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PERFORMANCE WORK STATEMENTS: SIGNIFICANT PROBLEMS IN THE PREPARATION PROCESS

by

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Office of Management and Budget (OMB) Circular A-76 establishes Federal policy concerning the performance of commercial activities (CA). The provisions of Circular A-76 provide the criteria for conducting the cost comparison to determine if a CA is more economically performed by the government or private sector. The Performance Work Statement (PWS) provides the baseline for solicitation documents in the A-76 process. The research of this study focused on identifying problems in the preparation of the PWS. Research included review of existing guidelines and interviews of government and industry personnel involved in A-76 solicitation at the Naval POstgraduate School, Monterey. the study concludes that PWS preparation is beneficial to the Navy, but lack of standardization contributes to a lengthy, subjective process which inhibits full competition.

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Performance Work Statements: Significant Problems in the Preparation Process

by

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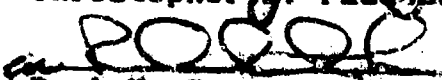
Approved by: 
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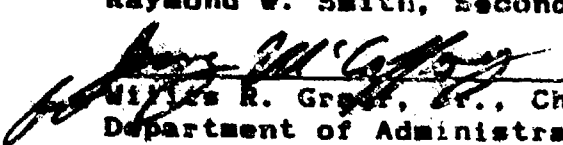
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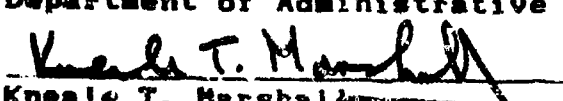
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ABSTRACT

Office of Management and Budget (OMB) Circular A-76 establishes Federal policy concerning the performance of commercial activities (CA). The provisions of Circular A-76 provide the criteria for conducting the cost comparison to determine if a CA is more economically performed by the government or private sector. The Performance Work Statement (PWS) provides the baseline for solicitation documents in the A-76 process. The research of this study focused on identifying problems in the preparation of the PWS. Research included review of existing guidelines and interviews of government and industry personnel involved in an A-76 solicitation at the Naval Postgraduate School, Monterey. The study concludes that PWS preparation is beneficial to the Navy, but lack of standardization contributes to a lengthy, subjective process which inhibits full competition.

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I. INTRODUCTION

A. GENERAL COMMENTS

The United States Government, like any private business, strives to operate efficiently. Unfortunately, this objective is hard to attain. The lack of a genuine market and its associated competition is a significant barrier to the government's managers. Without competition, it is extremely difficult to assess the relative efficiency of the government's operations.

The use of competition is the underlying principle of the Navy Commercial Activities (CA) Program. The general policy of the government in this program is "to rely on commercial sources to supply the products and services the Government needs." [Ref. 1:1] Office of Management and Budget (OMB) Circular A-76 establishes Federal policy concerning the performance of commercial activities. Circular A-76 delineates the steps which must be taken to determine whether a service is best performed by an in-house government organization or by a commercial contractor.

The heart of the A-76 process is the Performance Work Statement (PWS). The PWS specifies the job requirement and is the government document from which the contract is drawn. It must be understood the same way by all parties from government and industry perspectives. Clarity of the PWS must be achieved to ensure fair competition as well as to

secure the proper service as originally needed. If it is not mutually understood, problems can arise which affect quality, cost, and relations, (i.e., post-award contract administration costs and possibility of contract breach). In most cases where service contract problems arise, the root is a poorly prepared PWS.

B. OBJECTIVE OF THE RESEARCH

The objective of this research is to ascertain deficiencies in how PWS's are drafted and used in the A-76 program. Deficiencies in this thesis are shortcomings that contribute to an inefficient and ineffective contracting out process. Accordingly, the cost in money and time of PWS preparation and use is the primary focus.

C. RESEARCH QUESTIONS

Primary Research Question: What are the principal problems experienced in the use of the PWS as a baseline for solicitation documents in the contracting out process, and how might these problems be resolved in the pre-award process?

Subsidiary Questions:

a. What is a PWS and how is it prepared?

b. How is the PWS used in the solicitation document?

c. What are the principal problems associated with the PWS in its preparation and use as a contractural document?

D. SCOPE OF THE THESIS

The thesis will focus on a recent A-76 study conducted at the Public Works Center/Engineering Division, Naval Postgraduate School, Monterey (NPS). The A-76 study involved responses by three contractors to the RFP on on the Base Operations Support Contract (BOSC). The thesis search for information was limited to personnel directly involved with the contract solicitation process. Naval Postgraduate School personnel responsible for drafting, tailoring, and reviewing the specific PWS's used in this study were interviewed for determination, findings, and problems associated with the PWS. To enhance understanding the problems experienced in the use of the PWS, personnel from two of the bidding contractors were also interviewed.

E. METHODOLOGY

Preliminary research included a review of the history of the commercial activities program and policies, and PWS writing guidelines. Existing regulations, instructions, policy guidance letters and current periodicals were researched relative to the program requirements.

Fact-finding sessions and interviews were held with individuals who were directly involved in the generation and use of the PWS generated for the A-76 study. The actual PWS was also thoroughly examined.

F. DEFINITIONS

The following definitions and terms are applicable to concepts used in this study.

1. Commercial Activities (CA)

A function either contracted out or performed by a Navy activity that provides a service or product that could be obtained from a private source. A CA must:

> be separable from other functions so as to be suitable for performance either in-house or by contract, and a regularly scheduled activity of short duration associated with support of a particular project. [2:1-2]

2. Cost Comparison

A process, using specific procedures, for determining the economics of procuring needed services or products from a private source, or from an existing or proposed CA. [2:1-2]

3. Conversion

The changeover of a CA from performance, by the government to performance by the private sector, or the changeover from private sector to government. The former is commonly called "conversion to contract"; the latter, "conversion to in-house." [2:1-3]

4. Government Function

A function so closely related to the public interest that it must be performed by government employees. Essentially, the use of discretion in applying government

authority or value judgment in making government decisions constitutes this close relationship.

