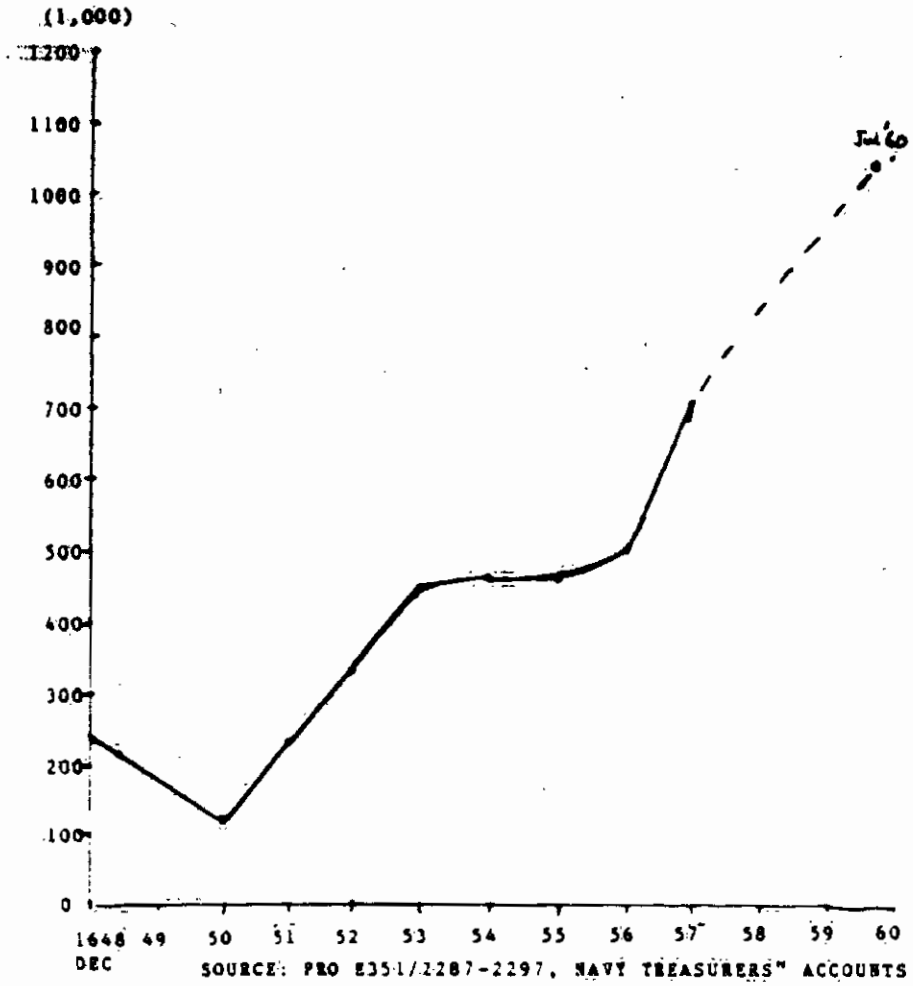
[6]Paul Kennedy, The Rise and Fall of British Naval Mastery, (New Jersey: Archon Books, 1983 edn), p.45.

[7]E351/2288, ff.1-3.

[8]E351/2287-2292, first two folios of each account.

period, in January 1648, and the debt declined in only one year throughout the period to July 1660. Graph 5-3 portrays the increase in the debt at the end of each of the ten accounts for the period January 1648 to July 1660.

GRAPH 5-3: DEBT OF THE NAVY, AT THE END OF EACH YEAR



SOURCE: PRO E351/2287-2297, NAVY TREASURERS' ACCOUNTS

The navy's debt declined only in the account for the period May 1649 to December 1650. As noted in Chapter One, this decline in debt was accomplished by using the proceeds of

land sales to settle old debt and establish the credit of the Commonwealth in its first precarious year. From January 1651 to December 1654 the debt grew steadily from £128,995 to £466,145.[9] This debt was for services and goods delivered to the navy but not yet paid for by the Treasurer. Bills of imprest were issued to the lenders. When they were paid off, they were endorsed in a manner somewhat similar to a check. By July 1660 the navy had accumulated similar debts totalling £1,059,291.[10]

Nearly every naval historian who has dealt with the navy of the Interregnum has commented about the magnitude of this growing debt and concluded that the English state was bankrupt. However, the accounts contain data which indicates that the English not only spent ever-increasing amounts for their navy and accumulated ever-larger debts, as shown in Graphs 5-1 and 5-3, but that they also found a disguised way to finance a growing unsecured debt without defaulting. This is very significant because the English did not develop a national bank and funded state debt until the 1690's. Nevertheless, they avoided default, the Spanish and French remedy to unfinanced debt in the seventeenth century.

