AFIT/GCM/LAS/94S-7

AN INVESTIGATION INTO THE PITFALLS, CONSEQUENCES, AND BEST PRACTICES DURING THE EVALUATION, NEGOTIATION AND AWARD PHASES OF A SOURCE SELECTION IN AFMC PRODUCT CENTERS

THESIS

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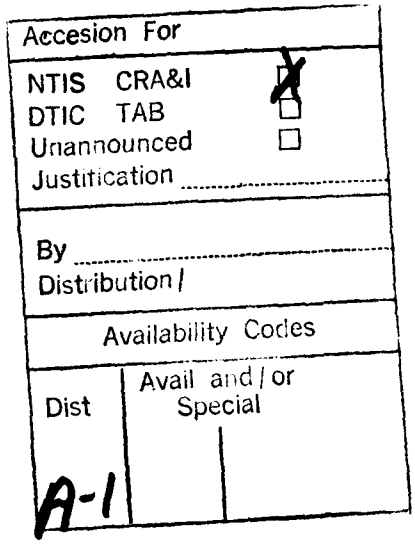

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THESIS

Presented to the Faculty of the School of
Logistics & Acquisition Management of the
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Requirements for the Degree of
Masters of Science in Contract Management

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Preface

The purpose of this study was to survey experts in the field of source selection to determine if they could agree whether or not certain situations encountered during a source selection were pitfalls. Most of the situations tested were culled from current source selection literature. The participants also provided possible consequences for each situation and steps (best practices) a source selection team could use to avoid the situation. It is hoped that this information will help those new to the source selection process avoid these pitfalls or at least anticipate their occurrence.

I would like to thank many people for their assistance during this research effort. First, to my advisors, Dr. Robert Pappas and Lt Col Carl Templin for their insight and advice on developing this study and carrying out the research. Also the following source selection officers at the four product centers were extremely helpful in securing source selection experts willing to participate in this research; Patrick Kanoti, SMC; Jim Witham, ASC; Don Norville, HSC; and Cindy Burrows, ESC. Finally, thanks to the survey participants, whose sharing of time and experiences made this research possible.

Scott A. Savoie

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Abstract

Source Selection is the process used by the Federal government to select contractors for large, complex and important requirements. Recent studies have indicated that the inexperience of source selection personnel continues to be a significant problem in source selections. Air Force Federal Acquisition Regulation Appendix AA requires that lessons learned be compiled at the conclusion of every source selection. Unfortunately, there has been little success in organizing this information into a coherent training guide. This research attempts to fill this gap by using source selection experts to identify source selection pitfalls, their consequences, and the best practices to avoid them. Fifteen situations that could be detrimental to a source selection were identified through a literature review. Next, source selection experts were surveyed to see if they could agree on the nature and effect these situations had on source selections. The experts evaluated each situation in terms of its negative impact on an acquisition program and its frequency of occurrence. The experts were surveyed using the Delphi method, characterized by iterative survey rounds and feedback from previous rounds. The two factors of impact and frequency, as well as

expert comments, were used to identify which situations were pitfalls. Twelve of the fifteen situations tested were found to be source selection pitfalls. The experts also provided the possible consequences of and best practices to avoid each pitfall.

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I. RESEARCH PROBLEM

Introduction

In Fiscal Year 1993, Air Force Materiel Command (AFMC) obligated over 27.9 billion dollars in contracting actions. Of this total, 14.6 billion dollars, or 52% was awarded using competitive procedures. Another 30%, or $8.5 billion were follow-on awards to previous competitive actions (HILL, 1994). Therefore, over 82% of AFMC's contract obligations have been influenced by the competitive procedures used by AFMC. This thesis will look at the competitive process used for the largest and most complex contract awards, source selection.

Source selection is a term used to describe a formalized procedure in federal government contracting. It is also used in the commercial sector in a more generic sense to describe one of the many function of a purchasing department. A commercial purchasing department has many roles; assisting in the development of requirements and specifications, value analysis, market research and administration of purchase orders and contracts are just a

few (Dobler, 1990:21, 22). However, most procurement experts cite the responsibility of selecting the right source as the most crucial role that a purchasing organization fulfills (Dobler, 1990:30, 209; Heinritz, 1986:23; others). In a manufacturing company, for example, the purchasing department is the biggest user of revenue in the firm, spending almost 50% of the revenue to buy material necessary to fuel production operations (Dobler, 1990:11). Thus, the success of a company is linked to the effectiveness of its purchasing department. It is difficult for a firm to operate efficiently and effectively if it selects poor suppliers to do business with. A purchasing axiom reflects this view; "Suppliers are an extension of our manufacturing capability" (Heinritz, 1986:23).

