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Analysis of Contract Management Processes at Fleet & Industrial Supply Centers (FISC) Worldwide

01 June 2009

by

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Abstract

The purpose of this project is to assess the contracting processes capabilities at Commander, Fleet, and Industrial Supply Centers (COMFISCS), which includes all seven Fleet and Industrial Supply Center (FISC) locations. These locations are Jacksonville, FL; Norfolk, VA; Pearl Harbor, HI; Puget Sound, WA; San Diego, CA; Sigonella, Italy; and Yokosuka, Japan. This analysis was conducted using the Contract Management Maturity Model (CMMM). The primary purpose of this study is to analyze FISC's contracting processes to identify key process-area strengths and weaknesses and to provide a road map for possible improvement if needed. This study also focuses on the specific metrics currently used by COMFISCS to measure the performance of its contracting management processes. The results will provide COMFISCS and the individual FISC Commanders a snapshot of the maturity level of their contracting processes both individually and as a whole. This will allow COMFISCS to identify the unique challenges that each individual FISC is facing and provide an assessment tool on how to effectively engage and overcome these challenges and potentially improve the organization's contracting process.

Keywords: FISC, Contracting, Contract Management Maturity Model, COMFISCS, NAVSUP

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Table of Contents

I. Introduction

A. Background

As 2008 ended, the United States government found itself in the worst recession since the Great Depression. The financial crisis has spread worldwide, and as of March 5, 2009, the Dow Jones Industrial Average had fallen 281 points, or 4.1%, to close at 6,594.44. According to early tallies, this is the Dow Jones' lowest ending point since April 15, 1997 (Twin, 2009). With no end in sight despite billions in federal bailout money infused into the private markets, the Obama Administration has enacted several Presidential Directives and sponsored legislation in an attempt to cut internal federal government costs. Government contracting is a prime area of concern for the Obama Administration, as evidenced by President Obama's address to a joint session of Congress on February 24, 2009, when he referred to his upcoming Presidential Budget submission:

> We'll eliminate the no-bid contracts that have wasted billions in Iraq, and reform our defense budget so that we're not paying for Cold War-era weapons systems we don't use. (Obama, 2009)

President Obama's direct reference to the Department of Defense's (DoD) contracts in a speech that was televised worldwide propelled the government contracting process (specifically the DoD's contracting) to the forefront of the media. While there are sure to be forthcoming changes to the government contracting process in the new Presidential Budget, a March 4, 2009 press conference makes clear that additional changes to the government contracting process are also in store: "President Obama ordered an overhaul of the way the government hands out contracts Wednesday, promising to curtail no-bid awards that have led to waste, abuse and corruption investigations" (AP, 2009). Specifically, the new administration has directed the Office of Management and Budget (OMB) to rewrite the rules for government contracting. The new rules will be directed at increasing visibility while reducing outsourcing of governmental functions. As indicated in the

report except below, these priorities were dictated by President Obama in his March 4 press conference:

> Obama's presidential memo changes government contracting procedures. It directs Peter Orszag, director of the White House Office of Management and Budget, to work with Cabinet and agency officials to draft new contracting rules by the end of September. Those new rules, White House aides say, will make it more difficult for contractors to bilk taxpayers and make some half-trillion dollars in federal contracts each year more accessible to independent contractors. "We will stop outsourcing services that should be performed by the government and open up the contracting process to small businesses," he said. "We will end unnecessary no-bid and cost-plus contracts that run up a bill that is paid by the American people. And we will strengthen oversight to maximize transparency and accountability. (AP, 2009)

Government contracting, specifically the DoD's contracting, has been portrayed as broken and wasteful primarily due to recent scandals in contracting for the Iraq War and the massive amount of spending that has accompanied the war. This is evidenced by the *Government Accountability Office Report 09-460T* (2009), which states:

From fiscal years 2001 and 2008, the DoD's obligations for contracts have more than doubled to $387 billion, but its workforce that manages and oversees contracts grew by only about 1%. DOE spends about 90% of its budget on contracts. Weaknesses in contract management at both the DoD and DOE, such as unsound business practices, inadequate numbers of oversight personnel, and the lack of training, result in increased costs and risks (Government Accountability Office, 2009a).

With scarce resources, dire economic conditions worldwide, and the perception from the Obama Administration that government contracting is broken—and with GAO reports substantiating this perception—the DoD has been forced to take a look at its own internal contracting processes in an effort to streamline these processes and increase efficiency and real-cost savings. In this current environment, additional funding simply is not available, and the reality is that the DoD will most likely see a significant funding decrease.

In order to make the most of the scarce funds that the DoD will be facing, a concerted effort must be made to streamline current contracting practices to ensure that funds will be available to support the DoD's ever-growing mission throughout the world. In the past, several self-assessment initiatives have been employed by the DoD such as Total Quality Management (TQM), Lean Six Sigma, and the use of various metrics to measure performance. Some of these initiatives are currently being employed (such as Enterprise Resource Planning); however, a specific tool, is needed in order to effectively assess the DoD's contracting processes and determine where these processes currently stand with regard to their maturity level as well as to what specific contracting processes the DoD needs to focus on for the training of their personnel.

This research demonstrates the usefulness and benefits of applying the Contract Management Maturity Model (CMMM) to a DoD organization in order to determine its current maturity level and identify areas that need improvement. By selecting the Commander, Fleet and Industrial Supply Center (COMFISCS) organization for the application of the CMMM, this study illustrates the effectiveness of this tool in assessing the contracting process maturity of worldwide DoD activity and providing a roadmap for improvement. COMFISCS performs a wide variety of contracting functions in seven locations throughout the world and is the perfect organization to apply the CMMM's versatility and applicability to a wide array of contracting organizations.

In addition to determining the current maturity level of any contracting process within an organization, the organization must then examine the factors that contributed, either directly or indirectly, to the results. These factors can take many forms and, while performing this research, the authors noted that during site visits to gather background information, most of these contributing factors were readily known by personnel at the various COMFISCS locations throughout the world.

COMFISCS, headquartered in San Diego, CA, comprises more than 7,500 military and civilian logistics professionals, operating as a single cohesive team and

providing worldwide integrated logistics and contracting services to Navy and joint operational units across all warfare enterprises and base supply functions at 79 shore locations. A component of the Naval Supply Systems Command (NAVSUP), COMFISCS is part of a worldwide logistics network of more than 25,000 military and civilian personnel providing "One-Touch Supply" (Naval Supply Systems Command, 2009a).

B. Purpose

The primary purpose of this study is to analyze the contracting processes utilized across the seven Fleet & Industrial Supply Center (FISC) locations worldwide. The goal of this analysis is to identify the current maturity level of each of the six phases of the contract management process, provide an evaluation of the current maturity level, and assess the contributing factors that led to the current maturity level of each FISC as well as the COMFISCS organization as a whole. By applying the Contract Management Maturity Model (CMMM) in the form of an online survey, the authors were able to identify the current maturity level of each of the six phases of the contract management process: Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, and Contract Closeout. In conjunction with the online survey, the authors conducted site visits to COMFISCS headquarters, FISC Yokosuka, FISC San Diego, and FISC Norfolk to obtain background information for this research. The results of these background discussions provided invaluable insight into the contracting operations and allowed the authors to anticipate the results of the online survey based on information obtained during on-site discussions. The information gathered from the site visits, the survey results, and the recommendations contained herein provide the COMFISCS leadership with an unbiased assessment of the FISC contracting process. This assessment provides a tool to assist the COMFISCS organization in optimizing their contracting processes, allowing them to use their scarce resources with the utmost efficiency.

C. Research Questions

The purpose of this research is to evaluate the maturity of the contract management process currently in place at COMFISCS and its subordinate commands. This evaluation will include an examination of each FISC's area of responsibility, the metrics used to gauge contract management performance and execution, the predominant contract vehicles used to acquire the necessary supplies and services, and the manpower currently in place that is being used to fulfill the customer's needs.

1. Primary Research Question

a. In order to improve COMFISCS's contract management process, COMFISCS must first identify the current maturity level of their contract management process. By utilizing the Contract Management Maturity Assessment Tool, the researchers will be able to answer the primary research question: What is the current Contract Management Maturity Level of the COMFISCS organization?

2. Supplementary Research Question

b. How can COMFISCS utilize the results of the CMMM survey for continuous process improvement?

D. Scope and Organization

The research focuses on contracting process maturity and the factors that affect the current maturity level within COMFISCS. The overall assessment identifies the current maturity level of COMFISCS's contracting processes and provides the organization with a suggested roadmap for process improvement. Using online survey results, the researchers evaluated the six contract management phases. The results of discussions during site visits combined with the results of the CMMM assessment were used to ascertain the current level of maturity for COMFISCS and provide a roadmap for improvement to the COMFISCS leadership for their consideration.

This report is organized into six chapters.

Chapter I, Introduction, provides background, purpose, research questions, methodology, and benefits and limitations of the research.

Chapter II, Literature Review, describes the evolution of process improvement theories used in the business world, the origins of the maturity model concept, and a background and overview of the CMMM.

Chapter III, COMFISCS, provides an overview of the COMFISCS organization, the Naval Supply Systems Command (NAVSUP) organization, and the relationship between the two with respect to the contracting process.

Chapter IV presents the data collected using the Contract Management Maturity Assessment Tool online survey, which is included in the Appendix. It also presents the results of the online survey in the Contract Management Maturity Model and discusses the data that led to the results.

Chapter V provides the summary, conclusion, and recommendations for further research.

E. Methodology

This report evaluates the current maturity level of COMFISCS's contracting processes. The six phases of the contracting process are individually evaluated: Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, and Contract Closeout. A standardized 61 question survey, (Contract Management Maturity Assessment Tool (CMMAT)), was administered online to assess the contract management process maturity of COMFISCS. This same online survey was administered to all seven FISC locations worldwide in order to assess both the overall contract maturity of the COMFISCS organization as well each individual FISC location. Qualitative data gathered through this survey is used to assess the organization's current contract maturity level so that strengths and consistencies can be measured across the COMFISCS organization as well at each individual FISC location.

Data gathered during site visits was used to evaluate the subsidiary research questions and attempt to draw a "cause-and-effect" relationship to the results obtained from the survey. These combined results are evaluated and presented in the form of recommendations that COMFISCS can use to foster internal organizational improvement.

F. Benefits of the Research

The results from this research can be used by COMFISCS leadership to identify the current maturity level of the COMFISCS organization as a whole as well as the current maturity level of each of the six phases of the contract management process. This information can be used as a baseline and as an indicator of what type of training is required according to the maturity level of any of the six phases of the contract management process.

G. Limitations of the Research

The results gained from this research are not based on a statistical analysis. This research is based on the results of an online survey and, as such, is only as accurate as the input received from participants. Not all personnel who were invited to participate in the online survey did so. Two FISC locations, Sigonella and Pearl Harbor, submitted no survey responses. Only three FISC locations were visited during this research study; therefore, the data gathered during the site visits reflects only three FISC locations.

H. Summary

This chapter provided background information on the current economic and political conditions that affect government contracting and thus the COMFISCS organization. This chapter also describes the purpose of this report, research questions, scope and organization, and research methodology. The next chapter, Literature Review, discusses the evolution of process improvement, the

development of maturity models and the assessment of contract management processes that led to the development of the CMMM.

II. Literature Review

A. Introduction

This literature review is presented in four sections. The first section discusses the history of both continuous process improvement initiatives and the maturity model concept. The second section focuses on the growth in importance of contracting functions within the federal government, specifically the Department of Defense. The third section discusses the development of the Contract Management Maturity Model (Rendon, 2008). The final section describes the recent applications of the Contract Management Maturity Model to both defense contractors and organizations within the Department of Defense.

History of Process Management and the Maturity Model Concept

a. Introduction

Process management can be defined as administrative activities aimed at

1. Defining a process,
2. Establishing responsibilities,
3. Evaluating process performance, and
4. Identifying opportunities for improvement. ("Process Management" , 2008)

b. History of Process Management

The history of process management is as old as history itself. In the modern sense of the word, however, we tend to view the term “process management” as emerging primarily into the American business culture in the 1980s as a result of the influence of the Japanese Automobile Industry (Allan, 1993). The Japanese automobile makers were able to produce cars cheaper and with better quality than their American counterparts. The Japanese were able to do this because of their focus on quality.

> Total quality control (TQC) is the qualifying criterion in their home market. TQC is not perceived as desirable, it is considered essential for continued survival. Japanese companies, through their considerable efforts over the last 25–30 years, have put the principles of TQC firmly into place and are totally committed to sustaining the process of continuous improvement. (Allan, 1993)

This continuous process improvement was the key that lead the Japanese auto industry to the top. One of the many keys to success for the Japanese was that they applied this TQC concept *throughout* their companies and in *all* aspects of the company. From the assembly line to the boardroom, TQC became part of how they did business. This led to innovative long-term supplier relationships that were the first of their kind in the industry. The Japanese also dedicated immense resources to examining their own internal processes and going through each one with a fine-toothed comb.

As a result of this dedication to quality, the Japanese improved all aspects of their business practices. They improved them so much, in fact, that they became the world leaders not only in the auto industry but also in the management practices arena. Their success in the auto industry demonstrated the effectiveness of their "new" management techniques and quickly led to several new innovations in business management. The first, most fashionable, and most implemented of these was Total Quality Management.

c. Total Quality Management

Total Quality Management is an approach to the art of management that originated in Japanese industry in the 1950s and has become steadily more popular in the West since the early 1980s (Johnson, 2008).

Total Quality Management (TQM) was the first major Japanese-styled management technique to start having a direct effect on American businesses and the federal government. American firms, both government and civilian, began to take notice once the Japanese auto industry began to dominate in the 1980s. America began to follow their example. On March 4, 1993, Bill Clinton became the

latest in a series of presidents to declare war on waste in the federal government. Use of Total Quality Management (TQM), he said, would be one of the features separating this attempt from its fairly inglorious predecessors (Levine & Helper, 1995). By adopting this policy, the federal government did make some progress toward efficiency and reducing costs. There are many examples of successful TQM in the public sector as well as in the private. For example, the Internal Revenue Service cut mailing costs by $11 million after adopting TQM in 1986, and Naval Air Systems Command saved $1.8 billion by applying TQM techniques that led to better supplier relations (Helper, 1995).

Total Quality is a description of the culture, attitude, and organization of a company that aims to provide, and continue to provide, its customers with products and services that satisfy their needs. The culture requires quality in all aspects of the company's operations, with things being done right the first time and defects and waste eradicated from operations (Stark, 1998). The adoption of this management style and its associated processes was a drastic shift from the way that most American companies had traditionally performed the same or similar business functions. Waste and redundancy had been the hallmark of American businesses as well as of the government. Gas prices had dropped after the oil crisis of the 1970s, and the American public was still buying large cars and trucks, which were not fuel efficient. Both industry and the public soon forgot the lessons of the '70s concerning fuel economy. With the Cold War in full swing, the federal government, especially the Department of Defense, was spending money hand-over-fist, buying anything and everything under the belief that if it spent enough, it would stay ahead of the Soviet Union. Efficiency simply was not in its vocabulary.

The greatest effect that the implementation of TQM had on the federal government was the identification of who the customer actually was. Unlike a private business, the federal government's customers are not primarily the ones buying a finished product, but, instead, they are a very diverse group of people who need many different things. TQM allowed the federal government to identify both

the internal and external customers that participate within the supply chain of the good and/or service being acquired.

While this was definitely progress, TQM mainly proved to the federal government and industry how long a road it was that was actually ahead of them. While TQM did have some successes, there were also numerous failures in TQM implementation. After studying all of the independent research conducted by consulting firms, the conclusion was that only about one-fifth, or at best one-third, of the TQM programs in the US and Europe had achieved significant or even tangible improvements in quality, productivity, competitiveness or financial results (Andersson, Eriksson, & Torstensson, 2006). There had to be another way to improve performance and that "other way" turned out to be Six Sigma.

d. Six Sigma

Six Sigma is defined as a business process that allows companies to drastically improve their bottom line by designing and monitoring everyday business activities in ways that minimize waste and resources while increasing customer satisfaction by some of its proponents (Andersson et al., 2006). First implemented by Motorola in the mid-1980s, this application of management theory led Motorola to achieve numerous quality awards, which subsequently caused other businesses to take notice and implement Six Sigma programs of their own.

Unlike TQM, which has a very solid core concept but is more of an idea rather than a set of methodologies or instructions, Six Sigma has numerous tools and methodologies associated with it. There are two major improvement methodologies in Six Sigma, one for already existing processes and one for new processes. The first methodology used to improve an existing process can be divided into five phases. These are:

Define. Define which process or product needs improvement. Define the most suitable team members to work toward the improvement. Define the customers of

the process, their needs and requirements, and create a map of the process that should be improved.

Measure. Identify the key factors that have the most influence on the process, and decide how to measure them.

Analyze. Analyze the factors that need improvements.

Improve. Design and implement the most effective solution. Cost-benefit analyses should be used to identify the best solution.

Control. Verify if the implementation was successful and ensure that the improvement sustains over time.

The second methodology is often used when the existing processes do not satisfy the customers or are not able to achieve strategic business objectives. This methodology can also be divided into five phases: define, measure, analyze, design, and verify (Andersson et al., 2006).

The federal government needed to reduce costs and TQM got the government started on the cost-reduction path. TQM did show that improving quality and efficiencies within the management of an organization could result in improved efficiencies and fairly substantial cost reductions. Six Sigma appeared to be the next step and the federal government jumped on board. The Department of Defense was especially interested in Six Sigma since DoD mission requirements kept growing while resources available to perform the missions began to shrink. In 2008, some estimates claimed that about two-thirds of the DoD organizations were committed to Six Sigma (Robinson, 2008).

Six Sigma has produced tangible results. The Naval Air Systems Command, which developed a new approach to the Joint Standoff Weapon Block II program by using Six Sigma, generated savings of more than $133 million in fiscal year 2006

and more than $420 million for the life of the Navy/Air Force program (Robinson, 2008).

