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**The Effects of Congressional Military Service on Department of Defense
Appropriations**

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December 2004**

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**THE EFFECTS OF CONGRESSIONAL MILITARY SERVICE ON
DEPARTMENT OF DEFENSE APPROPRIATIONS**

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Submitted in partial fulfillment of the requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

**NAVAL POSTGRADUATE SCHOOL
December 2004**

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THE EFFECTS OF CONGRESSIONAL MILITARY SERVICE ON DEPARTMENT OF DEFENSE FISCAL APPROPRIATIONS

ABSTRACT

The purpose of this MBA Project was to determine whether or not a Senator or Representative's previous military service had any influence on how he or she supported defense appropriations. During the course of this project, four shipbuilding programs over the previous twenty years were analyzed: LCS, MCM-1, LPD-17, and DDG-51. This research showed that military experience does have a positive effect of Department of Defense Appropriations at the committee level. Some Senators and Representatives, who lacked military experience, actually appeared to be against military spending. In both cases, though, the effects of military experience were outweighed by a much larger concern. Where a ship was actually built had a much larger effect on how much Congressional support that particular program received. Therefore, from the results of this study, one can extrapolate that where a particular program is built has a significantly greater impact on Congressional support than does prior military experience.

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EXECUTIVE SUMMARY

Military experience does appear to have an effect on votes for defense appropriations. However, this experience has a greater impact on committee actions than it does on House and Senate floor voting actions. Prior military experience may make some members more inclined to give a defense program its needed dollars. A lack of military experience may make others less inclined to support DOD programs. However, the actual location where a defense program's unit is built will be a much greater determinant of the appropriations dollars that the program receives. The history of four separate shipbuilding programs provides evidence of these conclusions.

In the case of the LCS, military experience proved to be a positive indicator for the program. In committees that had a great deal of prior military experience, the program was seen as an effective, cost saving measure to give the Navy its needed capabilities at a reasonable price. Committees that did not have as wide a range of previous military experience did not share the same views and, thus, did not support the programs. When appropriation decisions were made on the House and Senate floor, however, prior military experience did not have as much of an impact. Several changes were made to the program which did not directly correlate to the prior experiences of those involved. Instead, the shipyards appeared to be the greater concern as funding was given in advance for the more expensive DD(X) and DDG-51 programs. These programs helped out the larger shipyards while the smaller yards were slated to begin construction on the LCS.

The MCM-1 program showed that military experience can have a negative impact on appropriations when a program is falling behind. The smaller shipyards in Wisconsin had difficulties with producing the first ships of this class. As a result, the House and Senate committees withdrew some support for the program. They seemed to show a great degree of trepidation with spending advanced procurement dollars on new ships while the units already purchased had not been completed. Since the committees involved contained a great deal of prior military experience, their actions seemed to be based on the perceptions of a need to handle defense money responsibly. Unlike the committee action, the House and Senate floor action did not provide evidence either way as to

whether prior military experience had any effect on the program's appropriations. In fact, the Wisconsin delegation appeared to be unusually lackluster in its support of the program. Upon closer examination, it appears that, since the shipyards did not depend on Navy contracts for their survival, the delegation did not see as much need to fight for the program.

To emphasize this point, the LPD-17 program was treated much differently when its shipyard was falling behind schedule. The involved committees desired to delay the procurement of additional units until the design problems were fixed. However, when the relevant appropriations bills reached the House and Senate floors, advanced funding was appropriated for additional units even though the shipyard had not begun construction on the first unit. In MCM-1's case, the shipyards were not able to deliver the first units on time, but in LPD-17's case, the shipyard was still trying to design the first unit. This shift in attitude was a direct result of the Mississippi delegation's lobbying efforts. Realizing that Ingalls needed the Navy contract in order to remain fiscally viable, the delegation pushed to have some money given to the program by citing that the money would help to maintain America's industrial base.

The history of the DDG-51 program provides further evidence of these policies. Over the program's history, committees with a large amount of prior military experience have supported the program. Conversely, House and Senate members with a lack of military experience have voted against the program when they voted against House and Senate Appropriation Bills. Military experience did have an effect on the program, at least while the relevant bills were in committee.

However, the more striking examples of how this program has been treated can be seen in recent years. As the larger shipyards were discovering a lag between the end of the DDG-51 program and the beginning of the DD(X) program, they grew concerned about their financial stability. As a result, the Mississippi and Maine delegations pushed to either have new DDG-51 units built or to have advance procurement dollars appropriated for the next program. Therefore, while military experience does appear to play a role in how money is appropriated to a program, it is obvious that where a unit is actually built is a much greater determinant of funding.

I. INTRODUCTION

A. BACKGROUND

In the recent past, the Navy has argued that it must maintain 300 ships in order to meet its worldwide commitments. [Ref 1:p. 876] This number allowed ships to conduct a deployment of up to six months, after which the ship would return to its homeport in order to perform maintenance and training. When one ship returned from deployment, there was already another that had taken its place. This allowed the Navy to maintain a constant presence around the world and this gave each ship the ability to maintain peak efficiency. More importantly, the relatively stable schedule and lengthy periods in a homeport helped the Navy recruit and retain enough sailors to properly man these vessels.

After a ship's deployment ended, the maintenance period lasted approximately six months and the training period lasted up to one year. This cycle allowed these vessels enough time to perform required corrective and preventive maintenance in a shipyard environment which would extend that ship's useful service life. In addition, since a ship's crew is constantly changing, the training time allowed the newer crewmembers to get their required qualifications before the next deployment. This training period also included relatively short periods where a ship's crew could practice the operations that they would perform over a deployment.

However, increased global commitments have drastically changed these policies. Congress has been unable to fund shipbuilding programs to the amounts which would maintain the required 300 ship level in the future. For example, in 2004 the House Appropriations Committee cut \$248 Million from the DD(X) Program which will delay procuring the first ship of this class but added \$100 Million in appropriations to modernize the *Arleigh Burke* class destroyers. [Ref. 2:p. 1422] Essentially, these appropriations force the Navy to constantly maintain an aging fleet rather than replace older ships with a newer class as the new ships are built.

While, at first, this seems like a method to save critical budget dollars while maintaining enough ships to meet worldwide commitments, these budget decisions end up costing the Department of Defense more money in the long run. The Navy has rarely been able to keep smaller ships operating for more than thirty years. The problem is not that the hulls are not durable enough but that the mechanical and electrical equipment starts to deteriorate rapidly as a ship ages. [Ref. 3:p. 542] According to procurement officials, “as you approach the end of a ship’s service life, you see an exponential increase in the amount of maintenance dollars you need to pump into them.” [Ref. 3:p. 542] Therefore, by delaying the procurement of a newer class of ship, Congress may be saving money today and generating larger costs in the future.

The changing global environment has accelerated these problems by requiring ships to be able to counter the various threats posed by terrorism. For example, ships are now needed to keep an aircraft carrier safe from both diesel submarine and small boat threats. The Chief of Naval Operations, Admiral Vern Clark, has recommended that the fleet size be increased to 375 ships in order to operate effectively in our current environment. [Ref. 4:p. 515] In order to meet these new requirements, the Navy has proposed a new type of small, agile ship called the LCS (Littoral Combat Ship). This platform is designed to fight effectively in a littoral environment using a variety of weapons packages, each tailored for a particular mission. Most importantly, the LCS is a relatively inexpensive way to maintain the needed force structure. Since the ships are budgeted for \$220 Million each (compared to the \$1.2 Billion needed for an *Arleigh Burke* class destroyer), they provide the means to meet the CNO’s request. Though this seems like an ideal solution, Congress has focused its efforts of procuring a smaller number of *Arleigh Burke* destroyers, even though current shipbuilding efforts will not meet the Navy’s requirements.

Overall, approximately ten ships are needed per year to maintain current force levels; only six ships were appropriated in Fiscal Year 2004.

B. PURPOSE

The purpose of this research is to identify the factors that determine how much money Congress appropriates for Department of Defense programs by closely examining the reasons why individual Senators and Representatives vote to appropriate certain monies to Navy shipbuilding programs. One cannot help but notice that those who vote on this funding, the Senators and Representatives, as a group, do not have the same military background that they had twenty years ago. This shift in experience could explain why these programs received their respective levels of funding.

This research is intended to answer this question and, when the answer proves inconclusive, to delve further into the reasons why Congress appropriates more money for some programs and less for others. Due to time constraints, this research will examine the appropriation history of four shipbuilding programs since 1984. Each program was started at a different period in our nation's history where the Navy's force structure needs were different. While the research is rather limited in scope, an overview of how each program is treated over time should be very useful. In addition, the research will seek to ascertain whether some appropriations for these programs were as a result of apparent favoritism on behalf of those with prior naval service or on behalf of a particular constituency.

