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## Abstract

"Politics as usual" is a common catch phrase applied to the bureaucracy of federal governance, and is particularly applicable to the budgeting and acquisition process. The University of Southern California course, SAE-550, highlights principles in the economic process of government programs and has summarized these principles into heuristics known as the "Political Facts of Life". But how enduring are these heuristics? Over the period of years that SAE-550 has identified and refined these heuristics, their endurance has been demonstrated by successfully describing the nature of many new, complex, and highly technical programs. This paper, on the other hand, explores the endurance of these heuristics into the past, back to the very beginnings of federal government in the United States. This case study explores one of the first significant acquisitions by the fledgling Continental Congress, that being the Continental Navy of 1775.

In 1775, to protect the coastline and shipping around the thirteen colonies, the Congress resolved to acquire, build, equip, and arm a small fleet naval warships. Most of these sailing ships were captured and sunk, but this first acquisition program is regarded as the birth of the United States Navy. This paper analyzes this navy through its establishment, decline, and evolution over the period from the Revolutionary War of 1775 to the War of 1812. Using historical texts and well-documented commentary from this era, this paper demonstrates how this 233 year old acquisition program had many of the same characteristics as the major government acquisition programs of today. By testing the SAE-550 Political Facts of Life heuristics for their applicability in this historic case, this paper thus determines their endurance over two centuries.

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# Introduction

SAE 550 "Engineering Management of Government-Funded Programs" has been taught at the University of Southern California for several years presenting the "Political Facts of Life". The "Political Facts of Life" are principles or heuristics that describe the behavior of the political process with regard to government funded programs. The validity of these heuristics has been proven time and again by hundreds of papers that have analyzed many modern high-tech, aerospace, and networked systems. The endurance of the proposed "Political Facts of Life", however, has not been fully evaluated over a significant span of time. This paper fills that need by checking the validity of the heuristics back to one of the earliest and most significant historical Congressional acquisitions, that being the acquisition of a Continental Navy in 1775.

Figure 1 is a portrait of the fighting sailing ships of the era, and depicts actual ships that were acquired by the 2<sup>nd</sup> Continental Congress in 1775. Most of the ships in this painting were acquired from merchants or captured from the British and converted for use as warships. As seen in Figure 1, this was the era before steam ships or metal hulls. The ships of this time period were made from wood, and propelled by sail.



Figure 1: The Continental Navy, circa 1775-76. Public domain image courtesy of the Naval Undersea Warfare Center www.nuwc.navy.mil

While the breadth of analysis contained within this paper will principally focus on the political influence over the naval acquisitions during the Revolutionary War and the Barbary Pirates in 1785, the analysis will also lightly cover the Quasi-war with France in 1796, the invasion of Tripoli in 1802, and the War of 1812. By analyzing the evolution of the navy during these periods, the political facts of life can then be considered as having existed since the founding of the United States, a span of over two centuries.

# **Historical Narrative**

#### The American Revolutionary War

To begin with, it is necessary to define the setting of the American Revolutionary War with Britain as a context in which the Congress first authorized the construction of a Continental navy. In 1774, the First Continental Congress met at Philadelphia to discuss Britain's Intolerable Acts, which were British laws that essentially punished the colonists for having protested against Britain's policies of taxation. It was not until the second year of this Continental Congress, however, that some of the most momentous and significant resolutions of the Revolution were formed. The second Congress in 1775 assembled with blood being shed at Lexington and Concord. It constituted itself as a provisional government, and formed a Continental Army naming George Washington as its general. It was this Congress which took the intractable steps of defiance against England and defined the beginnings of a separate nation, including issuing a new monetary currency. The act by this second Continental Congress of prime interest to this paper, of course, was its establishment of a navy.

Since the opening months of the Revolution in 1775, British naval superiority hampered all efforts at mounting an effective colonial resistance. British naval power ensured a steady flow of supply ships and warships into Boston harbor, which supported the British occupation of New York, Philadelphia, Savannah, and Charleston. With the ability to strike anywhere along the coast, the British navy forced General George Washington's army to endure long marches over land.[6] There was, however, a small semblance of naval resistance mounted by the colonies. This was in the form of a few schooners that had been fitted with light cannon by Washington's Continental Army. [2] Additionally, some of the individual colonies had funded their own warships. Pennsylvania had a squadron of row galleys. Massachusetts, Connecticut, and Rhode Island had armed a number of ex-merchant vessels. In all, eleven states raised their own navies, actually eclipsing the number of ships that would initially be put into service by the Continental Navy. [2]

Perhaps the most significant American resistance to British shipping early in the war came from American privateering. Privateers were ships of war that were privately owned and financed. To differentiate themselves from pirates, privateers received letters of *Marque and Reprisal* issued by the government, protecting any captured crews from being hanged. Successful privateers brought their prizes into port for settlement, where the privateer owners and crews would profit from the sale of the captured vessel and its cargo. The Continental Congress and the states distributed about 2000 letters of Marque during the war, motivating swarms of privateers to attack the British supply convoys off the American coast. [12] According to British records, privateers took a huge toll, capturing some 2,208 ships worth an estimated \$66 million. [2] The rise in maritime insurance premiums paid by the British merchants was another testament to the success of the privateers. [12]

Even though privateers found measurable success and took risks in a patriotic cause, they were not under the direction and control of the Congress. Their fiscal motivations tended to steer them toward targets of opportunity offering reasonable assurance for success, rather than strategic targets for the war. In September 1775, John Adams, a delegate from Massachusetts, suggested to the Continental Congress that its own Continental navy could not only capture prizes for profit, but more importantly, could accomplish strategic purposes at the direction of the Congress. The enthusiastic Congress accordingly appointed a "Marine Committee" and charged its seven members with the task of organizing a navy. The committee met after hours in a private room on the second floor of a Philadelphia waterfront tavern. [12]

With the groundwork laid for formulating a navy, stimulating news came to the Congress in a letter from General George Washington on October 13, 1775 in which he related how his army had captured a British vessel in New Hampshire. The excitement led to debate, and after some discussion, the Congress resolved to fit out a vessel for, "intercepting such transports as may be laden with warlike stores and other supplies for our enemies, and for such other purposes as the Congress shall direct." The resolution was enthusiastically followed by another suggesting there be a second vessel similarly equipped.[8] The day of these resolutions, October 13, 1775, is historically noted as the birth date of the United States Navy. The Congressional fascination with the prospect of a navy was noted by one Silas Deane, a delegate from Connecticut who was on the committee charged with estimating the costs of the new naval acquisitions. Seeing the eagerness of the Congress, he also saw the opportunity to move the burden of financing his own states war ships on to Continental pay. On October 16 he wrote back to his constituents in Connecticut, "I have a prospect now, of carrying that point, having succeeded, in getting Our Connecticut, & the Rhode Island Vessels into Continental pay, which motion I was seconded in beyond my expectations, and was further directed by Congress to lay before them an estimate of the expense."[11] The resolutions for equipping vessels at the Continental expense grew and evolved. The initial two vessels were Andrew Doria and Cabot. Later in October 1775, Congress appropriated \$100,000 to fit out two larger vessels, Alfred and Columbus. Alfred, a 24 gun frigate, was a reconditioned merchant ship previously named *Black Prince*. It was the first of the four to actually be ready and fitted out for service, and so became the flagship of the Continental navy. On November 2, 1775, Congress authorized up to \$100,000 toward expenses for obtaining an additional four ships.

Officer's commissions for the new navy were issued in a system in which political influence was more important than experience or qualifications. [12] A case in point was Esek Hopkins of Rhode Island, a merchant sailor and former privateer who was put in command of the Revolutionary fleet by the Naval Committee. On March 3, 1776 Captain Esek Hopkins led the first successful naval operation of the war where his small fleet of 8 frigates, brigs, and schooners conducted an amphibious assault on the British colony of New Providence (Nassau) Bahamas. After capturing a significant supply of artillery and two sloops, Hopkins failed to capture the British frigate *Glasgow* on the voyage home, which should have been an easy prize. This and his later blatant inaction where he remained fixed in port forced Congress to remove Hopkins. This was not easily done,

however, because four of the small navy's captains were connected in some way to Hopkins' family by marriage or through the Naval Committee. He was eventually discharged and his duties transferred to the Naval Committee, consisting of one member from each of the thirteen colonies. [2]

The fighting sailing ships of the time ranged from small sloops carrying 8 guns, to large British and French ships of the line with over 100 guns. Between these two extremes was the versatile frigate class whose sail plan and profile is depicted in Figure 2. The frigate class described a wooden vessel with two decks over 120 feet long and sails rigged on three tall masts. A smaller frigate class vessel such as the navy's flagship *Alfred* would displace over 600 tons, and could carry a crew of over 200 men in the cramped decks. Equipped with more than 24 heavy cannon and 4 smaller cannon, frigates could sail at up to 14 knots (16 mph) over the gray Atlantic seas, and remain at sea without replenishing for several weeks. [13] Navigation was by sextant, compass, and hourglass. Communication with other ships was by line of site and flag signals.