This does not mean that the men owed over a million pounds by the navy in 1660 were happy with the situation.

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[9]E351/2289, foot of account; E351/2292, ff. 1-3.

[10]E351/2296, foot of the account.

However, the fact that they had good reason to believe that they would eventually be paid was critical to the state's ability to borrow more money in this fashion. Figure 5-1 gives an idea of the amounts of money owed to the victuallers at the end of various accounts in the 1650's. Each year the victuallers advanced more of their money to the navy by purchasing food and supplies and delivering rations prepared from these supplies to the fleet.

Figure 5-1: Money Due victuallers for the year of the account only: (in pounds)

Account Ending:	To victuallers:	Total New Debt
Dec 1650	24,640	116,471
Dec 1651	67,926	112,289
Dec 1652	148,743	189,329
Dec 1653	191,223	287,501
Dec 1654	195,989	238,308
Dec 1656	193,300	259,593
Dec 1657	189,485	252,966
Jul 1660	329,829	421,356

The total listed as debt in the right column is only the new debt accrued in the current account year, as is the amount owed the victuallers. The victuallers were always the largest single creditor in each account and usually a large majority of the total debt was due to them. They found it necessary to demand an increase of 12.5% in the amount allowed for the cost of each man fed by them in 1651. This increase may have been an intentionally levied disguised interest charge, but it was so whether intentional or not.

Over the years, the amounts advanced previously by the victuallers were paid off progressively. For example, by December 1655, the victuallers were no longer owed money for

the amounts advanced by them in the years 1650 through 1653.[11] Over £432,000 in old debt was paid to the victuallers by the Navy Treasurer. The debt situation of the victuallers was not unique.

In every Navy Treasurer's account the amounts still owed for previous years are listed at the end of the account by years. Beginning in 1650, as the data in Figure 5-2 shows, the amounts owed for previous years' were reduced progressively during the 1650's.

FIGURE 5-2: Debt Accrued, and paid, 1651 to 1660[12]

Due:Due	1651	1652	1653	1654	1655	1656	1657	1660
1640	928	928	928	928	928	928	928	928
1641	30	30	30	30	30	30	30	30
1642	1059	1049	1049	1049	1049	1049	1049	1049
1643	4045	4045	4045	4045	4045	3995	3995	3995
1645	480	480	480	480	480	480	480	480
1647	1686	1686	1686	1686	1686	1686	1686	1686
1649	2333	2333	2333	2333	2333	2333	2333	2333
1650	115145	87357	85767	75203	74963	74340	73554	71114
1651	107289	48154	36410	29164	28824	28310	27130	25112
1652		189329	29989	19922	18322	17686	16423	16081
1653			287501	93021	42769	32829	29218	11257
1654				238302	233460	23825	12617	5223
1655					64424	59562	55159	50396
1656						259593	237494	229056
1657							252966	218852
1660								421356

[11]E351/2293, ff. 32-37, the total debt owed for these years was reduced from L705,590 to L164,878 by December 1655. L540,712 in debt was paid off, or 76% of the total accrued in the four years 1650 through 1653.

[12]E351/2287-2296.

Steady repayment of debt by the Navy Treasurers made it possible to borrow additional sums in the current year's accounts. As long as the regime was politically healthy and provided tax revenues which were close to the amounts needed for the current year's expenditures, such a system worked.

There was a limit to the amount the debt reached before suppliers balked at advancing more supplies on "imprest". Figure 5-2 indicates that English governments from 1652 to 1655 were able to provide enough money to support the navy and to retire debt progressively at such a rate that suppliers felt secure in advancing supplies on credit. Beginning in 1656 the government did not give the Navy Treasurer enough money to reduce old debt at nearly the rate as before. Consequently, the total debt of the navy grew much more rapidly than it had from 1652 to 1655. Figure 5-3 indicates the rate of growth of the navy's deficit from 1651 to 1660.