Six Sigma is focused not only on delivering a more favorable bottom line but also on how to make internal processes work better and more efficiently. Many internal process evaluations have occurred with the adaptation of Six Sigma. Remember those customers the federal government identified under TQM? They are all benefitting from the implementation of Six Sigma: both the internal and external customers. One of the external customers certainly benefits from the cost savings (the American taxpayer), but there are also benefits for some of the internal customers of the federal government. One of the most ambitious Six Sigma projects was a joint effort begun in June 2007 by the DoD, the Office of the Director of National Intelligence, the Office of Management and Budget, and the Office of Personnel Management; the goal was to completely re-engineer the government's security clearance process (Robinson, 2008). Making this process more efficient greatly benefits the internal government customer who is going through the security clearance process. But this also begs the question: To what other processes in what other organizations can we apply Six Sigma? That is the real benefit gained from the implementation of both TQM and Six Sigma by the federal government—the federal government has learned how to critically self-analyze its functions and find ways to make internal improvements, which benefits everyone (Johnson, 2008).

e. Metrics

Now that both TQM and Six Sigma have showed the federal government how we can take a look at our internal processes and procedures and analyze ourselves, we have a new challenge to address that forces us to ask several questions. How do we evaluate where we are now concerning any given process? Are we doing it well or not? What is the standard?

The answers to all of these questions are theoretically easy: develop metrics to assist in analyzing and improving performance. Here is where it gets difficult—what metrics should be used for what processes? Is it a “good” measure of

performance? The federal government must first start with identifying what a metric actually should be. A metric can be defined as simply as a way to measure something. A meaningful measure fills a need and meets a specific objective. If a measure does not accomplish a purpose, it should not be used. If a measure is being used and the objective is not understood, the objective must be figured out. All productive activity has a purpose. Meaningful measures will support the organization's mission and help reach organizational goals (Callahan, 2007).

Metrics are the tricky part, and, most likely, the "final" set of metrics used by an organization will be the result of trial and failure. The federal government is no different. No matter what process is being evaluated, it is unlikely that the first time a metric is established it will be effective. The key is to use a system, like Six Sigma, to constantly evaluate whether the metrics are effective or not. Once the metrics have been determined, an organization must decide the standard for comparing those metrics. Deciding on the standard is just as important as deciding on the metrics since the standard gives something to compare the organization's metrics against.

The implementation of TQM and Six Sigma into the federal government has changed the way the government views its business processes and analyzes itself. The evolution of government business practices has progressed to the point where they are realizing real savings and seeing real improvements in efficiency. The way forward now is to learn from past achievements and take the next step. That next step is deciding which processes internal to the government need to be evaluated, measured, and monitored. Following this, the next step is to decide the best way to measure where the government is now compared to the standard and where they need to focus their training in order to improve. The best way to decide which internal processes to focus on is to look at the history of government functions and decide where the most cost savings and efficiencies will be gained.

B. Growth in Importance of Contract Management Functions within the Federal Government

Historically, the DoD has had to rely on industry to provide a majority of the supplies and services that it requires to perform duties. Military organizations are by their very nature combatants, not manufacturers. Therefore, one can make the argument that purchasing agents who procure the supplies and services from the civilian sector to provide the military with their actual capabilities are the real backbone of any military organization.

Two common terms associated with this type of function are "contracting out" or "outsourcing." Shirley Ann Becker offers a good definition of outsourcing: "Outsourcing refers to the phenomenon of having someone else do the work for you" (Becker, 2007). The practice of outsourcing has been used by the United States military to fulfill various functions such as acquiring supplies, weapons and equipment throughout its history and has in the last 60 years been steadily brought to the forefront of government acquisition.

> While the origins of outsourcing have their roots in the United States back in the Revolutionary War, the government defined and promoted the idea of outsourcing in the federal public sector in 1955 with the A-76 memorandum that stated that the government would utilize the private sector businesses to perform commercial activities. (Johnson, 2008)

Since 1955, the federal government has begun to rely more and more on the commercial sector to provide supplies and services. The federal government, specifically the Department of Defense, has not only purchased more from the commercial sector but also started to rely on the commercial firms for everything from physical security to research and development. Even the term "outsourcing" is undergoing changes. For example, the Bush Administration promoted the use of the term "competitive sourcing" instead of the commonly used term "outsourcing." In a memorandum dated May 29, 2003, entitled "Big Savings Expected from Competitive Sourcing Initiative: Contracting Overhaul Expands Public-Private Competitions for Providing Government Services," the Office of Procurement Policy (2003) outlines

the current revisions, comparisons to previous A-76 regulations, and reported savings to date (Johnson, 2008).

There are several reasons that the federal government has taken this path of outsourcing. One of the possible reasons for the increase in outsourcing could be the spread of the World Wide Web and the ease and increase in speed that it can bring to the acquisition world. Now, instead of hunting through old phone numbers and prior contacts to find what you need, you simply open your browser and go to Google. The federal government has provided some legislation to expedite the switch to e-commerce:

> The United States government has become an increasingly important player in the realm of electronic commerce (e-commerce). An impetus in the government's entry into the virtual world was the enactment of the 1998 Government Paperwork Elimination Act. It dictated the government's acquisition and use of information technology as a substitute for paper and for the use and acceptance of electronic signatures. (Becker, 2007)

Just as with TQM and Six Sigma, e-commerce proved to work successfully in the private sector and so the government soon followed suit in applying these management techniques in an effort to improve efficiency and reduce costs. The federal government jumped on the dot-com bandwagon by creating "dot-gov" websites that proved to be successful. "One of the more successful Dot Gov ventures was the United States Mint selling $150 million worth of collectibles and coins to citizens" (Becker, 2007).

With the success of the e-commerce venture, the federal government agencies turned more and more toward utilizing e-commerce whenever possible. The agencies employed catchy phrases to rally the workforce around new concepts that management was promoting. In the early 1990s, the government used slogans and banners of "better, cheaper, and faster." These cost-cutting initiatives evolved over time and gathered steam under the "Reinventing Government" program chaired by former Vice President Al Gore. The Clinton Administration, under guidance from the newly elected Republican Congress, expanded the A-76 competitive sourcing

initiatives with actual targets established for outsourcing by agencies under the Federal Activities Inventory Reform Act (FAIR Act), passed in 1998 (Johnson, 2008).

At the same time, there were other problems brewing as a result of the "dot-com bubble." The recent financial scandals and resulting legislative statutes, such as the Sarbanes-Oxley Act of 2002, have directed the attention of private sector organizations to their organizational processes and especially the internal control, documentation, and outputs of those processes. Additionally, previous government initiatives such as the Government Performance and Results Act of 1993 (GPRA) and the National Performance Review have resulted in federal agencies increasing their attention on performance measurements such as the process measurement and improvement of their most critical processes (Rendon, 2008).

Due to these public instances and resulting legislation, the federal government found itself in a time of great transition. Not only was the way that the government had traditionally conducted its business changing radically with the shift from manual to electronic methods but also new rules were being introduced demanding more and more accountability. Furthermore, due to the influence of TQM and Six Sigma, emphasis was being placed on metrics, process evaluation, and process improvement. For the Department of Defense, there were changes on top of the aforementioned ones and all aspects of the DoD had to adapt in order to survive. This included the ever-growing contracting functions of the DoD.

The Department of Defense procurement and contracting functions underwent numerous changes during the early 2000s. These included the expanded use of e-mail instead of letters and faxes. Even the way contracts were written changed. More recently, e-commerce provided for a government contracting venue in which the government purchases goods and services electronically. Online government buying agents (e.g., the Department of Defense EMALL) built bridges between government agencies and commercial contractors and vendors in meeting procurement needs. As a result of this virtual environment, the government has become more market-driven with the potential for increased profits due to buying

efficiencies and lower costs due to broader competition (Becker, 2007). Another of the modern contracting methods for increasing competition is the mandatory utilization of FedBizOps.gov. FedBizOps.gov is the government-wide port of entry (US Government Printing Office, 2008), a website where vendors can check and see what contracting opportunities are being offered by the government. By making the contracting opportunities offered by the government so easily accessible, the commercial industry has been given increased opportunities to compete for government contracts. This provides a win/win scenario because the commercial industry has a greater chance to compete for a government contract and the government reaps the benefits of open competition in the commercial marketplace.

With all of these changes, it is difficult to even begin to measure performance. If the process is undergoing constant changes, how is it possible to establish a baseline? This was the challenge that the DoD's acquisition executives faced. The civilian oversight was heavily involved with the newest management process and wanted to know what metrics were being used, why those metrics were chosen, and what the next step would be.

The answer to these questions lies with a process of ongoing assessment, analysis, and evaluation that is based on the fundamentals of the critical processes we are attempting to analyze. This is what gave birth to the Contract Management Maturity Model.

C. Contract Management Maturity Model

> *The universe never did make sense; I suspect it was built on government contract.*
>
> *–Robert Heinlin*

The insights of Garrett and Rendon (2005) into the challenges confronting government contracting demonstrate the need for a diagnostics contract management assessment tool to appraise the efficiency and maturity of an organization's contracting process. Both authors spent an extensive portion of their

military careers managing various Department of Defense acquisition programs and conducting numerous contracting and program management research studies. Their studies of various existing process capability maturity models provide the foundation for the development of the Contract Management Maturity Model (CMMM) and the Contract Management Maturity Assessment Tools (CMMAT).

Garrett and Rendon state in their book *Contract Management Organizational Assessment Tools*:

> The maturity models that were reviewed included the Software Engineering Institute's Capability Maturity Model (SEI-CMM) (Ahern, Clouse, & Turner, 2001; Persse, 2001), Kerzner's Project Management Maturity Model (PMMM) (Kerzner, 2001), Project Management Solutions, Inc.'s Project Management Maturity Model (Crawford, 2001), People Capability Maturity Model (Curtis, Hefley, &Miller, 2001), and the Berkley Project Management Process Maturity (PM2) Model (Ibbs & Kwak, 2000) (Garrett & Rendon, 2005).

The authors admit that although the maturity models reviewed were Project Management Maturity Models, these were appropriate models due to the close relationship of project management process with procurement and contracting process (Garrett & Rendon, 2005).

As Garrett and Rendon write, the CMMM creates a vision of excellence to help buying and selling organizations focus on the key areas of process improvement. CMMM provides its users with a framework or a guide for improving their respective level of performance (Garrett & Rendon, 2005). The authors' further state that the CMMM provides a visual tool to help organizations assess the six major phases they must accomplish when either buying or selling products, services, and integrated solutions in either the public or private business sectors (Garrett & Rendon, 2005). Garrett and Rendon describe the six key buying process areas as follows:

1. Procurement Planning: The process of identifying which business needs can be best met by procuring products or services outside the organization. This process involves determining whether to procure, how to procure, what to procure, and when to procure.

2. Solicitation Planning: The process of preparing the documents needed to support the solicitation. This process involves documenting program requirements and identifying potential sources.

3. Solicitation: The process of obtaining information (bids and proposals) from prospective sellers on how project needs can be met.

4. Source Selection: The process of receiving bids or proposals and applying evaluation criteria to select a provider.

5. Contract Administration: The process of ensuring that each party's performance meets contractual requirements.

6. Contract Closeout: The process of verifying that all administrative matters are concluded on a contract that is otherwise physically complete. This involves completing and settling the contract, including resolving any open items. (Garrett & Rendon, 2005)

Based on the research of Garrett and Rendon, "the maturity models reviewed reflect an evolutionary increase in maturity from an ad hoc level (Level 1), to a basic, disciplined process capability level (Level 2), to an institutionalized and repeatable processes level (Level 3), to a level characterized by processes integrated with other corporate processes resulting in synergistic corporate benefits (Level 4), and finally, to a level in which processes focused on continuous improvement and adopting lessons learned and best practices" (Garrett & Rendon, 2005). These findings lead to the creation of a five-level maturity model using the levels of "ad hoc," "basic," "structured," "integrated," and "optimized" (Garrett & Rendon, 2005). The five levels of CMMM are:

1. Level 1–Ad Hoc

   Ad Hoc is the lowest level of maturity in the five-tier Contract Management Maturity Model. Organizations that fall into this category are aware of the importance and the benefit of using the contract management process. Organizations with Ad Hoc Maturity lack established contract management processes. Although some form of contract management process probably exists, the application of this processes are done randomly. Additionally, informal documentation of contract management processes may exist but are done intermittently and are not part of any established processes. Finally, the leaders and contract management personnel are not expected to conform or

account for any specific contract management standards or requirements.

2. Level 2–Basic

Basic is the next higher maturity level after Ad Hoc in the five-tier Contract Management Maturity Model. Organizations that have Basic maturity are expected to have established contract management processes and standards on the more complex, critical, valuable, and high-visibility contracts. A formal documentation is also being utilized but the contract management processes and standards are not recognized or mandated throughout the organization. Lastly, the organization does not institute a policy to require consistent use of contract management processes and standards other than on the contracts deemed important.

3. Level 3–Structured

Structured is the next higher maturity level after Basic in the five-tier Contract Management Maturity Model. Organizations that are rated with Structured maturity have fully established, institutionalized, and mandated contract management processes throughout the entire organization. There is also a formal documentation that was developed while standards and some processes may have been automated. Due to the organizational mandate for contract management processes, there are processes and documents that must be tailored and unique aspects of contracts—such as contracting strategy, contract type, terms and conditions, dollar value, and type of requirements—that must be considered,. Lastly, senior management is actively involved in providing guidance, direction, and even approval of key contracting strategies, decisions, related contract terms and conditions, and contract management documents.

4. Level 4–Integrated

Integrated is the second to the highest level of maturity in the five-tier Contract Management Maturity Model. Organizations that are rated as Integrated incorporate the procurement project's end-user customer as a member of the procurement team. The basic contract management processes are also integrated with other organizational core processes such as cost control, schedule management, performance management, financial management, risk management, and systems engineering. Additionally, management uses efficiency and effectiveness metrics to make procurement-related decisions. Lastly, management understands its role in procurement management and plays an active role in effective execution of the process.

5. Level 5–Optimized

> Optimized is the highest level of maturity in the five-tier Contract Management Maturity Model. Organizations that reached the pinnacle of contract management maturity have mastered the periodic evaluation of efficiency and effectiveness metrics to evaluate contract management processes. There is also an active process improvement effort and the use of lessons learned and best practice programs to improve contract management processes, standards, and documentation. Lastly, organizations with Optimized maturity have successfully incorporated procurement process streamlining initiatives as part of the process improvement program. (Garrett & Rendon, 2005)

The six-key process areas are supported by key practice activities within each process. The practice activities represent the best practices and tools that leading organizations use in their contract management process (Garrett & Rendon, 2005). These key practice activities are the areas of concentration for assessment using the Contract Management Maturity Assessment Tool (CMMAT) survey. The result of the survey will show the maturity levels for each of the six contracting areas in the organization. The ideal outcome is for an organization to achieve the highest levels of maturity in all six contracting process areas. The organization's overall maturity is dependent on the maturity of the weakest contracting area (Garrett & Rendon, 2005).

The CMMAT provides separate surveys for both buyers and sellers. Each survey contains 60 questions, 10 questions for each of the process areas. The CMMAT uses a 5-point Likert scale to score the responses (with a sixth point indicating a lack of knowledge to address the question). The possible responses and corresponding scores are: "Don't Know" (0), "Never" (1), "Seldom" (2), "Sometimes" (3), "Usually" (4), and "Always" (5). The total score for each process area is divided by the number of survey participants to derive the average score (Garrett & Rendon, 2005).

The results of the survey are not focused on quantitative statistical interpretation of the data. Instead, qualitative analyses of the participant's answers

are conducted to explore and describe the organization's process capability. Thus, a large sample of participants is not required (Garrett & Rendon, 2005). Garrett and Rendon recommend that study participants be warranted contracting officers who have achieved at least a Defense Acquisition Workforce Improvement Act (DAWIA) Level II Contracting certificate. Both their appointment as warranted contracting officers and DAWIA certification confirms that participants have a demonstrated level of education, experience, and competence in contract management. These criteria are critical in a small, purposive survey because they minimize bias and data outliers and optimize the small amount of collected data (Garrett & Rendon, 2005). The following section will discuss the real-world application of the CMMM.

D. Recent Applications of the Contract Management Maturity Model

> *It is a very sobering feeling to be up in space and realize that one's safety factor was determined by the lowest bidder on a government contract.*
>
> *–Alan Shepherd*

The CMMM was presented to commercial organizations including Boeing, Goodyear, Raytheon, and General Dynamics, and a number of studies were undertaken at the United Nations (Shameem, 2007) and Department of Defense organizations including the Air Force Space and Missile Systems Center (SMC) (Garrett & Rendon, 2005), Naval Facilities Engineering Command (NAVFAC) (Ludwig & Moore, 2006), Air Force Material Command's (AFMC) Air Logistics Center (ALC) at Tinker AFB, OK (Nordin & Burton, 2007), Air Force Material Command's (AFMC) Ogden Air Logistics Center (OO-ALC) at Hill AFB, UT (Sheehan, Moats & VanAssche, 2007), and Naval Air Systems Command (NAVAIR) Patuxent River, MD (Kovack, 2008). Additionally, a study by the University of Pretoria, South Africa, looks at the potential for using the CMMM to assess the contract management in the university's corporate travel system (Lombard, 2007). Although the applications of the model had been limited to the United Nations, United States Air Force, and United States Navy organizations, the model is applicable to any organization with

large contracting departments that are broken into multiple contracting divisions or program management offices. Application of the CMMM to multiple program management offices provides a baseline maturity of contract management processes throughout the organization. The results provide managers insight into which contracting process areas require improvement in each particular program management office. The model also fosters the transfer of best practices from high maturity level programs to programs with lower process maturity (Garrett & Rendon, 2005).

In 2003, Rendon applied the CMMM at Air Force Space and Missile Systems Center as the initial case study. The SMC, located in Los Angeles, CA, was chosen as the case study because it is a large contracting command with multiple program management offices, each having independent contracting departments. The contracting process capabilities of seven program offices were assessed to obtain a baseline level of maturity for each program's contract management processes. The programs included Space-Based Radar (SBR), Space Tracking and Surveillance Systems (STSS), Space-Based Infrared System (SBIRS), Evolved Expandable Launch Vehicle (EELV), NAVSTAR Global Positioning System (GPS), Launch Program (LP), and Defense Support Program (DSP) (Garrett & Rendon, 2005).