Selecting the right source is a critical role for Air Force acquisition personnel as well. Getting the best value for the dollar continues to be an important goal for the Air Force, especially with the continuing decline in budgets. And, getting the best value starts with selecting the right source.

The purpose of a source selection is to choose the contractor that will best fulfill the government's requirement. The result of the source selection process is a contract award, that can be worth millions (or even billions) of dollars. This researcher thinks that the purchasing axiom previously stated is clearly applicable to Department of Defense contracting with minor modifications;

"Defense contractors are an extension of our warfighting capability."

Consider the acquisition of the F-22, Advanced Tactical Fighter (ATF). On 2 August, 1991, the Air Force awarded a contract to the contractor team of Lockheed/Boeing for the Engineering Manufacturing Development (EMD) phase of the ATF program. This contract to develop the F-22 air vehicle was worth over $9.5 billion (Hatfield, 1994). This contract committed the Air Force to the Lockheed/Boeing team through the end of the EMD phase, until approximately 2003 (Raggio, 1994). This commitment will undoubtedly continue under a production contract, worth billions more, should the ATF program go into production. The process used to choose the Lockheed/Boeing team over it's competitor, the Northrop/McDonnell Douglas team was source selection.

It is clear that selecting the right source is critical to the Air Force, just as it is to the commercial sector. It is therefore important that Air Force acquisition professionals thoroughly understand the source selection process.

Background

In the Air Force, source selection procedures are required on the following competitively negotiated procurements:

(1) Major Defense Acquisition Program as defined in DoDD 5000.1.

(2) Each new development or production program designated by the Assistant Secretary of the Air Force for Acquisition.

(3) Communication and Computer Programs estimated at $200 million or more, or,

(4) Modification, Maintenance, or Services or projects estimated to exceed $750 million. (AFFARS, Appendix AA, 1993:3)

The objective of the source selection process is to "select the source whose proposal has the highest degree of credibility and whose performance can be expected to best meet the government's requirement at an affordable cost" (AFFARS, Appendix AA, 1993:3). Although cost will always be an evaluation factor for any type of government purchase, a source selection procurement will invariably include an evaluation of each contractor's unique approach to fulfill the government's requirement. Depending on the government's need, a contractor's proposal may include a particular technical approach, manufacturing plan, or use of certain materials and equipment. Many different functional experts converge to form the Air Force evaluation teams. Teams may include contract specialists, engineers, cost analysts, logisticians; in short, any discipline which will be evaluated in the source selection will be represented.

Problem Statement

As important as a source selection is to an acquisition program, Air Force officials are not always adequately trained prior to participating in a source

selection. Two AFIT theses have cited inexperienced source selection personnel as a major problem during the source selection process (Gray and Hugo, 1985:6-1; Babcock, 1986:5-6). More recently, in her thesis *An analysis of the Source Selection Process at Aeronautical Systems Division,* Elaine C. Rourke cited a continued lack of experience of source selection personnel as a major problem in the source selection process (Rourke, 1989:106). In fact, it was the most frequently cited problem in her study. One of Ms. Rourke's recommendations was that a core source selection team be established to conduct major source selections for Aeronautical Systems Division (now Aeronautical Systems Center or ASC). This team would become the source selection experts for the center and would ensure that no source selection suffered from lack of experience.

One improvement implemented by ASC was the establishment of the source selection support office (ASC/CYX). This office provides facilities and training to center personnel before they participate in a source selection and also provides them with facilities in which to conduct the source selection. Support offices also exist at AFMC's Space and Missile Center and Electronic Systems Center. However, a core source selection team does not exist at any of the product centers and, with the current downsizing trend, it is highly unlikely that they ever will.