C. RESEARCH QUESTIONS

The primary question addressed in this research is: Does prior military service have an effect on the way members of Congress vote for DOD appropriations and, if such an effect exists, would the cause be prior military service?

Secondary research questions are:

1. Do Pro/Con votes change over time?
2. If the voting pattern appears to change over time, is it due to the general public's feeling about the military at that time?
3. Does a person's voting record appear to be more in support of his or her constituency rather than any particular feelings about national defense?
4. Do some Congressmen and Senators change the way they vote due to a shifting in their political viewpoint?

5. Do Congressmen and Senators with prior military experience appear partial to their own service?

D. BENEFITS OF STUDY

This research provides insights as to why Department of Defense programs receive more or less fiscal support from Congress. By looking at whether military experience is a factor, one can further understand the relationship between Congress and the Department of Defense. In addition, the answers to the research questions will give Navy financial managers a better understanding of the amount of influence they have over a program's funding.

E. SCOPE OF THESIS

The scope included: (1) a review of all Congressional backgrounds over the last twenty years, (2) identification of key appropriation bills for four shipbuilding programs: DDG-51, MCM-1, LPD-17, and LCS, (3) thorough analysis of each Congressman's vote for each program's appropriation over time. This thesis summarizes the data and provides an analysis of Congressional voting records over the last twenty years.

F. METHODOLOGY

The methodology used in this thesis research consisted of the following steps:

1. Examined the backgrounds of all U.S. Senators and Representatives who have served since 1984 in order to compare their various backgrounds.
2. Compiled a list of all involved Congressmen and Senators and grouped according to party affiliation, military service, and type of service.
3. Used the Congressional Quarterly Almanac and Congressional Quarterly Weekly, et al. to locate all relevant appropriation bills for the programs in question.
4. Examined the voting records of all involved Congressmen and Senators for appropriation votes regarding the four examined programs.
5. Reviewed each Congressman and Senator's voting record over time to determine if a member's views appeared to change.
6. Examined the appropriation voting records of Congress as a whole over the period to determine if the general political mood of the time has been affecting the appropriation votes.

7. Cross-analyzed all information and investigated for trends.

G. ORGANIZATION OF STUDY

This thesis looks at each shipbuilding program separately. First, an introduction gives a history of the program. Items that are included are the ship's capabilities, where the ship was built, and the Navy's reasons for developing the program. This analysis provides insight as to what advantages the program provided to the Department of Defense as well as the price tag associated with the program.

Next, the thesis looks at the committee actions in the House of Representatives and the Senate regarding each program. Subcommittee actions are also included as necessary. Since all shipbuilding appropriations were part of the larger DOD appropriations bills, the committee votes, marks, and statements will shed further light on why certain Senators and Representatives supported or did not support these programs. The backgrounds of relevant committee members were analyzed in detail to help answer the research questions.

Third, this thesis examined how the House of Representatives and Senate as a whole voted on these programs. Authorization bills were included in this analysis, as appropriate, when their nature provided greater insight as to why certain members cast a yes or no vote.

Finally, this thesis looks at the politics surrounding where each ship was built. Since an individual shipyard can provide a large number of jobs, looking at where a particular ship was built can help one determine if a Senator or Congressman cast a vote in support of a particular constituency.

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II. THE LITTORAL COMBAT SHIP (LCS)

A. INTRODUCTION AND HISTORY

The Littoral Combat Ship was designed to meet a wide variety of needs in a changing global environment. In the past, the Navy was more focused on a large scale “blue water” conflict with a conventional navy. This concept required the development of two different types of ship. One was the *Ticonderoga* class guided missile cruiser, the first of which was commissioned in the early 1980’s. This platform was primarily designed to provide air defense against a large number of incoming enemy aircraft and missiles. In addition, it had the ability to launch long range missiles against both sea and shore targets and it had limited undersea warfare capabilities. The second type of ship was a cheaper alternative that could be used to counter a deep-sea submarine threat and provide gunfire support against smaller surface combatants. This platform was the *Oliver Hazard Perry* class frigate, the first of which was commissioned in 1977. One additional benefit of this cheaper platform was that many of them could be built relatively quickly. This resulted in a Navy that could better maintain the needed worldwide presence.

However, after the collapse of the Soviet Union in 1990, it became apparent that neither of these platforms nor the newer *Arleigh Burke* class destroyers could counter the threats provided by future opponents. The Navy’s focus had begun to shift towards fighting smaller opponents in “brown water” or littoral environments. These primarily shallow, coastal environments provided a new set of challenges. The littoral areas can easily hide diesel submarines which are extremely difficult to detect. Smaller enemy combatants can appear suddenly and move swiftly. Enemies can easily lay a large number of mines close to shore. Finally, in the wake of the *USS Cole* disaster in 2000, a need to provide more vigorous anti-terrorism defense arose.

These concerns required a ship that could move quickly, defend itself against smaller combatants, and operate in shallow water. In addition, this vessel needed the ability to fight in a wide variety of environments against different types of threats. The Littoral Combat Ship was designed to meet these needs. According to GlobalSecurity.org:

The LCS is an entirely new breed of U.S. Navy warship. A fast, agile, and networked surface combatant, LCS's modular, focused mission design will provide the Combatant Commanders the required war fighting capabilities and operational flexibility to ensure maritime dominance and access for the joint force. LCS will operate with mission focused packages that deploy manned and unmanned vehicles to execute mission as assigned by combatant commanders. [Ref. 5:p. 1]

Since the ship is designed to be small, fast, and agile, each one costs significantly less than a new *Arleigh Burke* class destroyer. The capability for modularity enhances these cost savings. Rather than build a new ship type for each littoral warfare requirement, the LCS is designed to handle each threat through its modular design. Essentially, the LCS can get underway with a mission package to hunt mines and then return to port, switch to an anti-terrorism mission package, and get underway again to perform an entirely different function.

One additional, but very significant, cost savings provided by LCS comes through minimal manning. While a larger ship with similar capabilities, such as the *Oliver Hazard Perry* class frigate, might have around 200 officers and enlisted onboard, the LCS will have, at the most, a total of 50 crewmen. As larger ships are decommissioned and replaced by the LCS, one can envision a much smaller need for personnel.

About sixty vessels are envisioned under the LCS program. This number will keep the Navy over its needed 300 ship minimum and provide large cost savings without forcing the Navy to alter its global commitments. The Navy, as a whole, recognizes that the DOD budget, as a percentage of federal spending, can be expected to shrink as the Congress finds itself spending a larger portion of the Federal Budget on mandatory items such as Social Security and Medicare. However, the Navy's commitments due to the Global War on Terror have vastly increased. Therefore, since the LCS appears to be an ideal solution to these problems, one may wonder how Congress appropriates money for the program. Indeed, one would think that the members of Congress, especially those with previous military experience, would work to ensure the LCS program's success.

B. COMMITTEE ACTION

The actions of relevant House and Senate Committees can shed light on how individual Senators and Representatives feel about the program, based on their previous

military service. The House of Representatives Committee on Appropriations recently received the FY05 Defense Appropriations Bill from the Defense Subcommittee. In this bill, the Defense Subcommittee recommended \$409 million for the Littoral Combat Ship which would provide an increase of \$107million over the President's request [Ref. 6:p. 3]. Interestingly, the Defense Subcommittee cut \$248 million from the President's request to fund the DD(X) program [Ref. 6:p. 3]. This change shows a fundamental shift in the way the House Appropriations Defense Subcommittee views future shipbuilding. While the merits of the LCS have already been discussed, it must be noted that the DD(X) is intended to be an expensive replacement for the *Arleigh Burke* class destroyer.

The entire membership of the Defense Subcommittee is as follows:

Defense Subcommittee	Party	State	Years Military Service	Branch
Cunningham	Republican	CA	21	USN
Frelinghuysen	Republican	NJ	2	USA
Wicker	Republican	MS	26	USAF/USAFR
Murtha	Democrat	PA	38	USMC/USMCR
Young	Republican	FL	9	Nat'l Guard
Lewis	Republican	CA	None	None
Hobson	Republican	OH	None	None
Bonilla	Republican	TX	None	None
Nethercutt	Republican	WA	None	None
Tiahrt	Republican	KS	None	None
Dicks	Democrat	WA	None	None
Sabo	Democrat	MN	None	None
Visclosky	Democrat	IN	None	None
Moran	Democrat	VA	None	None

Table 2.1 Membership of House Appropriations Committee Defense Subcommittee, 2004. From: [Ref. 7:p. 1801]

In the above table, one can see that the Subcommittee has several members with a great deal of military experience. Another item of note is that none of the members have a Naval Shipyard in their districts. Representative Wicker, though he is from Mississippi, represents District 1 which covers the northern part of the state rather than District 4 which includes Ingalls Shipbuilding. Representative Moran is from Virginia's 8th District which covers the suburbs of Washington D.C. and is far from Newport News Shipbuilding. None of the other members have major shipyards in their states. Therefore,

one can infer that the Defense Subcommittee made the decision to cut the DD(X) program and add money to the LCS program partially on the basis of their military experience (or lack thereof).