G. THESIS ORGANIZATION

The organization of this thesis is structured such that the reader can logically follow the development of problems experienced in the pre-award process by the drafters and users of the PWS. The thesis begins with the historical background of the CA program and leads to problems associated with the methods of PWS preparation.

Chapter II presents an overview of the CA program. The historical background and current program status are addressed. The mechanics of the A-76 process up until contract award are thoroughly detailed.

Chapter III presents the actual PWS preparation process as delineated in current guidelines. Common problems associated with PWS preparation are also addressed.

Chapter IV first describes BOSC-type contracts in general. The specifics of the NPS BOSC solicitation are then discussed. The chapter concludes with the actual process NPS personnel used in preparing the PWS for the solicitation.

Chapter V contains the researcher's conclusions and recommendations to improve the PWS process.

II. COMMERCIAL ACTIVITIES PROGRAM FRAMEWORK AND BACKGROUND

A. CHRONOLOGICAL BACKGROUND

The concern over government competition with the private sector has its roots in the years following the Great Depression. This concern did not truly receive Executive Agency support until 1954 when President Eisenhower first attempted to establish a government policy of placing reliance on the private sector for the supply of certain goods and services. The Bureau of the Budget (BOB) issued the first of several bulletins in early 1955 which established a policy that the federal government will not compete with the private sector in the commercial activities arena. Bulletins issued in 1957 and 1959 further qualified this general policy by mandating cost comparisons between the government and private sector to preclude obtaining similar services for higher costs just for the purpose of following policy.

In 1966, the Office of Management and Budget issued OMB Circular A-76. Its basic principle was to place reliance upon the private sector for the products and services the government needs. Specifically, this new directive stated:

> Policy--the guidelines in this circular are the furtherance of the government's general policy of relying on the private enterprise system to supply its needs. . . in some instances, however it is in the national interest for the Government to provide directly the products and services it uses.

Circular A-76 provided that a government commercial activity could provide goods or services only under one of the following conditions:

a. Procurement of a product or service from a commercial source would disrupt or materially delay an agency's program.

b. It is necessary for the government to conduct a commercial or industrial activity for purposes of combat support or for individual and unit retaining of military personnel or to maintain or strengthen mobilization readiness.

c. A satisfactory commercial source is not available and cannot be developed in time to provide a product or service when it is needed.

d. The product or service is available from another federal agency.

e. Procurement of the product or service from a commercial source will result in a higher cost to the government.

The intent of A-76 seemed quite clear. The rule was to acquire goods or services from the private sector; the exception was to provide them in-house. [Ref. 3:6-7]

In 1967 the circular received its first revision in the form of cost comparison procedure determination guidance. No other substantive changes were made.

Throughout the next ten years, several government agencies criticized A-76 as ineffective and creating needless controversy and concern. Resistance by executive departments and lack of incentives to comply contributed to ineffective implementation of A-76. The value of the program was in question.

Consequently, a comprehensive review of the circular began in 1977. The resulting new edition of the circular, issued March 29, 1979, defined the steps which must be taken to determine when an agency must contract out. Once again, it emphasized reliance on the private sector and retention of all governmental functions in-house.

The commitment to reduce costs and not infringe upon private enterprise b the government was reiterated in President Reagan's initial year in office. In 1981 OMB Director David Stockman initiated a thorough analysis of the cost comparison methodology with an aim to streamline it and make it more efficient. Revisions were made to the circular A-76 that clarified the procedures, streamlined the methodology, and enhanced equity in the process. The revised circular was issued August 4, 1983. The current policy is based upon three distinct principles:

1) Achieve economy and enhance productivity,

2) Retain Governmental functions in-house,

3) Rely on the Commercial sector.

OMB Circular A-76 has evolved into a procurement issue more than it has a private enterprise protection issue. The disciplines taught to and practiced by contracting personnel are well-suited for the extensive, time-consuming cost comparisons required to carry out a CA study. The CA process is very complex and time-consuming. Today, 32 years

after the initial Budget Bulletin, the policies and procedures are still not clear. Support is still not strong as few people really understand the process. Talk of implementing new policies is not uncommon, and resistance to existing policy has precluded effective implementation.

B. PURPOSE

OMB Circular A-76 has an explicit purpose: the forces of competition ensure efficiency and fair return on investment. Tax dollars are now being put to good use by challenging government managers to find the most effective and efficient means of doing business at the prevailing prices. The A-76 program has evolved into a thorough analytical effort aimed at maximum productivity benefit to the government.

C. CRITICISMS

The A-76 policy and purpose appear quite coherent with obvious potential benefits. Nevertheless, the A-76 program has been the subject of controversy since the initial Budget Bulletin. Private businessmen assert the commercial activities studies can be gamed to retain functions in-house. Government employee groups claim A-76 is a program to "contract out" at almost any cost. The National President of the American Federation of Government Employees testified before Congress:

> The illusion of hiding personnel costs by contracting-out is a cynical political shell game in which, the taxpayer and federal employees lose, while private contractors and political demagogues win. [Ref. 4:2-3]

Neither side is correct. Misconceptions like these have retarded the A-76 program's progress in becoming a firmly entrenched policy of the government.

Major criticisms which continue to haunt the program include:

1. Excessive paperwork. Disenchantment with the long leadtimes required and burden of paperwork to make studies persists.