This research is aimed at improving the knowledge base and experience of source selection teams in another

way; by tapping into the views and opinions of source selection experts who have participated in numerous source selections. By documenting their experiences and sharing them with other acquisition professionals, the current problem of inexperienced source selection personnel may be reduced. These experts may be able to identify pitfalls which any source selection could encounter, the consequences to the pitfalls and the best practices to avoid them. Then, less experienced source selection teams and individuals could use this information to successfully navigate their way through the complex source selection process.

A similar product has already been developed for the process of transitioning from development to production. Informally called the *Willoughby Templates*, this guide identifies traps, or management practices that result in high risk to program success. The guide further identifies the consequences of these traps and ways (best practices) to avoid them (Best Practices, 1986).

The intent of this research is to determine if the source selection process lends itself to this kind of study; or whether each source selection is so unique that it carries with it unique pitfalls that are not a threat to other source selections. Consequently, the purpose of this research is to determine if there are common pitfalls any source selection may encounter, the consequences of these pitfalls, and best practices to avoid these pitfalls.

Research Objectives

This research seeks to determine if there are pitfalls that are common to AFMC product centers. To do this the study will investigate the following research objectives:

1. Examine the extent to which source selection experts can agree on situations that could be detrimental to a source selection.

2. Examine the impact these situations have on the acquisition program and their frequency of occurrence.

3. Examine the extent to which these pitfalls are unique to particular product centers or common to all Air Force Material Command (AFMC) product centers.

4. Determine what the consequences are to the acquisition process if one of these pitfalls is encountered.

5. Determine the extent to which Air Force source selection personnel can take certain steps (best practices) to avoid these pitfalls before they occur.

The first research objective will help determine the degree to which source selection experts can agree on whether or not a given situation is a pitfall. Research Objective #2 will attempt to measure this agreement in two ways; impact and frequency. These first two research objectives will provide the answer to whether or not a situation is a pitfall. Research Objective #3 will look to see if there are any differences between product centers on the impact and frequency of these situations. Finally,

Research Objectives 4 and 5 will describe the consequences and best practices for those situations that are found to be pitfalls.

Scope and Limitation of Research

The scope of this investigation will be the four Air Force Materiel Command (AFMC) product centers, Aeronautical Systems Center (ASC), Electronic Systems Center (ESC), Space and Missile Center (SMC) and Human Systems Center (HSC).

This research effort will limit its investigation to the pitfalls encountered during the evaluation, negotiation and award phases of the process. While the best practices to avoid these pitfalls may be taken before this time, the actual pitfalls will occur during one of these phases.

Finally, only pitfalls attributable to the structure, organization and process of a source selection and the Air Force acquisition process will be investigated. There are potential psychological pitfalls, such as personality type, which can affect any type of negotiation, from arms control treaties to a car dealer negotiation. It is not the intent of this research to investigate these types of pitfalls.

Overview

This section describes the content of the subsequent chapters in this thesis. Chapter 2, Literature Review, discusses the review of the source selection literature that was accomplished for this study. It describes the source selection process from receipt of proposals to contract award and discusses the potential pitfalls that may be encountered along the way. Chapter 2 concludes with a list of potential pitfalls that was found.

Chapter 3, Methodology, describes the method by which the researcher collected data on the potential pitfalls, consequences and best practices. It describes the Delphi technique used in this study and discusses why it was an appropriate method. It also discusses the construction and administration of the surveys used for this study.

Chapter 4, Analysis, provides an analysis of the data that was collected. It contains a detailed discussion on each situation that was tested. Each discussion addresses the research objectives as they relate to that particular situation.

Finally, Chapter 5, Conclusion, summarizes the findings of the research as well as its limitations and recommendations for further research.

II. Literature Review

Introduction

This chapter describes the literature review that was accomplished for this research effort. First, it will cite sources that describe the overall source selection process. Next, it will look at the process in detail starting when the government receives proposals until contract award. During this detailed description, potential pitfalls will also be described. Finally, the chapter will recap the source selection situations found in the current literature that could be potential source selection pitfalls.

