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NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

**INCENTIVES FOR THE SURFACE NAVY IN SUPPORT
OF THE U.S. GRAND STRATEGY FOR THE 21ST
CENTURY**

by

Derick S. Armstrong
and
Patsy Fielden

June 2002

Co-Advisors:

Raymond E. Franck
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INCENTIVES FOR THE SURFACE NAVY IN SUPPORT OF THE U.S.
GRAND STRATEGY FOR THE 21ST CENTURY

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ABSTRACT

There is (or should be) a clear and logical track from National Strategy to naval missions to desirable behavior by naval officers. Furthermore there is (or should be) a coherent structure of incentives to encourage that behavior. And, since the Age of Sail, the Surface Navy has recognized the importance of incentives. This thesis focuses on lessons learned from the 19th Century and how those lessons apply today. It examines the U.S. National and Military Strategies for the late 20th Century and early 21st Century, and how the incentive structure for the surface officer community does (or does not) support those policies. The major conclusion is that incentive structures for today's surface officer community generally will support the U.S. strategies.

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I. INTRODUCTION

A. PREFACE

This thesis investigates how incentives can be aligned to support the United States Grand Strategy. In the realm of military affairs, it has always been prudent for countries to learn from previous experience and to learn from the practices used both by themselves and their opponents. The same argument can be made for the use of incentives in the military. There are many principles that are considered in the alignment of incentives to promote a country's Grand Strategy. The principles specifically addressed in this thesis are:

- Organizational Make-up and Culture
- Risk
- Incentives and Controls (Internal and External)

As with any organization, the culture and composition of the group is an important element when understanding its decision making process. One focus of our research is to define the elements of structure, culture, and external forces in the Surface Navy.

Our consideration of risk and accountability focuses on senior political and naval leadership perspectives of what is acceptable risk in support of a country's Grand Strategy. Our research shows how important incentives are as a management tool in ensuring a successful execution of a country's Grand Strategy.

These principles of incentives and controls will focus on how military incentives have been aligned to achieve

military capabilities and performance in support of the Grand Strategy.

B. RESEARCH OBJECTIVE

This research identifies and analyzes the issues associated with the use of incentives as a management tool for achieving a country's Grand Strategy. It considers the use of management control systems as they relate to incentives for the U.S. and Great Britain in the 19th century, lessons learned, and their applications in today's U.S. Navy. Finally, the thesis focuses on financial and non-financial incentive programs. The Surface Warfare Officer Continuation Pay (SWOCP), the Thrift Savings Plan, and a reduction of inspections in port are current incentives for the Surface Navy. Based on our findings, future recommendations for the use of incentives for the 21st century in support of the U.S. Grand Strategy are provided.

C. RESEARCH QUESTIONS

1. Primary Research Question

Are incentives for Surface Warfare Officers in line with the Grand Strategy for the United States in the 21st century?

2. Secondary Research Questions

- How did the Americans and British use incentives to their advantage during various conflicts (19th century until today)?
- What were the imperfections in the incentive systems and how did the American and British Navies cope with them?
- Based on the U.S. Grand Strategy of the late 20th century did the government have the right incentives for Surface Warfare Officers?

- What is the Grand Strategy for the United States for the 21st century?

D. SCOPE AND ORGANIZATION

The scope of the thesis includes:

- A comprehensive review of incentives, as management tools in the 19th century.
- An examination of lessons learned and how those lessons are applied in today's Navy.
- An analysis of how the U.S. Navy has modified incentives as a means of maintaining organizational stability.

Chapter II discusses the incentives of the U.S. and British Navies in the 19th century, and Chapter III discusses the lessons learned by the U.S. Navy of today, and their application. Chapter IV focuses on incentives for the surface warfare community during the late 20th century. The chapter discusses U.S. Grand Strategy for the late 20th century, manpower issues the surface community faced, and how incentives did or did not align with the strategy. Chapter V discusses the U.S. Grand and U.S. Military Strategies for the 21st century, to preclude the effects of 11 September 2001 on the U.S. Navy. Chapter VI discusses incentives for the 21st century. Specific issues addressed are the SWOCP, the Thrift Savings Plan, and possible future incentives. Chapter VII concludes the thesis. It reviews the primary and secondary thesis questions, summarizes research conclusions, and offers recommendations on the use of incentives in the surface community.

E. EXPECTED BENEFIT OF THE STUDY

This thesis is intended to benefit the Department of the Navy (DON) by showing that the lessons learned in the past can be utilized in today's incentive programs.

History has shown that the proper incentive structure can help ensure that a country has a strong military that is capable of and motivated to promote and execute its Grand Strategy. Therefore, the ability to construct the right incentive package will help alleviate future manpower problems and ensure that we have a strong Surface Navy, as the U.S. faces new challenges in the future.

II. INCENTIVES FOR NAVIES DURING THE 19TH CENTURY

A. INTRODUCTION

This chapter will discuss the incentives used by the British and American Navies during the 19th century to recruit and maintain sailors in the Navy. An important factor to consider throughout is that "Incentives Matter". The history gives a background of how both navies had problems properly staffing their forces and how they structured their incentives accordingly. This chapter discusses exactly what each Navy did to formulate and execute their incentive policies. Finally, the chapter will discuss the problems that each navy had arising from perverse incentives.

B. HISTORY

The 19th Century British Navy was an effective fighting force, not because of its physical and human capital but because of the set of rules under which the British fought. "In 1708 the British government enacted the 'Cruizer (sic) and Convoys Act'. One of its effects was to formalize the process of prize taking, giving practically all the money gained from the capture of enemy vessels to the captors '*for the better and more effectual encouragement of the Sea Service*'. There were about 17,000 voyages of treasure ships in the 19th century actually available for prize money. Every prize appeared before the High Court of Admiralty for 'condemnation'" [Ref. 1]. It laid down exact regulations for dividing the proceeds among the various interested parties. The act was altered in 1808 changing the distribution of prize money. If warships were captured or destroyed the admiralty paid head money at the rate of

£5 per head. This was also used to encourage the captain to fight his ship and if he was successful it meant a possible promotion.

Table 2.1 shows how the prize money was distributed among the captors of the prize vessel. [Ref. 1]

Distribution of Prize Money		
RANK	<i>Pre 1808/</i> SHARE	<i>Post 1808/</i> SHARE
CAPTAIN	3/8*	2/8**
CAPTAINS of Marines, Lieutenants, Master and Physician, = share in	1/8	1/8
LIEUTENANTS of Marines, Secretary of Admiral, Principal Warrant Officers, Masters Mates, Chaplain, = shares in	1/8	1/8
MIDSHIPMEN, Inferior Warrant Officers, Principal Warrant Officers Mates, Marine Sergeants, = shares in	1/8	4/8
THE REST = shares in	2/8	

*Flag Officers to have one of Captain's Eighths.

**Flag Officers to have one third of Captain's share.

Table 2.1. Distribution of Prize Money. From: [Ref. 1]

The central incentive for senior officers in the British Navy was compensation through an efficiency wage¹, which would reward captains if they were successful and remained at sea. Because the potential payoff was really

¹ Efficiency wage revolved around taking prizes or spoils of war. It encouraged captains to hunt for lucrative prizes instead of pursuing more strategic objectives. [Ref. 2:p. 3]

big, most captains would certainly want to remain at sea for as long as possible provided there were prize vessels. The captains were therefore encouraged to go out and look for those prizes, training their crews for action. [Ref. 2:p. 3]

With the efficiency wage, the British Navy also used the "Articles of War, battle formations and fighting instructions, discontinuous promotions, and patronage to monitor their captains." This system of governance was intended to encourage captains to fight their ships instead of avoiding the enemy. With this in mind, the captains were motivated to train their crew and devote more attention towards winning. [Ref. 2:p. 3] In order for a captain to be successful, he had to overcome the temptations of avoiding the risk of combat. Another temptation that the captains had to overcome was seeking private wealth at the expense of a naval objective. Prize money was always the biggest temptation because that was how they could make the most money. In some cases, many became wealthy.

The British had many more captains than they had ships. If a captain or admiral was not at sea, then they were on half pay. The captains on half pay were more likely those who had made mistakes, failed to capture an enemy ship, were simply unfortunate, or failed in other ways. While at sea, a captain made twice the wage plus had the potential to earn great profits through prize money. The list of captains waiting to command a ship was pretty long. Although seniority played a huge role in how the captains were chosen, it didn't always end up that

seniority was the only factor. The Admiralty was free to choose who it wanted commanding its ships. [Ref. 2:p. 13]

A negative outcome in a battle at sea was not always the captain's fault. If the ship was under sail, it was at the mercy of the winds, which could keep it from entering battle or simply arriving on time. This made it difficult for the Admiralty to determine whether or not the captain was being cowardly or just the unfortunate victim of an act of nature. Another problem during the 19th century was communications, which was usually limited to visual ship to ship communication.

The monitoring of a captain's output became much easier when steam was introduced in the first half of the 19th century. Steam made shirking duty almost impossible for the captains.

In the early days of the United States Navy, prize money and privateering was what most people thought the Navy was about because that was what the British and French strived for. Privateers were an incalculable benefit to the United States because of the damage they inflicted on the enemy; but they also were unreliable. Although prize money was an advantage, sailors in the U.S. Navy did not join for that reason. They joined for travel and adventure, hence the recruiting slogan "Join the Navy and See the World". A survey of 2,340 officers and enlisted sailors was conducted in the mid 1960s, as to why they joined the Navy: 81% joined because of love of country or patriotism, and 91% because they wanted to travel. [Ref. 3:p. 40]

The trouble with the Navy during this time was poor leadership. Every captain was for himself. Crews were raffish, undisciplined, underpaid and underfed. [Ref. 4:p. 219] There were not many incentives for joining the Navy, which led to a chronic shortage of high-grade personnel. The early U.S. Navy consisted of over 50% foreigners from about nineteen nationalities.

Other reasons for the lack of Americans in the Navy were the demand for hard work and limited rewards, if any. The hours were long, and they often spent many months away from their families and homes without any extra compensation. [Ref. 5:p. 7]

In April 30,1798 the Navy Department was organized. It was then determined that there would be no more "Politicking" and squabbling over prizes. The Navy would have to establish incentives for recruiting and retaining sailors. It first started by increasing sailors' wages. Merchant seamen were being paid \$10 a month, so the Navy would pay \$15. [Ref. 4:p. 219]

The Navy also started recruiting more educated people or provided a means of educating them. Matthew Calbraith Perry was responsible for instituting training cruises for boys and cadets, and also for the establishment of the Naval Academy in 1845. Stephen B. Luce established the Naval War College in 1884. [Ref. 6:p. 10] With the establishment of the Naval Academy, the Navy would start assessing more officers.