Though not related to the LCS program, two members of the Defense Subcommittee, both with significant military experience, have shown a propensity to strengthen defense programs even when there was no foreseeable benefit to their constituency. Representative Murtha's political clout was crucial to adding billions of dollars to the President's request when marking up the FY05 Defense Appropriations Bill. [Ref 2:p. 1422] Representative Young, the Chairman of the Appropriations Committee, had even discussed adding an additional \$10 Billion to the bill. [Ref 2:p. 1422]

The activities of the House Armed Services Committee tell another story, however.

When the House Armed Services Committee reported out its version of H.R. 4200, the National Defense Authorization Act for Fiscal Year 2005, it recommended delays on two Navy shipbuilding programs widely viewed as transformational-the DD(X) and the LCS. [Ref 8:p. 3]

In the report, the Committee expressed several concerns about the future of the LCS program. The members question whether the Navy needs sixty new ships as well as whether the requirement for these ships is valid. The House Armed Services Committee has 46 out of 62 members who have no prior military experience. Of the members that were in the military, the following is a summary of their service:

Armed Services Committee	Party	State	Years Military Service	Branch
Hunter	Republican	CA	2	USA
Marshall	Democrat	GA	2	USA
Everett	Republican	AL	4	USAF
Gibbons	Republican	NV	4	USAF
Wilson	Republican	NM	7	USAF
Simmons	Republican	CT	35	USA/USAR
Spratt	Democrat	SC	2	USA
Ortiz	Democrat	TX	2	USA
Evans	Democrat	IL	2	USMC
Taylor	Democrat	MS	13	USCGR
Shrock	Republican	VA	4	USN
Akin	Republican	MO	8	USAR
Wilson	Republican	SC	3	USAR
Kline	Republican	MN	25	USMC
Reyes	Democrat	TX	2	USA
Turner	Democrat	TX	8	USA

Table 2.2. Membership of House Armed Services Committee with Military Experience, 2004. From: [Ref. 7:p. 1802]

As one can see, several members of the Armed Services Committee have a significant amount of military experience. However, only about 25% of the Committee's membership is composed of people with any prior military experience compared to the 36% membership of the House Appropriations Defense Subcommittee. In addition, there has been no mention of a member of the Armed Services Committee pressing for increases in defense spending as Congressman Murtha did before the Defense Subcommittee. Since the shipyard which will build LCS has not been determined, no one on the committee has a particular interest in preserving a particular yard, though that may change in Representative Everett's case if Bender Shipbuilding in Mobile gets the contract. Therefore, one can conclude the lack of military experience in the Armed Services Committee may have negatively affected the LCS program.

C. HOUSE AND SENATE VOTES

Several key bills affecting the LCS program, which were passed by the House of Representatives and the Senate, proved to have great importance. The ways that

individual Senators and Representatives voted on these bills provides additional insight into how their military experience may have influenced their votes.

The FY2005 Defense Appropriations Bill Conference Report provided full funding for the LCS program. [Ref 9:p. 1819] This funding included construction of the first LCS. The bill also provided advanced procurement for the DD(X) program. [Ref 9:p. 1819] This result is interesting because the House Armed Services Committee had recommended cutting both programs. Even the House Appropriations Defense Subcommittee, which desired to fully fund the LCS program, had moved to cut the DD(X) program since the LCS was a better alternative. This bill easily passed both the House and Senate. The following members voted “no” on the bill:

Name	State	Position	Party	Years Served	Years Military Service	Branch
Pete Stark	CA	Representative	Democrat	1972-2004	2	USAF
John Conyers, Jr.	MI	Representative	Democrat	1964-2004	9	USA/USAR
Jim McDermott	WA	Representative	Democrat	1988-2004	2	USN
Raul Grijalva	AZ	Representative	Democrat	2002-2004	None	None
Lynn Woolsey	CA	Representative	Democrat	1992-2004	None	None
Barbara Lee	CA	Representative	Democrat	1998-2004	None	None
Donald Payne	NJ	Representative	Democrat	1988-2004	None	None
Major Owens	NY	Representative	Democrat	1982-2004	None	None
Melvin Watt	NC	Representative	Democrat	1992-2004	None	None
Dennis Kucinich	OH	Representative	Democrat	1996-2004	None	None

Table 2.3. House and Senate “No” Votes on Fiscal 2005 Defense Appropriations/Conference Report. From: [Ref. 9:p. 1834-1835]

While most of the members in the above table lack military experience, the majority of those who voted “yes” on the bill also had little or no previous military experience. In addition, the bill requested \$25 billion for emergency spending in Iraq. Since all of the “no” voters were of the Democratic Party and some of them, such as Representative Kucinich, were opposed to the war in Iraq, the “no” votes could have been a protest against the war. The way the individual Senators and Representatives voted on this bill did not appear to be a product of military experience. Instead, because the bill showed significant changes to the LCS program since the committee action, one must look at another source in order to discover why certain changes were made.

D. SHIPYARD IMPORTANCE

In order to discover why the changes were made to the DD(X) and LCS programs, one must also look at which shipyards were set to build these platforms as well as which Senators and Representatives counted these shipyards among their constituency. Senators Olympia Snowe and Susan Collins advocated a provision which added funds to the DD(X) program and provided advanced funds to Bath Iron Works for building the DD(X). [Ref 9, p. 1819] Both Senators are from Maine, the home of Bath Iron Works.

Recently, the shipyard has been running into trouble. With the last two *Arleigh Burke* class destroyers scheduled to be finished in 2005, the shipyard does not have any future work planned unless it begins construction on the DD(X). [Ref 10:p. 913] If the DD(X) program does prove successful, it will be at least two years before the shipyard can begin construction. According to Representative Norm Dicks, “if they don’t get the work, some of those [yards] will go down.” [Ref 10:p. 913]

While the LCS did receive its full funding for FY 2005, it did not receive the same attention that the DD(X) program received. Perhaps this is more of a function of where the ships will be built rather than what are its capabilities. Since LCS will be relatively small in size, it does not need to be built in a large shipyard such as Bath Iron Works in Maine or Ingalls in Mississippi. Several shipyards are competing for the contract including Bender Shipbuilding and Repair in Mobile AL, a Norwegian shipyard named Umoe Mandal, Textron Systems in New Orleans LA, and a joint shipyard from Northrop Grumman and Kockums of Sweden. [Ref 11:p. 517] Given the number of smaller shipyards and foreign competitors, it is not surprising that Congress will not provide advanced funding for the program.

One factor that may change this is that the larger shipyards are forming partnerships with some of the smaller yards and lobbying Congress for advanced funding. [Ref 11:p.517] However, since the contract to build the LCS has not been awarded, Congress is unlikely to provide advanced funding for these ships at the same monetary levels as the *Arleigh Burke* and DD(X) programs.

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III. THE MINE COUNTERMEASURES SHIP (MCM-1)

A. INTRODUCTION AND HISTORY

The *Avenger* class mine countermeasures ship was designed to both hunt and sweep enemy mines in littoral environments. After the onset of the Iran-Iraq war in the 1980's, the Navy realized a need to conduct mine hunting operations in the Persian Gulf. Generally, ships had to be concerned with both contact mines that were moored in shallow water as well as contact mines that had broken free of their mooring.

After the Gulf War, the Navy recognized that newer mines were becoming much more prominent. These mines could be laid on the ocean bottom and had characteristics which made them much more difficult to detect. These newer mines were often smaller in size and had different types of sensors such as acoustic and seismic sensors.

The *Avenger* class ship was designed to counter this variety of mine warfare threats. *Avenger* class ships are capable minesweepers in that they can deploy traditional cable cutters as well as acoustic sweeping gear. In addition, these ships can conduct mine hunting operations through the use of sonar and video systems, cable cutters from a mine neutralization vehicle, and mine detonating devices that can be released and exploded by remote control. [Ref 12:p. 1]

A total of fourteen *Avenger* class ships were built. Most have been stationed in Ingleside, Texas. Two of the ships have been permanently deployed to Sasebo, Japan and two have been permanently deployed to Manama, Bahrain. All ships were built by either Peterson Shipbuilders in Sturgeon Bay, Wisconsin, or by Marinette Marine in Marinette, Wisconsin. These shipyards are smaller than both Ingalls Shipbuilding and Bath Iron Works and are not owned by Grumman or General Dynamics.