The result of the CMMAT survey showed considerable weakness in the contract closeout process for three of the seven assessed organizations (SBIRS, SBR and GPS). Although DSP showed an optimized maturity, the remaining three offices (EELV, LP and STSS) only achieved structured maturity (Garrett & Rendon, 2005). This initial study shows that the CMMM in tandem with CMMAT survey is applicable and executable in a major contracting organization and successful in identifying contract management maturity. The assessment result also assists in recognizing areas where SMC can optimize improvement efforts to enhance contract management process efficiencies throughout the organization (Garrett & Rendon, 2005).

Figure 1 shows the results of the SMC study.

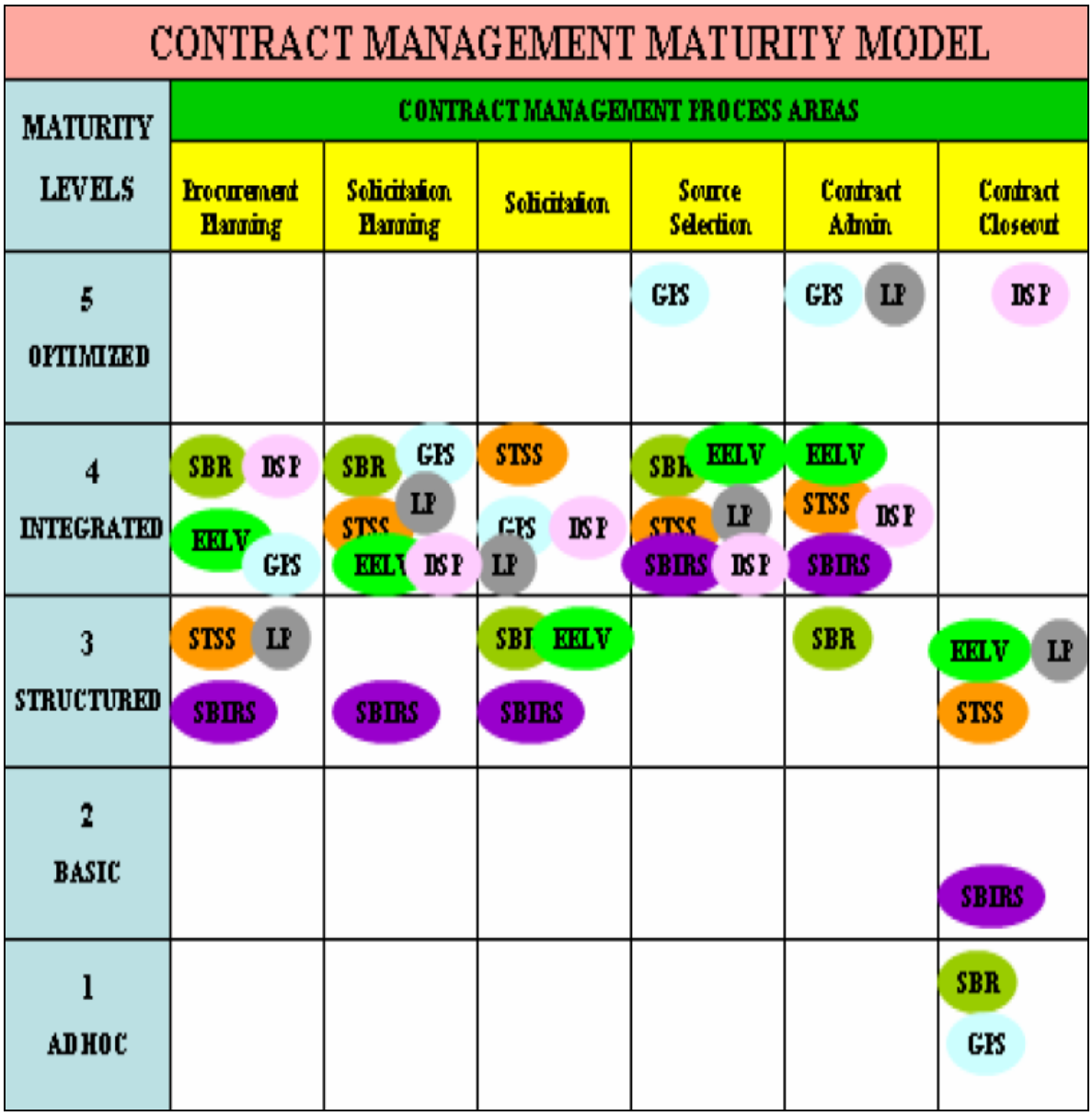

Figure 1. CMMM Results from the SMC Study
(Garrett & Rendon, 2005)

Ludwig and Moore applied the CMMM to select NAVFAC Mid-Atlantic contracting offices in their study in 2005. NAVFAC Mid-Atlantic is a Navy organization that deals with managing, planning, designing and construction of shore facilities. The operations, areas of responsibilities, and offices of NAVFAC's Mid-Atlantic are scattered throughout the East Coast. The authors selected Public Works Detachments and Facilities Engineering and Acquisition Divisions located in

Naval Air Station Oceana, Naval Amphibious Base Little Creek, Naval Shipyard Portsmouth, VA, and Naval Station Norfolk. NAVFAC's Mid-Atlantic assessment shows an overall Structured rating of contracting maturity throughout the selected contracting offices (Ludwig & Moore, 2006; Garrett & Rendon, 2005).

Nordin and Burton's research is on the application of the Contract Management Maturity Model at Air Force Material Command's (AFMC) Air Logistics Center (ALC) at Tinker AFB, OK. The contracting offices under the Aircraft Sustainment Groups (327th, 727th, 747th, and the 827th) and the Combat Sustainment Group (448th, 748th, 848th, and the 948th) made up the targeted respondents for the CMMM assessment. ALC's overall enterprise result is Basic for Procurement Planning, Structured for Solicitation Planning, Solicitation, and Source Selection and Ad Hoc for Contract Administration and contract closeout. The weaker areas in the organization adversely affect the overall enterprise result, and the CMMM basic premise is that the process with the lowest maturity level determines the contract management maturity of the organization (Nordin & Burton, 2007; Garrett & Rendon, 2005).

Sheehan, Moats and VanAssche's 2007 study applied CMMM to the Air Force Material Command's (AFMC) Ogden Air Logistics Center (OO-ALC) at Hill AFB, UT. The OO-ALC has five contracting organizations: the 508th Aircraft Sustainment Wing, the 526th Inter-Continental Ballistic Missile Systems Wing, the 75th Air Base Wing, the 84th Combat Sustainment Wing, and Contracting Directorate. OO-ALC's enterprise level result is Structured for procurement planning, Basic for Solicitation Planning, Solicitation, Source Selection, and Contract Administration, Ad Hoc for Contract Closeout. Just like the ALC's contract management maturity result, OO-ALC needs to achieve contracting management maturity congruence across the organization by consistently improving the maturity level of each of the key process areas throughout the enterprise (Sheehan, Moats & VanAssche, 2007; Garrett & Rendon, 2005).

Kovack's 2008 study centers on the application of CMMM to the Navy's primary aviation systems command, Naval Air Systems Command (NAVAIR) located in Naval Air Station (NAS) Patuxent River, MD. The respondents are from contracting directorate NAVAIR 2.0. The contracting directorate is made up of the following departments: AIR 2.2 Tactical Aircraft, Air Assault, Special Mission and Missiles; AIR 2.3 Major Weapons Systems for Anti-Submarine Warfare and Rotary Wing Program; AIR 2.4 Strike Weapons, Unmanned Aviation Programs; and AIR 2.5 Joint Strike Fighter. The CMMAT was administered onsite at NAS Patuxent River, MD for AIR 2.2, AIR 2.3, AIR 2.4 and AIR 2.5. The survey was made available through an online website for AIR 2.6 due to its off-site location in Crystal City, VA. The study shows that NAVAIR's overall Enterprise maturity is Structured for Procurement Planning, Solicitation Planning, Solicitation, Source Selection, and Contract Administration key process areas. The key process area of Contract Closeout only manages to achieve Basic maturity level. The author recommends that NAVAIR utilize best practices from some of the more mature departments to improve the maturity of the less mature areas (Kovack, 2008; Garrett & Rendon, 2005).

Lastly, in the only study conducted outside the Department of Defense, Shameem in 2007 applied CMMM to the contracting operations of the United Nations (UN) in acquiring peacekeeping operations and services. The respondents to the CMMAT were the Force Generation Service (FGS)—a UN department in charge of contracting for forces and services—and the Troop Contributing Countries (TCC)—the member countries providing personnel and equipment to support the UN mission. This was an interesting application of the CMMM since it took into consideration the buyer (FGS) and the seller's perspectives in the contracting process. The result of the study showed that FGS's overall enterprise maturity is Basic in Source Selection; Integrated in Solicitation, Contract Administration and Contract Closeout; and Structured in Solicitation Planning. The CMMAT survey for the TCCs involved four countries: Pakistan, Bangladesh, Jordan and Sweden. CMMM has slightly different key process areas for the buyers (FGS) and the sellers

(TCC). TCC achieved maturity levels ranging from Structured to Optimized on the CMMM's seller key process areas. The UN study showed that there are inherent benefits in applying CMMM and CMMAT to contract management processes for providing peacekeeping operations and services (Shameem, 2007).

E. Summary

This chapter discussed the history of process management and the maturity model concept, growth in importance of contracting functions within the federal government, development and recent application of the CMMM. CMMM highlights the areas that a contracting organization can focus its effort to continuously improve the organization's contract management maturity. CMMM provides leaders of contracting organizations an additional management tool to identify areas for efficiency improvement and to harness existing best-value processes for employment to balance congruence throughout the organization. The next chapter will present background information on Commander, Fleet and Industrial Supply Centers (COMFISCS).

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III. COMFISCS

A. Introduction

This chapter provides an overview of the Commander Fleet and Industrial Supply Center (COMFISCS) organization worldwide and the relationship between COMFISCS and Naval Supply Systems Command (NAVSUP). This chapter also provides a breakdown of the contracting organization within COMFISCS and describes the current metrics employed by COMFISCS for self evaluation as well as the COMFISCS Center of Excellence concept. Finally, the methodology used to select participants in the Contract Management Maturity Model Assessment Tool (CMMAT) survey is discussed.

1. COMFISCS Organization

In an effort to improve fleet support, COMFISCS began undergoing a significant reorganization in 2003, hoping to "build the best possible mechanism for delivering combat capability through logistics" (Fleet and Industrial Supply Center Public Affairs, 2003). This reorganization was instituted with the intention to reduce costs and improve the efficiency of the FISC procurement processes.

COMFISCS is responsible for supplying the fleet with a wide variety of supplies and services. Some of these supplies include appliances, information technology equipment, office furniture, ship copiers and snacks. Some of the services procured by COMFISCS include ship repair, husbanding functions, laundry, consulting, and supplying tug boats. During the first year that COMFISCS reported on contract actions (fiscal year 2002), 57,582 contracting actions were completed that obligated a total of $3.3 billion. By the end of fiscal year 2008, COMFISCS had completed 89,343 contracting actions that obligated a total of $4.2 billion (Green, 2009b). These numbers and the past history of contracting actions and obligations are illustrated in the following charts:

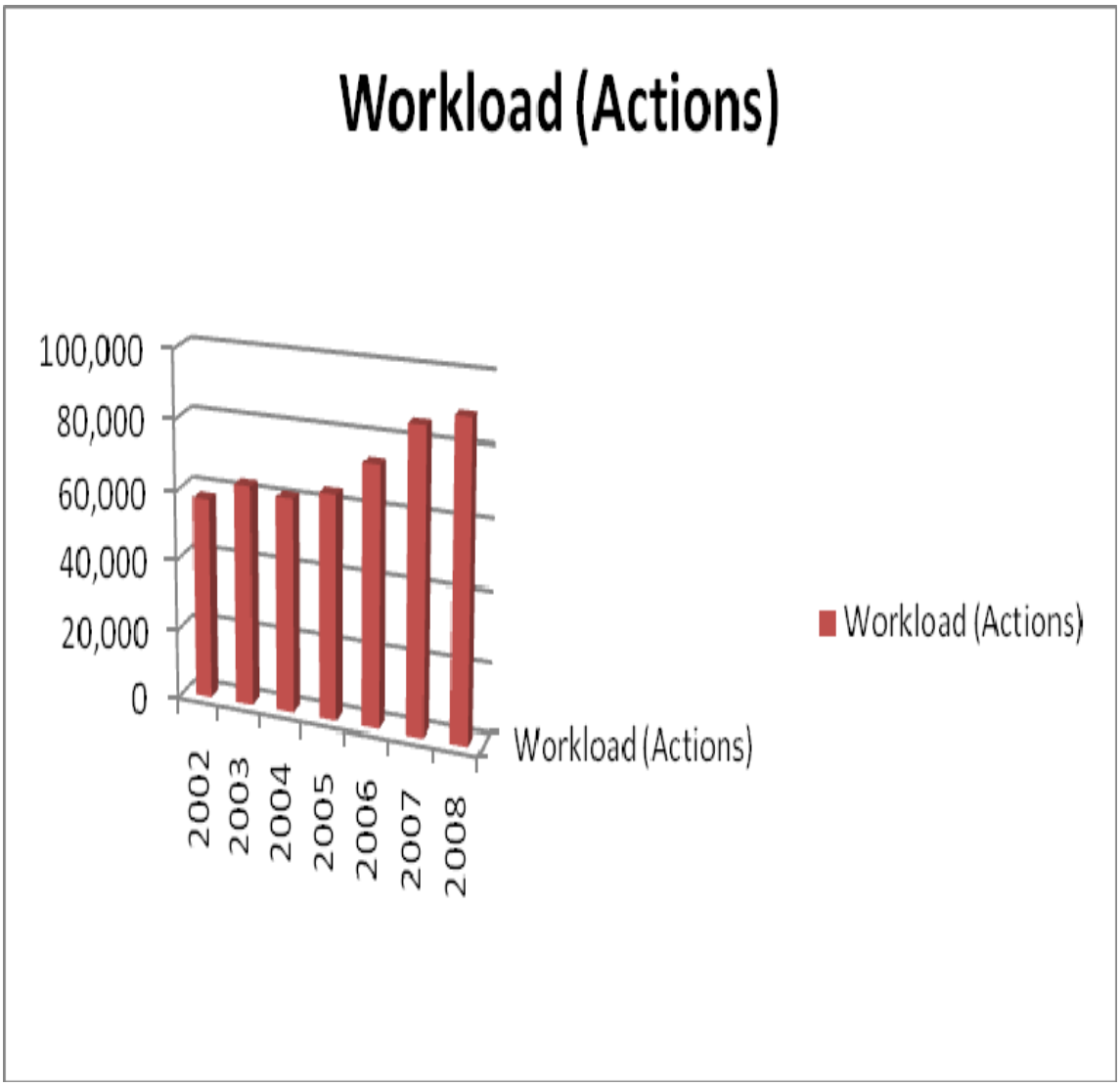

Figure 2. 2002 through 2008 COMFISCS Total Contracting Actions
(Green, 2009b)

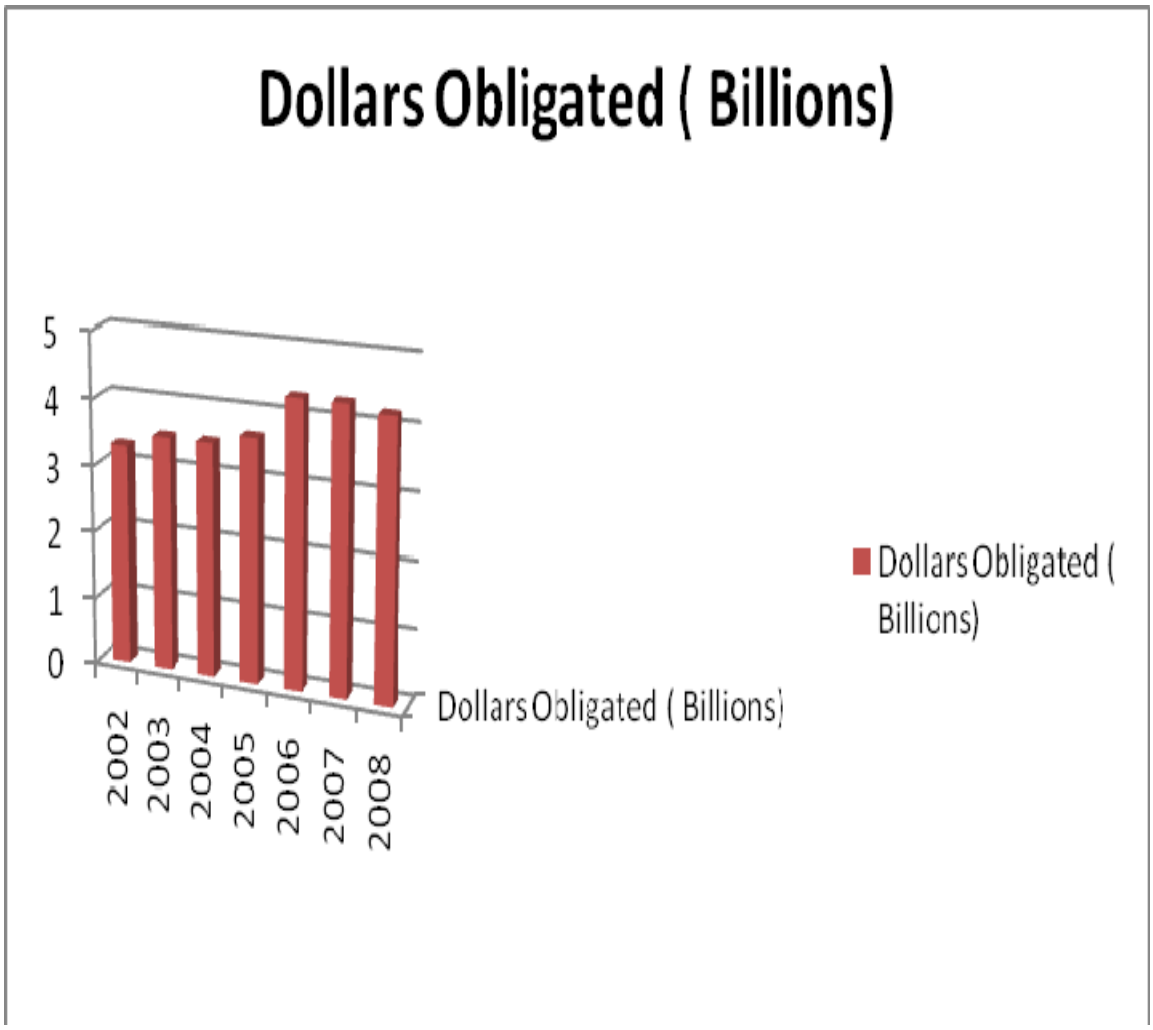

Figure 3. 2002 through 2008 COMFISCS Total Contracting Dollars Obligated
(Green, 2009b)

COMFISCS is comprised of seven individual FISC commands that span the globe. Included in the COMFISCS hierarchy are FISC San Diego, FISC Norfolk, FISC Puget Sound, FISC Pearl Harbor, FISC Yokosuka, FISC Sigonella, and FISC Jacksonville. COMFISCS is co-located with FISC San Diego in San Diego, CA. An illustration of the CONUS FISC locations and a breakdown of their contracting actions in FY08 are included in Figure 4. COMFISCS reports directly to Naval Supply Systems Command Contracting Directorate (NAVSUP 02) for all contracting functions.