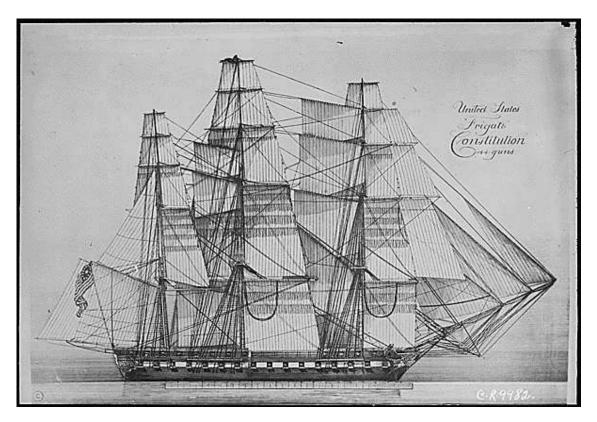


Figure 2: Profile of an 18<sup>th</sup> century Frigate courtesy United States National Archives <u>http://media.nara.gov/media/images/43/12/43-1168a.gif</u>

During battle, these warships were typically maneuvered so as to gain an advantage on an enemy ship with a broadside, where all cannon on one side of the ship could open fire simultaneously. A successful tactic employed by the British was to then heave alongside the enemy and commence pounding it with cannon fire from point blank range. The dark lower cannon decks of the contending ships would quickly become embroiled in mayhem with thundering noise, smoke, exploding wooden splinters and unimaginable carnage. Meanwhile on the top decks, light cannon would attempt to dismast the other vessel. Marines in the masts would shoot at enemy sailors and officers while the ships became entangled in each other's rigging. Eventually the ship with the heavier firepower or fastest gunnery rate would overcome the other and boarding parties would take the battle hand to hand. The fighting would end when one ship "struck its colors" or lowered its flag. If the vanquished ship was salvageable and could still float, a crew would be sent from the victorious ship to sail the conquered vessel to a friendly port where, after repairs, it could sail again under the colors of its former enemy. In addition to the frigate being the standard naval asset for war fighting at the sea, this versatile warship could also carry long boats on its decks for its complement of marines to land amphibious assaults against shore installations.

The Continental Congress understood completely the versatility and effectiveness with which frigates could change the balance of power on the coast. So it was that after debate, on December 13, 1775 Congress authorized the construction of 13 new frigates at a rough cost of \$66,667 each, or a total of \$866,671.[2] To put into perspective the magnitude of this amount, we can compare this acquisition against the total amount in the Congressional budget in 1775. Earlier in the year, on June 22, 1775 the Continental Congress had issued its first currency, \$2 million Spanish Milled Dollars. Later on December 2, another \$3 million was issued. The Spanish Milled Dollar was a ubiquitous silver coin that was used as standard currency around the world at the time. Not having an actual treasury filled with such coinage, and not even having the ability to raise funds through taxation, the Continental Congress was compelled to emit paper bills of credit. The colonies were pledged for the redemption of these bills of credit in the currency of the Spanish Milled Dollar. It was from these bills that the Congress funded all its governing activities from payroll to purchases. During the course of the Revolutionary war, these Continental bills were totally devalued and counterfeited, but at their first issue they represented the entire stake of \$5 million in the Continental Congressional budget. [8] This one single \$866,671 naval authorization therefore represented an enormous 17% of the national budget. Though dire circumstances lent enthusiasm toward this purchase, it was not accepted without debate. To make the cost seem more tolerable, supporters of the acquisition argued that the cost of the vessels might be significantly defrayed by the value of the prizes they would take. In addition, Silas Deane and the Marine Committee pointed out that being able to transport provisions to the Continental army by water would be significantly less costly than the present overland method. They optimistically estimated that the transportation costs for the 40,000 barrels of flour currently being consumed by the Continental army that season could be reduced by sixty-thousand dollars if transported by ship. [10]

The authorization to construct 13 frigates was a departure from the previous Congressional appropriations. Up to this point, Congress had been paying for the equipping, fitting, and conversion of existing vessels. With the authorization to build new ships, Congress now had to consider the logistics of construction. The 13 light frigates were based upon designs proposed by two Philadelphia shipwrights, John Wharton and Joshua Humphreys. To handle the large capacity, the Naval Committee

awarded frigate contracts to several shipyards from Portsmouth, New Hampshire to Baltimore, Maryland. Since Britain had forbidden colonial shipbuilders from constructing warships, there was a lack of relevant experience in the colonies. Britain also forbade the manufacturing of heavy cannon in the colonies, so there were no domestic foundries capable producing the big naval guns. [12] In addition to these problems, the privateering enterprises dominated the market, with shipyards preferring more lucrative contracts from investors who paid coin, not Continental bills. As a result, ships of the Continental navy were delayed, or constructed with inferior materials, including rotten masts that snapped in a gale. Fine sailcloth from England or Russia was unavailable, so the navy resorted to hemp and jute-blended burlap sails, which were too heavy to carry the ship in a light breeze. Construction delays were only part of the problem, for after launch, the ships would lie at anchor for months awaiting weaponry, sails, rigging, supplies, and crews. While privateering was truly a great benefit to the colonies, it at the same time competed with the Continental Navy for resources. The privateers outbid the navy for arms and munitions, and paid higher wages to crews. They granted more prize money, and paid lucrative bonuses to successful captains. [2] Of the 13 newly constructed American frigates originally authorized by Congress, only seven ever got to sea. These were summarily captured and taken into the British navy. The other six were destroyed in the stocks to prevent their falling into enemy hands. [2][12] Typical of these misfortunes was the Randolph which launched with no sailors, only a company of marines. Upon reaching the open sea, Randolph first sprang her foremast, and then lost her mainmast. After beating down to Charleston for repairs, both masts were struck by lightning and shattered. [2] The delays, poor quality and misfortunes were keenly noted at the time by critics of the naval acquisition. A few other ships were commissioned to be built beyond the original 13 frigates, including plans for 3 ships of the line, but critics pointed out that the revolutionary cause would be better served by having no ships than by having half-completed or damaged frigates lying idly in American harbors. [12]

It is worthwhile to note that during the construction of the Continental Navy, one of General Washington's Brigadier Generals built his own small motley fleet of sloops, schooners, gondolas and galleys on Lake Champlain to resist the British there in the autumn of 1776. Though not formally considered part of the Continental Navy, this little fleet gave 3 days of battle on the lake in October, before they were all beached and burned. By forcing their British counterparts to build an opposing fleet, they effectively prevented the British from sending reinforcements to New York that year, and thereby facilitated the American victory at the Battle of Saratoga. The resourceful American Brigadier General in command of this short-lived fleet of thrown-together lake ships was none other than Benedict Arnold.

Despite its misfortunes, the Continental Navy inventory in 1776 included some 31 vessels. [2] Perhaps the most important strategic mission of the Continental Navy was that of transporting Benjamin Franklin to France in 1776. Franklin, serving as American envoy in Paris, pledged to "insult the coasts of the Lords of the Ocean with our little cruisers." [12] One such notable mission included Captain John Paul Jones who in *Ranger* sailed across the Atlantic to bring war to the doorstep of the British in 1777. Though Jones attacked only a few isolated seaports in England and Scotland, he

nonetheless robbed the British people of their sense of peace and safety. [12] Jones later established a reputation for himself during an engagement against HMS Serapis. With his own ship, Bonhomme Richard, in flames and sinking, Jones responded to the British captain's suggestion to surrender with the defiant "I have not yet begun to fight!" There were perhaps no more famous words spoken during the Revolutionary War at sea. With this rallying cry, Jones and his crew turned the battle and captured not only the Serapis, but also the imagination of the world. He later became a popular figure in Paris where he enjoyed publicly regaling his stories of heroism in a campaign of self promotion and grand standing. Using the ports of France as a base for privateering against Britain was more than just a convenience of geography, it was also a brilliant political tactic. By commissioning privateers to operate out of France, Franklin embroiled France in more trouble with the British, so that by 1778, Britain and France were at war. This turned out to be the significant turn of events that eventually turned the tide of the naval superiority in the Revolutionary War. By allying with France, the strength of the American naval resistance against Britain was suddenly bolstered with the strength of the entire French navy. [2]