Unlike most Navy ships, these minesweepers were built with numerous components procured outside the United States. In fact, the *Avenger* class was designed to be a NATO platform. For example, in twelve of the ships, all four of the main engines and all three of the diesel generators were purchased from Isotta Fraschini in Italy. The principal mine hunting device, the crane that places the mine neutralization vehicle in the water, was procured from another Italian manufacturer. The wood and fiberglass hull was

derived from an Italian design. Finally, numerous engineering components were designed in Germany. In fact, many replacement parts for these ships must be obtained from either a sole source manufacturer in Europe or, in Isotta Franchini's case, from a subsidiary located near Ingleside, Texas.

Therefore, these ships were unusual for two reasons. First, the multinational nature of their procurement reflected a relationship with allied nations. Secondly, since these ships were built by smaller shipyards, one might not see as much Congressional lobbying to provide their funding.

B. COMMITTEE ACTION

In 1989, the Senate Appropriations Committee made significant changes to the FY 1990 Appropriations Bill. Among these changes was the funding of an additional *Avenger* class mine sweeper. The Appropriations Committee funded two minesweepers (\$198 million) instead of the one requested (\$120 million). [Ref 13:p. 762] A list of the members of the Senate Appropriations Committee at that time follows:

Name	State	Party	Years Military Service	Branch
Daniel Inouye	HI	Democrat	4	USA
Ernest Hollings	SC	Democrat	3	USA
J. Bennett Johnston	LA	Democrat	3	USA
James Sasser	TN	Democrat	6	USMCR
Dennis DeConcini	AZ	Democrat	8	USA/USAR
Dale Bumpers	AR	Democrat	3	USMC
Frank Lautenberg	NJ	Democrat	4	USA
Tom Harkin	IA	Democrat	8	USN/USNR
Brock Adams	WA	Democrat	2	USN
Wyche Fowler	GA	Democrat	2	USA
Robert Kerrey	NE	Democrat	3	USN
Mark Hatfield	OR	Republican	3	USN
Ted Stevens	AK	Republican	3	USAF
James McClure	ID	Republican	2	USN WWII
Jacob Garn	UT	Republican	4	USN
Thad Cochran	MS	Republican	2	USN
Robert Kasten, Jr.	WI	Republican	5	USAF
Warren Rudman	NH	Republican	2	USA Korea
Arlen Specter	PA	Republican	2	USAF
Robert Byrd	WV	Democrat	None	None
Quentin Burdick	ND	Democrat	None	None
Patrick Leahy	VT	Democrat	None	None

Barbara Mikulski	MD	Democrat	None	None
Harry Reid	NV	Democrat	None	None
Alfonse D'Amato	NY	Republican	None	None
Pete Domenici	NM	Republican	None	None
Charles Grassley	IA	Republican	None	None
Don Nickles	OK	Republican	None	None
Phil Gramm	TX	Republican	None	None

Table 3.1. Membership of Senate Appropriations Committee and Military Experience, 1989. From: [Ref. 13:p. 37-E]

As one can see, the members of the Senate Appropriations Committee in 1989 had a good deal of military experience. None of the members appears to have spent a career in the military. Senators Harkin and DeConcini had the longest terms with eight years of service each. However, 65% of the committee's members did have some experience, with many having served in WWII and Korea. One can also notice that a significant portion of the members had served in the Navy, with Senator Harkin among them.

Therefore, from this example, one can infer that military experience did appear to have an impact on the way that the Senate Appropriations Committee members voted. The fact that many served in the Navy, especially during periods when mine warfare was a critical mission area, may help explain why they included an extra minesweeper in the FY 1990 Appropriations Bill. It is also likely that Senator Kasten may have influenced the vote since the ships are built in his home state: Wisconsin. The House Appropriations Committee members made no changes to the number of minesweepers when they reviewed the bill

In contrast, the House Appropriations Defense Subcommittee treated this program much differently the next year. In the FY 1991 Appropriations Bill, the committee voted to fund only two mine sweepers (\$204 million) instead of the three requested (\$268 million). [Ref 14:p. 819] The following shows the military experience of the subcommittee members:

Name	State	Party	Years Military	
			Service	Branch
Norm Dicks	WA	Democrat	None	None
Bill Hefner	NC	Democrat	None	None
Martin Olav Sabo	MN	Democrat	None	None
Joseph McDade	PA	Republican	None	None
Clarence Miller	OH	Republican	None	None
John Murtha	PA	Democrat	38	USMC/USMCR
Charles Wilson	TX	Democrat	4	USN
Les AuCoin	OR	Democrat	3	USA
Julian Dixon	CA	Democrat	3	USA
Bill Young	FL	Republican	9	Nat'l Guard
Bob Livingston	LA	Republican	2	USN

Table 3.2. House Appropriations Defense Subcommittee, 1990. From: [Ref. 13:p. 38-E]

Approximately 55% of the subcommittee members had previous military experience, with Representative Murtha having spent a great deal of time in the Marine Corps. With the amount of military experience present in this subcommittee, one may question why they voted to cut the *Avenger* program. Apparently, the program was beginning to have problems. According to a Senate conference report, there were delays in constructing the ships that had been previously ordered. [Ref. 14:p. 825]

While the Defense Subcommittee voted to cut the program, there appears to be logical reasoning behind the members' decision. If a shipyard had received funds for previous ships but had been unable to produce the product, then it made little sense to send that shipyard more money. Therefore, military experience helped inform the Defense Subcommittee's judgment. None of the members had political ties to the shipyards since none of them had a constituency in Wisconsin. The only part of the process that appeared to be motivated by constituency was Representative AuCoin's request that the slowdown not affect the Navy's decision to base these ships in Astoria Oregon, his home state. [Ref. 14:p. 819]

C. HOUSE AND SENATE VOTES

Though the committee actions showed interesting results, the FY 1990 Defense Appropriations Bills showed inconclusive results. The passage of the bill appropriated \$286 billion for defense which was a \$2 billion decrease from the President's request. [Ref 13:p. 72-H] This bill included the Senate Appropriations Committee's extra mine sweeper.

Of the 417 Representatives who voted on the FY 1990 Defense Appropriations Bill, 105 voted "No." [Ref 13:p. 72-H] Those with significant military experience voted both "Yes" and "No" on the Appropriations Bill. Instead, votes seemed to be more in favor of party loyalties. Therefore, it would be very difficult to say whether previous military experience affected the bill's passage. One interesting item of note is that, while most Representatives from Wisconsin voted against the Appropriations Bill, Representative Roth voted for its passage. His district included the two builders for the *Avenger* class mine hunter.

One must look more closely at the FY 1990 Appropriations Bill's cuts as well as the political situation in Congress in order to determine what happened. At the time, the Democratic Party held the House majority. The Defense Appropriations Bill included drastic cuts to several Reagan-era strategic weapons programs. The B-2 "stealth" bomber program was cut from three requested to two appropriated. [Ref 13:p. 765]. The Strategic Defense Initiative program Research and Development funding was cut from \$4.6 billion to \$3.5 billion. [Ref 13:p. 765] Therefore, it appears that the House Republicans did not desire these cuts and voted "No" to the bill.

When the same bill had been previously passed by the Senate, the results were different. The Senate had only cut \$300 million from the President's request and passed the bill to appropriate \$288.4 billion for DOD programs. [Ref 13:p. 41-S] Only two Senators voted "No" on the bill's passage: Senator Conrad (D) from North Dakota and Senator Hatfield (R) from Oregon. [Ref 13:p. 41-S] Senator Conrad had no previous military experience and Senator Hatfield had served for three years in the Navy. Since the 96 other Senators who voted "Yes" on the bill had various backgrounds, it is impossible to say with any certainty whether military experience had any effect on their votes.

When the FY 1991 Defense Appropriations Bill was passed, it included none of the \$268 million requested for the three minesweepers. [Ref. 14:p. 826]. When the House of Representatives passed the bill, there were no identifiable trends among those with or without military experience. However, the following represents the votes from Oregon (where the ships were supposed to be homeported) and Wisconsin (where the ships were built):

Name	State	Party	Vote	Years Military	
				Service	Branch
Les AuCoin	OR	Democrat	Yes	3	USA
Denny Smith	OR	Republican	Yes	9	USAF
Peter DeFazio	OR	Democrat	No	4	USAF
Gerald Kleczka	WI	Democrat	Yes	6	Air Nat'l Guard
Toby Roth	WI	Republican	No	7	USAR
Ron Wyden	OR	Democrat	No	None	None
Robert Smith	OR	Republican	Yes	None	None
Les Aspin	WI	Democrat	Yes	None	None
Robert Kastenmeier	WI	Democrat	Yes	None	None
Steve Gunderson	WI	Republican	No	None	None
Jim Moody	WI	Democrat	Yes	None	None
Thomas Petri	WI	Republican	No	None	None
David Obey	WI	Democrat	Yes	None	None
James Sensenbrenner, Jr.	WI	Republican	No	None	None

Table 3.3. Oregon and Wisconsin Representatives' FY 1990 Defense Appropriations Bill Votes. From: [Ref. 14:p. 147-H]

Representative AuCoin voted “Yes” on the bill after having received assurances that his district would be the homeport for at least two minesweepers. However, there is no discernable pattern in how the rest of Oregon’s Representatives voted. Those with and without military experience as well as Democrats and Republicans voted both ways.