FIGURE 5-3: Rate of Debt Growth, 1651-60

Period:	Percentage Increase in Debt
Dec 51-52	40.0
Dec 52-53	33.9
Dec 53-54	3.8
Dec 54-55	1.5
Dec 55-56	7.0
Dec 56-57	41.0
Dec 57-Jul 60	48.0

The English provided enough money to provide adequate logistical support through 1656, and to retire a large percentage of old debt. The Spanish War of 1655 forced the

English to continue to spend large amounts of money to support their navy. They did so, but they failed to provide enough cash after 1656 to continue to retire old debt at a rapid enough rate to maintain creditworthiness. As a result, by 1659 suppliers were again refusing to provide services, food, and material unless they received cash on delivery.[13]

Financial shortages from 1657 on again caused operational shortcomings because sufficient logistical and maintenance support for the fleet could not be provided, even though an average of over £715,000 was provided per year from 1658 to July 1660. The cause of the problem was the dramatic reduction in taxation which took place in early 1657 without a corresponding reduction in expenditures. The Protectorate believed it to be too risky politically to maintain the assessment at the high levels sustained from 1650 to 1656. As a result, the government fell deeper and deeper into debt. Deficit finance covered the effects of this shortfall for a while, but the accumulation of over £880,000 in new navy debt broke the faith of the suppliers. In conclusion, there was a limit to the level of debt which could be handled with such a form of deficit financing. Once the total state debt equalled an entire year's income, and old debts were not rapidly paid off, then the system ground to a halt.

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[13]Bodleian, Rawlinson MSS A187, pp. 56, 90, 94 are some examples.

The solution to the debt problem was the fall of the Protectorate in 1659, and then the restoration of the monarchy in 1660. Charles II was allowed to return to England only if he honored the debts of the republic. In the declaration of Breda, he agreed to do so. By 1662, thanks to the return of peace and taxes provided by Parliament, the majority of the debt of 1660 was paid off.

The longterm solution to such a problem was the creation of a funded national debt. Nonetheless, during the 1650's the English found a way to provide adequate financial and logistical support to their navy. Because of that support, the English navy made England a great power which was soon called Great Britain. Although English naval fortunes fluctuated after 1660, the administrative system of the Commonwealth was retained and the Royal Navy was always a force to be reckoned with, even though not always successful.

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II. Sources Used, Available only in Manuscript, in United Kingdom:

A. Public Record Office.

Admiralty Office:
ADM 2/1729, Order Books, 1656-57
ADM 7/777-778 Ships Logbooks
ADM 17/111-112 Portsmouth Victualler Records, 1655-58

Audit Office:
AO 1/1708/95-97 Treasurer of Navy Accounts, 1652-54

Exchequer:
E 101/612/65 Unknown Account, 1653-1660
E 351/302-309 Treasurers at War Accounts, 1642-62
E 351/592 Account of Treasurers for Committee of Advance
E 351/643-660 Customs Commissioners Accounts, 1643-60
E 351/1295-1302 Excise Accounts, 1642-60
E 351/2283-2297 Navy Treasurer Accounts, 1639-61
E 351/2664 Ordnance Accounts, 1642-51
E 364/129 Customs and Excise Accounts 1644-60
E 403/933 Exchequer Pell of Issues, 1654-55

E 404/157-158 Exchequer Warrants, 1654-59
E 404/237-238 Warrants to Receiver General of Public Revenue, from Council of State, 1649-1654

E 405/286-290 Exchequer Pells Declaration Books 1639-1660
E 407/50 Various Orders and Receipts of Committee of Public Revenue

State Papers:
SP 28/270 Contracts, bonds, and misc papers,1649-54
SP 46/96-99 Supplementary papers of Admiralty Committee
SP 46/118 State Papers of the Admiralty and Navy 1657

B. Bodleian Library, Oxford University: (all are manuscripts)

Carte MSS.
73-74; Papers of Montague, Cromwell and Navy

Rawlinson MSS.
A184-187 Early Pepysian papers
A207 Navy Commissioner Warrants, etc.
A208 Treasurers at War Account Book, 1652-55
A223 Navy Commissioners Estimates of Navy, 1642-54
A224 Navy Warrants for payment before 1649
A225 Proceedings and Letter Book of Admiralty Committee Oct 1650-Aug 1651
A226 Proceedings and Letter Book of Admiralty Committee Aug 1651-Nov 52
A227 Navy Commissioner Letter Book Nov 1652-Aug 53