Other than the highly publicized exploits of Jones, and the brave actions seen by a few other Continental ships, on the whole, the actions of the Continental navy were rather limited. Furthermore, George Washington was exasperated by constant requests for troops to guard the Continental warships. In 1777, he finally urged that the frigates on the Delaware River be destroyed to prevent their capture by a British force advancing toward Philadelphia. Congress could not will itself to promote the destruction of its own ships, but the issue was settled when the British fleet reached the port. The Continental ships on the river were destroyed, either by the British or by their own crews. As a letter from the Congress on January 22, 1778 to a member of the Naval board in Delaware attests, "as that part of the Continental Navy late in the Delaware are either lost or rendered useless, there appears no necessity of your continuing in Jersey." [9] The size of the Continental navy depended upon its fortunes and losses, but in general, it steadily shrank from a peak of 34 vessels in 1777 to just 13 in 1780. Early in 1780, most of the remaining Continental Navy was trapped inside Charleston harbor, which was blockaded by the British. When the city surrendered on May 12, the navy did the same, essentially ending the Continental Navy. [2] The magnitude of the failure was lamented by Adams before a congressional committee in 1780, "In looking over the long lists of vessels belonging to the United States taken and destroyed, and recollecting the whole history of the rise and progress of our navy, it is difficult to avoid tears." [12] By 1782, there were only 7 vessels left in the naval inventory. [2]

As George Washington recounted later, "whatever efforts are made by the Land Armies, the Navy must have the casting vote in the present contest." The naval superiority he sought was to come not from the Continental navy or privateers, but from the French.[6] In 1781, the British army under Cornwallis was well established at Yorktown, while Washington and his army were camped around New York City. Washington looked to the French for an opportunity to cut Cornwallis off from the British fleet. French Rear Admiral J. P. Compte de Grasse responded to Washington's call by sailing his French battle fleet of twenty-eight ships north from the West Indies toward Virginia. He chose a seldom-used route through the Bahama Channel to avoid detection by the British fleet. Simultaneously, in late August 1781, Washington moved his army south to Chesapeake Bay. On the morning of September 5, 1781, the British fleet with nineteen ships of the line found the twenty-four ships of de Grasse's fleet in Chesapeake bay. De Grasse quickly moved his ships out to sea, but in their haste, the French ships rounded Cape Henry clumped in groups rather than a proper battle line. At this point, the British fleet had the opportunity to defeat the vessels as they emerged from the bay in small groups. Instead, British Rear Admiral Thomas Graves stopped to form a line of battle, in effect allowing the French to prepare for the coming action. At the beginning of the engagement, Graves hoisted conflicting signal flags to his British fleet, on one hand calling for engagement, on the other calling for the ships to remain in a line. Strictly following the precedence of signals, his colleague who commanded half the British fleet, Rear Admiral Hood, refrained from joining the fight for nearly 2 hours. When Graves finally corrected his signals, allowing Hood's squadron to join the fight, three British ships had already been disabled. The battle ended as daylight failed and de Grasse ordered his ships to break off the engagement. For the next two days the rival fleets maneuvered within sight of each other in foul weather, but no further engagements took place. On September 11, eight additional French ships from Newport Rhode Island arrived. With the addition of these ships, the British faced an overwhelming foe. Graves withdrew to New York, thus sealing the fate of Cornwallis in Yorktown. General Washington with his land army of 8,800, and the 7,800 French under Lieutenant General de Rochambeau began formal siege operations on the eastern side of Yorktown on September 30, 1781. By October 9, they were sufficiently close to begin an artillery bombardment of the British. On October 14, 1781 the combined American and French troops stormed two redoubts in front of their trenches and the British position at Yorktown became untenable. Without the British navy to resupply or reinforce his army, and with no means of retreat, Cornwallis was compelled to surrender. "Nothing," related Cornwallis, "but the hope of relief would have induced me to attempt its [Yorktown's] defense." Lord Cornwallis surrendered over seven thousand men on October 19, 1781. [6] As a naval engagement, the action of September 5, 1781 off the Virginia Capes between the French and British fleets was almost insignificant. Yet, its outcome had determined the destiny of a continent. [6] On September 3, 1783, Great Britain signed the Treaty of Paris, relinquishing its claim to the United States.

The United States had financed the war through huge foreign loans and bills of credit. The Continental bills had become worthless, and Congress under the Articles of Confederation had no power to raise funds. Although the abundance of resources and reestablishment of trade would soon bring wealth to the colonies again, for the present, the government could not afford to pay its debts, no less maintain a navy. [3] The Continental Navy's largest and only ship of the line, 74-gun *America* was still under construction at Portsmouth, New Hampshire. Lacking funds, Congress presented *America* to the French as a replacement for a French warship that had been destroyed on a sandbar outside of Boston Harbor. [7] In 1784, the few ships still in the possession of the Continental Navy were auctioned off, all except *Alliance*. The Continental frigate *Alliance* had seen a dubious career earlier during the Revolutionary war under the command of an unstable Captain Landais, but later acquitted herself as a gallant ship

which saw valiant actions under other Captains. Some members of Congress wanted to therefore keep Alliance as a symbol of the Revolutionary navy, others for protection against a growing infestation of pirates, but the country could not afford the tall ship. There was also little support for a navy to be found from the war-weary American public. Americans were concerned that if the armed forces were not disbanded, the military might seize power and impose another tyranny. [12] Furthermore, Americans reasoned that if further naval protection was needed, their French allies would once again come to the rescue. [12] Ultimately, even proponents of a navy accepted the fact that the federal government could simply not afford one. The Secretary of Marine, Robert Morris, who was a signatory of the Declaration of Independence, noted, "Until Revenues for the Purpose can be obtained, it is but vain to talk of Navy or Army or anything else." [3] And speaking more specifically of Alliance he remarked, "This ship is now a mere Bill of Costs and I do not think we have the means to fit her out." Like the rest of the Continental navy, Alliance faded into obscurity. [2] She was auctioned off to a private buyer in 1785 and later abandoned on a mud bar in the Delaware River, where her sagging hulk remained until the 1900s.[12] Continental navy officers were decommissioned, and the sailors discharged, often without receiving their pay. After three years of even pledging his own credit to keep vessels afloat, Secretary of Marine Robert Morris departed office disillusioned. American sailors went back to peacetime service on merchant vessels, and fishing boats. At one point the administration's proposed organizing American sailors into a kind of naval militia, but Congress did not even act on that matter. [12]

## The Barbary Pirates

After the war, the American merchant shipping industry and powerful merchant interests began to thrive again. Prior to the American Revolution, American merchant ships plying the lucrative Mediterranean trade routes enjoyed the protection of the British navy, but that protection disappeared with American independence.[3] Pirates from Morocco, Algiers, Tripoli, and Tunis had long forced European merchant shipping to either sail with armed naval fleets in the Mediterranean, or pay annual tribute to assure non-interference.[3] So it was that in 1785, Algerian corsairs made their first seizures of American merchant vessels, the *Maria* and the *Dauphin*, taking twenty-two passengers and crew prisoner, demanding a ransom and tribute for their release. In February 1786, John Adams, who was then America's minister to Great Britain, met with the Tripolitan ambassador in London. The ambassador demanded 30,000 guineas for Tripoli, and 3,000 pounds for himself. Though Adams found the prospect distasteful, he reasoned it was wisest to pay the sum quickly, for the entire American merchant fleet was completely vulnerable to similar predations. Adams reasoned, "We might at this hour have two hundred ships in the Mediterranean whose freight alone would be worth two hundred thousand pounds besides its influence upon the price of our produce."[12] Thomas Jefferson, America's minister to France, took a different tack, and recommended a navy be fitted out to suppress the Mediterranean pirates. He told Adams he believed that,"1. Justice is in favor of this opinion. 2. Honor favors it, and 3. It will procure us respect in Europe, and respect is a safe-guard to interest." [12] He also argued that paying the ransom would only lead to further demands. Between the choices of paying tribute or rebuilding a navy, Adams predicted the likely outcome would be for the weak and indecisive Congress to do nothing. He wrote to Jefferson, "I perceive that neither Force nor Money will be applied... your plans of fighting will no more be adopted than mine of negotiating." As Adams predicted, Congress tabled the matter, and the captive merchant sailors from *Maria* and *Dauphin* remained in prison for years to come. [3] Despite its default position of doing nothing, the Congress actually resigned itself to the eventuality of regularly being forced to negotiate ransom for American ships and sailors and effectively making annual payments of tributes or gifts. [12]