In Wisconsin, Representative Roth voted against the bill. This is not surprising since the lost funding for the MCM program directly affected his district. With that exception, however, like Oregon, there is no discernable pattern among those who voted on the Defense Appropriations Bill.

There was also no apparent pattern when the Senate voted on the Defense Appropriations Bill after the Committee reported out later that year. The bill was adopted

80-17 and cut \$19 billion from the President's request. [Ref 14:p. 62-S] Among those who voted "No" on the bill, only one was from Wisconsin. Senator Kohl, who voted to pass the bill, had actually served six years in the Army Reserve. However, since the remaining Senators who voted "No" had various levels of military experience, it cannot be proven that previous military experience had any effect on this bill's passage.

D. SHIPYARD IMPORTANCE

As far as constituency is concerned, where the ships were built did not seem to have as much impact on the House and Senate votes as the locations did in Mississippi and Maine. While the individual Representatives appeared to vote in favor of their constituency, the Representatives from outside Wisconsin's 8th District did not necessarily vote the same way. Wisconsin's Senators also did not necessarily vote in favor of the two involved shipyards. The reasons are likely due to the shipyards' capabilities and the size of the Navy contracts.

The shipyards in Maine and Mississippi are designed to produce larger Navy vessels. For this reason, the shipyards invested large sums of money in the equipment needed to build these ships. In addition, since the components of these vessels are so large, a shipyard almost has to dedicate itself to fulfilling Navy contracts. When the shipyard stops receiving contracts it could be facing bankruptcy. The changing personnel requirements and the need for new equipment can be too much for the yard to handle.

In contrast, the smaller shipyards such as Peterson and Marinette do not have the same problems. Since minesweepers are, at the most, 224 feet long, the shipyard does not have to dedicate itself to producing one ship at a time. The size of the minesweepers also means that the shipyard does not have to invest vast sums of capital on shipyard infrastructure.

The dollar amounts of the contracts are significantly different as well. Since a minesweeper costs approximately \$90 million compared to the \$1.2 billion required for an *Arleigh Burke* class destroyer, the shipyard does not face as much risk as a larger shipyard. Cost overruns are less likely to hurt the business and, since the amount of profit is relatively small, the shipyard is less likely to focus solely on Navy contracts.

When Congress appropriates less money for a ship built in a smaller yard, there is lesser effect on a Representative's or Senator's constituency. The shipyard does not necessarily go out of business because it can continue performing work for other customers. As a result, the loss of a Navy contract does not necessarily mean that the smaller shipyards will go out of business or begin cutting jobs.

IV. THE AMPHIBIOUS TRANSPORT DOCK (LPD 17)

A. INTRODUCTION AND HISTORY

The *San Antonio* class amphibious transport dock was designed as the next generation of amphibious ship. With the advent of the “Sea Base” concept, the Navy recognized a need to create an amphibious ship that could perform a variety of missions. The idea of Sea Basing is to place power projection forces and equipment at sea rather than at a land facility. The LPD 17 was an ideal platform for this role. Essentially, the LPD 17 was designed to embark, transport, sea base and land elements of a landing force for various expeditionary warfare missions. [Ref. 15:p. 1]

The *San Antonio* class ship was designed to replace most other amphibious ships by combining their functions into one platform. These ships can land Marines ashore by using Landing Craft Air Cushion Vehicles (LCACs) or by using more traditional landing craft. In addition, the LPD 17 has the capability to use both helicopters and vertical take off and landing aircraft. These airframes can land Marine and special operations units as well as provide air support.

The first of these ships began construction in August 2000 and was more than 80% complete by the end of 2003. [Ref 15:p. 1] The keels of the next four ships in the class were laid soon after the LPD 17 began construction. Eventually, as the requested 12 ships in the class are built, the older Navy amphibious ships will be decommissioned. This will produce an overall cost savings as these 12 ships replace over 40 older units (LPD 4, LSD 36, LKA 113, and LST 1179 classes). [Ref 15:p. 1]

These ships are being built by the Northrop Grumman Shipyard in Avondale, Louisiana. According to the Navy Fact File:

The lead ship contract contained options for *New Orleans* (FY 1999) and one of the FY 2000 follow-on ships, *Mesa Verde* (LPD 19) and *Green Bay* (LPD 20). These options were exercised in December 1998 and February 2000. The Navy awarded the contract to build *New York* (LPD 21), in November 2003. [Ref 15:p.1]

This shipyard, unlike Bath Iron Works and Ingalls Shipbuilding, works on both Navy and civilian contracts. Even though the LPD 17 is a large vessel, Avondale has little trouble shifting its facilities to producing merchant vessels. The loss of a Navy contract will probably not put the shipyard out of business. However, Northrop Grumman also owns the Ingalls Shipyard in Pascagoula, Mississippi. Though these ships are being built in Louisiana, it is possible that the Senators and Representatives from Mississippi support the program because Northrop Grumman's financial stability can impact the Mississippi yard. Therefore, politics can be more of an issue than they were for the MCM 1 program.

B. COMMITTEE ACTION

Like the *Avenger* class, the initial *San Antonio* class ships faced development problems which delayed the production of the initial units. The LPD 17 was supposed to be the first ship designed using three dimensional computer aided design. While the idea was conceived to generate cost savings, the shipyard had great difficulty translating the three dimensional models into a workable product. Unlike the case of the MCM 1 program, these delays did not necessarily cause reduced funding.

First, the Senate Appropriations Committee deferred spending on the first two ships of the class in 2000 due to cost overruns and scheduling delays. [Ref. 16:p. 2-42] This seems similar to the way Congress responded to the delays in MCM 1 procurement. However, unlike the case with the *Avenger* class program, the Appropriations Committee included provisions to appropriate some money for the shipyard. They included \$268 million to cover the overruns and \$200 million in advanced procurement for the two ships. [Ref. 16:p. 2-42] Though this was a fraction of the cost of each ship (approximately \$1 billion each), this policy represents a significant change from other programs.

The Senate Appropriations Committee members had a great deal of military experience. The following shows the Committee's membership in 2000:

Name	State	Party	Years Military Service	Branch
Thad Cochran	MS	Republican	2	USN
Arlen Specter	PA	Republican	2	USAF
Slade Gordon	WA	Republican	29	USA/USAF/USAFR
Conrad Burns	MT	Republican	2	USMC
Robert Bennett	UT	Republican	3	Nat'l Guard
Ben Campbell	CO	Republican	2	USAF
Larry Craig	ID	Republican	4	Nat'l Guard
Lauch Faircloth	NC	Republican	1	USA
Daniel Inouye	HI	Democrat	4	USA
Ernest Hollings	SC	Democrat	3	USA
Dale Bumpers	AR	Democrat	3	USMC
Frank Lautenberg	NJ	Democrat	4	USA
Tom Harkin	IA	Democrat	8	USN/USNR
Herb Kohl	WI	Democrat	6	USAR
Pete Domenici	NM	Republican	None	None
Christopher Bond	MO	Republican	None	None
Mitch McConnell	KY	Republican	None	None
Richard Shelby	AL	Republican	None	None
Judd Gregg	NH	Republican	None	None
Kay Hutchinson	TX	Republican	None	None
Robert Byrd	WV	Democrat	None	None
Patrick Leahy	VT	Democrat	None	None
Barbara Mikulski	MD	Democrat	None	None
Harry Reid	NV	Democrat	None	None
Patty Murray	WA	Democrat	None	None
Byron Dorgan	ND	Democrat	None	None
Barbara Boxer	CA	Democrat	None	None

Table 4.1. Senate Appropriations Committee, 2000. From: [Ref. 17:p. 1607]

Of the 27 members in the Senate Appropriations Committee, 52% had previous military experience. Though most had only a few years of experience, one member had served an entire career in the Army and Air Force. Interestingly, only two members had spent time in the Navy. Therefore, it is possible that these members made a sound

decision to delay the program based on their military experience. This assumption is supported by similar committee actions on other shipbuilding programs.

One key difference is the appropriation of some advanced money for Ingalls Shipbuilding. Perhaps this was not a function of the members' military experience but, rather, a nod to Senator Cochran. All LPD 17 class ships were supposed to be built in his home state of Mississippi. Though the ships were eventually built by the same company in Avondale, Louisiana, at the time the Mississippi shipyard was planning to begin construction and needed a certain amount of cash in order to remain operational.