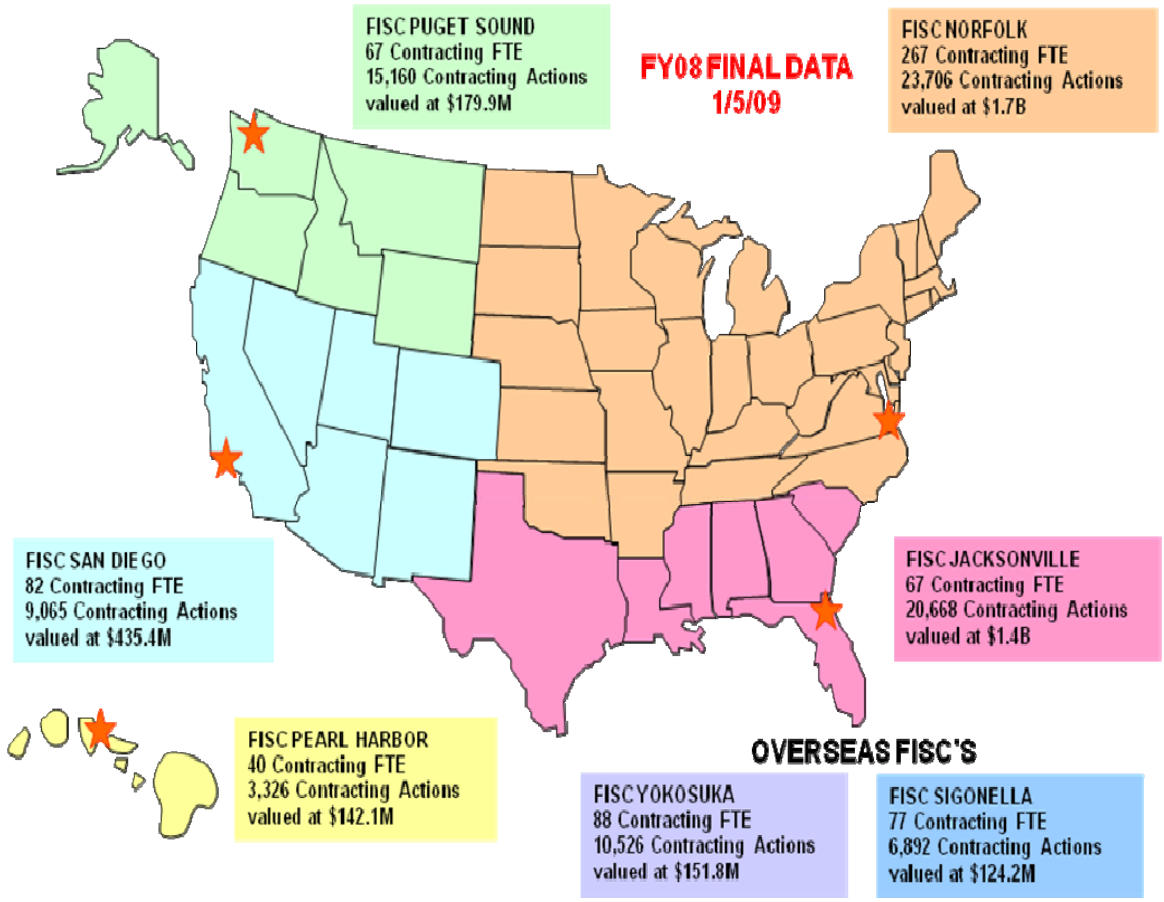

Figure 4. CONUS FISC Locations AOR and FISC Location Contracting Action Breakdown
(Green, 2009b)

COMFISCS' internal organization is illustrated in Figure 5. COMFISCS does not retain Head of Contracting Authority (HCA). HCA resides with NAVSUP 02.

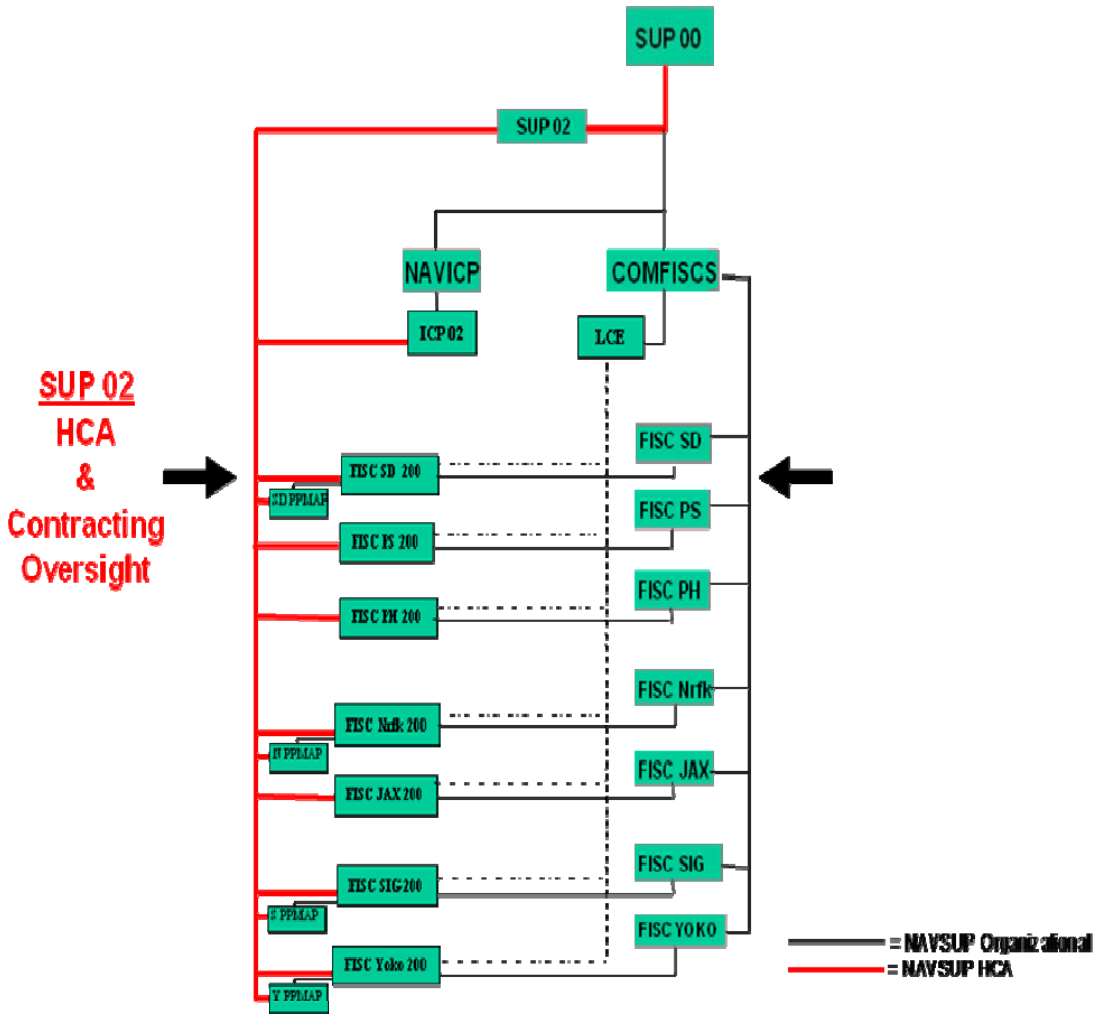

Figure 5. COMFISCS' Internal Contracting Organization
(Green, 2009a)

2. Naval Supply Systems Command (NAVSUP)

Naval Supply Systems Command is the parent command for COMFISCS and provides Navy, Marine, and Allied forces with a wide variety of logistical support as evidenced by NAVSUP's mission statement on the NAVSUP website:

> Naval Supply Systems Command (NAVSUP) mission is to provide Navy, Marine Corps, Joint, and Allied Forces with products and services that deliver Combat Capability through Logistics. We manage supply chains that provide material for Navy aircraft, surface ships, submarines and their associated

weapons systems. We provide centralized inventory management for Navy's non-nuclear ordinance stockpile. We provide a wide range of base operating and waterfront logistics support services, coordinating material deliveries, contracting for supplies and services, and providing material management and warehousing services. (Naval Supply Systems Command, 2008)

NAVSUP 02 is the lead organization for contracting for those organizations that fall under the NAVSUP organization. NAVSUP exercises authority over COMFISCS and Navy Exchange Service Command (NEXCOM) and provides oversight to Naval Inventory Control Point (NAVICP). NAVSUP 02 sets forth their responsibilities on the NAVSUP 02 website as well:

> The Naval Supply Systems Command, Contracting Management Directorate (NAVSUP 02) is the strategic leader for the NAVSUP contracting community and is tasked with providing a framework for the delivery of contracting services across the Navy Field Contracting System (NFCS). Serves as the Head of the Contracting Activity (HCA) principal staff for contracting policy matters, operational review, and specific approval actions; acts for the HCA in the management of contracting and purchasing matters under the purview of NAVSUP. This includes contracting support throughout DoN for which no other contracting activity, office or command is delegated contracting authority. Additionally, NAVSUP executes policy and oversight for the Naval Inventory Control Point (NAVICP). The activities of the Navy Field Contracting System (NFCS) that exercise unlimited contracting authority include COMFISCS and NEXCOM. The Naval Inventory Control Point (NAVICP) is its own HCA; however, NAVSUP 02 provides Headquarters contracting policy and oversight to NAVICP. In addition, two specialized activities exercise NAVSUP large contracting authority (NAVOCEANO and NAVMEDLOGCOM), 24 activities exercise NAVSUP SAP authority and approximately 1,200 purchase card/ordering programs are under the NAVSUP HCA. (Naval Supply Systems Command, 2009b)

The NAVSUP organizational chart is illustrated in Figure 6.

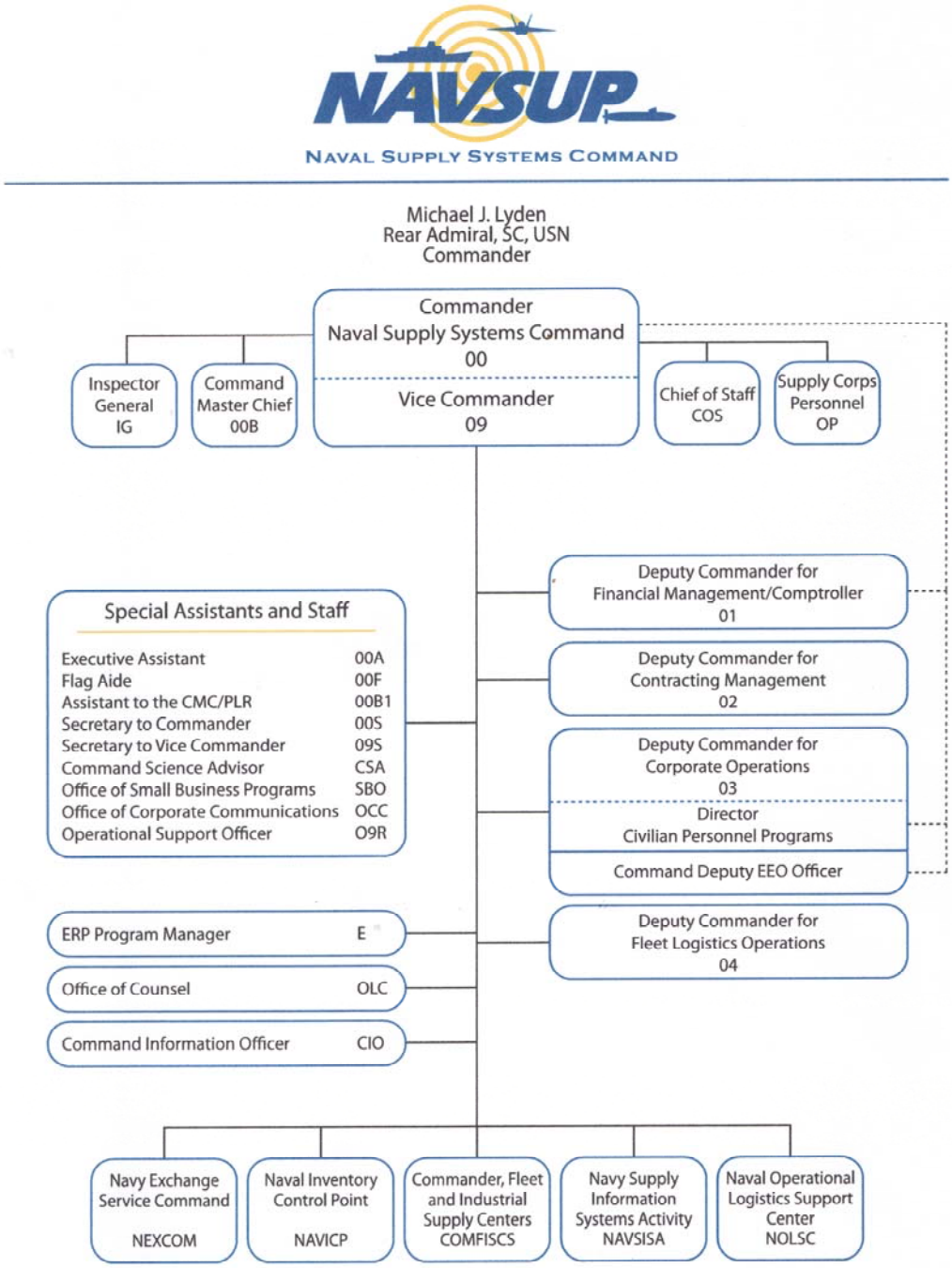

Figure 6. NAVSUP Organizational Chart
(Naval Supply Systems Command, 2008)

3. COMFISCS Metrics

COMFISCS has in place a system of metrics that is used to evaluate its contracting departments' performance. This system of metrics is called the "Self-Assessment Review" (see Figure 7); all commands within COMFISCS utilize these metrics and submit them quarterly to COMFISCS. The metrics are graded on a scale, with the scale varying per metric. These metrics are presented in a red, yellow, and green color code system that represents goal achieved (green), slightly below goal (yellow), and below goal (red).

The COMFISCS Self-Assessment Review is broken down into four major categories, and each major category is broken down into sub-categories that vary per major category. The COMFISCS Self-Assessment Review chart, commonly referred to as the "Dashboard," is illustrated in Figure 8.

The categories listed on the Dashboard and their basis of measurement is illustrated in Figure 7.

MAJOR CATEGORY	SUB-CATEGORY 1	SUB-CATEGORY 2
CUSTOMER	Customer Satisfaction	
FINANCIAL	Manage-to-Payroll Execution	
PEOPLE	Workforce Management	Continuous Learning
		DAWIA Certification
		Personnel Vacancies
		Retirement Eligibility
	Staffing Plan Execution	Staffing Plan Establishment
		HRO Recruitment Fill Time
		Recruitment Action Processing
	Employee Satisfaction	Employee Satisfaction Survey
PROCESS	Contracting Goals	Competition
		Socioeconomic/Small Business Goals
	Cycle-time Award	Milestones (>$100K)
		$25K to $100K
		Less than $25K
	Procurement Performance Management Assessment Program (PPMAP) Special Interest Items	Contract Closeout
		Contract reporting in FPDS-NG
		Protests
		Unauthorized Commitments
	Quality Assurance Self Assessment (QASA)	QASA Plan Metrics - LARGE
		QASA Plan Metrics - SAP
		QASA Plan Metrics - Special Interest Items
	PPMAP Oversight	Ordering Reviews
		Purchase card Reviews
		SAP Reviews

Figure 7. COMFISCS Self-Assessment Review Dashboard
(COMFISCS, 2007)

CATEGORY	BASIS OF MEASUREMENT
Customer Satisfaction	Percent of customer satisfaction survey responses rated as Superior, Highly Satisfactory, or Acceptable
Manage-to-Payroll Execution	Percent within plan: Planned vs. Executed Payroll Dollars
Continuous Learning	Percentage of employees meeting standard (80 hrs per employee within 2 year period)
DAWIA Certification	Percentage of employees certified to the required level
Personnel Vacancies	On board personnel as a percentage of authorized personnel
Retirement Eligibility	Percentage of employees not eligible to retire within the next five years
Staffing Plan Establishment	Determine if an adequate staffing plan has been established (Yes or No - No percentage measurement)
HRO Recruitment Fill Time	The average time required by HRO to process recruitments
Recruitment Action Processing	The average total time required to provide recruitment action paperwork to HRO
Employee Satisfaction Survey	Percentage of employee survey ratings that align with established Green, Yellow and Red parameters
Competition	Measure performance against assigned goal (percentage)
Socioeconomic/Small Business Goals	Measure performance against assigned goal (percentage)
Milestones (>$100K)	Percentage of awards made within initial milestone plan date
$25K to $100K	Percentage of awards made within 30 days of receipt
Less than $25K	Percentage of awards made within 20 days of receipt
Contract Closeout	Percent of contracts eligible for closeout that are over-aged
Contract Reporting in FPDS-NG	Percent of CARs input into FPDS-NG within three days
Protests	Percentage of protests resolved at the KO level or one level above the KO
Unauthorized Commitments	Percentage of Activities without repeat UACs
QASA Plan Metrics - LARGE	IAW QASA System
QASA Plan Metrics - SAP	IAW QASA System
QASA Plan Metrics - Special Interest Items	IAW QASA System
Ordering Reviews	Percentage of Ordering reviews conducted within the required timeframe
Purchase Card Reviews	Percentage of PC reviews conducted within the required timeframe
SAP Reviews	Percentage of SAP reviews conducted within the required timeframe

Figure 8. COMFISCS Dashboard Category Basis of Measurement
(COMFISCS, 2007)

4. COMFISCS Centers of Excellence

COMFISCS has assigned some of the FISC locations to be designated as "Centers of Excellence" within the COMFISCS organization. These Centers of

Excellence are FISC locations that have proven themselves to be the functional area expert in any particular area. For example, FISC Norfolk is designated as the Center of Excellence for Husbanding services due to their extensive experience in dealing with this particular requirement. Similarly, FISC Jacksonville is the Center of Excellence for the Navy Marine Corps Internet (NMCI) due to their extensive dealings with the NMCI contract that encompasses all shore-based Navy and Marine Corps information technology services in CONUS. Another example of the variety that these Centers of Excellence can take is FISC San Diego being designated as the Grants Center of Excellence. All grants processed by the Navy are required to go through FISC San Diego.