C. British Library:

Additional MSS.:

32471: Public Revenue

10119, 11597, 32471: Montague Revenue Collection

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NAVAL WAR COLLEGE
NEWPORT, RHODE ISLAND
02841-5010

ERNEST J. KING PROFESSOR OF MARITIME HISTORY

Tuesday, 22 May 1990

Lieutenant Colonel J.S. Wheeler
Department of History
U.S. Military Academy
West Point, NY 10996-1793

3304 . 2107/3359

Dear Colonel Wheeler,

Captain Wylie has passed on to me a copy of your letter dated 14 May with the suggestion that you want to be considered for the Advanced Research Program (ARP) in the spring trimester.

Your project sounds most appropriate, and you will need to submit a formal proposal along with the enclosed form for consideration of the Advanced Research Council and for final approval by the President, Naval War College. The Advanced Research Council meets regularly at the end of each term, so that can be done after you arrive, perhaps in late January 1991, if you are looking for the Spring 1991 term. In the meantime, you will need to find a Naval War College Faculty member who will serve as your faculty supervisor. You can do this after you arrive.

I suppose that, if I were going to be here, I would be the logical candidate. Your subject is of very great personal interest to me, since I did my own graduate work on the 17th-18th century and have continued a special interest in that area. I also have had a great deal of experience in British archives, so I could be of use to you there. Unfortunately, however, I will be away on a year long exchange with the German Armed Forces Military History Research Office in Freiburg i.B., West Germany. I leave to go there in late July 1990 and will return the following summer. Perhaps I could serve as a supervisor from afar, but I should think it would be more useful to you to have someone closer to hand. At any rate, I would be glad to do what ever I can to assist you. When you get to Newport, you should discuss your project with LCDR Chris Benigno, the assistant director of ARP, or to John Hanley, who, in my absence, will be the acting Director of ARP.

One small comment, in your letter you mention only the Public Record Office. The things you will want to see are spread between the Record Offices at Kew and at Chancery Lane. If you are interested in Financial affairs, you will need to look at the Exchequer Papers as well as the SP classes. That is not an easy group to work in. I suppose that you already realize that some of the Admiralty Papers for the Commonwealth period, particularly the Naval ones, are not found there, but are located at the Bodleian at Oxford, the Pepysian Library at Magdalene College, Cambridge, and other places. I have just been hunting down some descriptions of naval operations in the period 1650 to 1750, and I know it is not easy. The bibliographies in the books by H.- C. Junge and Bernard Capp, the 1975 Hull University thesis by Turnbull on Naval Administration 1660-1673, Cogar's Oxford thesis, Hammond's British

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Columbia thesis should make all this clear. However, the Tanner and Rawlinson material from the Bodleian is on microfilm and can be consulted in the USA. There will be things at the National Maritime Museum at Greenwich, too, and you should consult the Guide to Manuscripts (2 vols) compiled by Dr R. J. B. Knight. There will also be some important things at the British Library and elsewhere. From 17 years of experience with British archives (most recently last month), I can assure you that it is slow work. Everything takes more time than you think and you have to plan your visit to avoid holidays and other closed periods, accepting short working hours, long periods for production of documents, and in every case the need for letters of recommendation and applications to obtain the essential readers cards to use the manuscripts in the first place. If you have not already done so, you should also have been in correspondence with the National Registry of Archives to locate the full range of sources that you need, then go from there in applying for admission to the places you need to visit.

If I can be of any assistance, do give me a call (AUTOVON 948-2101) or write before I leave this summer. In any case, I strongly recommend that you speak to Dr Bill Cogar, in the History Department, U.S. Naval Academy, (AUTOVON 281-3103). He has done a study on this period for his DPhil at Oxford, and your topic sounds very similar to his. He is a very friendly person and I am sure he would be glad to help you in ways that may well save you a great deal of time and effort. His book is scheduled to be published next year by Scolar Press, in the series edited by N. A. M. Rodger.