C. HOUSE AND SENATE VOTES

The House and Senate votes on the passed FY 2001 Appropriations Bill shed further light on whether or not military experience played a part in the funding for LPD 17. By the time the Appropriations Bill reached the Senate, cost overruns had become more of an issue. The Senate voted to cut \$1 billion from the \$1.5 billion requested for the fifth and sixth ships of the class. [Ref 16:p. 2-48] The thinking behind this policy was very similar to the way that the Senate Appropriations Committee handled the issue. The shipyard was simply not producing and it did not make economic sense to keep paying for more units.

The Senate also denied the Appropriations Committee's request for the money to cover cost overruns and advanced procurement. Instead, the bill authorized the DOD to shift \$300 million already appropriated for other programs to cover the shipbuilding programs. [Ref. 16:p. 2-48] In other words, Congress pulled money from other programs to cover the cost overruns rather than giving the program new money.

The following table discusses the votes from the FY 2001 Appropriations Bill. When the bill reached this stage, the conferees had continued to allow the Navy to transfer the needed funds and they only approved \$561 million for the fifth and sixth units. [Ref 16:p. 251] This was an enormous reduction over the previously requested \$1.5 billion. The Senate "No" votes on the Appropriations Bill are as follows:

Name	State	Position	Party	Years Military Service	Branch
John McCain	AZ	Senator	Republican	22	USN
Chuck Hagel	NE	Senator	Republican	1	USA
Barbara Boxer	CA	Senator	Democrat	None	
Wayne Allard	CO	Senator	Republican	None	None
Paul Wellstone	MN	Senator	Democrat	None	None
George Voinovich	OH	Senator	Republican	None	None
Phil Gramm	TX	Senator	Republican	None	None
Russell Feingold	WI	Senator	Democrat	None	None
Michael Enzi	WY	Senator	Republican	None	None

**Table 4.2. Senate FY 2001 Defense Appropriations Bill “No” votes, 2000.
From: [Ref. 16:p. S-41]**

Two interesting patterns emerge from the Appropriations Bill vote. First, with the exception of Senator McCain, there is an overall lack of military experience among the “No” voters. Some of these members have shown some lack of support for Defense Appropriation Bills in the past, but that lack of support was never consistent. For example, Senators Gramm and McCain voted “No” on the FY 2002 Appropriations Bill the next year. [Ref 18:p. 3111] Senators Feingold and Boxer had voted “No” on the Defense Authorization Bill in 1996. [Ref. 19:p. S-34] However, they voted in favor of defense spending in other years. Senator McCain has a long history of voting “No” on defense bills where wasted money is an issue. In this case, one could say that his military experience gave him a dislike of cost overruns. For the other Senators who voted “No” on this bill, there appears to be little direct link between their lack of military experience and their voting tendencies. The Senators who voted “Yes” on this bill had various military and civilian backgrounds, leading one to believe that military experience had little to do with their vote. Therefore, it appears that those with and without military experience have strong feelings about defense.

Another interesting aspect of this vote is that both Senators from Mississippi voted “Yes” on a bill which drastically cut funding to Litton Industries in Pascagoula,

Mississippi. Both Senators had lobbied to get some money for the shipyard. In fact, Senator Cochran had ardently supported the advanced funding for the first LPD 17 class ship, even though the design and construction schedules had not been finalized. [Ref. 16: p. 2-48] Therefore, it appears that the Senators, realizing that the program would be cut, came to a compromise where the shipyard would get some money. After the compromise was reached, they supported the bill.

Many Representatives who had voted “No” on other defense appropriation bills, such as the FY 2005 bill, also voted “No” on the FY 2001 Defense Appropriations Bill:

Name	State	Position	Party	Years Military	
				Service	Branch
Pete Stark	CA	Representative	Democrat	2	USAF
John Conyers, Jr.	MI	Representative	Democrat	9	USA/USAR
Jim McDermott	WA	Representative	Democrat	2	USN
Lynn Woolsey	CA	Representative	Democrat	None	None
Barbara Lee	CA	Representative	Democrat	None	None
Donald Payne	NJ	Representative	Democrat	None	None
Major Owens	NY	Representative	Democrat	None	None
Melvin Watt	NC	Representative	Democrat	None	None
Dennis Kucinich	OH	Representative	Democrat	None	None

Table 4.3. House of Representatives FY 2001 and FY 2005 Defense Appropriations Bill “No” votes, 2000. From: [Ref. 16:p. 1821 and Table 2.3]

Certainly, the issues that were present in 2000 which may have caused some Representatives to not support defense appropriations were not present in 2004. The important distinctions arise from the “No” votes during these years. First, there is a lack of military experience among some of those who voted against defense measures more than once. Only Representative Conyers had a significant amount of service in the military. Those who consistently do not support defense measures also appear to be from the Democratic Party. Therefore, one can see a correlation between military service and voting on defense appropriations on these two bills. However, the same members did not always show a lack of support for defense spending between 2001 and 2005. While there is some pattern of lack of military spending support, the pattern is not particularly strong. In addition, the number of Representatives who vote against defense appropriations more than once is not large enough to make any kind of drastic difference in a bill’s passage.

D. SHIPYARD IMPORTANCE

Instead, the health of the Ingalls Shipyard appeared to be the primary driver behind the LPD 17 class appropriations. The lobbying efforts of both Mississippi senators have been discussed. As of 2004, the ships were being built by a subsidiary in Avondale. However, at the time of the FY 2001 Appropriations Bill, the plan was for Ingalls to build most of the platforms. If the program was to be delayed, then the Senators had some very real reasons for concern.

A large portion of Ingalls' future work was to be on amphibious ships. The yard was scheduled to complete one LPD 17 class ship each year from FY 2005 until FY 2009. [Ref.10:p. 913] Since Ingalls is a shipyard dedicated to producing large vessels for the Navy, it is designed to produce only three units per year. Each ship represents a very large part of the year's revenue. For example, Ingalls was scheduled to produce an *Arleigh Burke* class, a DD(X) and an LPD 17 in FY 2005. [Ref 10:p. 913] The problem appeared worse in the out years as the shipyard was scheduled to produce only two units per year: one each of the LHD 8 class and the LPD 17 class. [Ref. 10:p. 913] Therefore, a loss of LPD 17 dollars meant that the shipyard would have to, at a minimum, begin laying off workers.

There was also a concern that the delay of the LPD 17 program could have damaged the country's industrial base. This would have left the nation with only three major shipyards: Newport News in Virginia, Electric Boat in Connecticut, and Bath Iron Works in Maine. The problem would have been compounded by the fact that Newport News specialized in building aircraft carriers, Bath Iron Works specialized in building destroyers, and Electric Boat specialized in building submarines. This would have left few other places to build future amphibious ships. Therefore, it appeared to be in the Mississippi Senators' best interests to keep the shipyard open, regardless of how bad the LPD 17 delays were becoming.

V. THE ARLEIGH BURKE CLASS DESTROYER (DDG 51)

A. INTRODUCTION AND HISTORY

Few other ship classes have experienced as rich a history as the *Arleigh Burke* class. Originally designed in the 1980's to fight a blue water battle against Communist enemies, it has evolved into the primary Navy platform for operations in support of the Global War on Terror. The first DDG 51 class destroyer was commissioned in 1991. These ships are still being built as of 2004. The *Arleigh Burke* provides the Navy with capabilities in several mission areas.

Destroyers primarily perform anti-submarine warfare duty while guided missile destroyers are multi-mission [Anti-Air Warfare (AAW), Anti-Submarine Warfare (ASW), and Anti-Surface Warfare (ASUW)] surface combatants. The addition of the Mk-41 Vertical Launch System has greatly expanded the role of the destroyer in strike warfare. [Ref 20:p. 1]

During the 1980's, the Navy's destroyers were getting increasing old. In addition, the success of the Aegis radar system on the *Ticonderoga* class cruisers showed that this system would be necessary on future ships. This system allowed a ship to provide area defense against incoming enemy missiles. In addition, the Vertical Launch System could be outfitted with Tomahawk missiles to fulfill a strike role.

The *Ticonderoga* class met these requirements, but a new class of ship was needed to take advantage of technological advancements in ship structure. The DDG-51 had an unusual superstructure which was designed to present a smaller profile against enemy radar. In addition, the ship was designed with greater chemical, biological, and radiological defense capabilities as it became clearer that these weapons would be seen in a future war.

As the ship class matured, additional enhancements were added to the newer units. The additional of helicopter capabilities gave the DDG-51 class more robust anti-submarine and anti-surface warfare capabilities. Upgraded 5" guns also gave the ships a greater surface fire support capability. These enhancements helped to keep the class

relevant after the Cold War had ended. The smaller radar profile, helicopter capabilities, and improved Naval Surface Fire Support (NSFS) capabilities would also be useful in a littoral environment.