5. Why Select COMFISCS for This Research?

We selected COMFISCS for this research project due to its unique contracting organization with respect to other organizational applications of the CMMM. In addition to the wide variety of supplies and services that COMFISCS procures, consider that COMFISCS performs these functions worldwide and their HCA authority lies with NAVSUP. COMFISCS was also selected because they are structured as several independent locations that perform contracting functions worldwide. It is of specific interest to observe which contracting processes are mature at which location, and, more specifically, why the processes are mature and what that location is doing that the others are not. COMFISCS offers the opportunity to assess an organization with both an internal comparison of the various FISC locations as well as an external one by comparing FISC with the other DoD contracting organizations.

6. Contract Management Maturity Assessment Tool (CMMAT) Participant Selection

Participants in the CMMAT survey were selected on the basis of DAWIA Certification Level and warrants. The prerequisite for Contracting Officers to participate in this survey was that they be at least Level 2 DAWIA certified and that

they are warranted. This applied to all FISC locations that the survey was administered.

7. Summary

This chapter discusses COMFISCS, NAVSUP, COMFISCS metrics, COMFISCS Centers of Excellence, the reasons why COMFISCS was selected for this research, and CMMAT participant selection. The next chapter will discuss the findings, results, and recommendations of this research.

IV. Findings, Results, and Recommendations

A. Introduction

This chapter discusses the results of the Contract Management Maturity Model assessment in the framework of answering the primary research question: What is the current Contract Management Maturity Level of the COMFISCS organization? This chapter presents the result of the CMMAT survey from five out of seven FISC organizations, provides a description of findings, and discusses recommendations for improvement. The results of the CMMAT survey for each FISC organizations are presented individually, followed by an overall COMFISCS enterprise assessment. The chapter concludes with recommendations on contract management process improvement.

B. Selection of Study Participants

The CMMM is specifically designed to focus on an organization's key contract management process areas and activities to provide baseline assessment of process maturity (Garrett & Rendon, 2005). A key tenet of CMMM is that it is a qualitative study utilizing a purposeful sampling strategy. Due to the absence of quantitative data, statistical analysis is not used in analyzing the results. The study relies heavily on the standardized selective qualifying requirements for survey participants. The selection of targeted study participants minimizes the effects of potential bias and optimizes the quality of collected data. The participants must be fully qualified, warranted contracting officers and they must have attained a Defense Acquisition Workforce Improvement Act (DAWIA) Level II or higher in Contracting. Adherence to these strict requirements minimizes bias in the responses and establishes the required professional competence from the respondents.

The importance of selecting respondents with DAWIA Level II certifications as well as Contracting Officer warrants establishes the level of experience and serves as a basis in the assumption that this group of contracting personnel will be the most knowledgeable of the organization's contract management processes. The study does not intend to measure the respondent's individual knowledge of contract management principles; rather, it assumes that the respondents through DAWIA certification process and warrant granting procedures understand the organization's contract management processes and gained sufficient training, experience and education to complete the CMMAT survey.

C. Administration of the CMMAT Assessment

The study uses the CMMAT survey for buyers. There are six key process areas: Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration and Contract Closeout. The CMMAT uses a 5-point Likert scale to score the responses. The corresponding scores for the possible responses are, "Don't Know (0), "Never" (1), "Seldom" (2), "Sometimes" (3), "Usually" (4) and "Always" (5). The mean score for each question in each process is summed to determine a total process score. The maturity of the specific process area is based on the accumulated overall score.

The CMMAT was administered using two methods (both manually and electronically) and conducted in two stages (targeted-testing and enterprise-wide). FISC Yokosuka was used as a targeted-testing survey site; manual and online surveys were also completed in Yokosuka, Japan while regional sites were completed in Sasebo, Japan; Singapore and Hong Kong participated in the survey through online survey website. The testing period was conducted from December 14, 2008, until January 31, 2009, to test the newly established web-based survey program. The enterprise-wide survey of the remaining six FISC organizations in Norfolk, San Diego, Jacksonville, Puget Sound, Naples and Hawaii commenced on

January 20, 2009. The entire CMMAT survey was officially completed on February 20, 2009.

The voluntary survey was disseminated by COMFISCS to all the FISC organizations to encourage maximum participation. The number of respondents varied across the different organizations based on the number of eligible personnel who meet the basic DAWIA Level II and Contracting Warrant requirements. The number of respondents from each FISC organization is listed below:

- Fleet Industrial Supply Center San Diego (14)
- Fleet Industrial Supply Center Norfolk (11)
- Fleet Industrial Supply Center Jacksonville (5)
- Fleet Industrial Supply Center Puget Sound (6)
- Fleet Industrial Supply Center Yokosuka (13)

There were no survey submissions received from FISCs Pearl Harbor and Naples. COMFISCS communicated that there are a limited number of personnel from these two FISC organizations who met the survey respondent's basic requirements and that the respondents from FISC Yokosuka provide an ample representation of FISC overseas contracting operations.

D. Results of the CMMAT Assessment

This section provides an analysis of the results of the CMMAT assessment for each of COMFISCS' organizations. It also provides an analysis of the contract management process maturity of the COMFISCS contracting enterprise by comparing the maturity level of all participating FISC organizations. The individual scores for each FISC organization are provided in the Appendix.

1. Fleet Industrial Supply Center San Diego

FISC San Diego completed 14 CMMAT surveys. The detailed result of the respondents' answers to each question is provided in Appendix A. FISC San Diego scored 37.6 in Procurement Planning, 38.4 in Solicitation Planning, 35.0 for Solicitation, 43.4 for Source Selection, 36.6 for Contract Administration and 29.7 for Contract Closeout. Based on the above results, Procurement Planning, Solicitation Planning, Solicitation, and Contract Administration were assessed at Structured maturity. Source Selection is the most matured area with an Integrated maturity rating and Contract Closeout is the least mature with a Basic maturity rating.

Based on the survey results, FISC San Diego's Structured maturity indicates that Procurement Planning, Solicitation Planning, Solicitation, and Contract Administration are fully established, institutionalized, and mandated throughout the organization. FISC San Diego allows the tailoring of processes and documents, permits consideration for the unique aspects of each contract, such as contracting strategy, contract type, terms and condition, dollar value, and type of requirement. Formal documentation has been developed for these contract management processes and standards, and some processes may even be automated. Finally, FISC San Diego's survey result indicates that senior management is involved in providing guidance, direction, and even approval of key contracting strategy, decisions, related contract terms and conditions, and contract management documents (Garrett & Rendon, 2005).

The key process area of Source Selection was rated as Integrated, indicating that the organization's end-users and fleet customers are an integral member of the procurement team. Basic Source Selection processes are integrated with other departmental core processes such as cost control, schedule management, performance management, and systems engineering. FISC San Diego's contracting chain of command uses efficiency and effectiveness metrics to make procurement-related decisions and understands its role in the procurement management process (Garrett & Rendon, 2005).

Lastly, FISC San Diego's Contract Closeout rating of Basic maturity indicates that some basic Contract Closeout processes and standards have been established but are only required on complex, critical, or highly visible contracts, such as contracts meeting certain dollar thresholds or contracts with certain customers. Some formal documentation has been developed for these established Contract Closeout processes and standards, but the department does not consider these processes or standards established or institutionalized throughout the entire organization. Finally, there is no organizational policy requiring the consistent use of Contract Closeout processes and standards other than on the required contracts (Garrett & Rendon, 2005).

CONTRACT MANAGEMENT MATURITY MODEL©						
	CONTRACT MANAGEMENT PROCESS AREAS					
MATURITY LEVEL	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED						
4 INTEGRATED				X		
3 STRUCTURED	X	X	X		X	
2 BASIC						X
1 AD HOC						

Figure 9. FISC San Diego's Final Results Presented in Contract Management Maturity Model Format

2. Fleet Industrial Supply Center Norfolk

FISC Norfolk completed eleven CMMAT surveys. The detailed result of the respondents' answers to each question is provided in the Appendix. FISC Norfolk scored 42.6 in Procurement Planning, 41.3 in Solicitation Planning, 38.7 for Solicitation, 43.4 for Source Selection, 35.1 for Contract Administration and 26.7 for Contract Closeout. Based on the survey results, Procurement Planning, Solicitation Planning, and Source Selection were assessed at Integrated maturity. Solicitation and Contract Administration are rated Structured maturity and Contract Closeout is the least mature with a Basic maturity rating.

The key process areas of Procurement Planning, Solicitation Planning, and Source Selection are rated as Integrated, indicating that the organization's end-users and fleet customers are an integral member of the procurement team. Basic Source Selection processes are integrated with other departmental core processes such as cost control, schedule management, performance management, and systems engineering. FISC Nolfolk's contracting chain of command uses efficiency and effectiveness metrics to make procurement-related decisions and understands its role in the procurement management process (Garrett & Rendon, 2005).

Based on the survey results, FISC Norfolk's Structured maturity in Solicitation and Contract Administration key processes areas translate to processes that are fully established, institutionalized, and mandated throughout the organization. Since the contract management processes are mandated, FISC Norfolk permits the tailoring of processes and documents, allowing consideration for the unique aspects of each contract, such as contracting strategy, contract type, terms and condition, dollar value, and type of requirement. Formal documentation has been developed for these contract management processes and standards, and some processes may even be automated. Finally, FISC Norfolk's survey responses indicated that senior management is involved in providing guidance, direction, and even approval of key contracting strategy, decisions, related contract terms and conditions, and contract management documents (Garrett & Rendon, 2005).

Lastly, FISC Norfolk's Contract Closeout's rating of Basic maturity indicates that some basic Contract Closeout processes and standards have been established but are only required on complex, critical, or highly visible contracts, such as contracts meeting certain dollar thresholds or contracts with certain customers. Some formal documentation has been developed for these established Contract Closeout processes and standards, but the department does not consider these processes or standards established or institutionalized throughout the entire organization. Finally, there is no organizational policy requiring the consistent use of Contract Closeout processes and standards other than on the required contracts (Garrett & Rendon, 2005).

CONTRACT MANAGEMENT MATURITY MODEL©						
	CONTRACT MANAGEMENT PROCESS AREAS					
MATURITY LEVEL	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED						
4 INTEGRATED	X	X		X		
3 STRUCTURED			X		X	
2 BASIC						X
1 AD HOC						

Figure 10. FISC Norfolk's Final Results Presented in Contract Management Maturity Model Format

4. Fleet Industrial Supply Center Jacksonville

FISC Jacksonville completed five CMMAT surveys. The detailed result of the respondents' answers to each question is provided in the Appendix. FISC Jacksonville scored 32.0 in Procurement Planning, 32.2 in Solicitation Planning, 33.0

for Solicitation, 37.0 for Source Selection, 35.3 for Contract Administration and 30.0 for Contract Closeout. Based on the above results, Procurement Planning, Solicitation Planning, Solicitation, Source Selection and Contract Administration were assessed at Structured maturity while Contract Closeout is the least mature at a Basic maturity rating.

Based on the survey results, FISC Jacksonville in the key process areas of Procurement Planning, Solicitation Planning, Solicitation, Source Selection and Contract Administration are fully established, institutionalized, and mandated throughout the organization. Since the contract management processes are mandated, FISC Jacksonville permits the tailoring of processes and documents, allowing consideration for the unique aspects of each contract, such as contracting strategy, contract type, terms and condition, dollar value, and type of requirement. Formal documentation has been developed for these contract management processes and standards, and some processes may even be automated. Finally, FISC Jacksonville's survey responses indicated that senior management is involved in providing guidance, direction, and even approval of key contracting strategy, decisions, related contract terms and conditions, and contract management documents (Garrett & Rendon, 2005).

Lastly, FISC Jacksonville's rating of Basic maturity for Contract Closeout process indicates that some basic Contract Closeout processes and standards have been established but are only required on complex, critical, or highly visible contracts, such as contracts meeting certain dollar thresholds or contracts with certain customers. Some formal documentation has been developed for these established Contract Closeout processes and standards, but the department does not consider these processes or standards established or institutionalized throughout the entire organization. Finally, there is no organizational policy requiring the consistent use of Contract Closeout processes and standards other than on the required contracts (Garrett & Rendon, 2005).

CONTRACT MANAGEMENT MATURITY MODEL©						
MATURITY LEVEL	CONTRACT MANAGEMENT PROCESS AREAS					
	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED						
4 INTEGRATED						
3 STRUCTURED	X	X	X	X	X	
2 BASIC						X
1 AD HOC						

Figure 11. FISC Jacksonville's Final Results Presented in Contract Management Maturity Model Format

4. Fleet Industrial Supply Center Puget Sound

FISC Puget Sound completed six CMMAT surveys. The detailed result of the respondents' answers to each question is provided in the Appendix. FISC Puget Sound scored 36.2 in Procurement Planning, 38.2 in Solicitation Planning, 35.5 for Solicitation, 41.3 for Source Selection, 36.5 for Contract Administration and 26.3 for Contract Closeout. Based on the survey results, Procurement Planning, Solicitation Planning, Solicitation and Contract Administration were assessed at Structured maturity. Source Selection is the most matured area with an Integrated maturity rating and Contract Closeout is the least mature with a Basic maturity rating.

Based on the survey results, FISC Puget Sound in the key process areas of Procurement Planning, Solicitation Planning, Solicitation and Source Selection are fully established, institutionalized, and mandated throughout the organization. Since the contract management processes are mandated, FISC Puget Sound permits the tailoring of processes and documents, allowing consideration for the unique aspects

of each contract, such as contracting strategy, contract type, terms and condition, dollar value, and type of requirement. Formal documentation has been developed for these contract management processes and standards, and some processes may even be automated. Finally, FISC Puget Sound's survey responses indicated that senior management is involved in providing guidance, direction, and even approval of key contracting strategy, decisions, related contract terms and conditions, and contract management documents (Garrett & Rendon, 2005).

The key process area of Source Selection was rated as Integrated, indicating that the organization's end-users and fleet customers are integral members of the procurement team. Basic Source Selection processes are integrated with other departmental core processes such as cost control, schedule management, performance management, and systems engineering. FISC Puget Sound's contracting chain of command uses efficiency and effectiveness metrics to make procurement-related decisions and understands its role in the procurement management process (Garrett & Rendon, 2005).

Lastly, FISC Puget Sound's Contract Closeout rating of Basic maturity indicates that some basic Contract Closeout processes and standards have been established but are only required on complex, critical, or highly visible contracts, such as contracts meeting certain dollar thresholds or contracts with certain customers. Some formal documentation has been developed for these established Contract Closeout processes and standards, but the department does not consider these processes or standards established or institutionalized throughout the entire organization. Finally, there is no organizational policy requiring the consistent use of Contract Closeout processes and standards other than on the required contracts (Garrett & Rendon, 2005).

CONTRACT MANAGEMENT MATURITY MODEL©						
MATURITY LEVEL	CONTRACT MANAGEMENT PROCESS AREAS					
	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED						
4 INTEGRATED				X		
3 STRUCTURED	X	X	X		X	
2 BASIC						X
1 AD HOC						

Figure 12. FISC Puget Sound's Final Results Presented in Contract Management Maturity Model Format

5. Fleet Industrial Supply Center Yokosuka

FISC Yokosuka completed thirteen CMMAT surveys. The detailed result of the respondents' answers to each question is provided in the Appendix. FISC Yokosuka scored 43.2 in Procurement Planning, 42.8 in Solicitation Planning, 42.3 for Solicitation, 48.0 for Source Selection, 41.8 for Contract Administration and 38.4 for Contract Closeout. Based on the survey results, Procurement Planning, Solicitation Planning, Solicitation and Contract Administration are assessed Integrated maturity. Source Selection is the most matured area with an Optimized maturity rating and Contract Closeout is rated as Structured.

FISC Yokosuka's key process areas of Procurement Planning, Solicitation Planning, Solicitation and Contract Administration are rated as Integrated, indicating that the organization's end-users and fleet customers are integral members of the procurement team. Based on the survey responses, the maturity assessment indicates that all of the contract management key process areas, except for Contract

Closeout process, are integrated with other organizational core processes such as cost control, schedule management, and performance management. Finally, this assessment reflects that, FISC Yokosuka's contracting chain of command uses efficiency and effectiveness metrics to make procurement-related decisions and understands its role in the procurement management process (Garrett & Rendon, 2005).