2. Loss of flexibility. Commanding officers of installations often feel a loss of control and a corresponding loss of flexibility.

3. Contractor buy-ins. Concern exists that contractors initially buy-in low only to subsequently raise their price in option years.

4. The total cost of contracting-out is not weighed. Costs of lost accountability, and of increased uncertainties from strikes and bankruptcies are not adequately addressed.

5. Contracted services are insufficiently monitored. Surveillance of private contractors is thought to be substandard and consequently, the quality suffers.

6. Federal work force morale drops. The perception alone of a CA study being considered for an organization is enough to adversely affect morale and thus, productivity. [Ref. 5]

These criticisms of the Circular have seriously impeded its implementation. Further investigation and resolution of these issues are needed to make A-76 a workable, effective program.

D. CURRENT PROGRAM

The actual A-76 process is straightforward. It is analogous to the "make or buy" process in private industry.

The first step to any CA study is to determine the commercial activities. An inventory is conducted by each base to determine which functions are commercial in nature and which are governmental.

A CA inventory includes four distinct areas:

1) existing in-house commercial activities,

2) expansions

3) existing contracts, and

4) new requirements.

Reviews of existing in-house commercial activities include a determination of whether the CA must be retained in-house. In-house performance is authorized under four conditions:

1) no satisfactory commercial source is available.

2) the Secretary of Defense or his designee authorizes exemption for national defense reasons.

3) the agency head determines that in-house patient care would be in the best interests of the agency.

4) government performance is lower in cost as demonstrated through the cost comparison procedure. [Ref. 1:4-5]

After the inventory is completed, a CA evaluation schedule is developed to study the selected commercial activities for possible conversion to contract.

The current program requires a complete review of all Navy CA's by 30 September 1987 [Ref. 2:3-1]. After this initial review, functions approved for in-house performance are required to be recompeted within five years. These original intentions may have been too ambitious. Current projections indicate that the reviews are significantly behind schedule. The time it takes to actually perform the studies has been excessive. Original estimates of a one year evaluation period have actually evolved into a two year period.

Once a CA is notified of possible conversion to contract, the next step is the development of a Performance Work Statement (PWS). This is the most difficult and time consuming step in the process. The PWS states the government's requirements. It includes a statement of work (SOW) and quality assurance plan. It can be seen here that the PWS is pivotal in the process of contract performance. The most qualified personnel of the activity's functional areas typically assist in the PWS preparation. A team approach must be followed to ensure a quality PWS is produced. A detailed explanation of the PWS and its preparation can be found in Chapter III.

The next step in the A-76 process is the Management Study. The purpose of this study is to identify essential functions to be performed and determine organization structure and procedures for the most efficient in-house

performance. Based upon the PWS requirements, the Management Study Team will prepare the most efficient organization (MEO) for the in-house performance of these services with emphasis on essential functions. Analysts, functional managers, and supervisors comprise the team which conducts this internal management review. Inputs from employees, unions, and manpower studies are utilized throughout this process.

Base management develops a cost estimate of government performance using the MEO and PWS as its guidance. This "bid" is submitted to the contracting officer where it is sealed in a safe until time for the cost comparison.

While the base management develops its bid, the contracting officer uses the PWS to solicit bids or proposals from private industry. The procurement office is responsible for issuing the solicitation document with the PWS to commercial sources. The contracting officer can use either an invitation for bid (IFB) or request for proposal (RFP) as the solicitation procedure. The IFB is used when the service can be clearly described and is awarded to the low responsive and responsible bidder. The RFP is used on complex and multi-functional contracts where the requirements may be satisfied by a variety of approaches. This procedure utilizes the management and technical

expertise of the contractor and does not require award to the lowest bidder.

There are certain requirements peculiar to CA contracting that need to be included in any solicitation package. The contractor must be notified that award is based solely on a cost comparison between the apparent successful commercial bidder and the government's in-house estimate. Consequently, the solicitation may be cancelled by the government if in-house performance is more economical. Additionally, the contractor must be informed that he is required by law to offer employment to any qualified government employee who is displaced as a result of a CA study.

After receipt of the proposals, the evaluation criteria established by the contracting officer are used to determine which offer is most advantageous to the government. If a RFP is used as the solicitation procedure this source selection process usually involves negotiations as well.

The selected contractor's proposal and the In-house Management Study are then compared in accordance with OMB Circular A-76. The purpose of this comparison is to determine the total cost to the government if a contract is awarded. This comparison is much more than a bottom-line comparison. Personnel, one-time conversion, and contract administration costs are three of the eleven costs calculated on the cost comparison form. A conversion

differential (10 percent of the in-house personnel-related costs) is added to the contractor's proposal. This is for consideration of the loss of production, decrease in efficiency, and other risks anticipated with a conversion to contract.

The cost to the government is then compared to the government's total in-house costs. These two figures determine whether the services are performed in-house or by contract.

III. THE PERFORMANCE WORK STATEMENT (PWS)

A. GENERAL/CURRENT GUIDELINES

The PWS is a performance-oriented statement of work. Accordingly, it should state what the expected standard is and the acceptable quality levels. Detailed procedural guidance must be avoided. The PWS does not tell the contractor how to perform the task, but rather what the end result must be. For example, in the IFB studied, the contractor must maintain the grass within a height range from 1 1/2 to 2 inches to meet the Maintenance Level I requirements. The contractor must be allowed to use his discretion in the allocation of his resources. The PWS can encourage efficient supply by allowing the contractor to make management decisions concerning the selection between alternative methods.