With all best wishes for a good year in Newport,

Yours sincerely,

John B. Hattendorf

CENTER FOR NAVAL WARFARE STUDIES
ADVANCED RESEARCH PROGRAMS

ADVANCED RESEARCH ASSOCIATE APPLICATION

29 Oct 1990
(Date of Application)

ARP Control No. (Leave Blank)

NOTE FOR STUDENT APPLICANT: Please complete this application by typing (or neat printing), attach the formatted forwarding letter and return to ARP.

A. NAME Wheeler James Scott LTC Army CNC
[redacted] (Last) (First) [redacted] (Middle Init) [redacted] (Rank) (Svc) (Coll)

(Desig/MOS) (SSN) (Security Clearance/Date Granted)

B. ADDRESS [redacted]
(Number and Street) (City and State) (Zip)

C. TELEPHONE [redacted]
(Student Station #)

D. TITLE/TOPIC OF PROPOSED PROJECT The Financial and Logistical Support of Cromwell's Navy During the Commonwealth's Overseas Conquests, 1649-56

(Attach to this form a 2-3 page descriptive summary of your planned research undertaking to include clear, concise statements of subject, purpose, scope, methodology, anticipated data sources, nature of product, audience for whom writing, possible applications of your work, and expected security classification)

E. CHARACTER/STYLE OF PROPOSED RESEARCH
Research to be performed during Fall, Winter, Spring trimester (circle one) and will be Individual/Group (circle one) project.
(If group project, all members of proposed group shall submit individual applications as a package).

F. FINANCIAL SUPPORT (Please estimate costs):

Travel $ 1000.00 Per Diem $ 2000.00 Total $ 3000.00

Trips to (No. of days) the UK (30), _____( ), _____( ), _____( ), _____

G. EDUCATION (List all military/civilian undergraduate and graduate schools attended, major courses of study, and degrees awarded, in reverse chronological order):

DATES	INSTITUTION	MAJOR	DEGREE
June 1980-June 81	Army Command and General Staff College		Yes 1981
June 1975-June 1977	Univ. of California: Berkeley	History	MA-1977: PhD 1980
Aug 1974-June 1975	Armor Officer Advanced Course	Armor Ldrshp	yes 1975
June 1969-Sep 1969	Armor Officer Basic Crs	Armor Ldrshp	yes 1969
Sep 1965-June 1969	University of Montana	History	BA 1969

H. EXPERIENCE/BACKGROUND (List all significant duty assignments for past six years in reverse chronological order):

DATES	ORGANIZATION	LOCATION	NATURE OF DUTIES
July 87-July 90	Department of History, USMA	West Point, NY	Assoc. Prof. European History
July 85-June 87	4 Battalion 67 th Armor	Friedberg, Germany	Battalion Commander
Aug 84-June85	White House Fellow, Department of Energy	Washington, D.C.	

I. ACADEMIC/SCIENTIFIC HONORS AND PROFESSIONAL SOCIETY MEMBERSHIPS:
Phi kappa Phi: Phi Alpha Theta

J. RECORD OF AUTHORSHIP/PUBLISHING

DATE	TITLE/DESCRIPTION	INSTITUTION/PUBLISHER
Oct 1988	article entitled "Burdensharing"	Signal Magazine
Dec 1988	article entitled "Great Powers, Their Economic History and Foundation of Sand"	Military Review
Forthcoming	article/chapter in War and Government in Britain, 1598-1650,	Manchester University Press

K. PRELIMINARY LIAISON (It is recommended that you consult with others prior to submitting this research application-if you have done so describe the extent of liaison beyond internal NWC discussion.)

L. FACULTY ADVISOR(S) ***(All Advanced Research Associates must have one or more faculty advisors for their projects. Advisors may be chosen from the teaching departments and/or the Center for Naval Warfare Studies. Since part of the faculty advisor's responsibility is assisting in defining the terms of reference and scope of the project, it is necessary to acquire at least one faculty advisor prior to submitting this application. In addition, by signing on as a faculty advisor, the faculty advisor agrees to offer guidance, review your work, and provide written comments and a recommended grade for inclusion in ARP's overall appraisal of your final research project.):***

FACULTY ADVISOR'S NAME	DEPT.	SIGNATURE OF ADVISOR
RICHARD MEGARGEE	SEP	Richard Megargee

Subject: Summary of Advanced Research Project Proposal

By: LTC J.S. Wheeler, USMA Fellow to the College of Naval Warfare, 1990-91

1. Project Subject: The financial, administrative, and logistical support provided to the English Parliamentary Navy during the Interregnum, 1649-60.