Citations for Source Selection Process

There have been several theses recently that have dealt with source selection. Two of them contain descriptions of the overall source selection process. (Babcock, 1986: 2-1 to 2-8; Rourke, 1989:5-23). Another authoritative source on the source selection process is an article written by Dr. Curtis R. Cook and Vernon J. Edwards (Cook and Edwards, 1993:Chp 42). Readers who are unfamiliar with the source selection process should reference one of these sources. Figure 1 represents the conventional source selection process. The shaded portion of Figure 2.1 represents the steps in the source selection process that will be investigated in this study. It start with the receipt of contractor proposals and ends with a contract award.

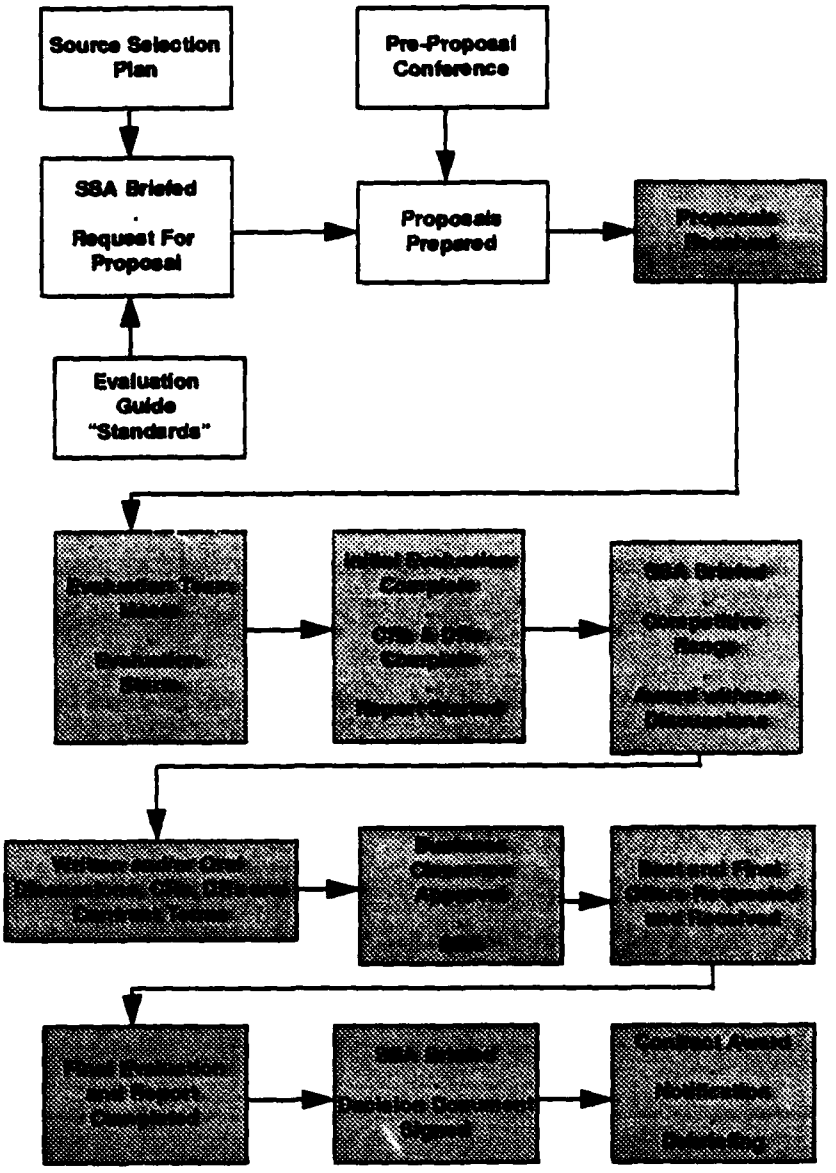

Figure 2.1 - Flow chart of Source Selection Process

(Training Slide, Space and Missile Center, 1994)

Evaluation Pitfalls

Once proposals are received, the government begins it's evaluation. The purpose of this evaluation is to determine to what degree each proposal meets the requirements in the Request for Proposal (RFP). The evaluation assesses the proposal's strengths, weaknesses and the risks associated with accepting it (AFFARS, Appendix AA, 1993:5). In effect, the evaluation serves as a foundation to assess the probability of a contractor to successfully complete the contract if selected for award (Cook and Edwards, 1993:42.16). This initial evaluation is also used by the contracting officer to determine whether or not discussions are necessary before awarding a contract (Source Selection Workshop, 1989:B-55). This is done by identifying deficiencies and issues that require clarification in each proposal. Deficiency Reports (DRs) are written on issues that make a proposal unacceptable and Clarification Requests (CRs) are written for issues that need further clarification. If the proposals received contain enough issues that are unresolved or deficient, the contracting officer will probably make the decision to hold discussions.