One of the obstacles to a military response to the piracy was that under the Articles of Confederation, there was no mandate for the provision of a navy. Among the critics who decried the "feebleness" of the Articles of Confederation was Alexander Hamilton, who called for a convention to be held in Annapolis. This convention acknowledged "important defects in the system of the Federal Government" and called for another Constitutional Convention the following year, this time in Philadelphia. [12] On September 12, 1787, the Philadelphia convention approved the new constitution and sent it to the Continental Congress. The process of ratification by all states, however, was to take another two years. Knowing the strongly anti-federal sentiments held by the states, Alexander Hamilton, James Madison, and John Jay published 85 essays in four New York Newspapers between October 1787 and May 1788, and in a book entitled the Federalist laying out the arguments for adopting the Constitution. Article I, Section 8 of the Constitution granted Congress the authority to "provide and maintain a Navy", and the contemporary Barbary pirate problem framed the debate surrounding this issue. Opponents of ratification warned that a navy would expand the power and potential tyranny of the federal government over the states; that it would increase the public debt; that it would lead to higher taxes; and that its expense would fall on those less affluent citizens in the interior of the country, who questioned the benefit of fighting for control of the sea. To counter those arguments, Jefferson observed, "a naval force can never endanger our liberties, nor occasion bloodshed; a land force would do both." Accordingly, the Constitution restricted army appropriations to two years, but left the term of naval appropriations unlimited. [2] The Constitution was eventually ratified by all states, and the new government took effect on March 4, 1789. [12]

Even with the Constitution in place, President George Washington continued to embrace a policy of strict neutrality, embodied in his "Neutrality Proclamation" of April 1793. While neutrality may have been the only realistic choice for a nation without a single armed ship afloat, there were significant benefits to be gained from being a neutral merchant during wartime. There was a large demand for imported foodstuffs with tens of thousands of British soldiers and sailors posted at bases in Gibraltar, Minorca, Malta, and Sicily. Their supply officers paid generously for "all manner of eatables and drinkables." [12] A 250 ton merchant ship with the capacity of about six modern day cargo containers would cost an American investor \$15,000 to \$20,000 to build and equip. Just one sixmonth voyage would pay the acquisition costs of such a merchant ship, which in turn could have a useful life of twenty years. With the French Revolution in 1793, however, it was not clear that neutrality could be managed. King Louis XVI, whose troops, ships, and money had helped America win its independence, was guillotined in Paris on January

21, 1793. The leaders of a radical faction, the Jacobians seized power and began a bloody campaign of terror. In January 1793, Great Britain, Spain, and the Netherlands declared war against France with the intention of restoring the Bourbon monarchy. [12] While this produced an abundance of wartime carrying trade premiums and opportunities for merchants, it also produced hazards. Both the French and the British preyed upon American shipping under the pretense of blocking shipments of wartime contraband to enemy ports. In addition to being hounded by British warships, American merchants were regarded by British merchants as economic rivals to be thwarted by any means necessary. [12] Then in 1793, the British government mediated a truce between Portugal and Algiers, allowing the Algerian pirates to break out of the Mediterranean. This was seen by merchants as an overt act by Britain to further hinder American shipping. The combined European powers effectively established a proxy war against American commerce. [12] English diplomats had reportedly gone so far as to lobby Queen Maria of Portugal to deny naval convoys to American vessels. On October 8, 1793, the U.S. minister to Portugal, David Humphreys addressed a letter to all merchant shipping interests in the Mediterranean warning that a truce between Portugal and Algiers ended the blockade of Algerian piracy, and the Algerian fleet was on the loose. The warning was indeed appropriate, for within a month, the pirates had taken 10 vessels and captured 110 Americans for ransom. [12] The magnitude of the Algerian attacks immediately changed the politics of the issue. Neutral as it was, America's defenselessness seemed to have provoked aggression, and Hamilton's prophetic warning in *Federalist* No. 11 came true, "A nation, despicable by its weakness, forfeits even the privilege of being neutral."[12] After debate, on January 2, 1794, the House narrowly passed a resolution proclaiming that "a naval force adequate to the protection of the commerce of the United States, against the Algerian corsairs, ought to be provided." A committee was appointed to study the intelligence reports and determine the size and strength of the fleet that should be built to counter the threat. The committee was weighted with congressmen from northern seaports who were themselves merchants and ship owners. Not unexpectedly, the committee recommended on January 20 that a small squadron of six frigates be built to deal with Algiers. The expected cost of construction, equipping, and three months pay for officers and crew was \$600,000. [12]

Despite the real threat to American commerce, congressional approval of naval legislation was far from certain. Several congressmen speaking in opposition to the proposal surmised the Algerians were acting on behalf of the British and that going to war with Algiers would risk a war with Britain. They suggested that paying tribute would be cheaper than building a navy. One congressman even suggested hiring the Portuguese navy to protect American commerce. [3] Others, including James Madison, argued that the navy was unaffordable to a nation that was still paying Revolutionary War debts. He reasoned that the navy would become a self-feeding organism, and that the cost of operating navies had brought about financial crisis in other nations. He concluded that the U.S. would be forced to raise taxes, which was the cause of the American Revolution to begin with. In addition to the reasoned arguments, the revolutionary generation still felt a deep loathing against a standing military. [12] Those Congressmen in favor came principally from cities that depended on maritime trade. [3] They made their case for a navy based firstly on costs and benefits. Because of the piracy, insurance premiums for

transatlantic destinations had risen to 25% of the total value of the ship and cargo. This would impose an estimated additional cost of \$2 million per year on American trade. Supporters of the navy pointed out that the burden of piracy would be carried not just by merchants, but by farmers who exported their produce and the inland consumers of imported goods. A case in point was the import of salt. The threat of piracy would raise the cost of imported salt by as much as two dollars per bushel. In the first year alone, the added costs could equal three to six times the total cost of the proposed squadron. The second argument for a navy was that of national honor. [12] Pro-navy supporters questioned the opponent's national pride, and appealed to the recent successful revolution against the most powerful nation on earth. [12] During the debates, the British unexpectedly prohibited all neutral trade with the French West Indies. This suddenly added more support to the pro-navy arguments.

In March, 1794, the Congress passed the "Act to provide a naval armament," by a vote of fifty three to thirty nine, which authorized the acquisition of six frigates, four of 44 guns each and two of 36. The then colossal sum of \$688,888 was appropriated to fund the program. The opponents, however, managed to work their will in one respect. They added a provision stipulating that the sole purpose of the frigates was to patrol the Mediterranean for piracy. Should a truce be successfully negotiated with Algiers, the building program would be cancelled. [12] Ironically, Congress then authorized spending \$800,000 (more than the new navy) to obtain a treaty with Algeria and free the captives. [2] Implementation of the Naval Act of 1794 fell to Secretary of War, Henry Knox. After consulting several prominent former Continental Navy captains and shipbuilders, Knox recommended to President Washington to construct new frigates, rather than converting merchant ships into warships, which was an option under the act. The consensus of the Knox's experts was that, "The vessels should combine such qualities of strength, durability, swiftness of sailing, and force, as to render them equal, if not superior, to any frigates belonging to any of the European Powers." [3] To keep labor costs down, Knox recommended using government employees to build the ships, rather than private contractors. Additionally, construction sites were to be distributed between Portsmouth, Boston, New York, Philadelphia, Baltimore, and Norfolk with the express purpose of spreading the economic benefit and maintaining a strong constituency. Knox advised, "It is just and wise to proportion . . . benefits as nearly as may be to those places or states which pay the greatest amount to its support." Though having multiple assembly sites was more costly than managing one shipyard, Knox knew that, "a few thousand dollars in expenses will be no object compared with the satisfaction a just distribution would afford."[3]

In March 1795, Secretary of War Timothy Pickering, who replaced Knox, prepared a list of ten suggested names for the ships. It is likely from this list that President Washington chose the initial five: *Constitution, United States, President, Constellation,* and *Congress.* The sixth name, *Chesapeake,* was designated some time later. [3] Each manufacturing site had a civilian naval contractor to oversee construction, and a Navy captain acting as superintendent for each frigate. John Barry, last officer of the last Continental Navy ship *Alliance*, received commission number one as the first officer in the new United States Navy. [3] He was assigned to oversee the construction of the 44

gun *United States* being constructed by Joshua Humphreys in Philadelphia. From the outset, the manner and quality of construction of this navy would be far improved over the Continental navy. This accordingly made the construction process more expensive and slow. For example, major structural components were to be built from live oak, which had to be harvested in the southern forests. With a lack of roads and infrastructure in the new nation, the costs for the acquisition and delivery of the supplies quickly grew. The expenses began to catch the attention of the Congress when in 1794 they appointed a special committee to investigate how \$7,000 could be spent just on timber in a single month.[12]