C. THE BRITISH APPROACH

By paying their officers an efficiency wage, the British Navy encouraged its officers to want to be at sea. Once at sea, the officers were under

the fighting instructions that essentially forced them to engage the enemy, and that monitored their actions. [Ref. 2:p. 31]

The lure of prizes was the most effective weapon in recruiting seaman, because piracy was in effect made legal. British seamen generally thought of cash rather than glory as they sailed into battle. An ordinary seaman under an enterprising and fortunate captain made more money than an officer in other ships.

Appointment to one of the well-known prize money commands would mean an almost automatic fortune. Flag officers could hope to gain sums well in excess of £1,000,000 at today's values. [Ref. 1]

For young gentlemen who inherited nothing from their family, and decided to make a career at sea, prize money, had the potential for huge bonuses. "Nelson often bemoaned his lack of prize money, being posted to ships away from good prize areas and, in later years, the success of his fleet meant there were precious few prizes to be had." [Ref. 1]

D. THE U.S. APPROACH

When the United States Navy was established many British practices for discipline, regulations and traditions were adopted. The American uniform was also established in honor of Horatio Nelson, who was known as one of Britain's best. [Ref. 7:p. 3]

The American leadership eventually learned they needed other incentives for recruiting and retaining members. With the establishment of the Naval Academy, there was an increase in the officer ranks, but not in the number of enlisted personnel. The Nurse Corps (1908) and the Dental

Corps (1912) were also established. In 1920 the pension plan was established, which was an incentive for sailors looking into the future. [Ref. 8] These were major incentives because sailors would not have to worry about medical or dental care for their families.

E. POTENTIAL PROBLEMS

1. British

The British prize money system described in section (B) was far from perfect. Prize Agents handled prize money, and payment sometimes took years. This caused much frustration to captains and crews, while the agents earned large sums in interest.

A worse irritant for young officers was the Admiralty's threat to his prize money. "It was relatively common for a hopeful young commander and his men to find that after a hard won capture, the Admiralty proposed to appropriate the entire value of the prize." [Ref. 9:p. 37] The courts were unsympathetic and corrupt; even if the crew won the case, the cost of the proceedings often swallowed up more than the sum they were entitled to. They could not go public because their employment and promotions lay in the hands of the Admiralty. [Ref. 9:p. 38]

Sometimes officials of the courts had shares in the vessels and the investments would not be forfeited, so the crew would not be rewarded the prize. Instead they were billed for the court proceedings.

No Captain was ever penalized for surrendering, but any sign of cowardice was severely punished. [Ref. 2:p. 9] If a British ship encountered an enemy ship then the British were expected to engage regardless of the

difference in size. [Ref. 2:p. 21] Article 10 in the Articles of war states that:

Every Captain or Commander in the fleet, who, upon signal or order of right, or sight of any ship or ships which it may be his duty to engage, or who, upon likelihood of engagement, shall not make the necessary preparations for fight, and shall not in his own person, and according to his place, encourage the inferior officers and men to fight courageously shall suffer death, or such other punishment, as from the nature and degree of the offense a court. [Ref. 2:p. 20]

There were times when a captain's actions would determine whether or not the crew would be awarded the prize money and also whether or not the officer would be promoted. An example occurred in 1801 when LT Cochrane and his crew captured the enormous ship "GAMO" which came with a large prize money, the Admiralty charged Cochrane with insubordination; the crew was not rewarded with the money and Cochrane was not promoted. Instead the Admiralty chose to sell off the ship. [Ref. 10:p. 51]

2. United States

With the establishment of the Naval Academy, the United States Navy was producing too many officers and not enough enlisted. This was a big problem because during this time the Navy was promoting on seniority, vice merit, which resulted in few promotions. [Ref. 5:p. 31] It also meant that the best officers were not being assigned to the higher leadership positions. They remained as junior officers longer and the Navy eventually lost them.

Another problem facing the U.S. during the 19th century was having the majority of its forces being foreigners. There was no effective way of controlling them, with over

17% of them deserting as of 1882. In addition the government would offer foreign-service members U.S. citizenship, but most would not take it. [Ref. 5:p. 6] Communications were difficult because English was not a primary, or even the secondary, language for many service members. With nineteen nationalities serving in the Navy, the language barrier could lead to a misunderstanding of orders. Often orders had to be repeated several times, or even translated, which would waste a lot of time.

By the turn of the 20th century, the American Navy had very few foreigners. During that time they also had a problem with too many battleships being built with personnel shortages. The Navy could not keep up with the building of the battleships, which meant ships were sent to sea undermanned. Again this would mean that the sailors would be overworked, as well as underpaid. [Ref. 5:p. 32]

F. CHAPTER SUMMARY

The system of prize money and the possibility that large sums might be obtained even by ordinary seamen provided the Royal Navy with its greatest romantic attraction and motivations for joining the Navy. The wartime incentives for the British centered on prize money; as long as the crews were at sea, there were always possibilities of making large sums of money. If Captains didn't engage their ships there was a chance they would be punished by death. There were often mixed feelings for the Captains because if they didn't engage their ship they could possibly die; if they engaged their ship, but didn't win, then they didn't get the prize money. The British were well known for winning most battles, so although there

were perverse incentives it was generally best for the British to engage their ships.

The major problem that the British faced was that they didn't always get the prize money when they captured the enemy. They were often at the mercy of corrupt court systems that would sometimes appropriate the prize money, or sell off the captured enemy vessels.

The U.S. Navy tried to learn from the British by adopting some of their traditions. Eventually the U.S. realized that there was a need to attract American sailors and to retain them. With the establishment of the retirement system, plus medical and dental care the U.S. made an improvement with regards to recruiting. The establishment of the Naval Academy and the Naval War College helped the U.S. in not only recruiting, but also educating their Naval Officers.

The U.S. Navy's problems centered on retaining U.S. citizens vice foreigners in the service. The Navy had to devise incentives to keep its sailors for the long term. The Navy finally realized that it would have to reform its retirement system as an incentive to the younger sailors. The Navy would also have to work on compensation incentives to compete with the private sector along with quality of life issues, as we will see in the following chapter.

III. LESSONS LEARNED AND APPLICATIONS TODAY

A. INTRODUCTION

This chapter will discuss the lessons learned from the 19th Century and beyond that are applicable in today's Navy. The primary lesson learned once again is that "incentives matter". Three major lessons regarding incentives that will be discussed are: 1) prize money, 2) improved financial incentives, and 3) continued improvement in quality of life issues.

This chapter will also discuss additional incentives that are applicable in today's Navy. Improved education will always be the focus of any organization (or should be), and will be discussed. However, most of the incentives besides quality of life considerations are financial in nature. Of the financial incentives, both the uniform personnel retirement system and pay allowances will be discussed.

B. LESSONS LEARNED

As previously mentioned, "incentives matter" was the major lesson learned by both the U.S. and British Navies. Both navies realized that to address problems in retention and manning, they needed to structure their incentives in a manner that would attract citizens to the Navy. As discussed in Chapter II, desertion was a major issue for the U.S. Navy. However, through financial incentives, quality of life improvements, and appropriate legislation, desertion is no longer a major problem for the Navy. As of 1994 desertion constituted less than 4.02% of military offenses in the Navy compared to the 17% in 1882. [Ref. 11]

Another lesson learned was that quality matters for both enlisted personnel and officers. The British were known to have the best Navy in the 19th century and it wasn't because of numbers. There were times when the British forces were out-numbered two or three to one by their enemy; yet the British still won consistently. It was not what material you have but how well you can use it. For the British, prize money became the crews' incentive to be better trained and tactically proficient. Incentives were a major reason why the British Navy was consistently successful in battle with relatively few casualties.

For the U.S. Navy, prize money, as an incentive was not an option the President and Congress wished to entertain. Instead of prize money, the U.S. Navy used incentives such as retirement pay and education. These incentives were used as a means to entice citizens to join the Navy, and retain current members.

Today's military has learned that continued improvement of financial incentives is necessary to recruit and maintain a strong force. To that end, continued improvements in bonuses, reenlistment pay, and base pay are ways that allow the Navy to compete with companies in the private sector. As the U.S. economy continues to grow, the Navy's ability to provide financial incentives for sailors will have a direct bearing on retention and manning.

Finally, quality of life will always be an issue for senior naval leadership. Current initiatives to improve the quality of life for afloat surface warfare officers include reduction of inspections and more time at home while in port. [Ref. 12] The Navy has also made a concerted

effort to improve the shipboard conditions for sailors. Unlike the 19th Century today's naval vessels have such things as gyms, modern galleys, and air conditioners to improve the living environment. [Ref. 13]

C. U.S. APPLICATIONS TODAY

The Navy is constantly reviewing and adjusting its incentive programs as a means to compete with the private sector and to meet retention and manning needs of the fleet. To close the gap between the private sector and the military, bigger raises are likely required in the future. The Senate has proposed that military annual pay raises through 2006 be a half percentage point higher than wage growth in the private sector. Currently the gap is about 7.6% and is estimated to be about 4.8% by 2006. [Ref. 14:p. 8] This is a positive incentive for retaining service members because they will be earning pay more comparable to their contemporaries in the private sector. Recently, certain mid-grade petty officers, senior enlisted, and mid-grade officers have been targeted to receive higher pay raises in an effort to reduce the shortages in those pay grades. [Ref. 14:p. 8]

Another compensation initiative is the Basic Allowance for Housing (BAH), which subsidizes pay for military personnel as a means to find private housing arrangements. The military is trying to increase the rates yearly to reduce the out-of-pocket expenses to the service members. Cost of Living Allowance (COLA) is also another improvement used to defray the cost of living overseas. COLA compensates for a portion of the costs for non-housing expenses that exceed costs in an average U.S. military location by more than 8%. This incentive provides

financial compensation to those service members and their families for service overseas. [Ref. 13]

The commissary and exchange programs are other benefits for military service. Since there is no taxation on military installations service members save an average of 25 percent a year for purchases in the commissary and exchange. The savings incurred by shopping on military installations result in an increased buying power for the service member. [Ref. 13]

The education system gives all members a variety of means to further their education. This system is in extensive use today. Officers have options of continuing their education through the Naval Postgraduate School, various War Colleges, and other institutions. Enlisted personnel have an opportunity to use The Montgomery GI Bill, which allows service members to attend school on their own time. The enlisted personnel also have an option of getting a commission through various programs such as Naval Reserve Officer Training Corps (NROTC), Enlisted Commissioning Program (ECP) or Broadened Opportunity for Officer Selection and Training (BOOST).