FISC Yokosuka's Source Selection process area received the highest maturity of Optimized, indicating that the contract management processes are evaluated periodically using efficiency and effectiveness metrics. The continuous process improvement efforts are implemented to improve the contract management process. FISC Yokosuka is also taking advantage of lessons learned and best practice programs to improve the contract management processes, standards and documentation. The leadership is also implementing procurement process streamlining initiatives as part of the process improvement program (Garrett & Rendon, 2005).

Lastly, FISC Yokosuka's Contract Closeout key process area is fully established, institutionalized, and mandated throughout the organization. Since the contract management processes are mandated, FISC Yokosuka permits the tailoring of processes and documents, allowing consideration for the unique aspects of each contract, such as contracting strategy, contract type, terms and condition, dollar value, and type of requirement. Formal documentation has been developed for these contract management processes and standards, and some processes may even be automated. Finally, FISC Yokosuka's survey responses indicated that senior management is involved in providing guidance, direction, and even approval of key contracting strategy, decisions, related contract terms and conditions, and contract management documents (Garrett & Rendon, 2005).

CONTRACT MANAGEMENT MATURITY MODEL©						
MATURITY LEVEL	CONTRACT MANAGEMENT PROCESS AREAS					
	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED				X		
4 INTEGRATED	X	X	X		X	
3 STRUCTURED						X
2 BASIC						
1 AD HOC						

Figure 13. FISC Yokosuka's Final Results Presented in Contract Management Maturity Model Format

6. Commander Fleet Industrial Supply Centers Contracting Enterprise

The COMFISCS Enterprise level contract management process maturity is derived from the maturity of all the five FISC organizations assessed in this study. The overall enterprise maturity level is established by selecting the lowest-rated maturity level for each of the six key contract management process areas. The reason for using the lowest-rated maturity level is that an organization is only as strong as its weakest link (Garrett & Rendon, 2005). An organization should aim for improving the level of maturity across all six contract management process areas to achieve and fully realize the highest level of contract management maturity.

Based on the overall maturity of all five reporting FISC organizations, the overall enterprise maturity level of the key process areas Procurement Planning, Solicitation Planning, Solicitation, Source Selection, and Contract Administration are Structured while the key process area of Contract Closeout is assessed to be in the Basic maturity level.

At the COMFISCS Enterprise level, contract management processes for the key process areas of Procurement Planning, Solicitation Planning, Solicitation, Source Selection and Contract Administration are fully established, institutionalized, and mandated throughout the organization. Since the contract management processes are mandated, COMFISCS permits the tailoring of processes and documents, allowing consideration for the unique aspects of each contract, such as contracting strategy, contract type, terms and condition, dollar value, and type of requirement. Formal documentation has been developed for these contract management processes and standards, and some processes may even be automated. Finally, the overall maturity from all the reporting FISC organizations indicates that COMFISCS's senior management is involved in providing guidance, direction, and even approval of key contracting strategy, decisions, related contract terms and conditions, and contract management documents (Garrett & Rendon, 2005).

Finally, COMFISCS Enterprise level Contract Closeout's rating of Basic maturity indicates that some basic Contract Closeout processes and standards have been established but are only required on complex, critical, or highly visible contracts, such as contracts meeting certain dollar thresholds or contracts with certain pre-specified customers. Some formal documentation has been developed for these established Contract Closeout processes and standards, but the enterprise does not consider these processes or standards established or institutionalized throughout the entire organization. Finally, there is no organizational policy requiring the consistent use of Contract Closeout processes and standards other than on required contracts (Garrett & Rendon, 2005).

CONTRACT MANAGEMENT MATURITY MODEL©						
	CONTRACT MANAGEMENT PROCESS AREAS					
MATURITY LEVEL	PROCUREMENT PLANNING	SOLICITATION PLANNING	SOLICITATION	SOURCE SELECTION	CONTRACT ADMIN	CONTRACT CLOSEOUT
5 OPTIMIZED				Y		
4 INTEGRATED	N Y	N Y	Y	P N S	Y	
3 STRUCTURED	S P J	P S J	S N P J	J	J N S P	Y
2 BASIC						N J S P
1 AD HOC						

Figure 14. COMFISCS Final Results Presented in Contract Management Maturity Model

Legend: J Jacksonville, N Norfolk, P Puget Sound, S San Diego, Y Yokosuka

E. Recommendation for Contract Management Process Improvement

This section focuses on the individual key contract management process areas for the COMFISCS contracting enterprise and discusses recommendations for improvement to the next level of maturity. It also identifies key process functions within each phase with knowledge-deficient areas that the organization should include in its training plan. Finally, this section discusses additional recommendations for process improvement.

1. Procurement Planning

Based on the results of the assessment, the Enterprise maturity level of Procurement Planning was determined to be Structured. To progress to the next level of Integrated maturity, each FISC contracting directorate should ensure that the procurement project's end-user and fleet customer are included as integral members of the procurement team and are engaged in providing input and recommendation of key Procurement Planning decisions and documents. Procurement Planning process activities such as requirements analysis, acquisition planning, and market research should be integrated with other organizational core processes such as customer service, financial management, schedule management, performance management and risk management. COMFISCS should conduct a review, redesign and update of existing efficiency and effectiveness metrics as presented in Chapter III, specifically Contracting Goals, to validate if its current management tools are measuring, tracking and incentivizing achievement of the fundamental Procurement Planning process goals (Garrett & Rendon, 2005).

To accomplish this, the Enterprise should utilize the best practices of more mature organizations (for example, FISC Yokosuka) and implement their use throughout the Enterprise. A database of best practices and lessons learned should be instituted to help COMFISCS achieve the ultimate Procurement Planning maturity level of Optimized. Additionally, each FISC contracting directorate should emphasize several specific Procurement Planning topics into its training program.

The training should focus on subjects such as determining the availability of funds, estimating preliminary costs and schedules, assessing and managing risk, determining manpower resources, conducting assessments of market conditions, selecting the appropriate contract type, developing a contract incentive plan, and developing standard and unique contract terms and conditions (Garrett & Rendon, 2005). Additionally, this training should encompass FAR training that enhances personnel knowledge of areas that need improvement. This training would include but is not limited to FAR Part 7 Acquisition Planning, FAR Part 5 Publicizing Contract Actions, and FAR Part 10 Market Research.

2. Solicitation Planning

Based on the results of the assessment, the Enterprise maturity level of Solicitation Planning was determined to be Structured. To progress to the next level of Integrated maturity, each FISC contracting directorate should ensure that the procurement project's end-user and fleet customer are integral members of the procurement team and are engaged in providing input and recommendations for key Solicitation Planning decisions and documents. Solicitation Planning process activities such as determining procurement method, determining evaluation strategy, and developing solicitation documents should be integrated with other organizational core processes such as customer service, financial management, risk management, schedule management, and performance management. COMFISCS should conduct a review, redesign and update of existing efficiency and effectiveness metrics as presented in Chapter III, specifically Quality Assurance Self Assessment metrics, to validate if its current management tools are measuring, tracking and incentivizing achievement of the fundamental Solicitation Planning process goals (Garrett & Rendon, 2005).

To accomplish this, COMFISCS should utilize the best practices of more mature FISC organizations (FISC Yokosuka) and implement their use throughout the Enterprise. A database of best practices and lessons learned should be instituted to help COMFISCS achieve the ultimate Solicitation Planning maturity level of

Optimized. COMFISCS should also incorporate several specific Solicitation Planning topics into its training program. The training should focus on subjects such as developing solicitations, assessing solicitation documents, and developing appropriate criteria for proposal evaluation (Garrett & Rendon, 2005). FAR training on Solicitation Planning is recommended as well. This training would include, but is not limited to, FAR Part 12 Acquisition of Commercial Items, FAR Part 13 Simplified Acquisition Procedures, FAR Part 14 Sealed Bidding, and FAR Part 15 Contracting By Negotiation regarding developing solicitation documents and evaluation strategy.

3. Solicitation

Based on the results of the assessment, the Enterprise maturity level of Solicitation was determined to be Structured. To progress to the next level of Integrated maturity, COMFISCS should ensure that the procurement project's end-user and fleet customer are integral members of the procurement team and are engaged in providing input and activities such as conducting market research and advertising procurement opportunities for key Solicitation decisions and documents. Solicitation processes such as advertising procurement activities, conducting conferences and amending solicitation documents as required should be integrated with other organizational core processes such as customer service, financial management, risk management, schedule management, and performance management. COMFISCS should conduct a review, redesign and update of existing efficiency and effectiveness metrics as presented in Chapter III, specifically the Contracting Goals metric, to validate if its current management tools are measuring, tracking and incentivizing achievement of the fundamental Solicitation process goals (Garrett & Rendon, 2005).

To accomplish this, COMFISCS should utilize the best practices of more mature organizations (FISC Yokosuka) and implement their use throughout the Enterprise. A database of best practices and lessons learned should be instituted to help COMFISCS achieve the ultimate Solicitation maturity level of Optimized. Additionally, COMFISCS should incorporate several specific Solicitation topics into

its training program. The training should focus on subjects such as developing an integrated approach to establishing qualified bidders lists, conducting market research, advertising procurement opportunities, and conducting pre-proposal conferences (Garrett & Rendon, 2005). FAR training related to this topic would include FAR Part 5 Publicizing Contract Actions, FAR Part 12 Acquisition of Commercial Items, FAR Part 13 Simplified Acquisition Procedures, FAR Part 14 Sealed Bidding, and FAR Part 15 Contracting By Negotiation on conducting pre-solicitation and pre-proposal conferences.

4. Source Selection

Based on the results of the assessment, the Enterprise maturity level of Source Selection was determined to be Structured. To progress to the next level of Integrated maturity, COMFISCS should ensure that the procurement project's end-user and fleet customer are integral members of the procurement team and are engaged in providing input on activities such as proposal evaluation and estimating techniques and approval of key Source Selection decisions and documents. Source Selection processes such as evaluating proposals, applying evaluation criteria, negotiating contract terms, and selecting contractors should be integrated with other departmental core processes such as customer service, financial management, risk management, schedule management, and performance management. COMFISCS should conduct a review, redesign and update of existing efficiency and effectiveness metrics as presented in Chapter III, specifically Competition and Small Business Goals, to validate if its current management tools are measuring, tracking and incentivizing achievement of the fundamental Source Selection process goals (Garrett & Rendon, 2005).

To accomplish this, COMFISCS should utilize the best practices of more mature organizations (FISC Yokosuka) and implement their use throughout the organization. A database of best practices and lessons learned should be instituted to help COMFISCS achieve the ultimate Source Selection maturity level of Optimized. COMFISCS should also incorporate several specific Source Selection

topics into its training program. The training should focus on subjects such as proposal evaluation and evaluation criteria, evaluation standards, estimating techniques and weighting systems, and negotiation techniques, planning, and actions (Garrett & Rendon, 2005). FAR training that would supplement this includes FAR Part 12 Acquisition of Commercial Items, FAR Part 13 Simplified Acquisition Procedures, FAR Part 14 Sealed Bidding, and FAR Part 15 Contracting By Negotiation for evaluating proposals and for selecting contractors.

5. Contract Administration

Based on the results of the assessment, the Enterprise maturity level of Contract Administration was determined to be Structured. To progress to the next level of Integrated maturity, COMFISCS should ensure that the procurement project's end-user and fleet customer are integral members of the procurement team and are engaged in providing input and recommendation for key Contract Administration decisions and documents. The entire procurement team should also be engaged in managing the post-award contracting activities. Contract Administration processes and activities such as monitoring and measuring contractor performance, managing contract change process, and managing contractor payment process should be integrated with other departmental core processes such as customer service, financial management, risk management, schedule management, and performance management. COMFISCS should conduct a review, redesign and update of existing efficiency and effectiveness metrics as presented in Chapter III, specifically QASA metrics, to validate if its current management tools are definitely measuring, tracking and incentivizing achievement of the fundamental Contract Administration process goals (Garrett & Rendon, 2005).

To accomplish this, COMFISCS should utilize the best practices of more mature departments and implement their use throughout the organization. A database of best practices and lessons learned should be instituted to help COMFISCS achieve the ultimate Source Selection maturity level of Optimized. COMFISCS should also incorporate several specific Contract Administration topics

into its training program. The training should focus on areas of conducting integrated assessments of contractor performance, such as integrated cost, schedule, and performance evaluations. Specific topics should include: managing contract changes, processing contractor invoices and payments, managing contractor incentives and award fees, and managing subcontractor performance (Garrett & Rendon, 2005). FAR training that would supplement this training would be FAR Part 42 Contract Administration and Audit Services and FAR Part 45 Government Property for complying with terms and conditions, and FAR Part 46 Quality Assurance for monitoring and measuring contractor performance.

6. Contract Closeout

Based on the results of the assessment, the Enterprise maturity level of Contract Closeout was determined to be Basic. To progress to the next level of Structured maturity, COMFISCS should ensure that Contract Closeout processes are fully established, institutionalized, and mandated throughout the organization. The organization should allow the tailoring of processes and documents, allowing consideration for the unique aspects of each contract, such as contracting strategy, contract type, terms and conditions, dollar value, and type of requirement. Formal documentation should be developed for Contract Closeout process activities such as verifying contract completion, verifying contract compliance, and making final payment. COMFISCS should conduct a review, redesign and update of existing efficiency and effectiveness metrics as presented in Chapter III, specifically the Contract Closeout metric, to validate if its current management tools are measuring, tracking and incentivizing achievement of the fundamental Contract Administration process goals. Finally, senior management should be involved in providing guidance, direction, and even approval of key contracting strategy, decisions, related contract terms and conditions, and contract management documents (Garrett & Rendon, 2005).

To accomplish this, COMFISCS should utilize the best practices of more mature departments and implement their use throughout the organization. A

database of best practices and lessons learned should be instituted to help COMFISCS achieve the ultimate Contract Closeout maturity level of Optimized. Additionally, COMFISCS should incorporate several specific Contract Closeout topics into its training program. The training should focus on subjects such as contract termination, closeout planning and considerations, and closeout standards and documentation (Garrett & Rendon, 2005). Additional FAR training that would supplement this would be FAR Part 42 Contract Administration and Audit Services for verifying contract completion and contractor compliance and FAR Part 4 Administrative Matters for ensuring contract completion documentation.

7. Additional Recommendations

COMFISCS is a world-class organization and is Navy Supply's first line of contracting service to the fleet customers and operational end-users. Given the dissimilar operating locations, wide-range of customer requirements, diverse regional contracting challenges and confluence of organizational cultures, the different FISC organizations showed varying maturities across the six contract management process areas as reflected in the results of the CMMAT survey. These differences are practically expected given all the internal and external factors such as geographic location, differing requirements based on those geographic locations, and the difficulties associated with hiring qualified personnel at these varied locations that all affect each FISC organizations' contract management operations. Although the differences are expected, COMFISCS should still strive to attain the highest maturity level and consistent contract management across all the FISC organizations and throughout all the six contract management process areas. Achievement of a consistent high level of contract management maturity throughout all the FISC organizations will provide the customers a single point of reference to COMFISCS' level of organizational effectiveness. Additionally, the efficiencies generated from a consistently high level of contract management maturity will translate to savings from elimination of waste, redundancies and delays in providing

the goods and services to the end-users. Some of the proposed initiatives to improve contract management process maturity are listed below.

a. Establish a Chief of Contract Management Position

Establishing a Chief of Contract Management position will show commitment from leadership to the importance of improving contract management in the future of COMFISCS by providing leadership and guidance to the contracting organization. The experience of leading commercial companies indicates that it needs sustained top-level attention to ensure success in addressing acquisition challenges. Additionally, the common denominator in all of the DoD's high-risk areas are "the need for sustained senior level leadership and a more strategic decision-making approach to ensure that programs and investments are based on plans with measurable goals, clear objectives, validated requirements, prioritized resource needs, and performance measures to gauge progress" (GAO-09-460T). The high-level attention is not enough, and it should also be reinforced by a sound strategic plan.

b. Contract Management Process Maturity–Center for Excellence

Center for Excellence is not a new program for COMFISCS, so it should be a seamless effort to include improvement of contract management process maturity in the program. Based on the result of the assessment, FISC Yokosuka followed by FISC Norfolk showed the highest level of contract management process maturity among the five FISC organizations that participated in the CMMAT survey. COMFISCS should look at contract management processes that are working efficiently at FISC Yokosuka (an overseas operation) and FISC Norfolk (a domestic operation) to evaluate if those can be adopted in other FISC organizations. COMFISCS can also identify different contract management factors and attributes that are contributing to the higher maturity levels of FISC Yokosuka and FISC Norfolk. This information is valuable in designing precise steps and guidance to achieve contract management maturity parity throughout the Enterprise. By establishing a contracting Center of Excellence, COMFISCS would establish a central point for contracting knowledge-sharing and knowledge–management,

allowing for the identification of what is working well at a location and what they are doing that other organizations are not doing. This is a prime opportunity to fill in knowledge gaps by utilizing COMFISCS' internal resources to conduct effective training within the organization based on the maturity level of each command within COMFISCS.

c. Social Networking Tools

COMFISCS is currently experiencing shortages of skilled contracting personnel, increases in workload, and differences in contract management process maturity. A bridge that can immediately fill the above gaps is effective use of available mainstream technology. COMFISCS should take advantage of online blogs or sites like Twitter.com. Contracting personnel from all the FISC organizations can post ideas, write opinions, ask questions and provide answers. COMFISCS can immediately, and with minimum investment of resources, leverage this technological capability as a force and capability multiplier in providing information, training and expertise to all FISC locations. The contracting Center of Excellence within the COMFISCS organization would coordinate and moderate these sites while performing quality assurance checks on the answers being provided. Additionally, the contracting Center of Excellence could provide a link to a website that maintains current templates for use in COMFISCS. These templates could include Justification and Approvals, Contract File Checklists, and Business Clearance Memorandums, just to name a few.

d. Outsource the Contract Closeout Function

A review of the recent application of CMMM through the various DoD agencies consistently showed weaknesses in the Contract Closeout process area. Contract Closeout, for the most part, showed a pattern of the lowest maturity rating among the six contract management process areas in previous Naval Postgraduate School Master's thesis studies (Burton, 2007; Jackson, 2007; Kovack, 2008; Moore, 2006; Shameem, 2007; Sheehan et al., 2007). This phenomenon is most likely attributable to the shrinking contracting workforce coupled with the increase in

workload. FISC contracting departments are most likely allotting available scarce resources to confront more pressing issues and requirements. It can be assumed that FISC and the majority of the DoD contracting departments are assigning higher priority to the delivery of goods and services to fulfill customer requirements to the detriment of the Contract Closeout process. Given this reality, COMFISCS should look at contracting out the Contract Closeout process to contractors that specialize in Contract Closeout process activities.