At the same time as the warships were being framed, the United states continued to negotiate with the Dey of Algiers for a treaty. So it was that in September 1795, a negotiated peace was established in which the United States was forced to pay nearly a million dollars in cash, naval stores, and the 32-gun frigate Crescent to ransom 115 sailors. Additional annual gifts to Algiers, Morocco, Tunis, and Tripoli were settled by treaty. [4] Since the act authorizing the six frigates had called for a halt in construction in the event of peace with Algiers, the Congress accordingly ordered all work to be stopped on the frigates via the Navy Act of 1795. President Washington scolded Congress for the waste. The Congress had already invested significant funds in the construction of the frigates, and had now additionally paid for a treaty which in historical hindsight was soon to be violated. After debate, on April 20, 1796, the Congress sent the "Act supplementary to an act", entitled, "An act to provide a naval armament", allowing the completion of three of the frigates. As in the case of modern Congressional stalemates, to settle debate, the original proposal for six frigates was cut in half to three frigates. Under the terms of the act, United States was launched at Philadelphia on May 10, 1797; the Constellation, at Baltimore on September 7, 1797; and the Constitution, at Boston on October 21, 1797. [3] Even after the three frigates were completed, Congress remained divided over whether to allow the new frigates to actually be equipped and prepared for duty at sea. [3]

## The Quasi-War with France

In his December 1796 final annual address to Congress, President Washington urged "the gradual creation of a navy" for the protection of commerce. In a world filled with European wars and political intrigues, it was not long until the remaining three frigates were needed. A new commercial agreement between the United States and Great Britain, known as Jay's Treaty was viewed by the new Revolutionary government of France as a violation of its previous alliance with the United States. In retaliation, during the summer of 1796, France captured 300 American vessels. Congress debated until July 1, 1797 when it finally gave President John Adams the remaining three frigates of which he spoke, "to place our country in a suitable posture of defense." The *Congress* was launched at Portsmouth, N.H., on August 15, 1799; *Chesapeake*, at Gosport, Va., on December 2, 1799; and *President*, at New York, N.Y., on April 10, 1800.[3] [2] Within two years, this historical "Quasi War" with France resulted in additional appropriations in which the naval force approached thirty vessels with 700 officers and 5000 sailors [3]. With this growth of the second generation of the United States Navy, the existing system for management of naval affairs became over burdened. The overworked Secretary of

War, then James McHenry, found that Naval administration was consuming a significant portion of his department's work as well as that of the Department of Treasury which oversaw naval contracting and disbursing. The Congress accordingly decided to establish a separate Department of the Navy in April 1798, with Benjamin Stoddart being appointed Secretary of the Navy to administer the construction, support, maintenance and operation of the fleet. Benjamin Stoddart was a former merchant and staunch naval advocate. In a December 1798 proposal to Congress, he advocated building twelve ships of the line, twelve frigates, and twenty ships of up to twenty-four guns. Through his leadership, Congress eventually did approve the construction of America's first six large ships of the line. [3]

The highlights of the undeclared war with France included the capture by Thomas Truxtun's Constellation of the French frigate l'Insurgente in February 1799. In addition, that winter American naval vessels captured nineteen French privateers. In May 1800 a naval force led by Silas Talbot in Constitution spiked the guns in the Spanish fort at Puerto Plata harbor in St. Domingo. By the end of the war, American ships had made prizes of approximately eighty-five French vessels. [3] The newly reestablished United States Navy acquitted itself well during the Quasi-War and succeeded in achieving its limited goal of stopping the depredations of the French corsairs against American commerce. Under Stoddart, the navy proved itself an effective instrument of national policy. [3] But as the war with France wound down in 1800 so did the prospects for a stronger naval force. [3] Plans for the phase-out and disposal of the United States navy ships were set in place with the Peace Establishment Act of 1801, which kept the frigates but eliminated construction of the ships of the line and deeply cut the number of officers. Adams could have left this naval legislation to the new Jeffersonian Republican administration, which won the fall 1800 elections, but reasoned that Jefferson might make even deeper cuts. In one of his last duties as president, he therefore signed the act on March 3, 1801. [3]

## The Shores of Tripoli

As Secretary of State, Jefferson had been a strong advocate of using naval force, but as president, he was intent on reducing the navy's budget. Renewed problems with the Barbary States in 1801, however, forced him to send a small squadron to the Mediterranean as a show of force. In his first annual address to Congress, he related "To this state of general peace with which we have been blessed, one only exception exists. Tripoli, the least considerable of the Barbary States, had come forward with demands unfounded either in right or in compact, and had permitted itself to denounce war, on our failure to comply before a given day. The style of the demand admitted but one answer. I sent a small squadron of frigates into the Mediterranean. . . ." [4] [3] The American fleet established a blockade to prevent pirates from entering the Mediterranean, but this resulted in Tripoli capturing the *Philadelphia*. A subsequent ground action by marines lead by William Eaton succeeded in rescuing Captain Bainbridge and his crew after 19 months of imprisonment, and in 1805 secured a treaty. It also inspired the words to the U.S. Marine corps hymn, "From the halls of Montezuma, to the shores of Tripoli...."

States, and ended the long series of tribute payments to pirate states. The sentiment of the United States with regard to dealing with Barbary pirates was best captured by Captain Bainbridge who wrote to the Secretary of the Navy: "I hope I shall never again be sent to Algiers with tribute, unless I am authorized to deliver it from the mouth of our cannon." [5]

## The War of 1812

By 1807, because of the premiums paid on goods and supplies by Europe during the Napoleanic war, American exports more than quintupled to \$108 million per year. They would not reach that level again until after 1835 when the nation's population had doubled. [12] This profiteering during wartime again became difficult to maintain with only a peacetime navy. American ships and sailors became easy targets for impressment, or the practice whereby British warships forced American sailors to join their crew. In 1807, the British frigate HMS Leopard came alongside Chesapeake out of Norfolk and asked Commodore James Barron to carry dispatches to Europe. Barron agreed because regulations required the common courtesy of carrying dispatches for friendly warships. But when Leopard's officers boarded, they began to search ostensibly for deserters. When Barron objected, Leopard opened fire with successive broadsides until Barron surrendered. In 1809, James Madison succeeded Jefferson as President as relations with Britain worsened. In preparation for inevitable conflict, the new Secretary of the Navy, Paul Hamilton, added ships, bringing the total number of sea going vessels to eighteen. By 1811, the British ship HMS Guerriere was stationed off New York regularly boarding American ships and impressing sailors. On June 12, 1812, Congress declared war on Britain, with President Madison reasoning the moment was ripe for giving the British another "humiliation". During this war, Constitution earned her famous nickname that it still holds to this day. On August 19, 1812, after exchanging fifteen minutes of broadsides with the HMS Guerriere, American sailors began to notice that the British cannon balls could not penetrate the Constitution's hull. When Guerriere surrendered, the sailors affectionately labeled Constitution "Old Ironsides". [2]

Eventually, both the Americans and British sides realized there was nothing to gain from the War of 1812, and their commercial competitors were gaining all the profits. The Treaty of Ghent on December 24, 1814 ended the war, but without rapid means of transatlantic communication, a British invasion of New Orleans continued two weeks after the treaty was signed. [2] After the war, the navy was once again allowed to languish. By the 1820's, the wooden warships of the Navy were already rotting, and *Constitution* itself had become unseaworthy. Public outcry against breaking up "Old Ironsides" compelled the Navy to rehabilitate the vessel and use her for training. Throughout the years, the famous *USS Constitution*, has been restored and maintained and remains afloat today. It is honored by the United States navy by holding its status on the register as an actively commissioned warship, and is the oldest commissioned warship still afloat.

## Analysis of the Political Facts of Life

This evolution of the Continental Navy into being the early United States Navy is filled with examples of the "Political Facts of Life" [1]. This story of the birth of a nation, told within the context of tall ships and fighting sail demonstrates not only heroic events, but political impacts. Most importantly to the purpose of this paper, it provides many examples from which the enduring nature of the Political Facts of Life can be analyzed. This section lists the five primary and several of the other "Political Facts of Life" as presented by Foreman [1]. Each fact is introduced, and then examined for its applicability to the historical narrative. In addition, new political facts of life proposed by the author will be examined.