The retirement system is still in effect and one can retire at twenty years. The Military Reform Act of 1986 created the REDUX retirement system, which reduced the retirement rate at twenty years from fifty percent to forty percent for anyone joining the military after July 1986. This law was repealed because in order for any sailor to get 50 percent retirement they would have to stay in the Navy for almost twenty-three years. In 1999 the retirement system was changed to take effect in FY 2000 and now

service members have options for retirement. The following table shows the options: [Ref. 15]

AFTER 20 YEARS	FINAL BASIC PAY	HIGH-THREE	MILITARY RETIREMENT REFORM ACT w/ choice of Career Status Bonus
APPLIES TO:	Persons in Service Before Sept. 8, 1980	Persons Joining From Sep 8, 90 Thru Jul 31, 1986	Persons Joining After July 31, 1986
BONUS AT 15 YEARS	NONE	NONE	\$30,000
BASIS OF COMPUTATION:	Final Rate of Basic Pay	Highest 36 Months of Basic Pay	Highest 36 Month of Basic Pay
MULTIPLIER:	2.5 Percent Per Year of Service	2.5 Percent Per Year of Service	2.5 Percent Per Year of Service Less 1.0 point per each year short of 30 (one time adjustment at age 62)
Cost of Living Adjustment:	Full CPI-W	Full CPI-W	CPI-W minus 1 Percent (One-Time Catch up at age 62)

Table 3.1. Three Military Retirement Systems. From: [Ref. 15]

D. CHAPTER SUMMARY

The Navy must continue to recruit high quality personnel to keep U.S. forces ready and to maintain the proper mix of junior, mid-grade, and senior service members. The applications of the lessons learned from the 19th Century and beyond have allowed the Navy the flexibility to compete with the private sector. Improvement of both financial and non-financial incentives allows the organization to address the issues of retention and manning as they occur. Due to the demands of military

life, the Navy must continue to reinforce its long-term commitment to continuously improve the standard of living for sailors. Improvements in bonuses, housing, and shipboard working and living environment will provide rewarding career opportunities. [Ref. 16]

Education continues to be a top priority, as more opportunities are made available for both officers and enlisted personnel. Educational opportunities continue to be a cornerstone of the Navy's quality of life programs. Over the years the Navy has ensured that parity is built into the educational programs and other quality of life programs across all bases. [Ref. 13]

IV. INCENTIVES LATE 20TH CENTURY

A. INTRODUCTION

This chapter will discuss the U.S. Grand and Military Strategy for the late 20th Century, and the post-Cold War era. Manpower issues for the period will also be discussed, and will primarily focus on the reduction of military forces as the Soviet threat waned. Finally, the chapter will discuss the incentives for Surface Warfare Officers and their impacts.

By the end of this chapter it should be clear that the incentive structure for the surface warfare community was to support the new shift in U.S. policy. With the collapse of the Soviet Union the threat of a large-scale war decreased and there was no longer a need for as large a U.S. military force as prior to that collapse. To comply with this new direction the Navy restructured its forces to meet the mandated reductions. Congress also provided financial incentives for military personnel to get out to the service.

With the end of the Cold War the U.S. Grand and Military Strategy underwent a dramatic change. Defense spending decreased as politicians turned their focus from the threat of a military strike from the Soviet Union to domestic issues and the economy. The task for the military was to reorganize with less money, reduced manpower, and to focus primarily on joint military operations.

Three papers defined how the Navy was going to transition from a force focused primarily on the Soviet Union to a force structured for multi-regional conflicts.

The first of these papers was written in April 1991, "The Way Ahead" [Ref. 17] which focused on the structural and doctrinal transformation in the post-Cold War era. In 1992 the white paper "...From the Sea" [Ref. 18], provided additional direction for Naval/Marine Corps strategy in the early 1990's. Two years later, in 1994, the final major white paper "FORWARD...From the Sea" [Ref. 19] provided updated naval strategy for responding to multiple regional conflicts.

The chapter will show that these military strategies were all based on a new U.S. Grand Strategy in the post-Cold War era. While these white papers were produced in the early 1990's, they remained the foundation for U.S. Naval strategy throughout the decade. They proved so prescient that later statements of naval strategy were mostly revisions along the same basic themes. Moreover, these naval strategy statements proved congruent with later national security and national military strategies.

B. U.S. GRAND STRATEGY

Prior to the end of the Cold War, the primary focus of the U.S. Grand Strategy was the containment of the Soviet Union and Communism throughout the world. [Ref. 20:p. 10] With the end of the Cold War the U.S. Grand Strategy shifted to reflect the U.S. role as the lone superpower while focusing on increased economic growth. The three main areas that were stressed throughout the eight years of the Presidency of William Clinton were:

- Enhancing our security by maintaining a strong defense capability
- Promoting prosperity at home by increasing access to foreign markets to increase economic growth

- Promoting democracy abroad and continue to provide incentives for foreign government to utilize the democratic free market process [Ref. 21]

The ideas of strengthening U.S. security centered on military being able to fight two major regional conflicts at the same time. Additionally the administration wanted to strengthen foreign allies in an effort to ensure worldwide stability and reduce the threat of "nuclear, chemical, biological and conventional conflict." [Ref. 21:p. 5]

At the same time, the administration used this period of transition to work closely with countries formerly in the Soviet orbit, with the establishment of the Partnership for Peace (PFP) initiative. Military to military activities increased with several countries, especially in Europe. Ultimately, programs such as PFP were the prelude to several countries joining NATO, such as Poland, the Czech Republic, and Hungary in 1999.

The other two areas concerned the U.S. economy. During the Clinton Presidency, the government was able to reduce unemployment and keep it relatively low as well as reduce the national deficit. At the same time the average individual take-home pay (which does not include bonuses and COLA) difference between civilian and military personnel steadily increased from 1983-1999. By 1999 the difference in the pay gap was 13.5%. [Ref. 14]

With a strong U.S. dollar, other regions became open to U.S. influence, including the establishment of fast food chains in places like China, increased exports to Asia and the Middle East and countries like Poland, the Czech

Republic, and Hungary formerly influenced by the Soviet Union. For example, in 1997, the U.S. dominated the Chinese market (both China and Hong Kong) for French Fries (primarily through fast food restaurants) with 97% of the market, an estimated 2.2 million dollars. The Chinese fast food market generated a total of over 3.6 billion dollars, with almost 20% of that total going to U.S. restaurants such as McDonald's with almost 200 restaurants and Kentucky Fried Chicken with over 250 restaurants in China. [Ref. 22]

C. MILITARY STRATEGY

The first of three major writings, which stated the strategy for the Navy and Marine Corps for the late 20th Century, was the *Proceedings* article "The Way Ahead" [Ref 15] written in April 1991 by the Secretary of the Navy H. Lawrence Garrett III, the Chief of Naval Operations (CNO) Admiral Frank B. Kelso II, and Commandant of the Marine Corps (CMC) General A.M. Gray. This article stated the initial plan for how the Navy and Marine Corps were going to change in response to the new international environment. This article also was a statement to Congress about the Navy's and Marine Corps efforts to gain a bigger share of the decreasing Defense budget.

The senior leadership recognized that military strategy had to change from pursuing containment to pursuing world stability. For the members of the Navy and Marine Corps, this meant the focus had now changed from a major conflict against the Soviet Union to being flexible enough to be involved in multiple military operations at the same time. The four primary ideas that are in the article are: 1) lessening of the focus on the Soviet Union as a threat and the emergence of third world or rogue

nations, 2) more emphasis on new missions, 3) restructuring the two services, and 4) a politically motivated argument on how the two services were flexible enough to rapidly respond to any crisis especially with the decrease of U.S. military bases overseas.

The article acknowledged that the new military strategy would place less emphasis on the Soviet Union. However, the Soviet Union was still viewed as the greatest single military threat to the U.S. and could not be dismissed. However, as the Gulf War showed, new emphasis has to be placed on third world countries and rogue states that may one day possess weapons of mass destruction. Therefore, the ability of the Navy and Marine Corps to constantly be forward deployed throughout the world will play a major role in deterring regional conflicts and aggression. [Ref. 17:p. 38]

The article also discusses the importance of being involved in conflicts other than war. The senior leadership had the foresight to see the importance of issues:

Such as presence; humanitarian assistance; nation building; security assistance; and peacekeeping, counter narcotic, counter terrorist, counterinsurgency, and crisis-response operations-will receive new emphasis as we focus our efforts on developing and maintaining regional stability. [Ref. 17:p. 41]

The article shows that senior military leadership was attempting to alert their members and Congress of their willingness to take on new missions in an effort to gain a bigger share of the defense budget.

The third point deals with restructuring. Dealing with uncertainty requires an ability to change the size and capabilities of the forward deployed forces, based on threat and situation. Also, the senior leadership used this part of the article to make their case for the active and reserve forces needed to support a 450 ship Navy, plus three active and one reserve Marine division/wing teams (Marine Expeditionary Forces). [Ref. 17:p. 45]

The final point made is the rationale for more spending for Navy and Marine Corps forces and technology. The arguments presented center on the effectiveness of strategic sealift for the first 60 days of Operation Desert Shield, mine warfare capabilities, and the ability of the Navy to be rapidly deployed, and the ability of the Marines to provide logistics support for troops on the ground. [Ref. 17:p. 44] This new strategy, as presented by the senior leadership for the Navy and Marine Corps, was the first step in adapting to the new strategic direction in the post-Cold War era.

The problem with the new strategy as presented in this article is that the Navy and Marine Corps did not persuade many that they were actually making any organizational changes. The Navy still wanted to maintain a 450 ship Navy. Also, both the Marines and the Navy asked for more money to develop and produce military products to increase the technology gap between the U.S. and the rest of the world. Later that year during congressional hearings, Congress proved to be very cold to the new naval strategy and questioned whether the Navy was really adapting to the new National Strategy.

In an effort to answer their critics in Congress, the Navy and Marine Corps produced two white papers "...From the Sea" [Ref. 18] in 1992, which was updated with "Forward...From the Sea" [Ref. 19] in 1994. The new Secretary of the Navy, Sean O'Keefe; the CNO, Admiral Frank B. Kelso II; and the Commandant of the Marine Corps, C. E. Mundy Jr. wrote "...From the Sea" with an emphasis on littoral warfare, featuring the Navy and Marine Corps in joint task forces. Under this concept and new organizational structure, there would be one unified commander in which the command of the task force could be transferred from the sea to land if and when the operation switched to a land based campaign.