F. Summary

This chapter discussed the administration of the CMMAT survey. The CMMAT results from various FISC organizations were presented and the contract management maturity ratings were calculated to determine each site's maturity level. The contract management maturity of each FISC organization was used to determine the overall COMFISCS contract management maturity. Additionally, recommendations to improve the contract management maturity of each process area were provided. Chapter V will provide the summary, research conclusion and areas for further research.

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V. Summary, Conclusion, and Further Research

A. Introduction

Chapters I through IV provide the essential information on this research project. This information includes the purpose of this study, background on the evolution of maturity models, background on CMMM, recent applications of CMMM, background on FISCs and COMFISCS, analysis of CMMAT results and process improvement recommendations. This chapter will summarize the overall result of this study, present a conclusion, and make recommendations for further research.

B. Summary

The main purpose of this research is to apply the Contract Management Maturity Model to assess the contract management process maturity at FISCs and COMFISCS organizations as a whole. The research utilizes and applies the Contract Management Maturity Assessment Tool to determine the contract management process maturity. The study attempts to answer the following related questions: How mature are the contract management processes at COMFISCS organizations worldwide? and How can FISC utilize the results of the CMMM assessment for continuous process improvement?

The conclusions of this research will provide the answer to the research questions presented in this thesis.

1. What is the Current Contract Management Process Maturity Level of the COMFISCS Organization?

The maturity levels of contracting departments at FISC organizations in San Diego, Norfolk, Jacksonville, Puget Sound and Yokosuka are presented in Appendix E. An overall COMFISCS contract management maturity is also listed in Appendix E as derived from the results generated from all the participating FISC organizations. The overall COMFISCS key process areas of Procurement Planning, Solicitation

Planning, Solicitation, Source Selection and Contract Administration were assessed at the Structured maturity level. At this level, contract management processes and standards are fully established, institutionalized, and mandated throughout the entire organization, but they are not necessarily integrated with other organizational core processes. Additionally, the Contract Closeout key process area was assessed to be at the Basic maturity level. At the Basic level of maturity, some basic contract management processes and standards have been established within the organization, but these processes are required only on selected complex, critical, or high-visibility contracts. The organization does not consider these contract management processes or standards established or institutionalized throughout the entire organization.

2. How can FISC Utilize the Results of the CMMM Survey for Continuous Process Improvement?

The CMMAT survey results listed in Appendix E provide a clear understanding of the differences in the level of maturity among the five FISC organizations that participated in this study. FISC Yokosuka scored the highest maturity rating throughout all of the key process areas. Coincidentally, FISC Yokosuka attains the highest level of maturity of Optimized in the Source Selection key process area. Although all the FISC organizations reflect Contract Closeout as the least mature key process area, FISC Yokosuka still attains Structured maturity for this key process area. COMFISCS should take advantage of these assessment reports and initiate further analysis of the contract management processes at FISC Yokosuka to identify best practices that can be applied to the other FISC organizations with lesser contract management process maturity. COMFISCS can also modify its training program to emphasize the weaker key process areas by implementing FAR training and knowledge-sharing coordinated by a contract management Center of Excellence. Lastly, COMFISCS can also initiate review of current organizational metrics in order to tailor them to support best practices that other organizations have identified. These actions will raise the contract management process maturity across the Enterprise.

C. Conclusion

The findings in this research illustrate the differences in the contract management process maturity among the five FISC locations. A closer look at the result at each of the reporting FISC locations shows a stark difference in the maturity level of the key contract management process areas of Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, and Contract Closeout. Most notably, all of the FISC organizations consistently show that Contract Closeout garners the least maturity rating when compared to the other five key process areas. COMFISCS as an enterprise operates at Structured maturity in Procurement Planning, Solicitation Planning, Solicitation, Source Selection and Contract Administration. The Structured overall maturity is the prescribed rating to highlight areas of improvement as the maturity of the organization is dependent on the weakest link in the chain. There are bright areas and one of them is the Contract Administration at FISC Yokosuka that earns the Optimized level of maturity. FISC Yokosuka's example provides clear evidence that an Optimized level of maturity is achievable. Contract Closeout is COMFISCS least matured process area with an overall rating of Basic; this is consistent with the result from the majority of organizations where CMMM was applied.

The current trend in Washington of bringing transparency, visibility and accountability to the federal government contracting process coupled with the latest economic turmoil that has resulted from the housing market bust and caused the federal government to put forth billions of dollars in bailout funds to industry will bring compelling scrutiny and challenges to the DoD contract management and acquisition system as a whole. Given all the differences and challenges facing the various FISC organizations, COMFISCS should work toward elevating all of the FISC organizations to the highest level of contract management process maturity across the six key process areas to achieve contract management efficiency, customer service improvement, and organizational proficiency alignment.

D. Areas for Further Research

During the course of this research, other promising topics came up that are in line with the goal of continuous process improvement at COMFISCS and further application of the CMMM and CMMAT. The most notable area is the application of CMMM and CMMAT to the remaining FISC organizations in Naples, Italy, and Pearl Harbor, Hawaii. This missing segment of the study would provide the complete picture of COMFISCS overall Enterprise contract management maturity. Additional areas of study are annual CMMM and CMMAT studies to act as contract management maturity health evaluations to identify improvements and lagging indicators; a cost-benefit analysis on the viability of delegating the Contract Closeout process area to DCMA or outsourcing it to companies that specialize in this area of federal government contracting; a viability study of using Internet blog and social networking sites to improve sharing of information, training, lessons learned and best practices among FISC organizations; research on the effects of the shortage of qualified contracting personnel on the contract management process maturity at COMFISCS; and research on the different contract management challenges such as manning shortages and Individual Augmentee assignment impact that faces each FISC organization and how this affects the contract management process maturity.

COMFISCS should communicate the above list of topics for further research and other contracting areas and issues to the NPS Graduate School of Business for consideration in future Master of Business Administration theses and projects.

List of References

Allan, B.G. (1993). Japan—myth or miracle? (Part 2). *The TQM Magazine*, *55*.

Andersson, R., Eriksson, H., & Tortensson, H. (2006). Similarities and differences between TQM, six sigma and lean. *The TQM Magazine*, *18*(3), 282-296.

Associated Press (AP). (2009, March 5). Obama seeks overhaul to stop wasteful contracting practices. Retrieved March 16, 2009, from FOX News website, http://www.foxnews.com/politics/first100days/2009/03/04/obama-pledge-cut-government-waste/100days/

Becker, S.A. (2007). Dot gov success in the online marketplace. *Journal of Electronic Commerce in Organizations*, 1-3.

Burton, B.A., & Nordin, A.E. (2007). *Analysis of the Oklahoma City Air Logistics Center's (ALC) contract management processes* (Master's Thesis). Monterey, CA: Naval Postgraduate School.

Callahan, T. (2007). Benchmarking to measure your performance. *Business Credit*, 50.

COMFISCS. (2007, November). *COMFISCS focuses on six strategic initiatives to optimize logistics support.* Retrieved February 17, 2009, from BNET website, http://findarticles.com/p/articles/mi_m0NQS/is_6_70/ai_n31467534/?tag=content;col1

Federal Acquisition Regulation (FAR). (2008). Washington, DC: US Government Printing Office.

Fleet and Industrial Supply Center Public Affairs. (2003). *Optimizng supply support to Navy installations and regions*. Retrieved February 8, 2009, fromhttp://www.news.navy.mil/search/display.asp?story_id=9846

Garrett, G., & Rendon, R. (2005). *Contract management: Organizational assessment tools.* McLean, VA: National Contract Management Agency.

Government Accountability Office. (2009a). *Best practices, Improved knowledge of DOD service contracts could reveal significant savings.* Washington, DC: GAO.

Government Accountability Office. (2009b). *DOD's high risk areas actions needed to reduce vulnerabilities and improve business outcomes.* Washington, DC: GAO.

Green, R.L. (2009a, January 16). COMFISCS code 20 lead contracting executive (LSC). San Diego, CA.

Green, R.L. (2009b, January 16). FY08 final contracting statistics COMFISCS. San Diego, CA.

Helper, D.L. (1995). A quality policy for America. *Contemporary Economic Policy*, 26.

Jackson, C.J. (2007). *Analysis of the 314th contracting squadron's contract management capability using the Contract Management Maturity Model (CMMM)* (Master's Thesis). Monterey, CA: Naval Postgraduate School.

Johnson, M.M. (2008). Current trends of outsourcing practice in government and business: Causes, case studies and logic. *Journal of Public Procurement*, 248-268.

Kovack, C. (2008). *Analysis of contracting processes and organizational culture at Naval Air Systems Command* (Master's Thesis). Monterey, CA: Naval Postgraduate School.

Lombard, D.J. (2007). *Development of a procurement policy incorporating procurement contract management and the formulation of a functional policy regarding corporate travel at the University of Pretoria* (Final Project Report). Pretoria, South Africa: University of Pretoria.

Ludwig, W.S., Moore, W.L. (2006). *Analysis of Naval Facilities Engineering Command's (NAVFAC) contracting processes using the Contract Management Maturity Model (CMMM)* (Master's Thesis). Monterey, CA: Naval Postgraduate School.

Naval Supply Systems Command. (2008). *Our team*. Retrieved February 8, 2009, from https://www.navsup.navy.mil/navsup/ourteam/navsuphq

Naval Supply Systems Command. (2009a). *Commander, Fleet & Industrial Supply Centers (COMFISCS)*. Retrieved March 5, 2009, from https://www.navsup.navy.mil/navsup/ourteam/COMFISCS

Naval Supply Systems Command. (2009b). *Contracting management (02)*. Retrieved March 4, 2009, from https://www.navsup.navy.mil/navsup/ourteam/navsuphq/02

Obama, B. (2009, February 24). President Obama's address to congress. (Transcript). Retrieved March 5, 2009, from The New York Times website, http://www.nytimes.com/2009/02/24/us/politics/24obama-text.html?_r=2&pagewanted=7

Process Management. (2008). *BusinessDictionary.* Retrieved December 6, 2008, from http://www.businessdictionary.com/definition/process-management.html

Rendon, R.G. (2003). *A systematic approach to assessing organizational contract management maturity.* Unpublished doctoral dissertation, Argosy University.

Rendon, R.G. (2008). Procurement process maturity: Key to performance measurement. *Journal of Public Procurement*, 200-214.

Robinson, B. (2008). DoD spotlight: DoD rallies around lean six sigma. *Federal Computer Week*, 32.

Shameem, M. (2007). *Evaluation of the contract management process in the United Nations for acquiring peacekeeping operations/services* (Master's Thesis). Monterey, CA: Naval Postgraduate School.

Sheehan, B.H., Moats, S.D., & VanAssche, D.J. (2007). *Analysis of the contracting processes and ethical culture at Ogden Air Logistics Center, Hill AFB UT* (Master's Thesis). Monterey, CA: Naval Postgraduate School.

Stark, J. (1998). *A few words about TQM*. Retrieved December 6, 2008, from http://www.johnstark.com/fwtqm.html

Twin, A. (2009, March 5). Wall street: Ugly is back. *CNNMoney.com.* Retrieved March 5, 2009, from http://money.cnn.com/2009/03/05/markets/markets_newyork/index.htm?postversion=2009030516

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Appendix

A. FISC Jacksonville

FISC Jacksonville personnel submitted six CMMAT surveys.

1. Series 1: Procurement Planning

1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	
5	4	4	4	5	4	3	4	4	2	
3	3	2	2	3	2	2	3	1	3	
5	5	4	5	4	4	0	5	5	5	
2	2	1	1	2	1	1	1	1	1	
5	4	4	4	4	3	4	5	5	4	
4.0	3.6	3.0	3.2	3.6	2.8	2.0	3.6	3.2	3.0	**32.0**

FISC Jacksonville Responses 1.1 to 1.10

2. Series 2: Solicitation Planning

2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	
5	4	4	4	5	4	3	2	4	2	
2	1	3	4	2	3	2	3	1	3	
5	5	5	4	4	3	4	4	5	5	
1	1	3	2	1	1	1	2	1	1	
4	5	4	5	4	5	4	4	3	4	
3.4	3.2	3.8	3.8	3.2	3.2	2.8	3.0	2.8	3.0	**32.2**

FISC Jacksonville Responses 2.1 to 2.10

3. Series 3: Solicitation

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	
5	4	4	2	4	4	3	3	4	4	
4	4	4	4	2	2	2	3	2	2	
5	4	4	4	4	4	4	3	5	5	
2	1	2	3	2	1	1	1	1	1	
5	5	4	4	4	4	4	4	4	4	
4.2	3.6	3.6	3.4	3.2	3.0	2.8	2.8	3.2	3.2	**33.0**

FISC Jacksonville Responses 3.1 to 3.10

4. Series 4: Source Selection

4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	
2	2	1	5	3	4	4	3	1	1	3	
5	4	4	5	3	4	5	4	4	5	5	
4	3	2	4	2	1	3	1	1	1	1	
4	4	3	5	5	5	5	5	4	4	4	
3.8	3.3	2.5	4.8	3.3	3.5	4.3	3.3	2.5	2.8	3.3	**37.0**

FISC Jacksonville Responses 4.1 to 4.11

5. Series 5: Contract Administration

5.1	5.2	5.3	5.4	5.5	5.6.	5.7	5.8	5.9	5.10	5.11	
1	1	3	3	2	4	3	2	3	2	2	
4	4	4	4	3	4	4	3	0	4	5	
5	4	3	4	3	4	4	3	4	4	3	
3.3	3.0	3.3	3.7	2.7	4.0	3.7	2.7	2.3	3.3	3.3	**35.3**

FISC Jacksonville Responses 5.1 to 5.11

6. Series 6: Contract Closeout

6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10	
1	1	2	4	1	1	2	2	1	1	
4	4	5	5	3	4	4	4	4	5	
4	4	3	5	3	3	3	3	2	2	
3.0	3.0	3.3	4.7	2.3	2.7	3.0	3.0	2.3	2.7	**30.0**

FISC Jacksonville Responses 6.1 to 6.10

B. FISC Norfolk

Norfolk personnel submitted eleven CMMAT surveys.

1. Series 1: Procurement Planning

1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	
5	5	5	5	5	5	5	5	4	5	
5	5	5	5	5	4	4	5	2	5	
4	4	4	4	4	3	3	4	3	4	
5	5	5	5	3	3	3	5	0	3	
5	5	5	5	5	5	5	5	5	5	
5	5	4	5	5	3	1	4	1	3	
5	4	4	4	4	3	4	4	4	5	
5	5	4	4	4	4	4	4	4	4	
5	4	5	5	5	4	4	5	4	3	
5	5	5	5	5	5	4	5	3	3	
5	5	5	4	5	5	0	5	4	5	
4.9	4.7	4.6	4.6	4.5	4.0	3.4	4.6	3.1	4.1	**42.6**

FISC Norfolk Responses 1.1 to 1.10

2. Series 2: Solicitation Planning

2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	
4	4	4	4	4	4	4	4	4	4	
5	5	5	5	4	4	3	4	3	4	
5	5	5	5	5	5	5	5	4	4	
5	5	5	5	5	5	5	5	5	5	
5	4	4	5	3	2	1	4	1	3	
5	5	5	4	5	3	4	4	4	5	
4	4	4	4	4	4	4	4	4	4	
5	4	5	4	5	4	4	4	2	3	
5	5	4	5	5	5	4	5	3	3	
4	4	4	5	5	3	0	3	0	5	
4.7	4.5	4.5	4.6	4.5	3.9	3.4	4.2	3.0	4.0	**41.3**

FISC Norfolk Responses 2.1 to 2.10

3. Series 3: Solicitation

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	
4	3	4	3	4	4	4	3	3	4	
5	5	5	5	5	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	
4	4	4	3	2	2	1	3	1	3	
5	5	5	4	4	3	4	4	4	4	
3	4	4	4	4	4	4	4	4	4	
5	4	5	4	4	3	4	3	2	3	
5	4	4	4	4	5	4	4	3	4	
5	0	5	4	5	4	0	3	0	5	
4.6	3.8	4.6	4.0	4.1	3.8	3.3	3.7	2.9	4.0	**38.7**

FISC Norfolk Responses 3.1 to 3.10

4. Series 4: Source Selection

4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	
4	4	4	4	4	4	4	3	4	4	4	
4	4	4	4	4	3	4	3	3	3	4	
5	5	5	5	5	5	5	5	5	5	5	
5	4	3	5	4	3	4	4	1	1	3	
5	5	5	5	5	4	4	4	4	4	4	
4	4	4	4	4	3	4	4	4	4	4	
5	4	4	5	5	3	5	4	3	2	3	
4	3	4	5	5	3	5	3	0	0	5	
4.5	4.1	4.1	4.6	4.5	3.5	4.4	3.8	3.0	2.9	4.0	**43.4**

FISC Norfolk Responses 4.1 to 4.11

5. Series 5: Contract Administration

5.1	5.2	5.3	5.4	5.5	5.6.	5.7	5.8	5.9	5.10	5.11	
2	2	2	2	2	2	2	2	2	3	2	
2	2	3	3	3	3	3	3	2	3	3	
5	5	5	5	5	5	5	5	5	5	5	
1	1	2	3	3	4	1	2	2	1	2	
5	5	5	4	4	4	4	4	4	4	4	
0	0	0	0	0	4	4	4	4	4	4	
4	3	4	4	3	4	3	3	4	3	3	
5	4	4	5	5	5	0	5	4	0	5	
3.0	2.8	3.1	3.3	3.1	3.9	2.8	3.5	3.4	2.9	3.5	**35.1**

FISC Norfolk Responses 5.1 to 5.11

6. Series 6: Contract Closeout

6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10	
2	2	3	3	2	3	2	3	2	2	
5	5	5	5	5	5	5	5	5	5	
0	0	0	0	0	0	0	0	0	0	
5	5	4	5	3	4	4	4	4	4	
4	4	4	4	4	0	0	0	0	0	
4	3	4	4	0	4	0	0	0	2	
5	5	5	5	5	5	0	0	0	0	
3.6	3.4	3.6	3.7	2.7	3.0	1.6	1.7	1.6	1.9	**26.7**

FISC Norfolk Responses 6.1 to 6.10

C. FISC Puget Sound

FISC Puget Sound personnel submitted six CMMAT surveys.