#### #1 Politics, not technology, controls what technology is allowed to achieve

This first heuristic describes how the political process can place constraints that are stricter than technological limits. These constraints can be in the form of budgets, regulatory approval, or schedule. This condition can be evidenced by the political process cutting back resources necessary to accomplish the project, forcing the project to re-plan or choose an alternate plan. It can also be evidenced by the political process challenging the project to accomplish something according to a seemingly impossible schedule.

This fact of life was evidenced a number of times in the narrative, beginning with the construction of the original thirteen frigates of the Continental Navy. Budget constraints in 1775 caused these ships to be fitted with sub standard equipment as evidenced by the burlap sailcloth and rotten masts. Other political constraints from Great Britain included their prohibition on the development of foundries in the colonies, which in turn prevented the Continental navy from producing their own heavy cannon. Also, the fact that the Continental navy took second place to the privateers when it came to the attention, effort, and supplies from the shipyards showed that the political weakness and lack of hard currency from Congress limited the competitive ability of the program to obtain resources. The political reality of warfare also limited the construction of the Continental navy and destroyed in 1780 to realize that the Continental navy was never able to fully achieve its technical purpose. The surrender of Charleston was another political reality of war that essentially eliminated the capability of the Continental navy, forcing the ships lying in Charleston harbor to be surrendered along with the city.

At the end of the Revolutionary war, the growth of the navy was limited by several other political factors, primarily budget. The nation was too heavily in debt to be able to support a navy. The most technically advanced ship yet to be built by America was its first ship-of-the-line, *America*. The political process, namely in terms of lack of available funds, forced that ship to be given away, and prevented the United States navy from having such a powerful ship in its own inventory until the turn of that century. Similarly, in the case of the aftermath of each of the subsequent wars including the quasi war with

France, the war with Tripoli, and the War of 1812, the political constraint of budget repeatedly forced the navy to cut back to a coastal peacetime navy.

Another political factor that limited the post Revolutionary War navy was the political will of the country being against having a navy. In fact, the very political structure of the country, which was up until 1789 still organized under the Articles of Confederation, did not support perpetually maintaining a navy. There were several examples cited after the Revolutionary War where the war-weary population of the newly independent United States feared slipping into tyranny and was therefore opposed to having any semblance of a standing organized military. George Washington's "Neutrality Proclamation" in 1793 also defined the nation's political preference for a limited navy.

The temporary resolution to the Barbary pirate problem with the appeasement payment to Algiers was another example of politics controlling what technology would achieve. As per the terms of the Naval Act of 1794, once the peace appeasement payment was made, all work on the 6 frigates stopped. Even after George Washington scolded the Congress, they still only approved half of the original frigates, allowing only three to be completed in 1797.

So as this analysis clearly shows, it was politics, and not the technology which controlled how the navy was able to develop. This first political fact of life was certainly applicable in 1775, and can therefore be affirmed as having an enduring nature.

## **#2 Cost Rules**

The saying, "Cost rules" describes how budget requests shape the decision making process. Cost estimates and dollar allocations that are unrealistic or based on political expediency typify this fact of life. It is also demonstrated when funding is restricted due to governmental cash flow restrictions, or whenever somebody has to overstate the benefits and understate the costs just to get a project funded. This heuristic can also cause projects to be inefficiently stretched out for short term cost relief, but driving up the total costs in the end.

In the case of our historical narrative, we find the timeline dominated by periods of war and aggression. Certainly during times when the future of a nation hangs in the balance, one would think that concern for costs go out the window, and survival becomes the ruling factor. Careful attention to the historical details, however, shows that this was most certainly not the case, and that the Continental Congress had to deal with the constraints of budgets continuously. Reading the sometimes mundane records of Congressional appropriations and decisions, one clearly can see cost was of prime importance, and was meticulously recorded. The very fact that one of the first major legislative acts of the Congress of 1775 was to issue Bills of Credit showed that Congress was very attuned to the fact that Cost Rules. One of our first examples of this in the narrative comes from the story of Silas Deane, the delegate from Connecticut who was also on the marine committee tasked with estimating the cost of procuring and fitting out

ships for the Continental Navy. We read in his letter to his constituency his excitement at the prospect of getting his states navy ships out from under the state's budget and onto the Continental pay. We also see cost ruling in the events surrounding the authorization to build 13 frigates in 1775 for the Continental Navy. In order to make the phenomenally expensive estimate more tolerable, Silas Deane and the marine committee optimistically pointed out how the costs could be offset by the capture of prizes. They also made a case of how the cost of providing supplies to George Washington's army over land was terribly expensive, and that having a navy would allow those good to be safely transported by sea. This type of optimistic portrayal to help make costs seem more tolerable is a strong indicator of "Cost Rules". This heuristic is also the reason why the first 13 frigates were so poorly supplied and equipped. With a severe lack of finances to support the construction costs, construction was beset with delays, and often-times inferior materials, such as burlap sails and rotted masts were used to cut costs.

At the completion of the Revolutionary war, the heuristic was evidenced again by the navy being seen as unaffordable. The huge foreign loans prevented the government from being able to afford a single warship. Robert Morris, Secretary of the marine practically quoted this political fact of life when he remarked about the condition of the last remaining warship, *Alliance*, in 1785, "This ship is now a mere Bill of Costs." Another quote by Morris that provides direct evidence that Cost Rules was a strong factor in centuries past was his remark about how reluctant the American people were to accept the cost of a navy, "Until Revenues for the purpose can be obtained, it is but vain to talk of Navy or Army or anything else."

This fact of life continued to dominate through the Barbary pirate debates where Congress was willing to let dozens of Americans remain captive for years because the cost of paying tribute or building a navy was seen as being too high. The founding fathers such as John Adams knew that cost rules because they attempted to use cost as an argument to persuade the Congress toward action. At one point during the Barbary crisis of 1786, Adams remarked that America might have at that moment over two hundred thousand British pounds worth of freight in the Mediterranean in jeopardy of being captured by pirates. It took a number of those ships to actually be captured before Congress felt that the losses justified the cost of paying tribute or building a navy. Another example of cost rules was in the arguments for building six frigates in 1794. The Congressmen in favor of the navy made their case for a navy primarily on costs and benefits. In order to overstate the costs of not having a navy, they pointed out a possible \$2 million increase in American shipping insurance premiums due to the Barbary piracy problem. In the actual Naval Act of 1794, Congress also responded to cost ruling when they stopped funding the construction of the frigates once a negotiated appeasement payment was made to the pirates.

The desire to phase-out and dispose of the navy after the quasi-war with France in 1801 again demonstrated that cost rules. This heuristic may have also been responsible for the ending of the War of 1812 where both sides realized there was nothing to be gained by the war, and their commercial competitors were gaining all the profits. So despite the seeming precedence that war time and survival would be expected to have

over costs, the historical narrative demonstrated several examples of how cost actually ruled throughout the timeline. This heuristic was not only applicable, but it also appears to have demonstrated remarkable endurance over the centuries.

#### #3 A strong, coherent constituency is essential

This heuristic describes the need for having a strong person, influential group or organization to help keep government funded programs sold. It can also be evidenced by a weak constituency failing to rescue program funding. The coherency of the constituency is as important as it strength, because its effectiveness can be reduced by factions or internal rivalries.

On a small and personal scale, we first see this political fact of life operating in the career of the Continental Navy's first commander, Esek Hopkins. Though his inept actions and blatant inaction justified his immediate removal from command, this was not easily accomplished, because the depth of nepotism in the navy created a formidable constituency in his favor. Another colorful hero of the Revolutionary War, Captain John Paul Jones recognized the power of a constituency when he decided to cross the Atlantic and take the battle back to Britain's doorstep. By preying upon British shipping on the British coast and even making a foray with a landing party, he quickly shook up the British populace. He brought the colonial revolution fearfully close to home for the British citizenry, rattling their support for this foreign war.

This fact of life can be seen operating on a broader scale with the actions of the privateers. By issuing letters of Marque, and allowing the distribution of spoils to go to the privateer owners and captains, the Continental Congress set up a strong constituency of ship owners with armed vessels who were motivated to attack and disrupt British shipping. This constituency, however, turned out to be a double-edged sword. When it came to the building and equipping of Continental Navy ships, the shipyards and suppliers found it more profitable to support the privateers, rather than the Continental Navy. Another huge constituency demonstrated in this historical narrative, was that of the French government. Benjamin Franklin travelled to France with the express purpose of entangling France in the conflict between the United States and Great Britain. It was the French who supplied the Naval force and troops needed to force the British General Cornwallis to surrender control of the continent.