By 2004, over fifty of these vessels have been built, creating a great number of Aegis platforms that could be deployed all over the world. Most of these ships are based in the continental United States with some units in Pearl Harbor and some forward deployed to Yokosuka, Japan. Each ship of the *Arleigh Burke* class was built in either Pascagoula, Mississippi or Bath, Maine.

B. COMMITTEE ACTION

A study of the FY 1989 Appropriations Bill provides useful insights into how Congress treated this program and why Congress appropriated certain dollar amounts. At that time, the United States still had great concerns about a potential war with the Soviet Union. The CG 47 class cruiser was being built, but there were not enough Aegis ships in production to meet the Navy's needs. The Navy wanted enough Aegis platforms to protect each carrier battle group when that battle group deployed. The problem was so pronounced that, even if the Navy budgeted for five Aegis destroyers annually, it would face a shortage of anti-aircraft capable platforms throughout the 1990's as the older destroyers were decommissioned. [Ref 21:p. 653]

When the FY 1989 Appropriations Bill was reviewed by both the House and Senate Appropriations Committees, the DDG 51 received full, if not enthusiastic, support. The House Appropriations Committee supported the President's request for a vigorous shipbuilding program. The panel wanted the Navy to have a total of 580 ships by the end of FY 1989. [Ref 21:p. 662] This did not fully meet the President's request for a 600 ship Navy, but, compared to the size of the fleet after the Cold War, Congress seemed very supportive of shipbuilding programs in general.

However, the House Appropriations Committee had noticed that, historically, the Navy had been asking for more advanced procurement dollars than were actually needed. Citing this reason, the committee approved the Navy's request to build three Aegis destroyers in FY 1989 but it cut the Navy's request for advanced procurement dollars. The Navy requested \$78.4 million for parts for ships to be bought in FY 1990 and 1991,

but the committee allowed only \$5.5 million for advanced procurement while it approved \$2.13 billion to buy the three ships in FY 1989. [Ref 21:p. 662]

Of the 77 members of the House Appropriations Committee, 32 members had prior military experience. [Ref 21:p. 45-F] Of the members who had military experience, only one had served a career in the military and only 4 had more than six years of service. Most of the remaining 27 members with military service had served in either World War II or Korea for less than two years. Interestingly, 20 of the 35 Democrats on the committee had prior military service. Since the majority of committee members were Democrats, Representative Murtha among them, previous military experience may have played a role in their decision.

The Senate Appropriations Committee showed greater support for the program. The committee voted to buy five *Arleigh Burke*-class destroyers for a total cost of \$3.5 billion with \$395 million of that money being dollars that were appropriated in previous years but never spent. [Ref 21:p. 670] This change represented an increase of two ships over the President's request. Incidentally, Senator Stennis from Mississippi was the Chairman at the time. The membership of the Senate Appropriations Committee was as follows:

Name	State	Party	Years Military Service	Branch
John Stennis	MS	Democrat	None	None
Robert Byrd	WV	Democrat	None	None
William Proxmire	WI	Democrat	None	None
Quentin Burdick	ND	Democrat	None	None
Patrick Leahy	VT	Democrat	None	None
Barbara Mikulski	MD	Democrat	None	None
Harry Reid	NV	Democrat	None	None
Alfonse D'Amato	NY	Republican	None	None
Pete Domenici	NM	Republican	None	None
Charles Grassley	IA	Republican	None	None
Don Nickles	OK	Republican	None	None
Daniel Inouye	HI	Democrat	4	USA
Ernest Hollings	SC	Democrat	3	USA
Lawson Chiles	FL	Democrat	1	USA Korea
J. Bennett Johnston	LA	Democrat	3	USA
James Sasser	TN	Democrat	6	USMCR
Dennis DeConcini	AZ	Democrat	8	USA/USAR
Dale Bumpers	AR	Democrat	3	USMC
Frank Lautenberg	NJ	Democrat	4	USA
Tom Harkin	IA	Democrat	8	USN/USNR
Mark Hatfield	OR	Republican	3	USN
Ted Stevens	AK	Republican	3	USAF
Lowell Weicker, Jr.	CT	Republican	2	USA
James McClure	ID	Republican	2	USN WWII
Jacob Garn	UT	Republican	4	USN
Thad Cochran	MS	Republican	2	USN
Robert Kasten, Jr.	WI	Republican	5	USAF
Warren Rudman	NH	Republican	1	USA Korea
Arlen Specter	PA	Republican	2	USAF

Table 5.1. Senate Appropriations Committee Members, 1988. From: [Ref. 21:p. 22-F]

Of the 29 members of the committee, 18 had some military service. None had more than eight years of service, but four members had served in the Navy with Senator Harkin having served the longest. One could say that military service likely played a role in the decision to build two more destroyers. However, with both Senators from Mississippi on the Appropriations Committee, it seems very likely that the increase was designed to help the shipyard in Pascagoula.

C. HOUSE AND SENATE VOTES

When the FY 1989 Defense Appropriations Bill was passed, the Senate Appropriations Committee's changes remained in effect. The President had initially asked for \$2.207 billion in order to procure three Aegis destroyers. [Ref 21:p. 665] When the bill was passed, Congress appropriated \$2.5 billion to build five Aegis destroyers. [Ref 21:p. 665] In addition to appropriating this amount, Congress directed the Navy to spend \$1 billion on the additional ships using money that was appropriated for programs in prior years but was not spent. [Ref 21:p. 665]

This shift represents a great degree of support for this program. The House of Representatives overwhelmingly supported the bill with only 53 members voting against it. [Ref 21:p. 64-65 H] Of these 53 members, 32 had no previous military experience. Of the remaining members who voted against the bill, none had more than nine years of military experience with most having less than two years experience. Therefore, a correlation between military experience and voting may exist, but this correlation had little effect on the bill's passage.

Some members who voted against the bill have shown patterns of voting against defense spending more than once. For example, the following shows members who voted against the FY 1989 Defense Appropriations Bill and against the FY 1991 Defense Appropriations Conference Report:

Name	State	Party	Years Military Service	Branch
Ronald Dellums	CA	Democrat	2	USMC
Pete Stark	CA	Democrat	2	USAF USA
Gus Savage	IL	Democrat	2	WWII
George Miller	CA	Democrat	None	None
Patricia Schroeder	CO	Democrat	None	None
Gordon Smith	OR	Republican	None	None
Larry Combest	TX	Republican	None	None
Thomas Petri	WI	Republican	None	None
James Sensenbrenner, Jr.	WI	Republican	None	None

Table 5.2. House of Representatives FY 1989 and FY 1991 Defense Appropriations "Nay" Votes, 1988 and 1990. From: [Ref. 21:p. 64-65 H and Ref. 22:p. 16-17 H]

There is a distinct lack of military experience among these members. Of the three that did have experience, none had more than two years. Representatives Petri and Sensenbrenner, in particular, stand out because, as discussed previously, they had voted against appropriations that were beneficial to their constituents. It could be their lack of military experience played a role in this decision. However, the numbers of people in this category are not enough to greatly affect a bill's passage and, while they may vote against defense spending more often, their voting patterns are not consistent.

The FY 1989 Defense Appropriations Bill easily passed through the Senate. Only four members voted against the bill:

Name	State	Party	Years Military Service	Branch
Kent Conrad	ND	Democrat	None	None
William Proxmire	WI	Democrat	None	None
Mark Hatfield	OR	Republican	3	USN
Claiborne Pell	RI	Democrat	37	USCG/USCGR

**Table 5.3. Senate FY 1989 Defense Appropriations “Nay” Votes, 1988.
From: [Ref. 21:p. 49 S]**

Of the four “Nay” votes, two members had military service. Senator Pell had actually served an entire career in the Coast Guard. By looking here, one cannot see much correlation between military service and voting patterns. However, these same people have some history of voting against defense spending, even when their party appeared to be for defense. Senators Conrad, Hatfield, and Pell, for example, voted against two defense spending bills in 1991. [Ref 23:p. 28-S] These Senators did not have consistent patterns of voting against defense, though, since they supported defense spending in other years.

The Senators who do appear to be against defense spending come from various backgrounds. In the above example, the three Senators who vote consistently against defense spending have no military experience, some military experience, and a military career, respectively. Therefore, Senators' level of military experience did not appear to affect defense spending, overall. In the case of the *Arleigh Burke*-class, this does not appear to be much correlation between Senate military experience and how much money is appropriated to the program.