In this white paper, the Navy acknowledged that the Navy of the future would conduct most of its operations in the littoral environment. (Littoral in this instance includes a limited area of the land, sea, and air and all the assets that operate in such a compressed area.) This was a major change in doctrine as the Navy truly moved from focusing on operations in the open ocean to joint expeditionary force operations in a compressed littoral area.

"...From the Sea" discusses the changes in doctrine and threats to joint forces in the future: mines, short-range missiles, coastal batteries, and coastal submarine forces. [Ref. 18:pp. 4-5] Therefore, the senior leadership saw the need to form stronger ties with other U.S. military forces, such as the Coast Guard, Air Force, Army, and Special Operations forces. In this white paper, the Navy and

Marine Corps laid the groundwork for future integrated joint military operations.

"FORWARD...From the Sea" in 1994 updated the original 1992 white paper "...From the Sea." Unlike its predecessor, "FORWARD...From the Sea" stressed the Navy and Marine Corps involvement in peacetime stability operations. As of 1994, the Clinton Administration wanted all the services to address the U.S. military's involvement with peacekeeping missions. [Ref. 23:p. 13] This white paper was in part the Navy and Marine Corps' response to the Administration's concerns.

This particular white paper addressed what role the Naval and Marine assets played in joint expeditionary forces assigned to peacetime operations. The primary means for conducting these operations remained the Carrier Battle Group along with an Amphibious Ready Group. The ability to have U.S. warships forward deployed worldwide was seen as providing a constant political and military presence. This joint task force could be used to promote democracy, stability, and to defuse escalating conflicts throughout the world. [Ref. 19:p. 5] The impact of the new strategy would have profound effects especially for naval officers in the surface community.

D. INCENTIVES FOR SWO'S IN THE 20TH CENTURY

The 1990's proved to be a decade of change for the surface officer community. As the National and Military Strategy changed, the Navy's organizational structure also changed. The impact on the manning of the surface officer community will be discussed later. However, three areas of

focus are: 1) the Temporary Early Retirement Act 2) educational programs 3) and career opportunities.

1. Temporary Early Retirement Act (TERA)

In an effort to meet Congressional demands to decrease personnel strength, the Navy proposed to decrease its active duty numbers by over one third, from 592,652 in Fiscal Year (FY) 1989 to 394,900 in FY 1999. [Ref. 24] To help facilitate the reductions, Congress enacted Public Law 102-484 the Temporary Early Retirement Act (TERA) on October 23, 1992.

Under the program, personnel were allowed to leave the Navy as early as the 15-year point and receive a retirement package of 35.625% or more of the service member's base pay vice the traditional 50% at the 20-year point. The following excerpt gives a more detailed description of how the program worked.

The 15-year TERA program allowed members to retire at 15 years of service, with retired pay calculated at 2½% per year minus a reduction factor. The reduction factor was added by the law and states that retirement pay shall be reduced by 1/12th of 1 percent for each full month by which the number of months of active service of the member are less than 240 as of the date of the member's retirement. The formula for determining the reduction factor is $([240-x]/1200)$ where x=number of months of active service. [Ref. 25:p. 1]

The following table gives examples on what the actually pay scale was for the various point of one's military career if a member chose to participate in the program.

Length of Service		% of basic pay
Years	Months	
15	0	35.625
16	0	38.400
17	0	41.225
18	0	44.100
19	0	47.025
19	11	49.750

Table 4.1. The Actuarial Table for the Temporary Early Retirement Act. After: DoD Actuary [Ref. 25:pp. 2-4]

2. Educational Programs

Senior leadership recognized the need for advanced education for junior officers. During the 1990's various graduate education programs were stressed to include the Naval Postgraduate School, other educational programs as described in OPNAVINSTRUCTION 1520.23B (Graduate Education), and financial assistance such as the Tuition Assistance program as described in OPNAVINSTRUCTION 1560.9. These programs provided various avenues for junior officers to attain graduate education.

For the Navy, increased education was intended to accomplish three things: improve the education level of future leaders, develop more computer skills, and provide an incentive for remaining in service. Providing advanced education while in the military, obligates service members to more time in service will making them more attractive in the private sector upon completion of their military service.

Allowing SWOs the opportunity to earn a master's degree during their initial shore duty provides an incentive for junior officers to remain in the community. These opportunities kept junior officers in the Surface

Community until the completion of their two department head tours, approximately the 11-year point. The hope is that most officers will have invested enough time in service that the service member will continue until at least the 20-year point.

3. Career Opportunity

Unfortunately there were few incentives to keep the Surface Warfare Officer in the Navy in the early 1990's. This was partly due to the congressionally mandated reduction of personnel, billets, and ships in the Navy. Before the Congressional mandate to decrease the size of the military, opportunities to achieve command were relatively plentiful. However, with the reduction and/or decommissioning of ships such the Patrol Combatant Missile (PHM), Tank Landing Ships (LST), and Battleships (BB), the prospect of command was greatly reduced.

The strong U.S. economy throughout the 1990's was a major factor in officers leaving the Navy to pursue more lucrative career opportunities in the private sector. Also, the culture within the surface community of tough love and long hours led to many junior officers getting out of the Navy or transferring to other communities. The following tables, 4.2, 4.3, and 4.4, show the number of personnel laterally transferring into and from the surface community for those members of FY groups 1983-1990 which stayed to the O-4 boards.

As these tables show, a net total of 209 surface warfare officers left the community for other communities. Approximately 39% of the FY groups 83-90 that stayed in the Navy to the O-4 boards transferred from another community,

or after failing out of their initial training pipeline transferred in. Thus for whatever reason the surface community was losing qualified officers to other communities at a significant rate.

Transfers to SWO that	Stayed to O-4 Selection Board
Program failure	Number
Nuclear Power	82
Aviation-Pilot	64
Aviation-NFO	39
BUDS/SEAL	1
Diver/EOD	4
Lateral Transfers	
Fleet Support	714
Restricted Line, Other	5
Submarine	4
Pilot	5
NFO	1
Diver/EDO	2
Total Transferred In	921

Table 4.2. SWO Lateral Transfers In. From: [Ref. 26:p. 32]

Lateral Transfers Out	Number
Pilot	61
NFO	43
Submariner	19
Diver/EOD	26
BUDS/SEAL	17
Fleet Support	633
Restricted Line Other	331
Total Transfer Out	1130

Table 4.3. SWO Lateral Transfers Out. From: [Ref. 26:p. 32]

SWO NET TRANSFERS (+GAIN, LOSS)	
Community	Number
Pilot	-3
NFO	+4
Submariner	+67
Diver/EDO	-20
SEAL	-16
Fleet Support	+81
Restricted Line Other	-326
Total SWO Net Transfer	-209

Table 4.4. SWO Net Transfers. After: [Ref. 26:p. 39]

E. MANPOWER ISSUES/FUTURE

Section D, above discussed manning issues that the surface community faced during the 1990's. The focus of this section will be on four year groups 83-86. To help provide further analysis, Table 4.5 breaks down the retention rate for SWOs that stayed until the O-4 boards. Table 4.6 shows the promotion rate for the SWO community for those that stayed till the O-4 boards (this table includes those that transferred into the community and are part of the FY groups 83-86). Table 4.7 is provided to show what the standard surface officer career path is.

Community	Year Group				Sample Mean
	83	84	85	86	
SWO	32.3%	31.1%	26.3%	22.9%	28.15%
SUB	32.4%	32.5%	31.5%	24.9%	30.325%
AIR	43.0%	49.7%	45.8%	47.3%	46.45%

Table 4.5. URL Retention Rates YG 83-86 to O-4. After: [Ref. 26:p. 36]

Community	Year Group				Sample Mean
	83	84	85	86	
SWO	76.2%	69.7%	69.8%	67.8%	70.875%
SUB	80.0%	75.4%	80.8%	82.2%	79.6%
AIR	68.1%	68.1%	70.1%	62.3%	67.15%

Table 4.6. URL Promotion Rates YG 83-86 to O-4. After: [Ref. 26:p. 36]

SWO Career Path

CAPT	24	Major Command
	22	Shore tour (Joint, major staff, . . .) or Afloat Staff / RO
CDR	20	
	18	CDR Command
LCDR	16	Shore tour (Joint, major staff, acquisition, . . .) or Afloat Staff / Complex tour
	14	
	12	XO Tour
	10	Shore tour (Joint, Subspecialty, Training Cmd, . . .) or Afloat Staff / Complex tour
LT	8	Second Department Head Tour
	6	First Department Head Tour
	4	Shore tour (NPGS, Aide, SWOS inst. . .)
LTJG	2	Second Division Officer Tour
ENS	0	First Division Officer Tour

Table 4.7. Notional Surface Officer Career Path.

The surface and submarine communities showed a constant decreasing retention trend in Table 4.5. This trend correlated to the Congressional mandate to decrease the military through various means. Also, this time period saw the gap between military pay and the private sector continue to widen. Another factor for the decreasing retention numbers was the low promotion rate that correlated with numbers in Table 4.6. These and other

quality of life issues were major factors in the decreased retention.

In 1996 the U.S. military was still working to meet its goal of reducing its active duty numbers by 30% by FY 97. [Ref. 27] The retention numbers indicated two things. First, the Navy was achieving their goal of reducing personnel. Secondly, retention numbers were so low among junior officers that manning problems for surface officers would be on the horizon if retention did not improve. Senior leadership may have missed the warning signals as the retention situation continued to worsen in the late 1990s. As will be discussed in Chapter V, changes in the Surface Navy culture had to be undertaken to retain enough junior officers to man the fleet.

F. CHAPTER SUMMARY

The U.S. Grand and Military Strategies underwent a transformation during the 1990's as the Soviet Union collapsed, and the U.S. government focused on domestic issues in the post-Cold War era. The major focus during the Clinton Administration was to strengthen the U.S. economy by promoting world stability through free trade and multinational military exercises, more peacekeeping missions, and sizing the U.S. military's to fight two regional conflicts at the same time.

In the early 1990's the Navy addressed these issues through three white papers: "The Way Ahead", "...From the Sea", and "FORWARD...From the Sea." These three white papers laid out how the Navy and Marine Corps were going to be structured to face the threats that lay ahead. Their major point was that the Navy and Marine Corps is a joint war-

fighting tool that is always forward deployed. Therefore, it can be used as both a political and military instrument in preventing, defusing, or winning conflicts worldwide. Also, the Navy and Marine Corps would remain a strong organization while streamlining and cutting its personnel and infrastructure by over 30% from 1989 to 1999.