OPNAVINST 4860.7B clearly delineates the methods for developing the PWS. "Writing and Administering Performance Work Statements" is Enclosure (2) of this instruction. This 89 page section is actually OFPP Pamphlet #4 developed by the Air Force Logistics Management Center. By examining a broad section of service contracts, a team fully tested and refined various ideas in the development of this pamphlet. This writing guide has supposedly proven itself as an excellent method to ensure the government gets what it pays

for and remains the principal guidance available for PWS writing.

B. PREPARATION

PWS preparation is broken down into three phases:

1) Job analysis
2) Writing the statement of work
3) Writing the surveillance plan

1. Job Analysis

The analyst reaches the performance required by the contractor after proceeding through a step-by-step process. Seven specific steps are followed. First, the organization is analyzed and the services provided are identified. Typically, a mission statement is generated, and the organizational elements and services performed (normal and contingent) are identified.

Second, the analyst prepares a tree diagram or work breakdown structure (WBS) which breaks a job or service into smaller parts. This diagram is quite useful as it later serves as the outline for the work statement and as an accounting tool.

The third step is the work analysis. This step further breaks down the tree diagram into input, work, and output. The analyst must understand what is needed to do the task, what comprises the task, and what the task produces to develop an effective work statement.

The fourth step is data gathering. This applies only to the services to be contracted. Workload data and resource data are the two categories of inputs required if the bidder is to bid intelligently. Historical information is modified with projected changes to reach an estimated workload. Resources needed to perform the work are then calculated and typically fall into one of the following subcategories: personnel, facilities, equipment, or material.

The fifth step is performance analysis. Performance values for each service are assigned. These values have three components. An indicator must first be assigned which is a measurable characteristic of the service. For example, the indicator for grass cutting is grass height. Next, a standard is set which clearly states the acceptable performance. Finally, the acceptable quality level is established. This recognizes that occasional failures will occur and allows the contractor to deviate from the standard by a certain percentage (either in terms of the standard or time).

The sixth step is to determine what directives or instructions apply to the service to be provided. These directives should be kept to a minimum, and classified as either optional or mandatory.

The seventh and final step is the analysis of deductions. The analyst prepares the estimated contractor cost of each service to be provided. These costs are then

expressed in the statement of work as a percentage of total contract cost. If the work is not done satisfactorily, the value of that work can be withheld.

2. Writing the Statement of Work (SOW)

A detailed job analysis should result in a smooth writing process. Since all data collection and analysis has been done in the job analysis process, all that remains to be done here is to put the words in the appropriate service contract format.

The guidance appears straightforward and trouble-free:

- determine objectives
- determine government action
- prepare outline
- write "quick" first draft
- first edit
- second person review by buyer or technical person
- final changes
- put in final form [Ref.6:45]

The drafter must be extremely careful. Every word, phrase, sentence, etc. must be carefully thought out. Ambiguous terms foster interpretation problems. A well-written SOW is paramount to successful contract completion.

3. Writing the Surveillance Plan

Contractual requirements, regardless of how well written are not self-enforcing. If the government does not adequately enforce its original requirements, there is a strong possibility that these requirements will not be met. Compliance with the contractual requirements is dependent on the contractor's own interests which rarely coincide with the government's.

The surveillance plan assures that the government maintains an active role in contract management through a systematic contract administration procedure. The plan's goal is to determine if the contractor meets the requirements of the contract, in terms of quality and quantity.

Surveillance plan development involves three major steps:

1. Identify key performance indicators.
2. Identify information sources, and
3. Develop tools to facilitate measurement.

Identifying performance indicators occurred earlier in the job analysis phase. The main task now is to distinguish which performance indicators are critical to evaluate the service. Manpower constraints preclude the monitoring of all performance indicators and even all values they may assume over the contractual period. Therefore, only the key indicators are included in the surveillance

plan and these must be sampled in a coherent manner as by using MILSTD-105D. Ideally, the analyst should select indicators which overlap several functions to best evaluate the service.

Identifying information sources involves the selection of an appropriate feedback mechanism which accurately describes the quality of the service. There are four principal sources of information: Customer complaints, random sampling, management information systems, and checklists. The use of management information systems and random samplings are the preferred methods. Random sampling is the most frequently used method in A-76 contracts. Management by exception is normally the approach followed in evaluating the service. Basically, noncompliances are recorded to determine a course of action. If the desired quality level is met, then no action is taken by the government. If the performance is unsatisfactory (substandard quality level), then the government will take action to adjust the performance level.

Surveillance plan development concludes with the generation of tools to facilitate the evaluation process. In the case of random sampling, a sampling guide is an appropriate tool. A sampling guide clearly describes the acceptable quality level, lot size, sample size, sampling procedure, inspection procedure, and acceptable deviation

levels. An inspector uses this guide to gather the information needed to evaluate the performance of the service.

After the surveillance plan is developed, the PWS uses a Performance Requirements Summary (PRS) to exercise the government's rights under inspection. The PRS is based on the deductions calculated in the job analysis phase. It assumes the defects cannot be corrected by the contractor. Therefore, the contract price is reduced to reflect the reduced values of the services performed. The PRS sets forth a precise method and formula to calculate this reduction.

C. COMMON PROBLEMS

Current Navy guidelines spell out problems that should be avoided during the PWS preparation process. Drafters should pay particular attention to these pitfalls to ensure the PWS is a clear and comprehensible document. Among the most common problems are:

1. Too much procedural guidance. The drafter must ensure the contractor is told what to do and not how to do it.

2. Long and wordy sentences. Sentences should be simple and direct. Basic subject-verb-object order should be the drafter's goal.

3. Unfamiliar terminology. The drafter should be careful not to use terms that could be misunderstood by the contractor. Common language is the key.