The rise in influence of the merchant traders after the Revolutionary war brought to bear another strong constituency. As the Barbary pirates began to attack America's merchant shipping, the Congressional delegates from the northern seaports felt compelled to act to protect their merchant and ship owner constituencies from the Barbary threat. In order to broaden the support for a navy to include constituencies of farmers and citydwellers, the supporters of the navy in 1794 pointed out how the consequence of unchecked piracy would be born by not only the ship owners, but also the farmers who exported their goods and inland consumers. When it came to ensuring popular support of building programs, the Naval Act of 1794 employed the use of multiple construction sites. The six frigates of 1794 were distributed at shipyards around the mostly northern

merchant shipping ports of Portsmouth, Boston, New York, Philadelphia, Baltimore, and Norfolk. As was very plainly stated by Secretary of War Henry Knox, it was wise to distribute the ship building to those states which were most critical to maintaining support of the navy.

The results of losing a constituency were also demonstrated in this narrative. In 1777 we see George Washington becoming exasperated with having to provide troops to guard the Continental Navy at harbor. His response to the advancing British naval force was to totally withdraw support for the navy, urging the American ships to be scuttled and burned to prevent capture. The failed support of a constituency was also demonstrated at the conclusion of the Revolutionary war where the American citizens objected to having a standing military presence.

A final example of the power of a strong constituency was in the public's outcry against breaking up the USS *Constitution* in the 1820's. This public constituency's objection to losing "Old Ironsides" was so strong that the ship remains restored and intact today. So once again, yet another of the Political Facts of life proves to be applicable to centuries past. Not only was having a strong constituency essential in this historical narrative, but detrimental effects of losing that constituency were also plainly seen. The endurance of this political fact of life is directly evidenced by the endurance of the valiant ship *Constitution* itself.

## #4 Technical problems become political problems

When problems arise, they can easily be blown out of proportion or used against the program by the opposition. This political fact of life describes how the repercussions to problems are not only technical but political. It is easy enough to find technical problems in this narrative, considering the story is imbedded within the context of wartime, but this analysis will also point out the political implications and ramifications.

Perhaps the most evident point of this narrative was the problem of Britain's naval superiority during the Revolutionary War. At the very start of our narrative, we see that this problem created a political problem in that the Congress was compelled to appoint a Marine Committee to consider the establishment of its own navy. On a more narrow scope, we see the technical problem of the first commander of the Continental Navy, Esek Hopkins in 1776 demonstrating inept leadership and blatant inaction. This created a political problem because Congress had to find a way to remove him from his command despite the extensive family connections he held within Congress and throughout the naval command.

At the time of construction for the 13 frigates of the Continental navy, there were a large number of technical problems. The British had discouraged construction of warships, and forbidden the manufacture of cannon in the colonies, so experience and supplies were lacking for construction. Furthermore, the capacity of shipyards as well as resources and sailors were drained away and diverted to the more profitable construction and equipping of the privateers. This created a political problem for the Congress

because its currency had been devalued and there was no way to outbid the competing groups to improve the situation. Detractors of the navy only had to point to all the half-complete or damaged frigates lying idle in the harbors to make their case against the navy. In 1780 when nearly all the Continental navy was destroyed or captured, its sad record of ineffectiveness made it very difficult to engender any more political support for building another navy.

The fact that technical problems become political was even brilliantly exploited by Benjamin Franklin when he intentionally went to Paris to encourage privateering from French ports. Whenever a privateer that harassed British shipping found safe harbor in a French port, it created a huge political problem between the British and the French. After the Revolutionary war, the problem of the nation being essentially bankrupt with heavy foreign debts resulted in the political problem of having to auction off whatever remained of the navy.

The problem of the Barbary pirates capturing American vessels created a political problem whereby Congress had to decide whether to pay appeasement payments or reestablish a naval force. The Barbary problem even forced politics to consider the issue of a standing navy, which after much debate and the arguments in the Federalist papers, was ratified in the United States Constitution in 1789. Another technical problem was seen where the lack of roads and infrastructure made the acquisition of quality construction material for the six frigates of 1794 very difficult and costly to obtain. This created a political problem as evidenced by Congress appointing a special committee to investigate how \$7,000 could be spent just on timber in a single month.

Another technical problem was the British navy's practice of impressment, or capturing American sailors to serve on British ships. This disregard for American sovereignty obviously led to the political problem of a deteriorating relationship with Britain and led eventually to the War of 1812. The last technical problem discussed in the narrative was that of the 1820's when the wooden ships of the historic navy were rotting and were to be broken up. This became a political problem for Congress because the public was outraged at the thought of breaking up the historic "Old Ironsides". So with these numerous examples, this political fact of life can also join the others as being applicable to the earliest points in the history of United States government funded programs.

#### **#5** The best engineering solutions are not necessarily the best political solutions

When there are two or more viable and affordable options, this heuristic describes how the best choice of the technical community may not be the best choice of the political community, even though they share the same facts. Options may be selected due to political expediency, rather than their technical merit.

The first obvious example of this political fact of life surrounded the choice of resistance to the British naval supremacy. The revolutionary cause was bolstered by states navies, privateers and George Washington's army capturing vessels. The most

effective of these against British shipping was by far the use of privateers. These ships were well equipped, keenly commanded, and best of all they paid for themselves through prize money. History proved their effectiveness, having captured over 2,200 British navy and supply ships. While making extensive use of privateers was the best technical solution, the best political option was for the Congress to commission its own navy. The Continental navy was not nearly as effective as the privateers, but politically it gave Congress access to ships that were directly under its direction, authority and control. Another demonstration of this political fact of life was Congress choosing to build rather than purchase frigates. The best technical choice, and probably the fastest and most inexpensive way to deploy the most cannon on the water was to appropriate or otherwise capture and fit out a large number of suitable vessels for Continental use. While this approach was certainly taken with over 30 vessels in the navy, the best political choice in 1775 was to build from scratch 13 new frigates, as the frigate was perceived by Congress as the most versatile and valued warship at the time.

More evidence for this fact of life appears in the story of the delegate from Connecticut, Silas Deane whose position on the "Marine Committee" gave him influence in working out a good deal for his state's navy. In this case, the best technical solution may have been for Connecticut to keep its own state navy, but the best political solution was to maneuver to get Connecticut's ships into the Continental navy because then they would be paid for by the Congress, rather than the state of Connecticut. Another demonstration of this political fact of life was in a tactical choice during the Revolutionary war. In 1777, with a British invasion force advancing toward Philadelphia, the best technical choice proposed by General George Washington was to scuttle the Continental frigates in the Delaware to prevent their capture. The best political choice from Congress was to refrain from doing so. In the end the entire force on the Delaware river was scuttled or burned by both the British and their own crews.

During the rise of the Barbary pirates, Congress faced the choice about whether to pay ransom, or build up the navy once again. At first the best political choice for the Congress was to actually do nothing, and let the American merchant sailors in 1785 languish in Algerian prisons. Even today, when faced with a seemingly insoluble choice, the default position of Congress is usually inaction, as it was in 1785. As the Barbary threat mounted, Congressional inaction was no longer a tenable position. The choice between paying appeasement bribes, or asserting force through the reconstruction of a navy had to be made. Jefferson perhaps most clearly elucidated the case for a navy as the best technical option when he stated,"1. Justice is in favor of this opinion. 2. Honor favors it, and 3. It will procure us respect in Europe, and respect is a safe-guard to interest." These and other arguments persuaded Congress to authorize the beginning of construction of six new frigates in 1794. Congress, however, continued to push toward what they viewed as the best political solution, which was to make a deal with the Algerians. Having seen the miserable performance of the Continental navy and still bearing its debts, the Congress ensured that the construction of the frigates would stop should a negotiated settlement be successful. At this point we come to the greatest irony of this whole historical narrative, which is embodied in this fifth political fact of life. While the best technical solution was to build six frigates in 1794, and best political solution was to pay appeasement bribes and gifts to the Algerians in 1795, the fact is the Congress ended up paying for both. In their great reluctance to spend money, they not only sunk a huge amount of cost in half-way completing the six frigates, they also spent even more money on a short-lived appeasement with Algiers. While this outcome seems on the surface to be inexplicable, unreasonable, and proof of incompetent leadership from a technical point of view, it actually makes perfect sense when you understand government funded programs through the context of the political facts of life. Once again, the endurance of another political fact of life is established over two centuries.