For the Surface Warfare Community, the 1990s saw personnel leaving for various reasons. The increase in pay in the private sector was a financial incentive for many officers to leave the military. TERA allowed personnel to get out of the military prior to the 20-year point and still receive a retirement paycheck, which helped reduce personnel numbers.

However, the retention numbers for YG 83-86 slipped, by almost 10%, for those that were eligible for the O-4 boards. By the time YG 86 went up for its O-4 boards, Surface Warfare Officer retention was down to 22.9%, and of that only 67.8% were promoted which was the lowest for the four-year groups. These indicators should have been a signal to senior leadership an that inability to retain junior officers in the community would lead to manning and billet issues that would have to be addressed in the future.

V. U.S. STRATEGY FOR THE 21ST CENTURY: CONTINUITY AND CHANGE

A. INTRODUCTION

This chapter will discuss U.S. Grand and Military Strategies for the 21st Century. We can expect the U.S. Grand Strategy to reflect the terrorist events of September 11, 2001. However, these events will not change the core objectives of the U.S. Grand Strategy. The Military Strategy will focus on the Navy's role in the 21st Century, and specifically the Navy's role in homeland defense.

When writing this chapter the following assumption was made. While the terrorist events of September 2001 have made eliminating terrorist organizations and homeland defense a primary focus of the Bush administration. The core national policies are the same from the Clinton administration to the Bush administration. This assumption is based on the fact that the Bush administration has failed to produce a National Strategic Plan as mandated by the Goldwater-Nichols Defense Department Reorganization Act of 1986. If the Bush administration had a major change of policies then it would have produced guidelines stating the new direction of the administration to Congress and the American people.

B. U.S. GRAND STRATEGY

U.S. Grand Strategy for the 21st Century consists of three core objectives: 1) Enhance America's security 2) Bolster America's economic prosperity 3) Promote democracy and human rights abroad. [Ref. 26] The terrorist acts of September 11, 2001 brought about several changes for U.S. security agencies in support of homeland defense.

We often think of America's homeland security in terms of security forces within the U.S. boundaries. Yet, when the President talks about enhancing U.S. security as described in "A National Security Strategy for a New Century" [Ref. 28], he talks about enhancing our influence and strengthening our diplomatic ties abroad to ensure security at home. By continuing the U.S. policy of engagement and providing global leadership the U.S. is able to encourage the international community to become a worldwide security force against those governmental and nongovernmental organizations that pose a threat to international security. This strategy of cooperative security addresses six major threats against U.S. interests, which are:

- Regional or State-Centered Threats
- Transnational threats
- Spread of dangerous technologies
- Failed states
- Foreign intelligence collection
- Environmental and health threats [Ref. 28:pp. 2-3]

Also, in this document the President recognized the need for a strong military as an instrument of diplomacy. As the U.S. moved into the 21st Century, the military saw a significant increase in the defense budget. The increase in defense spending shows a commitment to a stronger military as the President and Congress recognize current and future military issues with readiness, modernization, and improvement in quality of life issues. [Ref. 28]

As was the policy in the post-Cold War era the U.S. will continue to bolster America's economic prosperity

through globalization. Globalization allows the U.S. to promote free trade. Globalization also brings an interchange of ideas, cultures, political views, information, and technology.

This is both good and bad. It's good because a stable and prosperous economic market reduces the risk of aggression for fear of upsetting international stability. However, globalization also allows adversaries access to technology, capital, information, and the ability to spread their views to others. [Ref. 28]

Finally, the last of the three core ideas for the 21st Century is the promotion of democracy and human rights abroad. The U.S. will likely continue to support democratic government throughout the world, especially for those governments that are trying to transform a democratic, free market society. During the 1990's, the U.S. helped several countries that went from a Communist form of government to a democratic form of government; that process can be expected to continue throughout the 21st Century.

Humanitarian issues will continue to be a concern. Areas such as Africa, China, and Europe will remain the primary focus for humanitarian efforts. However, direct U.S. involvement will be limited to those areas deemed to hold vital national interest, avoiding repeats of the Somalia campaign of 1992-3. [Ref. 29] The lesson to be learned from the 1990's is that international humanitarian agencies such as the U.N. and Red Cross (with financial support of the U.S.) should be primary alternatives. Unless

international outcry and pressure determines otherwise, direct commitments should be avoided. [Ref. 30]

1. Impact of September 11, 2001

Even though the core objectives of the U.S. Grand Strategy have remained the same after the terrorist acts against the U.S. in September 2001 the fight against terrorism is the number one focus of the Bush administration. Along with this new focus there has been a change for some federal agencies related to security. The Immigration & Naturalization Services (INS) is being looked at for overhaul or being dismantled altogether. The Federal Bureau of Investigation is considering changes to its primary focus—from investigations to homeland security. Finally, President Bush created the OFFICE of HOMELAND DEFENSE with an executive order on October 8, 2001, with the appointment of Governor Tom Ridge as director. [Ref. 30]

All of these changes were the direct result of the terrorist events of September 11, 2001. The terrorist acts showed that the U.S. was vulnerable to attacks on its homeland. The event not only changed the American lifestyle, it also changed the focus of the Bush Administration from domestic issues like the budget deficit and the energy crisis to the worldwide fight against terrorism.

Tremendous amounts of money, military personnel, intelligence, training, and other governmental support have been given worldwide attention in an effort to track down and eliminate terrorist organizations and governments that support terrorist throughout the world. As of May 2002,

military advisors have been sent to the Philippines, Georgia, Columbia, and other countries in an effort to root out terrorists and drug lords. The U.S. led coalition will likely continue to have a major role in Afghanistan, even after the expulsion of the Taliban Government as a new Afghanistan government takes form.

For the U.S. Navy, the primary impact will be more missions in the area. The Navy will see an increase in Maritime Interdiction Operations (MIO) off the coast of Pakistan and its surrounding waters. Also, military assets that are used for collection, targeting, and propaganda will have increased missions in Afghanistan and the surrounding region.

C. MILITARY STRATEGY

As always, the Military Strategy is in support of the Grand Strategy. To this end the Chairman of the Joint Chief of Staffs (CJCS) wrote "Joint Vision 2020" [Ref. 31] to provide a clear vision for the U.S. Military for the 21st Century. The title "America's Military: Preparing for Tomorrow" continues the vision of "Joint Vision 2010" in June 2000, which talks about transforming the military.

With any organization, information superiority is highly conducive to survival and success. The CJCS recognizes this and stresses the importance of collecting, processing, and properly disseminating information. A military organization that has the best information and the ability to act according to that information allows for better decision-making capabilities. [Ref. 31]

As the 1990s showed, the military has to be able to thrive in a joint environment. The ability to train,

coordinate tactics, pass information and maintain interoperability will be major foundations of success and effectiveness. Jointness includes not only U.S. forces but also the multinational operational environment. The ability to train and function with various countries in multinational operations will continue to be vital as the outlook for future conflicts will involve some form of a multinational force.

As the events of September 11, 2001 showed the need for increased cooperation between government agencies is a necessity to increase the security of the U.S. homeland. The Department of Defense has to strengthen its organizational structure and capabilities to work with other federal agencies, "non-governmental organizations, private voluntary organizations, and regional and international organizations for the purpose of accomplishing an objective." [Ref. 31] Strengthening the ties with the various agencies will go a long way towards deterring and preventing such attacks as those of September 2001.

1. Impact on the Surface Navy

The Surface Navy is constantly forward deployed, and this will not change. Globalization has made it possible for smaller countries to have major effects on economic activities. Asia has become a great beneficiary of globalization, and currently has 40% of the world's purchasing power. In addition, China is an up and coming military and economic power. Some economists believe China could pass the U.S. as the world's largest economy by 2020. [Ref. 32:p. 6]

The U.S. has a vested interest in various parts of the world. The Middle East will continue to be a place of tension and conflict. Even though the Middle East is not a major direct source of oil to the U.S. (less than 20%) they are a major distributor to its allies. Oil from the Middle East constitutes 50% of the oil for Europe and 80% for Japan. Thus any disruption in this flow of oil has a major impact on the economy of our allies. [Ref. 32]

In order to adequately defend both the interests of the U.S. and its allies the Navy, operational tempo will likely increase as the fleet shrinks. New and increased training focused primarily on terrorism will also occupy the Navy. As the threat of terrorist attacks increases and a large-scale naval attack decreases, new strategies and tactics have to be developed, and incorporated into the training for the crew.

Also, as the number of military bases overseas is reduced, the burden of maintaining forward presence will fall on the Navy. Lessons learned from operations in Iraqi and Bosnia (e.g. both Saudi Arabia and France refused to let U.S. forces use their airspace for military strikes) indicates an increased role for the Navy and Marine Corps. The Navy and Marine Corps teams, built from Carrier Air Wings and Amphibious Ready Groups, can alleviate problems that arise when countries deny access to their airspace. The Navy and Marine Corps team faces the same airspace restrictions as the Air Force and Army for landlocked countries. However, for coastal countries the flexibility and mobility of the Navy and Marine Corps allow for a sustained military presence. [Ref. 32:p. 10]

D. CONCLUSION

As a new millennium begins the core objectives of the U.S. remain the same. The terrorist attacks on the U.S. on September 11, 2001 have brought the fight against terrorism to the forefront. The 21st Century will see a transformed military in an effort to meet the needs of government and face the new threats of the future. For the Navy, the mission and objectives remain the same as the Navy and Marine Corps continue to be a constantly forward deployed.

VI. INCENTIVES FOR THE 21ST CENTURY

A. INTRODUCTION

This chapter discusses future incentives for the Surface Warfare Officers and what will drive those incentives. As with any organization, quality of life and increased education will remain important as the Navy continues to become more technologically advanced. Also, retention and manning will continue to be a focus for senior naval leadership as part of restructuring its organization to meet future threats. In addition, government and military officials will continue efforts to reduce the pay gap between the military and the private sector.

The chapter will focus on the Surface Warfare Officer Continuation Pay and the Thrift Savings Plan (TSP) program as primary financial incentives. The chapter will consider other possible financial incentives. These will be instrumental as the community continues to find ways to convince officers to stay in the Navy, and also in the surface warfare officer community.

B. EDUCATION AND QUALITY OF LIFE

Education will continue to remain a top priority in for the surface community. In an effort to improve the organization and provide incentives for junior officers to remain in the surface community, more educational programs are planned in areas that will make officers more attractive in the private sector once they finish their military career. Also, more SWOs will have the opportunity earlier in their career to earn a masters degree.