4. Vague and unclear terms. Ambiguity must be avoided through the use of consistent terminology throughout the PWS.

5. Requirements that contradict other contract terms. The drafter must scrutinize the PWS as a whole to minimize any unnecessary conflicts. [Ref. 6:48]

IV. BASE OPERATIONS SUPPORT CONTRACT AT THE NAVAL POSTGRADUATE SCHOOL

A. GENERAL

A Base Operating Support Contract (BOSC) is a specific type of service contract within the Department of Defense. Navy BOSC's are administered by the Naval Facilities Engineering Command or Naval Supply Systems Command depending upon which command has the majority of the functions. BOSC's include such services as pest control, food service, and housing and grounds maintenance. A typical BOSC is a large multifunction procurement with one prime contractor. A $10 million BOSC is not uncommon. The front-end costs associated with solicitation preparation, bid evaluation, and selection must be offset by the size. Less contract administration costs and minimal government-to-contractor and contractor-to-contractor interfaces are the advantages of selecting one prime contractor. Normally, a BOSC is oriented towards performance specifications where the methods and management of performance are at the contractor's discretion.

The Department of Defense conducted 1,054 BOSC-type competitions from early 1979 through 1984. In-house activities won 48 percent of these competitions, primarily by bidding well below their precompetition costs. These critical self evaluations realized through competition have

resulted in a 29 percent reduction in operating costs primarily because activities are now more conscious of wasteful practices than ever before.[Ref. 7:3]. Traditional practices such as working within a budget and adhering to standard operating procedures have contributed to these cost savings.

BOSC's offer several advantages besides the lower costs of performance and contract administration. Flexibility is a significant attribute. BOSC's offer the flexibility to add work depending upon the scope and contract type. Additionally, a commercial contractor frequently possesses a multi-skilled BOSC work force. This allows the shifting of resources without significant costs and disruption to the base. For example, in one current BOSC one contractor operates 29 buses with only 15 full-time drivers since ground maintenance workers augment the regular driver's pool when needed [Ref. 7:5].

The size alone of a BOSC is large enough to attract the established leaders of industry who are concerned with quality performance and their reputations. For example, Pan American World Services, Inc. is responsible for total base maintenance at the Navy Submarine Base in Bangor, Washington.

Conversely, BOSC's have disadvantages. Although they may be more flexible than several small contracts, BOSC's do not offer the same flexibility as in-house performance.

Changes often involve extensive administrative actions which can be time-consuming, costly, and disrupting. In the hands of a poor contractor, a BOSC can be a nightmare.

Cost control may be a problem in a BOSC. Smaller contracts often isolate individual functions to their associated costs. Consequently, contractor performance evaluation is straightforward. BOSC's, are on the other hand, are more difficult to evaluate. Shifting of resources within a BOSC contractor's organization presents costing problems.

Nevertheless, the benefits appear to outweigh the costs. BOSC's exhibit smart business practices and are consistent with the goals of A-76. The introduction of competition into base support services has forced commercial companies and in-house activities to seek innovation cost-cutting strategies.

B. BACKGROUND

Fiscal year 1982 marked the Navy's first concerted effort to fully implement A-76. Up until that point only 98 Navy CA studies had been completed from FY 1979 (the year of the circular's last revision) through FY 1981. This represented a very small percentage of the Navy's CA's. In FY 1982 alone, the Navy completed 153 studies, followed by 240 in FY 1983.

Consistent with this effort, in late 1981 NAVFAC Western Division located in San Bruno, California directed the Naval Postgraduate School to study several function for possible conversion to contract in accordance with the CA program. The functions fell under three broad categories: Public Works (PW), Educational Media Department (EMD), and Supply. In March 1982, Western Division directed the Naval Postgraduate School to prepare the Performance Work Statement for the solicitation document. Western Division planned a solicitation issue date of 31 May 1983 to allow sufficient time for proper advertisement and source selection in FY 1983. Accordingly, sealed offers were to be submitted on or before 1 August 1983, or sixty days after the solicitation issue. The PWS preparation period of March 1982 through May 1983 was considered ample time to prepare a clear and unambiguous PWS.

In accordance with its original plan, Western Division issued the BOSC-type request for proposal (RFP) 31 May 1983. This solicitation involved base operation and maintenance services for the Naval Postgraduate School and the Naval Facility, Point Sur. Western Division grouped all functions into a BOSC-type document primarily because it felt one contractor could perform all functions which would result in lower cost to the government. Although two distinct bases were involved in the solicitation, Western Division felt the

work breakdown fell in such a manner that lent itself to smooth management by one contractor. The PW functions were to be performed at both bases with the exception of custodial services and transportation operations (Point Sur only). The EMD functions involved only NPS, and the Supply functions (including food service) involved only Point Sur. The remaining PW functions were:

1) pest control
2) transportation maintenance
3) boiler plant and distribution system maintenance and operations
4) administrative telephones
5) family housing maintenance
6) other buildings maintenance, and
7) grounds/surfaced areas maintenance

The solicitation document followed the uniform contract format of schedule, general provisions, documents, exhibits, attachments, and general instructions. It was the sheer size of the document that distinguished it from others. The solicitation exceeded three hundred pages.

The PWS section included five subsections totaling 164 pages: general, administrative, definitions, specific tasking, and applicable directives and publications. This did not include the 19 technical exhibits referred to throughout the PWS. The most cumbersome subsections were the last two. Eleven annexes comprised the specific tasking

subsection which totaled 125 pages. Each annex addressed a specific function. Transportation maintenance and operations were combined into one annex. Supply services and food services were two separate annexes. The remaining functions each had its own annex. The annexes and their corresponding number of pages were:

1) Pest control (13)
2) Transportation maintenance and operations (4)
3) Boiler plant and distribution system maintenance and operations (8)
4) Food services (25)
5) Audiovisual services (10)
6) Administrative telephones (4)
7) Maintenance of military family housing (18)
8) Other buildings maintenance (19)
9) Grounds/surfaced areas maintenance (13)
10) Custodial services (8)
11) Supply operations (3)

Each annex broke down even the most simple service into painstaking detail. For example, the food service section included such guidance as to what constituted clean windows and doors. Actual procedures were not delineated but standards were.