2. Purpose of Research Project: To determine how the English Navy was supported; how adequate that support was; and to estimate the impact of such support on naval strategy and operations against the Irish, Scots, Dutch, Spanish, and French.

3. Scope: Chronologically, from 1649 to 1660.

-The categories of support to be analyzed include financial, administrative, and logistical. The financial includes the pay of the sailors, the purchase of ships and equipment, and the sources from which the money came for these items. The administrative includes the way in which the contracts for supplies and ships were managed, and the way in which the dockyards were operated in support of the fleets. The logistical includes the way in which food, munitions, clothes, etc. were contracted for, and how they were provided to the ships at home and abroad.

-Geographically, the English fleets served from the Baltic Sea to the Caribbean, and from the North Atlantic to the central Mediterranean.

4. Methodology: I will use the historical method of setting a research question about which there is considerable misunderstanding and disagreement: Did the English Interregnum state provide adequate support to its naval forces during the period 1649-1660 and what impact did the levels of support provided have on English naval strategy and operations?

Next, I will conduct a thorough review of the secondary sources concerning the question, as part of my ARP connected Elective in Winter Trimester. A preliminary bibliography of the secondary sources for this review is attached. This historiographical work will culminate with an historiographic essay concerning the question.

Then I will conduct research in primary sources here and in the United Kingdom to gather the statistical and anecdotal data necessary to fully answer the question.

Finally, I will write a research paper which displays the data and my analysis, thus answering the question. The

organization of this research analysis will probably be grouped chronologically and according to overseas wars in which the English state took part from 1649 to 1659.

5. Data Sources: The secondary sources are listed on the attached bibliography of secondary material. The primary material which I will use is listed in the attached bibliography of primary material. The primary sources available in the United States are listed in Part One of the primary bibliography. The primary sources not available in the United States are manuscripts available only in the United Kingdom.

6. The final paper will be two to three chapters long, roughly 60 to 90 pages, and will be designed so that they can either be published together or stand separately as articles for journals dealing with English history, naval history, general military history, or economic history. Hopefully, the work will expand our knowledge of the relationship of economic resources to military power in early modern Europe. This is a major theme in Paul Kennedy's book, The Rise and Fall of the Great Powers, and may have relevance for American naval power in the 1990's. The work will be unclassified.

DATE 23 Sep 90

From: LTC James S Wheeler Army CNW
(Rank) (Name) (Service) (CNW or CNC&S)

To: President, Naval War College
Via: (1) Director, Advanced Research Program
(2) Advanced Research Council
(3) Deputy to the President

Subj: REQUEST TO PERFORM ADVANCED RESEARCH PROJECT IN LIEU OF CORE CURRICULUM DURING Spring TRIMESTER
(Fall,Winter,Spring)

Ref: (a) NAVWARCOLINST 3920.1B

Encl: (1) Application for Designation as Advanced Research Associate

1. In accordance with reference (a), I request permission to conduct an Advanced Research Project during the Spring trimester in lieu of participating in the core curriculum during that period. Enclosure (1) describes my proposed project and outlines my qualifications to accomplish such an undertaking.

2. If this request is approved, I understand that I will be designated an Advanced Research Associate and be administratively assigned to the Advanced Research Program while engaged in my project. Despite the full-time nature of this one-trimester withdrawal from the core curriculum to pursue a rigorous research commitment, I intend/do not intend *(cross out one)* to take an elective as well. During the period of my research, I will participate in special Naval War College events to the same extent as other students remaining in the core curriculum.

3. If selected for the student Advanced Research Associate Program, I recognize that I will be expected to complete a substantial project report or research contribution of professional quality, in final smooth form, in the time allotted.

James S Wheeler
(Signature of Applicant)
James S Wheeler
LTC Armor

Preliminary Bibliography of Research Project Concerning the Financial, Administrative, and Logistical Support of the English Navy During the Interregnum:

Aylmer, Gerald. The State's Servants, the Civil Service of the English Republic 1649-1660. London: Routledge & Kegan Paul, 1973.

Ashley, Maurice. The Commercial and Financial Policy of Cromwellian England. London: Humphrey Milford, 1934.