In an effort to increase junior SWOs retention, an increased opportunity to earn an MBA, various engineering, and other technical degrees will increase. In 2001, the only way to earn an MBA as a SWO was on your own, having the Navy pay 75% of the tuition, or through one of the limited major university MBA partnership programs. [Ref 33] In an effort to better meet the educational needs of junior SWOs, an MBA program has been established at the Naval Postgraduate School as of 2002. Not only are more SWOs being given the opportunity to earn an MBA, but enrollment for SWOs is also scheduled to increase at NPS.

In the 21st Century more SWOs will attend graduate level education immediately upon commissioning. Currently there are pilot programs that allow newly commissioned ensigns to earn a masters degree prior to their first operational assignment. This educational opportunity will not only be for Naval Academy graduates, but also for NROTC graduates. Most of these programs are in technical fields, as the Navy will seek to enhance officers in technical skills [Ref. 34]

1. Quality of Life

Quality of Life programs will continue to improve throughout the 21st Century. For the surface warfare officers this includes an improvement in job satisfaction and in having more time with their families. In many surveys conducted by senior leadership in the 1990s one of the top reasons given by junior officers for leaving the Navy or the surface community was not enough time with families. The late 20th century was plagued by redundant inspections, increased time at sea, and long working hours while in port.

At the beginning of the 21st Century the surface Navy was already addressing these issues. In the future the surface officer can expect to see a reduction in inspections as Commanding Officers (COs) are given more leeway for integrating inspections into their deployment cycle. COs having more power creates a better command climate, that will allow junior officers more freedom, promote creativity, and provide better experience. Fewer inspections in the inter-deployment training cycle reduces the weekly preparations, and allows increased amounts of time with families. [Ref. 35]

An increased effort to "homestead" officers in a particular area will be made to improve the quality of life, and to promote the Navy as a family oriented organization. Homesteading reduces the number of transfers and abundance of family stress. The issue of homesteading was raised in the late 1990s, but as the defense budget goes through its cycles of ups and downs, homesteading will be one way to save money. At the same time, families can settle in an area.

C. RETENTION AND MANNING

Retention and manning will always be an important issue in the surface community. New technologies will allow the surface navy to sustain a fleet that requires less maintenance and personnel. Also, as the military goes through the cycle of manning highs and lows, technology will be instrumental in reducing manning problems in the future.

As the mandated reduction in military personnel ends, the surface navy faces a huge retention problem. As of

April 2002, there were a total of 8166 surface line officers and 242 ships in the surface navy. Currently, 4330 are in at-sea billets, 1641 are in educational or training assignments, and the other 2195 are on shore duty. [Ref. 34] One of the major results of the retention problem the surface community is currently facing is not retaining enough division officers to grow future department heads.

The surface community needs to retain 34-38% of their junior officers, and as of 2001 the Navy saw a significant rise in retention with 45% for year group 95 compared to year groups 93 and 94 with 24% and 29% respectively. [Ref. 36] At that rate the department head screening rate would need to be near 100% just to fill the necessary billets. The following charts provide the retention rate for year groups 87-01. [Ref. 37] Table 6.1 highlights the retention rates. Figure 6.1 gives a graphical representation of the retention numbers of the aforementioned year groups.

	YG87	YG88	YG89	YG90	YG91	YG92	YG93	YG94	YG95	YG96	YG97	YG98	YG99	YG00	YG01
1	1407	1298	1070	951	955	799	664	699	800	834	696	700	846	965	903
2	1527	1337	1154	990	999	813	725	734	816	833	741	758	890	986	917
3	1495	1352	1166	1005	974	759	781	753	826	811	727	760	883	990	930
4	1392	1278	1082	910	857	635	712	703	757	729	700	717	848		835
5	995	923	785	678	665	629	616	630	633	655	603	706			655
6	727	699	577	557	523	511	476	475	515	520	570				505
7	543	528	510	421	422	385	361	370	426	489					400
8	396	383	397	308	320	269	265	241	369						320
9	320	318	310	237	225	220	196	216							275
10	308	262	260	205	207	204	189								250
11	259	231	237	183	191	195									230
12	216	189	190	169	176										210
13	184	172	178	158											200
14	170	159	169												190
15	170	154													180
	164														170

Snapshot Retention Rate:	11%	11%	14%	16%	18%	26%	24%	29%	45%	60%	78%	93%	96%	---	---
SWO: 9 YCS vs. 3 YCS	21%	24%	27%	24%	23%	29%	25%	29%	---	---	---	---	---	---	---
FY02 Projected Inventory	162	148	168	155	171	131	182	189	297	467	540	679	842	988	915
FY02 Required Inventory	170	180	190	200	210	230	250	275	320	400	505	655	835	930	920

Good inventory level
Acceptable inventory level

Retention Rate = [Current Inventory] / [YCS3 Inventory]

Table 6.1. SWO Retention. From: [Ref. 37]

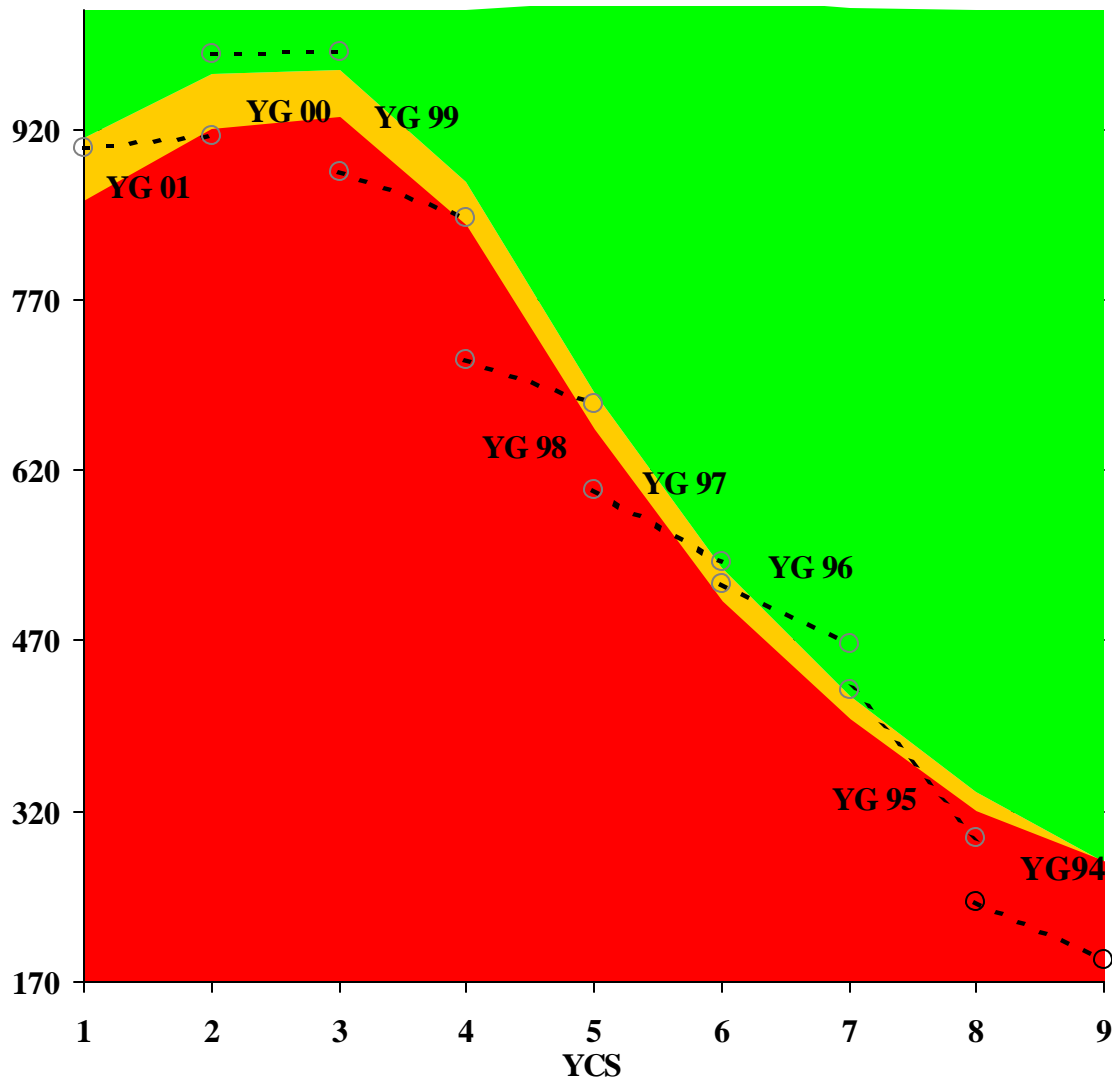


Figure 6.1. SWO Retention. From: [Ref. 37]

As Table 6.1 shows, over an 8-year period for year groups 87-94 the retention percentage was well below 38%. This corresponds to the manning reduction, but also shows there is a real problem with junior officer retention. The legend in Table 6.1 also applies to Figure 6.1, which is another depiction of the same data. Figure 6.1 shows the projected number of officers for each year group for a one

year period. The graph shows that retention should be above the 275 SWOs necessary for department head tours per year groups for years 96 and above.