The applicable directives and publications subsection was equally exacting. Although only eight pages in length, it listed 112 different documents. Additionally, it dictated

the contractor assume full responsibility for any changes in the form of supplements or amendments to the references. Each document was coded either advisory or mandatory. The contractor was obligated to follow the mandatory items only to the extent stated in the specification when a specific paragraph was referenced. Nevertheless, the requirement was substantial given that only 20 of the documents were advisory.

Despite the guidance contained in the original PWS, Naval Postgraduate School personnel still considered the PWS incomplete. As is often the case, PWS preparation time actually required more than the allotted time. Nevertheless, Western Division issued the RFP solicitation with an incomplete PWS. Consequently, the RFP required a total of eleven amendments over a six and one-half month period which ultimately resulted in a 9 January proposal submission deadline.

The first four amendments primarily involved additions, deletions, and modifications to the original PWS and the technical exhibits which contained the historical data information on which the offeror must base his proposal. Some of these changes included:

- reclassifying "material costs" as "material invoice costs"
- using strictly the "Corps of Engineers Safety Manual" rather than in conjunction with OSHA Regulations

- holding the contractor responsible for providing petroleum, oil and lubricant products for transportation services
- adding a No. 5 oil requirement to the natural gas requirement in NPS boilers

Although these amendments were relatively easy to incorporate into a proposal, it would be unfair to expect the offerors to still meet the original deadline. Accordingly, amendment five postponed the proposal receipt date to 30 August 1983.

Amendment six (24 August 1983) postponed the receipt date to 25 October 1983 in anticipation of a revision to the technical exhibits. Data accumulation proved to be a significant problem throughout the PWS preparation process as a thorough job and cost accounting system was not in place. This deficiency resulted in the use of either incomplete or inaccurate estimates in the original technical exhibits. Consequently, amendment seven contained significant technical exhibit revisions which forced the offerors to review their proposals and the government to postpone the proposal receipt deadline.

Amendment eight contained minor revisions to two annexes.

Amendment nine (1 November 1983) deleted all portions of the basic RFP and amendments one through eight as pertaining to NAVFAC, Point Sur, in anticipation of its closure. This eliminated annexes 4, 10, and 11 and reduced the scope of

all others except annex 5. This reduced the scope of work significantly thereby affecting the offerors' proposals. Consequently, the government postponed the proposal receipt deadline until 19 December 1983.

Amendment ten did not affect the PWS nor the scope of work

Amendment eleven (19 December 1983) postponed the receipt date until 6 Jan 1984 to allow additional time for the offerors to prepare their proposals since the source selection process would not commence until after the holiday period.

The RFP required the offerors to submit price proposals for the base contract year (including phase-in) and each individual option year one through four.

C. PREAWARD PROCEDURES

1. Government Solicitation Preparation

The government spends a large amount of time and money in the preparation of the solicitation document. As previously mentioned, the PWS preparation process is the most expensive and time-consuming.

The Naval Postgraduate School PWS process took almost two years to complete. Unfamiliarity with the A-76 process and lack of supporting documentation and data precluded a smoother, shorter process. Consequently, the actual procedure differed substantially from the published

guidelines. The SOW writing phase actually preceded the job analysis phase since there was limited data available initially to the BOSC coordinator. Throughout the entire PWS process, the historical data was constantly updated to best reflect the solicitation's requirements.

The initial step in this study involved travel to Pensacola, Florida of three top managers of the functions planned for study. Naval Air Station, Whiting Field had completed a similar CA study in 1982. The primary objective of the travel was to obtain first-hand information of the process and problems. These three individuals also returned with a copy of the Pensacola CA study. The framework for the Naval Postgraduate School study was based primarily upon this information. A base engineer of the Engineering Division then examined generic PWS's developed by the Naval Facilities Engineering Command (NAVFAC).

Although considered useful by the engineer, the generic PWS's still required extensive modification to fit the specific requirements of the base.

After extensive tailoring, the "rough" PWS's were delivered to the shop foremen for second person review. This is where the workers themselves had the opportunity to provide inputs. For the first three months of the PWS process each shop foreman conducted weekly "quality circles" where five or six workers discussed what should be included in the specific tasking subsection of the PWS. The shop

foremen then consolidated and refined these inputs. This took a considerable amount of time. Although these PWS's had already been tailored to the base, one interviewee stated it took him three months, four hours per day to accurately review them. The primary reason for this lengthy review process was the lack of inputs on how the job was being done. Accurate data on how a job was done and how long it took was not readily available. Naval Air Station, Lemoore provided inputs to the data accumulation process since at the time of the study, work performance data was not regularly tabulated at the Naval Postgraduate School. Consequently, activities who had studies done were used as sources of information. Adapting data from other activities to the Naval Postgraduate School was, without question, the mode of operation.

After the shop foremen tailored the PWS's, the base engineer rechecked the PWS's and delivered them to Western Division NAVFAC, the contract issuing authority. In this final state, contracting personnel checked the PWS's for style, ambiguity, misused words, sentences, etc. Every word had to be scrutinized to preclude possible interpretation to the contractor's advantage.