## **Additional Facts of Life**

Dr. Foreman [1] describes additional facts of life which are either corollaries to the first five, or are not as common. The following analysis of these additional facts of life supports their applicability as well as their endurance over two centuries. These political facts of life include:

## Timing Is Everything

Some events have an unexpected impact due to their proximity in time to another major event. One could look at Benedict Arnold's delaying action on Lake Champlain in 1776 as unexpectedly ensuring a victory at Saratoga as one such tactical example. Perhaps the strongest example of timing was during the Constitutional convention of 1787. Were it not for the Barbary pirates capturing two American ships in 1785, there may have been very little support for the provision in Article I Section 8 of the Constitution to provide and maintain a navy. Another example with more of a political effect occurred during the debates about building six frigates to counter the Barbary pirates in 1794. It was during those debates that the British unexpectedly prohibited all neutral trade with the French West Indies. This sudden restriction was an increased threat to American merchant shipping and added even more support to the pro-navy arguments.

## **Political Problems Become Technical Problems**

This is the reverse of fact of life number 1, and is evidenced by having a political problem creating new work. In this narrative, there were five distinct political problems that led to an escalation of the navy including the Revolutionary War of 1775, the Barbary Pirates in 1785, the Quasi-war with France in 1796, the invasion of Tripoli in 1802 and the War of 1812. In each case, the political problems created additional new work that expanded the navy. This was specifically illustrated in 1796 when France viewed the commercial agreement between the United States and Great Britain, known as Jay's treaty as a threat, and began harassing U.S. shipping in what became known as the quasi-war. This political problem created new work as evidenced by Congress growing the navy to thirty vessels with 700 officers and 5000 sailors. It was at this time also that the navy constructed its first new ships of the line with over 70 guns.

## **Politics Prefers Immediate, Near-Term Gratification**

Elected officials will at times make a decision based upon their very short term in office, or proximity to an election campaign. A glaring example of this was given during the transition of John Adams presidency to Thomas Jefferson. Adams was in favor of maintaining a naval force, while the incoming Jefferson was intent on cutting spending, to the point that he might essentially eliminate the navy. The legislation being proposed to Adams to sign at the end of his term called for more cuts to the navy then he preferred, but fearing that even more cuts would be made under Jefferson, Adams signed the last minute legislation at the end of his term in 1800 to maintain at least a token naval force.

## **Politics Believes In Gurus And Heroes**

The political process tends to give undue or excessive attention to someone just because they are famous, or because of their reputation. While it is true that the history of the United States is, by definition, replete with now-famous characters, our narrative gives only sparse examples of the political process actually being swayed by such personages at that time. One such example could be Captain John Paul Jones who swayed the French populace toward the American cause with his self-aggrandizement and tales of heroism. As an interesting footnote to history, Jones did not easily sway the United States Congress, which was loath to grant him an admiralty. In fact, the frustrated Jones went off to join the Russian navy in pursuit of being appointed as an admiral.

## A Catchy Slogan Is Essential To Getting Attention

This political fact of life shows how the political process or a program's constituency can rally around a well-advertized, motivating phrase. This was demonstrated a number of times in this case. For one, Captain John Paul Jones' famous cry, "I have not yet begun to fight" not only rallied his crew to victory against *Serapis* in 1776, it also provided inspiration for the Colonies. As the news of this famous battle reach Europe, the French populace was captivated by Jones' regaling his own tales of heroism. This in turn ensured greater empathy from France, whose allied support was crucial to the American colonies winning independence. Another catchy slogan was the epithet "Old Ironsides" being attached to the USS Constitution after its battle with HMS Guerriere. The pride and memories this evoked saved the Constitution from being scrapped, ensuring its place in living history, as a restored vessel still afloat two centuries later.

## **Perception Is Often More Important Than The Truth**

There were certainly a number of examples in this narrative that showed how the perception of a condition had an impact, even though the condition did not exist. One significant example surrounded the perception of the cost of the planned Continental frigates in 1775. The perception was that these vessels would practically pay for themselves with all the ships and supplies they would capture. The truth was that the huge expenditures for construction added enormously to the national debt and was never defrayed by the ineffective Continental fleet. Another example occurred where this

political fact of life was knowingly exploited by Benjamin Franklin to draw France into the war with Britain. By having privateers shelter in French ports, he advanced the perception to the British that the French were openly hostile toward Britain, which eventually led to open war between the two.

## **Staffers Shape Decision-Making**

The merits of a program must be sold to the administrative and congressional staff in order for it to have a chance to be considered by the Congress itself. These staffers primarily shape the decision making. During the Revolutionary war, Benjamin Franklin shaped decision making by traveling to France and embroiling them in war with England. Later on while still ministers to France and England, Thomas Jefferson and John Adams shaped the arguments surrounding the need for maintaining a navy. The influential authors of the Federalist papers swayed the ratification of the Constitution. The Secretary of War, Henry Knox in 1794 suggested the new generation of six frigates be built superior to those of any European powers. The Secretary of War in 1795, Thomas Pickering shaped decision making by being the one who came up with a list of ten names from which the president George Washington picked for the frigates of 1794. The Secretary of the Navy Benjamin Stoddart shaped decision making in 1798 when he advocated building dozens of ships of the line and frigates. In 1809, when James Madison succeeded Jefferson as President, his new Secretary of the Navy, Paul Hamilton, added ships, increasing the total number of sea going vessels prior to the War of 1812. These cases demonstrate how decision making has historically been shaped by those who support the Congress and administration.

# **New Facts of Life**

During this research and analysis there have been a few other heuristics which tended to materialize, and are worthy of consideration. Though not a part of Foreman's [1] original political facts of life, these were observed by the author during research for this paper and course work for SAE 550 at the University of Southern California.

## Stink Sticks

The fact of life is related to the "Perception..." fact of life, and describes how once a program or person is stereotyped with failure or negative news, it is very difficult to overcome. Examples include Commander Esek Hopkins whose naval successes were not able to overcome the pall of some of his failures, resulting in his removal from command. Another example included the war-weary American public's strong aversion to supporting another navy after considering how ineffective and costly the original Continental navy had been. The stink of tyranny was another example whereby the American public was averse to having a standing army or navy for fear of it being co-opted by a tyrant.

## Politics finds strength by aligning with the latest trends

This political fact of life is a mixture of the "Constituency", "Perception", and "The best Political Option" facts of life. During general research and study on the political facts of life, this heuristic was apparent for modern government funded programs. For example, since the 1990's, global climate change has been a popular topic to which politicians align themselves to gain popularity. Programs that involved this topic received significant Congressional attention in this era where it is "Good to be Green". In our historical narrative, an example of this heuristic can also be seen. In 1793, the American public considered itself to be independent, averse to tyranny, and neutral in foreign affairs. This isolationist view was the latest trend of how the public viewed themselves as a nation. This view was encapsulated by George Washington's Neutrality Proclamation of 1793, and it also created a strong political position that made it difficult to promote the re-establishment of the navy in 1794.

## Tolerance for cost is proportional to the number of jobs at stake

This fact of life has a lot of interaction with Cost Rules, but it speaks to the power of constituency in offsetting the power of cost. One example of this fact of life occurred when Secretary of War, Henry Knox suggested in 1794 that the six frigates should be built at a number of manufacturing sites to promote job and income benefits to several states. Knox points to this balance between cost and jobs when he stated, "a few thousand dollars in expenses will be no object compared with the satisfaction a just distribution would afford."

## Conclusion

This historical narrative described how the political process impacted the establishment and evolution of the United States navy from the Revolutionary War of 1775, the Barbary Pirates in 1785, the Quasi-war with France in 1796, the invasion of Tripoli in 1802, and the War of 1812. The primary impact of the political process upon the development of the navy was that it forced the navy to grow to meet a threat, then diminish after the threat had passed in cycles throughout the time period analyzed. As in the case of modern politics where Congressional decisions seem to be inexplicable, unreasonable, and indicative of incompetent leadership from a technical point of view, they actually make perfect sense when you understand government funded programs through the context of the political facts of life.

The analysis showed that Forman's [1] "Political Facts of Life" were applicable to one of the earliest significant United States government funded programs. The heuristics therefore have demonstrated endurance for over two centuries in the past. Unless there is a significant change to the structure and nature of governance in the United States, one can assume that these political facts of life will continue to be applicable to U.S. government funded programs in the future. New political facts of life discovered during research included:

- "Stink Sticks", which describes how a bad reputation is difficult to overcome politically.
- "Politics finds strength by aligning with the latest trends", which describes how the political process will use the public perception of an issue to secure a constituency.
- "Tolerance for cost is proportional to the number of jobs at stake", which speaks to the power that job creation, or the loss of jobs, has on affecting political decisions.

Now that the endurance of the University of California SAE 550 "Political Facts of Life" has been established for two centuries, future research might include testing the enduring nature of the "Political Facts of Life" over historical millennia, and evaluating their applicability to the programs of other cultures and nations.

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