1. Manning

Figure 6.2 shows the breakdown of billets for the surface community with surpluses and shortages for the various ranks. [Ref. 34] Figure 6.3 also shows where the surface navy is short in various ranks, including a current shortage at the department head level. Note the situation varies within pay grades. There is a surplus of SWO Officers in the more junior LT (0-3) positions for (YG 95-97), but a shortage in the more senior LT positions (YG 92-94) that correlates to the officer shortage at the department head positions. [Ref. 35]

Surface Warfare Billets vs Inventory

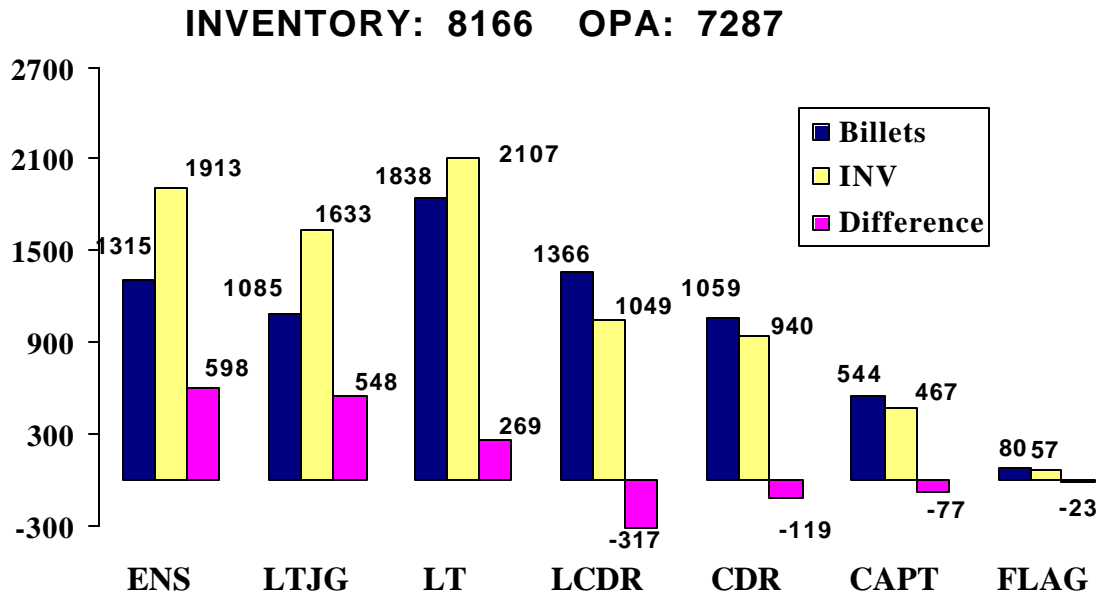


Figure 6.2. Surface Officer Billets. After: [Ref. 34]

Surface Warfare Officer Current Manning Profile

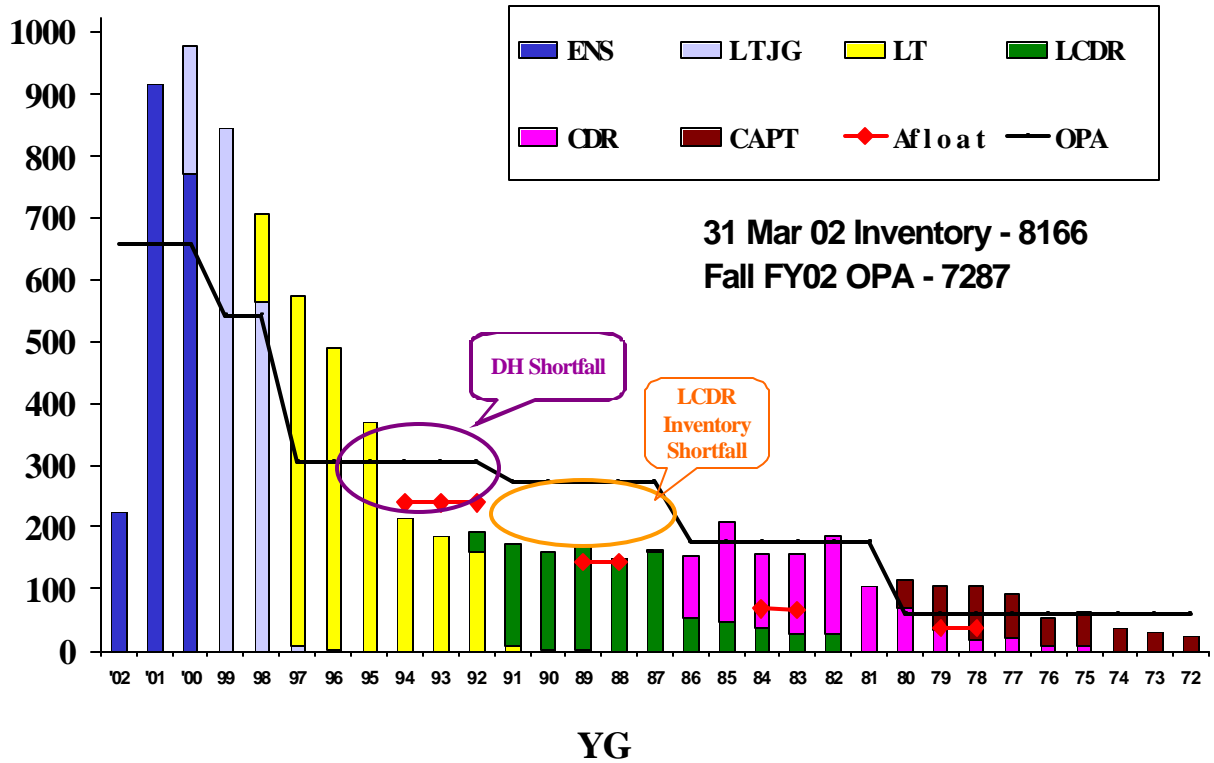


Figure 6.3. Surface Officer Manning Profile. From:
[Ref. 35]

As both Figures 6.2 and 6.3 clearly show, there is a significant shortage both at the department head and Lieutenant Commander (LCDR) level. Longer department head tours have been used to alleviate the problem. However, the manpower situation should improve if current trends hold true (for year groups 96 and beyond). Parts D and E focus on the financial initiatives intended to increase surface officer retention.

D. CLOSING THE PAY GAP

The difference in wages between the military and the private sector has always been a controversial. Many but not all argue that the difference should be tracked and measured in accordance with the Employment Cost Index (ECI) as calculated by the Bureau of Labor Statistics which compares. Others argue that the pay gap should be based on a comparison of civilian and military pay levels. The following data, observations, and conclusions were compiled by using the ECI when comparing the differences in military and private sector wages.

As previously mentioned, the 1990's were a period of rapid economic growth. At the beginning of the 1990's, the pay gap was 11.2%. The difference in pay between the private sector and the military continued to increase and reached as high as 13.5% during 1998 and 1999. [Ref. 38]

In an effort to close the pay gap, Congress authorized pay raises for the next three years and targeted specific pay grades (mid-grade officers and non-commissioned officers) in an effort to increase retention. Yet, the gap was still at 7.6% at the beginning of 2002. It is estimated that the pay gap will not be closed till 2017 (based on ECI plus .5% pay raises.) [Ref. 38]

For the next decade, those in the military will profit from the efforts made to address the manning shortages and the huge pay gap. As the U.S. is now intimately involved in the war on terrorism, great efforts will be made to close the pay gap. For surface officers, there are two positives.

One is that congressional leaders will be forced for the next decade to focus on the welfare and compensation of military personnel since the war on terrorism is sure to continue for many years. Therefore, increased military pay should have strong support from U.S. citizens, which will in turn pressure Congress and the President to support increased pay raises.

Secondly, due to the low retention in the 1990s SWOs that remain will have better chances of promotion. In order to meet the demands of the fleet, promotion percentages will likely increase at the Lieutenant Commander (LCDR) and Commander (CDR) level. Not only will SWOs see a steady increase in their base pay, but they will also get another increase as they are promoted to LCDR and CDR. [Ref. 39] Again these results will be a byproduct of the retention problems that plagued the surface community in the late 1990's.

E. SURFACE WARFARE CONTINUATION PAY (SWOCP)

The SWOCP is a direct result of the past manning and retention problems. The SWOCP was an acknowledgement by Congress and the senior Navy leadership that some financial incentives were necessary to address the growing retention problem in the surface community. The SWOCP will benefit the surface community in three ways: 1) increased retention, 2) reduced manning shortages, and 3) higher quality junior officers and department heads.

The SWOCP is an incentive program that pays surface warfare officers a bonus of 50,000 dollars for those who stay through two department head tours. To qualify for the program, an officer has to be selected for the Surface

Warfare Officer Department Head School. Once the officer commits to attending department head school he/she is then eligible for the bonus. Upon acceptance of the officer's commitment to attend department head school, the officer will receive an initial payment of 10,000 dollars. The second 10,000 dollars will be paid once the officer starts department head school. Additionally the officer will receive an annual 10,000 bonus for the next three years based on the start date of the department head class the officer attended.

When Navy leaders were first contemplating the idea of a bonus for junior officers, the goal was to retain approximately 275 surface officers per year group through the ten-year career point. [Ref. 40] Studies were conducted considering three levels of payment over five payment periods. The suggested payments were 5,000, 10,000, and 15,000 dollars for five years for a total of 25,000, 50,000 and 75,000 dollars respectively.

Using the data from the nuclear officer and naval aviators bonus, the following conclusions were reached. The simulations showed as the bonus increases from a total of \$25,000 to \$75,000 the number of people staying in the community and the overall cost savings increased. The direct billet (MPN, OPN, and other government agencies) savings realized were \$21 million, \$52 million, and \$71 million dollars for the \$25k, \$50k, and \$75K payments respectively for an officer up to the rank of LCDR. [Ref. 40] These figures were derived using the assumption that commissioning instructor or post-commissioning training costs do not decrease.

Table 6.2 [Ref. 37] shows that as of April 2002 1920 surface officers have taken the bonus. The 1920 officers are from year groups 91 and prior, and year groups 92-00. Between year groups 92-94 approximately the same number took the bonus. However, those numbers drastically increased for year groups 95 and 96, which would suggest the Navy could meet its retention goal (38%) in the future. Thus, the bonus is a step in the right direction. [Ref. 37]

Finally, the SWOCP provides an incentive for those top performers who would have otherwise left the Navy. It gives them a financial reason to stay in. For some officers the rewards of serving in the military are not enough, and being financially secure is very important. By having SWOCP, surface warfare officers have a form of compensation that makes remaining in the surface community and the Navy more attractive.

SWO Continuation Pay Analysis

SWOCP Analysis by Year Group											
	YG91 & senior	YG 92	YG93	YG94	YG95	YG96	YG97	YG98	YG99	YG00	TOTAL
FY00 Recipients	688	185	163	132	172	67	1	0	0	0	1408
FY01 Recipients	4	2	10	28	39	131	80	1	0	0	295
FY02 Recipients	2	1	1	9	18	34	69	82	0	1	217
Total Recipients to Date		188	174	169	229	232	150	83	0	1	1920
Current (31 JAN) Strength		198	192	225	381	499	578	710	847	991	
YCS3 Strength		759	781	753	826	811	727	760	883	NA	

Note 1

Breakout by DHS Start Date				
	Fundg by FY			Total
	FY00	FY01	FY02	
Grandfathered	802	8	1	811
FY00 DHS	238	9	4	251
FY01 DHS	176	40	5	221
FY02 DHS	124	60	33	217
FY03 DHS	57	110	41	208
FY04 DHS	7	60	80	147
FY05 DHS	0	5	53	58
Total	1404	232	217	1913
Cost	\$180M	\$132M	\$86M	

Note 1

Note 1: Difference due to three FY00 (all YG95) recipients and one FY01 recipient (YG91) not yet having been assigned a DH class

Table 6.2. SWOCP Data. From: [Ref. 37]

F. THRIFT SAVINGS PLAN

Finally, after years of speculation the military has its own version of the private sector's 401k plan called the Thrift Savings Plan (TSP). TSP has been around since 1986, but it was only for Federal civilian employees. President Clinton changed that on 30 October 2000 when he signed Public Law 106-398, which extended TSP to the uniformed services starting in October 2001.