The final step in the PWS process involves the development of a surveillance plan or quality assurance program. The BOSC Coordinator and three personnel from the

Commercial Activities Program Detachment, San Diego developed this plan in one month. Exact details concerning the surveillance plan were not clear since the BOSC was retained in-house and the majority of the work was done by the CA Detachment. The Public Works Department does not currently use the QA plan since the guidance it has received indicates the MEO will perform quality control. Two specific documents support this contention:

1) Commercial Activities Program Detachment letter Ser # 4860, dated 24 June 1983 states:
"A comprehensive Quality Assurance Program must be implemented at the Naval Postgraduate School to insure the government receives quality work and service should the Base Operations and Maintenance Functions contained in solicitation RFP N62474-83-R-2945 convert to contract."

2) Chief of Naval Operations letter Ser # 09BL/4U306465, dated 31 October 1984 states:
"Quality control is one of two areas in A-76 cost comparisons where the government is not required to bid on the same work as the contractor. Should the Postgraduate School perform the public works function in-house, its MEO will perform quality control. It is not required to establish a separate quality assurance organization to monitor in-house performance."

In summary, the amount of man-hours expended on the PWS preparation was excessive. The base engineer himself worked in the PWS development process approximately half-time the first year, and full time the second year. One shop foreman estimated that personnel in his shop (including himself) worked between two and three man-years in this process. An internal Public Works memorandum dated 12 April 1983 indicated since March 1982 the Public Works

department incurred $219,922 in costs associated with the CA study. Final estimates were in the $400,000 range.

2. Industry Offer Preparation

Three commercial contracting firms submitted proposals in response to the BOSC-type solicitation. To better understand the preparation process, the researcher interviewed the president of one firm (Firm A) and the proposal coordinator of another (Firm B). Although the firms differed significantly in experience level, the process they used were actually quite similar.

Firm A, founded in 1971, had minimal experience with BOSC-type contracts and submitted its proposal as a joint venture with another inexperienced firm (founded in 1980). Additionally, Firm A immediately hired a consultant to prepare the proposal. The consultant was a retired Navy Supply Officer with extensive experience in Navy service contracts and PWS preparation. It was felt this background and understanding was critical to prepare a successful offer.

Firm A's direct involvement with the offer preparation was quite limited. The consultant coordinated the entire process. Firm A's personnel contribution consisted of clerical assistance and employee interviews which totaled approximately 250 hours. The consultant himself spent approximately 700 hours including the interview time on the solicitation preparation. The final

proposal document totaled over 250 pages costing Firm A over $25,000.

Conversely, Firm B had extensive experience in service contracts with the government. It had performed BOSC-type work for several Air Force bases, but had limited Navy contract experience. Consequently, Firm B appointed as the proposal coordinator, a relative newcomer who had gained relevant experience prior to joining Firm B. Like Firm A, Firm B felt that Navy experience was critical to a successful preparation.

Firm B used an approach similar to Firm A's. The proposal coordinator received limited inputs from lower-level personnel and relied mostly upon his past Navy experience. Firm B's final proposal document totaled over 400 pages costing Firm B approximately $20,000 and 400 man-hours.

Both firms stressed experience is extremely valuable when bidding BOSC-type contracts. Even with experience, both firms recommended the use of consulting services. It was clear to the researcher that each service drafts its service contracts differently with distinctly different terms, phrases, and standards. Accordingly, firms feel "hiring the expert" is the only approach available to win contracts.

D. OUTCOME

The source selection process commenced 16 January 1984. Five weighted factors as delineated in the original solicitation provided the basis for selection. The most important factor was "Method of Operation". This factor involved the evaluation of the adequacy and effectiveness of how personnel, facilities, and other resources would be used to accomplish the work in each annex of the PWS. The annexes were also weighted in that they were arranged in groups by relative importance with Group A being the most important and Group E being the least important. The grouped annexes broke down in the following manner.

Group A: 8

Group B: 3

Group C: 2, 5, 7, 9

Group D: 1

Group E: 6

The second most important factor was "Proposed Organization". This factor included evaluation of the lines of authority and responsibility, span of control, position descriptions, and the qualifications of personnel.

The remaining factors were all weighted equally. "Corporate Experience" evaluated experience in performing work of the same or similar scope and size as that required in the annexes. "Management and Administration" involved evaluation of quality control, personnel recruiting and

training, accounting, subcontracting, and safety. "Phase-in Experience and Plan" involved evaluation of the phase-in schedule to assure availability of key personnel and minimal disruption.

Approximately one month prior to the source selection process, Western Division appointed six Technical Evaluation Teams (TET's) and one Technical Evaluation Board (TEB). TET's consisted of NPS, Western Division, and Commercial Activities Program Detachment personnel familiar with the area they were evaluating. The teams and number of personnel on each were:

Team #1: Buildings and Structures (3)

Team #2: Audiovisual (2)

Team #3: Administrative Telephone/Family Housing (2)

Team #4: Transportation Maintenance and Operations/Boiler Plants (4)

Team #5: Pest Control/Grounds and Surface Areas (2)

Team #6: Management Review (7)

The primary focus of Teams 1-5 was "Method of Operation" evaluation. Team 6 evaluated the remaining factors. Narrative and point scores were assigned in accordance with existing guidelines and instructions. This process lasted two weeks.

The TET's then presented their findings to the three-member TEB comprised of Western Division and NPS personnel. The TEB members were all senior personnel in the Navy Public

Works community. The TEB's primary focus at this stage was to consolidate and coordinate the TETs' evaluations. Earlier in the process, the TEB trained the TET members on the evaluation methods to ensure the TETs produced evaluations of proper quality and thoroughness.

The TEB then presented a briefing to the Source Selection Board (SSB). The SSB also consisted of NPS and Western Division Personnel. Unlike the TEB, these board members were not part of the Navy Public Works community. Specific areas covered in the briefing included:

- team composition
- individual/team training
- security measures taken
- evaluation results (point totals and narratives)

The SSB based its final decision on the contents of this brief.