Capp, Steven. Cromwell's Navy ? 1990.

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Dixon, Robert Blake, 1889.

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Parker, Geoffrey, Military Revolution.

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Preliminary Primary Source Bibliography:

I. Sources Available in the United States:

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Acts and Ordinances of the Interregnum. C.H.Firth and F. Rait, eds. 3 vols. London: HMSO. 1911.

Calendar of State Papers, Domestic, 1649-60. J. Bruce and M.A.E. Green, eds. London: HMSO. 1858-97.

Clarendon, Edward, Earl of. A History of the Rebellion and Civil wars in England. Oxford: Clarendon Press. 1732.

Great Britain. Journals of the House of Commons. vols. 5-7. London.

The Thomason Tracts. 40,000 newspaper and misc. tracts printed in England in the 1640-1660 period and collected in the 1650's and 1660's by the printer Thomason.

II. Sources Available only in Manuscript, in United Kingdom:

A. Public Record Office.

Admiralty Office: Records, orders, warrants and minutes of the Admiralty Commissioners and Committee.

Exchequer:
E 101 Treasurers at War Accounts
E 315/4 Victuallers' Accounts
E 315/5 Pay Accounts
E 351/302-309 Treasurers at War Accounts
E 351/643-660 Customs Commissioners Accounts
E 351/1295-1301 Excise Accounts
E 351/2664 Ordnance Accounts
E 364/129 Customs and Excise Accounts 1644-60
E 407/50 Various Orders and Receipts of Committee of Public Revenue

State Papers:
SP 16,18,21- Deroy House Committee (Navy Commissioners)
SP 25 Council of State Records
SP 18 warrants, accounts, muster rolls, of various types SP 28 is 20,000 or so uncatalogued records
SP 28/252-256 Committee for Taking the Accounts of the Kingdom
SP 46/102 Council of State warrants 1649-52

War Office:
WO 47 Journal Books of Ordnance Board
WO 54 Quarter Book of Ordnance Office and Accounts of

Committee of Ordnance

B. Bodleian Library, Oxford University: (all are manuscripts)

1. Carte MSS., 73-76, 131, 274.

2. Clarendon MSS., 34-74.

3. Rawlinson MSS.:

A53-59: State Papers of John Thurloe

A176-181: Pepys Papers

A207: Commissioners of the Navy

A208: Treasurers at war

A223-228: Committee of the Navy

4. Tanner MSS.:

51-58 Misc Letters of Naval Commanders

5. Additional MSS.:

9299: Dockyard Accounts

9300-9305, 22546: Navy Papers

9306-9310, 11602, 11684: Navy Orders and Contracts

1644-1699, 18986-19367: Papers relating to the Navy

32471: Public Revenue

10119, 11597, 32471: Montague Revenue Collection

6. Egerton MSS:

Nicholas Papers 2536

7. Portland MSS: 29/177-241

8. Stowe MSS: 183, 427, 497: Sir William Penn's Tracts-3232.

C. Cambridge University:

Pepysian Library, Magdalene College, Cambridge

Montague Revenue Collection: 10119, 11597, 32471.

12 DECEMBER 1990

MEMORANDUM FOR DR. WOOD

OK - but he needs to buy a new typewriter ribbon as well!

FROM: LCDR J.C. BENIGNO

SUBJ: LTC J.S. WHEELER ARP PROPOSAL FOR SPRING 1991

1. Attached is an ARP application from LTC Wheeler, this year's West Point Fellow assigned to the War College's Senior Class. He is requesting a TAD Research Trip to the U.K. in conjunction with his ARP project, assuming it is approved, that is considered abnormal as far as normal ARP trips go, but appears to me to warrant special consideration - to this end, I recommend that ARP make allowances to authorize the expenditure of $1500.00 in ARP funds (vice the normal $1000.00) in addition to the $500.00 that he has procured from USMA, to pay for his research in the U.K. - he has agreed to "eat" anything above this amount himself. This project is one that he had discussed with John Hattendorf prior to coming to Newport. I have already started working with CAPT Mendenhall and the OPS Department to work with them with regards to his JPME elective to allow his extended absence during April 1991. The "special" nature of this project requires this advanced consideration and preparation.

Very respectfully,

J.C. Benigno, LCDR, USN