TSP is a defined contribution plan, meaning that the military TSP account is dependent on the amount the service member contributes to the account during the working years of uniformed service. TSP is different than that of the uniformed services retirement system. Under the Uniformed Services Retirement System a service member's retirement pay is based on pay and time in service, with no contributions made by the service member. TSP is also voluntary.

G. FUTURE INCENTIVES

The aforementioned incentives will help assure that retention will increase for surface warfare officers. There are other incentives that may be initiated in the future: 1) Executive Officer Afloat Bonus and, 2) further reduction of inspections.

The need for an Executive Officer Afloat bonus stems directly from the lack of retention of the 1990's, and the strengthening U.S. economy. The data currently show a lack of officers at the department head and LCDR level. If officers get out after their two department head tour commitment to find more lucrative jobs in the private sector, there will be a shortage of Executive Officers afloat. These same circumstances led to the creation of the SWOCP, and the data would lead one to believe that a future bonus may be necessary to meet manning requirements for executive officers aboard ships.

The 21st Century will also see a continued reduction of inspections for the surface navy. In an effort to decrease the time surface sailors spend at work while in port, some inspections will be conducted only at the request of the

commanding officer. This will be another way that the senior leadership will try to improve morale.

Finally, as new ships like the San Antonio class LPDs and the new DDX enter the fleet and older ships are decommissioned, future junior officers will face less day to day adversity than their predecessors. An influx of new ships means less maintenance and more time to learn, train, and lead. Therefore, instead of junior officers being preoccupied with paperwork related to maintenance and trouble shooting, they will have more time to learn about their ship, and will not have to work the extremely long hours which were required of junior officers in the 1990s.

H. CHAPTER SUMMARY

Chapter VI has focused on various incentive programs available now and possibly in the future. The chapter also discussed the issues that drove the need for a bonus for surface officers as a means to meet the current and future retention numbers of the Navy. The Navy's commitment to these new incentive programs shows a renewed commitment towards strengthening the community. This commitment will allow the surface officer community to be adequately manned to face its future tasks, in support of National and Military Strategies.

Finally, for the first time surface officers are receiving a bonus. The military services have their own 401k plan in the form of the Thrift Savings Plan. Also, increased retention numbers for year groups 95 and later should ensure that future department head tours will be back to the normal length of 36 months. New ships, less maintenance, reduced inspections, and more family time

while in port should provide for a positive experience for junior officers, and should be reflected by increased retention. Therefore, the future is bright for the surface community, and now is a good time to be a SWO.

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VII. CONCLUSION

A. SUMMARY

The thesis identifies lessons learned from the Age of Sail, the relationship between National Strategy, Military Strategy, and Naval Strategy now. Strategy in turn, determines naval missions, executing those missions requires certain types of behavior by naval officers. Understanding this relationship is key to structuring the proper incentive structure to produce the desired behavior for Surface Warfare Officers. For the 1990s, the incentive structure was consistent with the mandated reduction of naval forces. Through incentive programs such as the Temporary Early Retirement Act the Navy was able to meet its reduction goals. Now the incentive structure for SWOs needs to encourage SWOs to do three things: 1) be prepared to serve at sea, 2) stay for a career, and 3) develop the skills necessary for command at sea.

To accomplish these goals, naval leadership continues to make improvements in quality of life, bonuses, and education. Improvements in quality of life such as a better working environment aboard ships, reduced inspections, and more family time in port improves morale and provides quality time at sea. The establishment of the Surface Warfare Continuation Pay and Thrift Savings Plan has greatly contributed to the increased retention in year groups 95 and higher. These financial incentives directly contribute to increased numbers of career officers in the surface community. How much they contribute is a matter for future study. Also, providing more advanced professional

educational opportunities develops the skills necessary for SWOs to be effective commanders at sea.

The thesis also address the following secondary questions.

- How did the Americans and British use incentives to their advantage during various conflicts (19th century until today)?
- What were the imperfections in the incentive systems and how did the American and British Navies cope with them?
- Based on the U.S. Grand Strategy of the late 20th century, did the government have the right incentives for Surface Warfare Officers?
- What is the Grand Strategy for the United States for the 21st century?

1. Incentives: 19th Century

In the 19th century both the British and U.S. Navies understood that "incentives matter." One way crews were incentivized was through prospects of prize money. In an effort to ensure that British and U.S. ships engaged the enemy, the crews were given a percentage of the prizes that were captured. Also, since there were more captains than ships available, competition to command a ship was intensified.

Prize money as an incentive had positive effects for both navies in that they had better trained crews and were more tactically proficient in fighting their vessels. Increased training for the crew allowed for the British and U.S. to engage larger and more heavily equipped enemy vessels and win in battle. Since the captains of the British and U.S. knew they often had to engage, it was in their best interest and that of their crew to be tactically

proficient. Not only were they victorious in battle, but also they often suffered fewer casualties.

2. Incentives: Disadvantages and Solutions

Although useful as an incentive, prize money had its drawbacks. The politics of distributing the prize money often lead to a long delays before the crew received their money. In the U.S. Navy, prize money was a way of legalizing privateering, which lead to an attitude of every captain for himself. There was no uniformity of direction and leadership in the fleet.

The U.S. Navy had another problem, in that they had a large number of foreigners, and many of them were deserted from the Navy. Prize money was not a useful incentive for them, as these foreigners joined the Navy looking for adventure and traveling opportunities.

In an effort to address the prize money issue, the British Parliament passed a law that formalized the distribution of prize money based on Table 1.1 (page 6). This formal process reduced politics and delays. Formalized distribution of prize money caused the U.S. to adopt a standardized pay system. The U.S. Navy moved away from prize money as an incentive and went to a system of salaries.

To address the issue of desertion especially among foreign service members, the U.S. Navy increased investment in education as a means of increasing retention, improving manning, and attracting more American citizens. The Naval Academy was established in 1845 and the Naval War College in 1884. The establishment of both of these institutions

was an effort to attract more officers and teach the best practices for leadership, tactics, and naval war fighting.

3. U.S. Grand Strategy Late 20th Century

The end of the Cold War and the mandated reduction of military forces were the two factors that transformed the surface navy after 1989. With the end of the Cold War, the government no longer feared a large-scale war in Europe and focused attention on homeland issues, especially strengthening the U.S. economy. To adjust to this new policy, the military focused on multiple regional conflicts, vice large-scale global warfare.

After the end of the Cold War, the U.S. became the sole superpower. As such, the U.S. was able to move from a policy of containment of the Soviet Union and the spread of Communism to focusing on increased global well being, and stability. Three main areas stressed throughout the 1990s were:

- Enhancing our security by maintaining a strong defense capability
- Promoting prosperity and economic growth at home by increasing access to foreign markets
- Promoting democracy abroad and providing incentives for foreign governments to transition to democracy and democratic free markets [Ref. 19]

Maintaining a strong military was understood as the military's ability to fight two major conflicts simultaneously. In an effort to help the military reduce the number of personnel, Congress passed the Temporary Early Retirement Act on October 23, 1992. This allowed military members with at least 15 years of active service to retire. The Navy was able to meet its reduction goals.

However, for the surface warfare community, one could argue that this incentive worked too well and resulted in decreased retention.

In the early 1990's the Navy produced three white papers, which were the principal foundation for restructuring the Navy and Marine Corps. The Navy and Marine Corps team was to be a forward deployed joint war-fighting force used for both political and military purposes throughout the world. The two services also recognized the need to prepare for military operations other than war, to include multinational military exercises, peacekeeping and humanitarian missions. And, Even though the military was downsizing, the Navy and Marine Corps were able to meet all tasking in support of the U.S. Grand Strategy.

4. U.S. Grand Strategy for the 21st Century

Two significant events happened at the beginning of the 21st century. First was the change of the presidency from the Democratic President William J. Clinton to the Republican President George W. Bush, Jr. The second major event was the terrorist bombing of the U.S. on September 11, 2001. Yet, the core principles of the U.S. Grand Strategy remain the same. Even though President Bush has had the opportunity to produce a new national security strategy he has not, therefore it is safe to conclude that the core principles from the Clinton administration have not changed. With that said, the terrorist events of September 2001 have brought homeland security and the war against terrorism to the forefront of priorities for the Bush administration.

The immediate impact of these events for the surface community is that Maritime Interdiction Operations (MIO), electronic surveillance, and increased air operations will be conducted off the coast of Pakistan and the surrounding area. This does not necessarily mean an increase of time at sea for the surface warfare officers, but it does mean more operations and assets will be dedicated to this region. The military has to adapt again to the changing world environment. Not only do military forces have to prepare for multi-regional conflicts, but now rogue factions have proven they have the ability to attack the U.S. on its own soil. The military and the surface warfare community must respond to this new threat.

To this end the surface community has to increase retention. Now that the downsizing of the 1990s is over, senior naval leaders have to find new ways of keeping career SWOs through both financial and non-financial incentives. The financial incentives include the Surface Warfare Officer Continuation Pay (SWOCP). Non-financial incentives include better educational opportunities and more time with family while in port. Possible future incentives include a SWOCP for executive officers afloat and future reduction of inspections while in port. All of these programs will ensure that the surface community is prepared to support the U.S. Grand and Military Strategies.

B. RECOMMENDATIONS FOR THE FUTURE

This thesis focused on past lessons up till today, and how those lessons have been applied to incentives for the surface warfare officer. This same structure approach applies to other communities in the Navy, or general services. As the military went through downsizing in the

1990s, every service saw a drop in retention. As the U.S. economy strengthened, every service had to create incentives for members to stay. This study's methods apply to officers, but also to the enlisted community. A similar study could be done for enlisted personnel incentives.

This thesis also talked about the importance of the Surface Warfare Officer Continuation Pay. The SWOCP was enacted at the end of the 20th century. Early numbers indicate that it is working, but an in-depth study should be conducted to find the actual impact on retention. Furthermore, a study could be undertaken to determine realized cost savings that have occurred when a larger sample group has taken the SWOCP bonus. Hopefully, the study would determine if the current bonus is sufficient to permit shortening department head tours. The study could also determine if a new bonus is necessary to ensure the numbers needed to fill the executive officers afloat billets.

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