1. Series 1: Procurement Planning

1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	
4	3	5	3	3	1	4	3	2	2	
4	4	3	3	3	3	4	4	0	4	
5	5	4	5	4	5	4	5	0	4	
5	5	5	4	4	4	3	4	2	3	
5	5	5	4	5	4	3	5	4	3	
4	4	3	4	3	4	3	3	0	4	
4.5	4.3	4.2	3.8	3.7	3.5	3.5	4.0	1.3	3.3	**36.2**

FISC Puget Sound Responses 1.1 to 1.10

2. Series 2: Solicitation Planning

2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	
5	5	4	5	4	1	4	4	4	2	
5	5	5	5	4	4	3	4	0	4	
5	4	5	4	5	3	4	4	0	5	
5	5	5	4	3	4	4	2	3	3	
5	5	3	5	5	3	3	4	4	4	
5	5	4	5	3	3	3	3	0	3	
5.0	4.8	4.3	4.7	4.0	3.0	3.5	3.5	1.8	3.5	**38.2**

FISC Puget Sound Responses 2.1 to 2.10

3. Series 3: Solicitation

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	
2	0	4	4	4	2	3	3	3	2	
5	5	5	4	4	4	4	3	0	4	
5	5	5	4	4	4	4	5	4	4	
5	4	4	4	3	4	4	2	3	2	
4	4	4	4	4	4	3	4	4	4	
4	4	4	4	3	3	3	2	0	3	
4.2	3.7	4.3	4.0	3.7	3.5	3.5	3.2	2.3	3.2	**35.5**

FISC Puget Sound Responses 3.1 to 3.10

4. Series 4: Source Selection

4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	
5	5	3	5	3	3	5	4	2	4	2	
5	5	5	5	4	3	4	3	4	0	4	
5	5	5	5	4	4	3	4	4	0	4	
5	5	5	4	3	2	4	4	3	3	3	
5	5	5	4	5	4	4	4	3	4	4	
4	4	4	4	3	4	5	3	3	0	0	
4.8	4.8	4.5	4.5	3.7	3.3	4.2	3.7	3.2	1.8	2.8	**41.3**

FISC Puget Sound Responses 4.1 to 4.11

5. Series 5: Contract Administration

5.1	5.2	5.3	5.4	5.5	5.6.	5.7	5.8	5.9	5.10	5.11	
4	4	4	4	2	2	3	3	3	3	2	
4	3	4	2	3	3	3	2	5	0	4	
4	4	4	4	4	5	4	4	4	0	5	
4	4	4	4	3	4	4	4	4	3	3	
5	5	5	4	5	4	3	3	3	4	4	
0	3	3	4	0	4	3	4	3	0	0	
3.5	3.8	4.0	3.7	2.8	3.7	3.3	3.3	3.7	1.7	3.0	**36.5**

FISC Puget Sound Responses 5.1 to 5.11

6. Series 6: Contract Closeout

6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10	
3	3	4	4	2	3	3	2	2	2	
4	4	4	4	2	1	1	0	2	1	
5	5	5	4	4	3	3	0	3	3	
4	3	3	5	2	3	3	2	2	2	
5	5	5	5	5	3	3	4	4	4	
0	0	0	0	0	0	0	0	0	0	
3.5	3.3	3.5	3.7	2.5	2.2	2.2	1.3	2.2	2.0	**26.3**

FISC Puget Sound Responses 6.1 to 6.10

D. FISC San Diego

FISC San Diego personnel submitted fourteen CMMAT surveys.

1. Series 1: Procurement Planning

1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	
3	3	3	3	3	3	3	3	2	2	
5	5	5	5	4	3	2	0	0	3	
5	5	4	4	5	4	4	4	5	4	
4	4	3	3	3	3	3	3	3	3	
5	5	5	4	5	5	4	4	3	4	
5	5	4	5	5	4	5	5	5	5	
5	5	4	4	4	4	4	4	5	5	
5	4	3	4	4	3	3	4	3	2	
5	5	5	5	5	5	4	5	5	5	
5	5	5	4	5	5	4	5	4	5	
3	3	3	3	3	3	3	3	2	4	
2	2	2	3	3	3	3	4	0	0	
5	5	5	5	5	5	4	4	5	5	
4	0	0	4	4	4	0	4	0	4	
4.4	4.0	3.6	4.0	4.1	3.9	3.3	3.7	3.0	3.6	**37.6**

FISC San Diego Responses 1.1 to 1.10

2. Series 2: Solicitation Planning

2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	
3	3	3	3	3	3	3	3	2	2	
5	5	5	4	3	3	3	2	3	3	
5	4	5	5	4	4	4	4	4	4	
3	4	4	4	3	3	3	3	3	3	
5	5	5	5	5	5	5	5	4	5	
5	5	5	5	5	5	5	5	5	5	
4	4	4	4	5	4	4	4	4	4	
4	3	4	4	4	3	4	2	2	2	
5	4	5	4	5	5	5	4	4	5	
4	4	4	5	4	4	4	5	4	5	
0	0	1	5	3	4	4	4	0	2	
4	4	5	5	4	5	5	5	5	5	
4	0	4	4	4	4	0	4	0	4	
3.9	3.5	4.2	4.4	4.0	4.0	3.8	3.8	3.1	3.8	**38.4**

FISC San Diego Responses 2.1 to 2.10

3. Series 3: Solicitation

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	
3	3	3	3	3	3	3	2	2	2	
2	2	2	4	4	3	3	3	3	3	
4	5	4	5	5	5	5	4	4	4	
5	5	5	4	5	0	5	0	5	5	
4	4	4	4	4	4	4	3	4	4	
4	4	3	4	4	3	3	3	2	2	
5	4	5	4	5	5	4	5	5	5	
4	4	4	4	4	4	4	4	4	5	
4	0	0	4	3	5	5	3	0	2	
4	4	4	4	4	4	4	4	4	4	
0	0	0	4	4	4	0	4	0	4	
3.5	3.2	3.1	4.0	4.1	3.6	3.6	3.2	3.0	3.6	**35.0**

FISC San Diego Responses 3.1 to 3.10

4. Series 4: Source Selection

4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	
3	3	3	3	3	2	4	3	3	2	2	
5	5	5	4	4	4	4	4	4	4	4	
4	4	4	4	5	5	5	5	5	4	4	
5	5	5	5	5	5	5	0	5	5	5	
4	5	4	5	5	3	4	4	4	4	4	
3	2	3	3	3	2	4	3	3	2	2	
5	5	5	5	5	5	5	5	4	5	5	
4	4	4	5	4	4	4	4	4	4	5	
5	5	5	5	5	4	4	4	4	0	2	
4	4	4	4	4	4	4	4	4	4	4	
4	4	4	5	4	3	5	4	0	0	4	
4.2	4.2	4.2	4.4	4.3	3.7	4.4	3.6	3.6	3.1	3.7	**43.4**

FISC San Diego Responses 4.1 to 4.11

5. Series 5: Contract Administration

5.1	5.2	5.3	5.4	5.5	5.6.	5.7	5.8	5.9	5.10	5.11	
2	2	2	3	3	3	2	2	2	2	2	
4	4	3	4	4	5	4	4	4	4	4	
5	5	5	5	5	5	5	0	0	5	5	
4	4	4	3	3	3	4	3	3	3	3	
2	2	2	2	2	2	2	3	3	2	2	
4	4	3	4	4	5	4	4	0	4	5	
5	5	5	4	4	5	4	4	4	4	5	
3	3	3	4	4	5	5	5	5	0	2	
4	4	4	4	4	4	4	4	4	4	4	
2	2	0	3	3	3	0	2	0	0	3	
3.5	3.5	3.1	3.6	3.6	4.0	3.4	3.1	2.5	2.8	3.5	**36.6**

FISC San Diego Responses 5.1 to 5.11

6. Series 6: Contract Closeout

6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10	
3	3	3	2	3	2	3	2	2	2	
3	3	3	4	3	4	4	2	3	0	
5	5	5	5	5	5	5	5	5	5	
4	3	3	4	4	3	3	4	3	3	
4	3	2	4	2	2	2	2	2	2	
0	0	0	5	0	0	0	0	0	0	
5	5	5	5	3	4	3	3	3	3	
5	5	0	4	4	5	5	0	2	0	
4	4	4	3	3	4	4	5	4	4	
5	4	4	4	2	2	0	0	0	0	
3.8	3.5	2.9	4.0	2.9	3.1	2.9	2.3	2.4	1.9	**29.7**

FISC San Diego Responses 6.1 to 6.10

E. FISC Yokosuka

FISC Yokosuka personnel submitted thirteen CMMAT surveys.

1. Series 1: Procurement Planning

1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	
5	5	5	5	5	3	3	4	5	4	
5	5	5	4	4	3	4	4	4	5	
4	4	5	5	0	0	0	0	1	1	
5	5	5	5	5	4	4	5	5	4	
4	4	4	4	4	3	3	5	4	4	
5	5	5	5	5	5	5	5	5	5	
5	5	5	4	4	3	4	4	4	5	
5	5	5	5	5	5	5	5	5	5	
5	5	5	5	5	5	4	4	4	4	
5	5	5	4	5	4	4	4	5	5	
5	5	4	5	5	4	4	4	4	5	
5	5	5	5	4	4	4	5	5	5	
5	4	4	4	5	3	4	5	4	4	
4.8	4.8	4.8	4.6	4.3	3.5	3.7	4.2	4.2	4.3	**43.2**

FISC Yokosuka Responses 1.1 to 1.10

2. Series 2: Solicitation Planning

2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	
5	5	4	4	3	3	3	4	5	5	
4	4	5	4	4	4	3	4	4	5	
5	5	5	5	1	1	0	5	1	1	
5	5	5	4	5	4	4	4	4	4	
5	4	4	4	5	4	3	4	4	4	
5	5	5	5	5	5	5	5	5	5	
5	5	4	4	4	4	4	2	4	3	
5	5	5	5	5	5	5	5	5	5	
4	4	5	5	5	5	4	5	4	3	
5	5	5	4	5	0	4	4	5	5	
5	5	4	4	4	4	4	3	4	4	
5	4	4	5	4	4	4	5	5	5	
5	5	5	5	5	5	5	4	5	5	
4.8	4.7	4.6	4.5	4.2	3.7	3.7	4.2	4.2	4.2	**42.8**

FISC Yokosuka Responses 2.1 to 2.10

3. Series 3: Solicitation

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	
5	4	4	4	3	3	3	5	4	4	
5	5	5	4	4	4	4	4	4	5	
5	5	5	5	5	4	4	5	1	1	
5	5	5	4	5	4	4	4	4	4	
5	4	4	4	5	4	3	3	4	4	
5	5	5	5	5	5	5	5	5	5	
5	5	4	5	4	4	4	4	5	3	
5	5	5	5	5	5	5	5	5	5	
3	2	4	4	3	3	3	4	2	3	
4	5	4	4	5	0	4	3	5	5	
4	4	4	5	5	3	3	3	4	4	
5	5	5	5	4	5	4	4	5	5	
4	5	3	5	4	4	5	5	5	4	
4.6	4.5	4.4	4.5	4.4	3.7	3.9	4.2	4.1	4.0	**42.3**

FISC Yokosuka Responses 3.1 to 3.10

4. Series 4: Source Selection

4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	
5	5	5	5	3	4	3	3	3	3	3	
5	5	5	4	5	2	3	3	4	5	5	
5	5	5	5	5	5	5	5	0	1	1	
5	5	5	5	5	5	5	4	4	5	5	
5	4	5	5	5	4	5	4	3	4	4	
5	5	5	5	5	5	5	5	5	5	5	
5	5	5	5	4	4	4	4	4	5	4	
5	5	5	5	5	5	5	5	5	5	5	
4	4	4	4	3	3	4	4	3	5	4	
5	5	5	5	5	4	0	0	4	5	5	
5	4	4	4	4	4	5	4	3	4	4	
5	5	5	5	5	5	5	4	4	5	5	
5	5	5	5	5	3	4	5	4	5	5	
4.9	4.8	4.8	4.8	4.5	4.1	4.1	3.8	3.5	4.4	4.2	**48.0**

FISC Yokosuka Responses 4.1 to 4.11

5. Series 5: Contract Administration

5.1	5.2	5.3	5.4	5.5	5.6.	5.7	5.8	5.9	5.10	5.11	
4	4	4	4	3	3	3	3	5	3	3	
5	4	5	5	4	4	4	3	0	4	5	
5	5	5	5	5	5	5	5	2	1	3	
5	4	5	4	4	4	4	4	4	5	4	
4	3	3	4	4	4	3	3	5	3	4	
5	5	5	5	5	5	5	5	5	5	5	
2	4	4	3	3	3	3	4	0	3	2	
5	5	5	5	5	5	5	5	5	5	5	
2	2	2	3	2	2	2	2	0	0	0	
4	4	4	4	5	4	4	4	0	5	5	
4	3	4	2	3	3	3	3	3	3	3	
5	5	5	5	5	5	4	5	5	5	5	
4	4	4	4	4	3	3	3	2	4	4	
4.2	4.0	4.2	4.1	4.0	3.8	3.7	3.8	2.8	3.5	3.7	**41.8**

FISC Yokosuka Responses 5.1 to 5.11

6. Series 6: Contract Closeout

6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10	
5	5	5	5	3	3	3	4	3	5	
5	0	5	5	2	5	4	5	5	5	
5	5	5	5	0	5	0	1	1	1	
5	5	5	5	3	3	3	4	4	0	
4	4	4	3	2	3	3	4	3	2	
5	5	5	5	5	5	5	5	5	5	
4	5	4	4	4	4	4	0	3	0	
5	5	5	5	5	5	5	5	5	5	
4	4	3	4	4	0	0	2	0	0	
4	4	0	5	0	0	4	4	5	0	
5	5	4	4	4	4	4	4	4	4	
5	5	5	5	4	5	5	5	5	5	
5	5	5	5	5	5	5	5	5	5	
4.7	4.4	4.2	4.6	3.2	3.6	3.5	3.7	3.7	2.8	**38.4**

FISC Yokosuka Responses 6.1 to 6.10

2003 - 2008 Sponsored Research Topics

Acquisition Management

- Acquiring Combat Capability via Public-Private Partnerships (PPPs)
- BCA: Contractor vs. Organic Growth
- Defense Industry Consolidation
- EU-US Defense Industrial Relationships
- Knowledge Value Added (KVA) + Real Options (RO) Applied to Shipyard Planning Processes
- Managing Services Supply Chain
- MOSA Contracting Implications
- Portfolio Optimization via KVA + RO
- Private Military Sector
- Software Requirements for OA
- Spiral Development
- Strategy for Defense Acquisition Research
- The Software, Hardware Asset Reuse Enterprise (SHARE) repository

Contract Management

- Commodity Sourcing Strategies
- Contracting Government Procurement Functions
- Contractors in 21st Century Combat Zone
- Joint Contingency Contracting
- Model for Optimizing Contingency Contracting Planning and Execution
- Navy Contract Writing Guide
- Past Performance in Source Selection
- Strategic Contingency Contracting
- Transforming DoD Contract Closeout
- USAF Energy Savings Performance Contracts
- USAF IT Commodity Council
- USMC Contingency Contracting

Financial Management

- Acquisitions via leasing: MPS case
- Budget Scoring
- Budgeting for Capabilities Based Planning
- Capital Budgeting for DoD
- Energy Saving Contracts/DoD Mobile Assets
- Financing DoD Budget via PPPs
- Lessons from Private Sector Capital Budgeting for DoD Acquisition Budgeting Reform
- PPPs and Government Financing
- ROI of Information Warfare Systems
- Special Termination Liability in MDAPs
- Strategic Sourcing
- Transaction Cost Economics (TCE) to Improve Cost Estimates

Human Resources

- Indefinite Reenlistment
- Individual Augmentation
- Learning Management Systems
- Moral Conduct Waivers and First-tem Attrition
- Retention
- The Navy's Selective Reenlistment Bonus (SRB) Management System
- Tuition Assistance

Logistics Management

- Analysis of LAV Depot Maintenance
- Army LOG MOD
- ASDS Product Support Analysis
- Cold-chain Logistics
- Contractors Supporting Military Operations
- Diffusion/Variability on Vendor Performance Evaluation
- Evolutionary Acquisition
- Lean Six Sigma to Reduce Costs and Improve Readiness

- Naval Aviation Maintenance and Process Improvement (2)
- Optimizing CIWS Lifecycle Support (LCS)
- Outsourcing the Pearl Harbor MK-48 Intermediate Maintenance Activity
- Pallet Management System
- PBL (4)
- Privatization-NOSL/NAWCI
- RFID (6)
- Risk Analysis for Performance-based Logistics
- R-TOC Aegis Microwave Power Tubes
- Sense-and-Respond Logistics Network
- Strategic Sourcing

Program Management

- Building Collaborative Capacity
- Business Process Reengineering (BPR) for LCS Mission Module Acquisition
- Collaborative IT Tools Leveraging Competence
- Contractor vs. Organic Support
- Knowledge, Responsibilities and Decision Rights in MDAPs
- KVA Applied to Aegis and SSDS
- Managing the Service Supply Chain
- Measuring Uncertainty in Eared Value
- Organizational Modeling and Simulation
- Public-Private Partnership
- Terminating Your Own Program
- Utilizing Collaborative and Three-dimensional Imaging Technology

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