D. SHIPYARD IMPORTANCE

Though House and Senate military experience may not have greatly affected the DDG-51 program, where the *Arleigh Burke*-class destroyers were built had a great effect on the program's appropriations. Bath Iron Works, which has produced about half of the ships, is Maine's second largest employer. [Ref 10: p. 912] The shipyard which has produced the remainder of the ships, Ingalls Shipyard, employs about 10,000 people and is Mississippi's second largest employer. [Ref 10: p. 912] Though Senators and Representatives have repeatedly lobbied for their respective constituencies, the competition between these two yards for the same Navy contracts has had a greater influence on this program's appropriations than on the appropriations for the LPD-17, MCM-1, or LCS.

Since the early 1990's, the Navy has given each yard an equal number of *Arleigh Burke*-class destroyers. [Ref 10: p. 912] Naturally, the shipyards are competitive with each other for these contracts, but the involved Senators and Representatives have brokered an equitable solution. According to an article by John Donnelly, the Maine and Mississippi congressional delegations prefer that each state gets what it wants and that no one gets hurt. [Ref 10: p. 912] However, the gradual reductions in the number of ordered Aegis destroyers and problems with its replacement, the DD(X), have changed this distribution.

Since 1993, Bath Iron Works has focused solely on building destroyers. [Ref 10: p. 913] Therefore, it was properly equipped to begin construction on the first DD(X). The Navy had planned to give Bath Iron Works the contract on the last three *Arleigh Burke* destroyers in 2005 followed by the DD(X) in 2007. [Ref 10: p. 913] This delay between procuring the two classes of ships would have meant that Bath Iron Works would not have been starting a new construction for about two years. In order to solve this problem, both of Maine's Senators as well as Representative Allen have lobbied to give the shipyard \$150 million in advanced procurement as a down payment for one extra *Arleigh Burke* destroyer. [Ref 10: p. 914]

Unlike Bath Iron Works, Ingalls has the capability to construct more than one ship type. However, the yard was still highly dependent on the future DD(X) contract. After

the last *Arleigh Burke* class is finished in 2005, the shipyard will only be building the large amphibious assault ships until 2008. [Ref 10: p. 914] The same company is still building the LPD-17, but the construction has been moved from Mississippi to Avondale. Unlike the delegation from Maine, both Mississippi Senators have been lobbying to get advanced funding for the newer amphibious assault ship. The Mississippi delegation has requested \$250 million as a down payment to start work on this ship.

While the situation in Mississippi does not particularly relate to the DDG-51 program, it supports a growing trend among the larger shipyards. When a large shipyard is about to experience a period of inactivity, that state's delegation will lobby to gain advanced procurement dollars for that yard. Just as when Bath Iron Works received money to build an extra destroyer in order to prevent financial difficulties, one can expect similar situations in the future. Therefore, the money appropriated to a shipbuilding program can be directly related to where that ship is built.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY

Military experience does appear to have an effect on votes for defense appropriations. However, this experience has a greater impact on committee actions than it does on House and Senate floor voting actions. Prior military experience may make some members more inclined to give a defense program its needed dollars. A lack of military experience may make others less inclined to support DOD programs. However, the actual location where a defense program's unit is built will be a much greater determinant of the appropriations dollars that the program receives. The history of four separate shipbuilding programs provides evidence of these conclusions.

In the case of the LCS, military experience proved to be a positive indicator for the program. In committees that had a great deal of prior military experience, the program was seen as an effective, cost saving measure to give the Navy its needed capabilities at a reasonable price. Committees that did not have as wide a range of previous military experience did not share the same views and, thus, did not support the programs. When appropriation decisions were made on the House and Senate floor, however, prior military experience did not have as much of an impact. Several changes were made to the program which did not directly correlate to the prior experiences of those involved. Instead, the shipyards appeared to be the greater concern as funding was given in advance for the more expensive DD(X) and DDG-51 programs. These programs helped out the larger shipyards while the smaller yards were slated to begin construction on the LCS.

The MCM-1 program showed that military experience can have a negative impact on appropriations when a program is falling behind. The smaller shipyards in Wisconsin had difficulties with producing the first ships of this class. As a result, the House and Senate committees withdrew some support for the program. They seemed to show a great degree of trepidation with spending advanced procurement dollars on new ships while the units already purchased had not been completed. Since the committees involved contained a great deal of prior military experience, their actions seemed to be based on the perceptions of a need to handle defense money responsibly. Unlike the committee

action, the House and Senate floor action did not provide evidence either way as to whether prior military experience had any effect on the program's appropriations. In fact, the Wisconsin delegation appeared to be unusually lackluster in its support of the program. Upon closer examination, it appears that, since the shipyards did not depend on Navy contracts for their survival, the delegation did not see as much need to fight for the program.

To emphasize this point, the LPD-17 program was treated much differently when its shipyard was falling behind schedule. The involved committees desired to delay the procurement of additional units until the design problems were fixed. However, when the relevant appropriations bills reached the House and Senate floors, advanced funding was appropriated for additional units even though the shipyard had not begun construction on the first unit. In MCM-1's case, the shipyards were not able to deliver the first units on time, but in LPD-17's case, the shipyard was still trying to design the first unit. This shift in attitude was a direct result of the Mississippi delegation's lobbying efforts. Realizing that Ingalls needed the Navy contract in order to remain fiscally viable, the delegation pushed to have some money given to the program by citing that the money would help to maintain America's industrial base.

The history of the DDG-51 program provides further evidence of these policies. Over the program's history, committees with a large amount of prior military experience have supported the program. Conversely, House and Senate members with a lack of military experience have voted against the program when they voted against House and Senate Appropriation Bills. Military experience did have an effect on the program, at least while the relevant bills were in committee.

However, the more striking examples of how this program has been treated can be seen in recent years. As the larger shipyards were discovering a lag between the end of the DDG-51 program and the beginning of the DD(X) program, they grew concerned about their financial stability. As a result, the Mississippi and Maine delegations pushed to either have new DDG-51 units built or to have advance procurement dollars appropriated for the next program. Therefore, while military experience does appear to

play a role in how money is appropriated to a program, it is obvious that where a unit is actually built is a much greater determinant of funding.

B. SUBSIDIARY RESEARCH QUESTIONS

Votes for and against shipbuilding programs did appear to change over time. Partiality towards a particular service did not appear to be an issue, either, since some of these programs' greatest supporters did not necessarily have a Navy background. Instead, these changes were due to a variety of more practical matters. Cost savings, the needs of a changing defense environment, and a shipyard's ability to produce units on time affected the way that most Senators and Representatives voted on these programs. Some Senators and Representatives did appear to consistently vote against defense spending. These people were, however, few in number and did not appear to influence any individual programs.

There appeared to be greater support for defense programs when the global situation demanded the attention. For example, the DDG-51 class was initially built in great numbers in order to help create a 580 ship Cold War Navy. Though the LCS program will probably never receive the 60 ships requested, the program is scheduled to produce units in large numbers in order to fight the Global War on Terror.

The need for cost savings also appears to drive a program's support. At a fraction of the cost of a new *Arleigh Burke* or DD(X), the LCS is scheduled to be built in large numbers because it is a more cost effective means of maintaining the Navy's goal of 300 ships. When the MCM-1 and LPD-17 programs began to lag behind, Congress appeared to take a more fiscally responsible route and delay new procurements until the initial units were produced.

However, the exception to each of these rules has been an undercurrent of support for a particular constituency. The LPD-17 program was treated much differently than the MCM-1 program when both were experiencing delays because Ingalls needed the procurement dollars. Though the LCS provided dramatic cost savings over the DD(X), the DD(X) program received greater support because Ingalls and Bath Iron Works relied on it for their continued operation.

C. AREAS FOR FURTHER RESEARCH

This project covered a wide variety of topics in a relatively short span of time. For further research, three alternate methods are recommended. First, looking at a wide variety of DOD programs over a short span of time may provide useful insights. For example, a Representative may appear to support one program over another in the same year. This could shed further light on the person's motivations for supporting a particular program. Second, a detailed study into the voting records of a few Senators and Representatives may give further insight into whether previous experience affects voting patterns. One could pick members from various backgrounds and look at their records over time. Finally, a more detailed study of one program over its entire lifespan may yield useful insights.

While conducting the research for this project, two other interesting issues presented themselves. First, some Senators and Representatives seemed to have felt strongly on a particular issue and those feelings were reflected in how they voted on appropriations bills. For example, one Senator felt strongly about the Air Force tanker lease program and, due to these sentiments, seemed to show a lack of support for defense spending in general. During the Reagan years, some Senators and Representatives showed a distinct dislike for strategic weapons programs and those sentiments affected their voting patterns.

Finally, the newer Army programs appear to use parts from almost every state. In light of the way that the delegations from Maine and Mississippi have supported certain shipbuilding programs, a detailed study of how money has been appropriated to the Army may be useful. The Stryker program appears to be relevant. If studied, a good method of research would be to obtain the Army's literature on the program (which details exactly where every part is built) and examine whether or not this translated into greater Congressional support.

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