The source selection process concluded in mid-February. The cost of contracting-out exceeded the cost of government performance by two million dollars. Consequently, the SSB judged in-house performance to be more economical and retained the BOSC solicitation in-house.

The government's in-house estimate was based on the MEO developed by the Shops Director, Public Works. The approximate reduction of manpower from 97 man-years to 92 has held up. The manning levels have increased but only

because of increased workload primarily attributed to the new base exchange, increased computer center maintenance and a 15% increase in student population.

V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The primary purpose of this thesis was to investigate the problems experienced in the use of the PWS as the baseline for solicitation documents in the CA program, and how these problems could be resolved in the pre-award process. This was done through extensive literature research and interviews with government and industry personnel. Based upon this research, the researcher concludes:

1. The PWS preparation process and its associated documentation is a useful tool for efficient management.

Before this A-76 study, no organizational analysis existed. The mode of operation resembled "squeaky wheel" management rather than careful, methodical planning. The PWS preparation process stimulated meticulous examination of the organization. Managers investigated more efficient and effective procedures and personnel assignments to meet their requirements. Favorable byproducts of the process included enhanced management awareness, standardized procedures, and clear responsibilities.

2. The PWS preparation process as it currently exists is unnecessarily lengthy and expensive.

Interviewees felt obligated to include as many specifications as possible to ensure the tasks would be performed properly. Consequently, the money and time costs

to detail the specifications were excessive. Two related perceptions of the PWS dictate this need to overspecify:

- The government views the PWS as the minimum amount of quality and work that is acceptable,
- The government perceives that the contractor views the PWS as the maximum amount of quality and work that will be performed.

Consequently, the government is challenged to win this battle of proper performance with overspecification as the principal tactic.

3. Lack of PWS standardization allows too much subjectivity in the preparation process.

The first rule for conducting an A-76 cost comparison is for the government and the contractor to base the cost figures on the same scope of work and the same level of performance. Nevertheless, industry personnel considered the PWS a document with tremendous potential for abuse. Considerable skepticism existed as to the objectivity of the entire process. It was felt that the government can succeed in wrongdoings since it states the requirement, develops the specification, formulates its own bid, and selects the winner. Contractor personnel perceived little independence in the process.

The PWS often contains "country club specs". These types of specifications force contractors to bid on standards that the government itself does not meet nor plan to meet. Writing specifications to a higher standard than

what is anticipated to be done is not only unfair but illegal. It inhibits competition in commercial activities.

4. Lack of experience is a significant barrier to entry of inexperienced contractors into A-76 competitions.

Industry personnel considered the entire process as one that could be easily gamed. Knowing how to play is often more important than actual capabilities. Consequently, the industry interviewees felt that a successful offer required considerable CA expertise. As previously mentioned, one firm had approximately 20 years of experience in service contract and CA work. The other firm hired an ex-Navy officer for consulting services. Only high-powered personnel with these levels of experience could be expected to develop a successful offer. The barriers to entry in the CA program can be overwhelming.

B. RECOMMENDATIONS

1. Tri-Service PWS

The Navy's Generic PWS Program provides field activities with standardized PWS's for common functional areas. These standardization efforts have had limited success as the generic PWS's are still not fully utilized.

Although efforts like these are visible in all the services, there has been minimal cooperation among the three services to standardize PWS's across the entire Department of Defense. Not all functions could be standardized as each service has its own unique commercial activities functions.

There are many functions which could easily be standardized within DoD. BOSC's are ideal candidates for such a program. BOSC's ir ive tasks that are not peculiar to a certain service. Audio-visual services, pest control, grounds maintenance, housing maintenance, and food services do not require distinct procedures for each service. These common tasks should have common procedures with common language.

Efforts to standardize PWS's throughout the DOD would greatly streamline the pre-award process. Government PWS preparation time would be reduced. Neighboring commands could share "lessons learned" and other ideas regardless of service affiliation. Industry would also benefit from such a program. Familiarity with the specifications, procedures, and terminology would substantially reduce the proposal preparation time.

The issue of independence in the process should also be addressed with a DoD-wide program. Individual commands would have their PWS preparation responsibilities substantially reduced. This restricts the amount of subjectivity and allows a more equitable selection process.

2. Government/Industry PWS Board

The establishment of a PWS Board comprised of government-industry representatives would discount the independence allegations. The board's purpose would be to

review the generic PWS's for content and language to promote fair and open competition.

Currently, specifications in the PWS are often worded in such a way as to inhibit potential offerors from bidding. Removing the government from the final review of the PWS would lower industry suspicions of bias. A sense of objectivity of the process may encourage more commercial sources to enter the A-76 competitions. Healthy competition should bring lower costs which, in the long-run, would offset the high costs of establishing this PWS Board.

APPENDIX

LIST OF INTERVIEWEES

1. Tedrow, D., Public Works Center, Naval Postgraduate School, Monterey, California, February 1987 (Personal).

2. Joyce, J., Public Works Center, Naval Postgraduate School, Monterey, California, March 1987 (Personal).

3. Pooler, C., Public Works Center, Naval Postgraduate School, Monterey, California, April 1987 (Personal).

4. Abbott, R., Public Works Center, Naval Postgraduate School, Monterey, California, April 1987 (Personal).

5. Yamas, J., Yamas Construction Company, South San Francisco, California, April 1987 (Personal).

6. Barfield, J., Del-Jen, Inc., Monterey, California, April 1987 (Personal).

7. Williams, E., NAVFAC Western Division, San Bruno, California, June 1987 (Telephone)

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