There have been several problems identified during this initial evaluation. The Federal Acquisition Regulation (FAR) requires that each proposal be evaluated on factors specified in the RFP (FAR, 1990:15-13). One danger that may occur is if an evaluator evaluates a proposal based on a

comparison with other proposals, rather than on the standards specified in the RFP. (Crumbie, 1990:21).

Another potential pitfall concerns ratings. During proposal evaluations, the evaluators also rate each proposal. The typical method used by the Air Force to evaluate Proposals is to use a color code system as shown in Table 2.

Table 2.1 - Air Force Color Rating System
(AFFARS, Appendix AA, 1993:AA-15)

COLOR	RATING	DEFINITION
Blue	Exceptional	Exceeds specified performance or capability in a beneficial way to the Air Force; and has high probability of satisfying the requirement; and has no significant weakness.
Green	Acceptable	Meets evaluation standards; and had good probability of satisfying the requirement; and any weaknesses can be readily corrected.
Yellow	Marginal	Fails to meet evaluation standards; and has low probability of satisfying the requirement; and has significant deficiencies but correctable
Red	Unacceptable	Fails to meet a minimum requirement; and deficiency requires a major revision to the proposal to make it correct.

The concern here is that proposals with similar strengths and weaknesses receive different ratings. (ASC, 1993:21). This could be because different evaluators rate the same factor in different proposals or because one evaluator

begins to rate proposals harder or more leniently as the evaluations progress.

Problems may also impact the source selection process during the CR/DR generation processes. The first is the lengthy review and modification of a CR/DR before it is approved. This may be due to the ignorance of the evaluator on what is required in a CR/DR, resulting in the need for correction. These corrections may act to change the original meaning of the CR/DR and thus not alert the offeror to the issue that the evaluator intended to address (ASC, 1993: 47). Another problem during CR/DR generation may occur when a high number of CR/DRs are written with many redundant write ups (ASC, 1993:24). This again may create delays in the source selection process as unnecessary write ups are generated and responses to them are developed, received and reevaluated.

Finally, during initial evaluation, many evaluators see only a portion of the offeror's proposal. The evaluators lack the global view of each offer and thus are not able to reconcile their evaluations with the big picture (ASC, 1993:21). This situation can cause the evaluation process to miss either conflicting or clarifying information. If this happens, then a CR/DR may not be written to address proposal information that conflicts or, a CR/DR may be written on an issue that the proposal has already addressed.

Performance Risk Assessment Pitfall

During the initial evaluations, not only are technical evaluations occurring, but an assessment of each offeror's past performance is also made. This past performance assessment is used to gauge the risk associated with selecting a contractor using past performance as a criterion. According to AFMC FAR Supplement to Appendix AA, "Performance risk is a confidence measure that assesses the offeror's present and past work record in order to determine the offeror's ability to perform the proposed effort" (AFARSUP AA: AA-1).

The source selection team that conducts the performance risk analysis is called the Performance Risk Analysis Group (PRAG). They collect past performance information in a variety of ways: from the Contractor Performance Assessment Report (CPARS) system, (an AFMC data base) or, through questionnaires, interviews or another performance reporting systems (AFARSUP AA: AA-5).

The PRAG may rely on the offerors to supply information on past performance relevant to the source selection (ASC, 1993:29). This may present a potential problem to the PRAG. An offeror may withhold information on past performance it considers relevant to the source selection but unfavorable. If this information isn't picked up by the PRAG through other sources then the performance risk assessment may be lower for this offeror than is warranted.

Award Without Discussions Pitfall

After the initial proposal evaluation the contracting officer decides whether or not discussions are necessary (Source Selection Workshop, 1989:B-55). This is an important step because a significant amount of time can be saved if discussions are not held. This was recognized back in 1987 by then Air Force Systems Command when it amended Air Force Systems Command Regulation 550-23 to encourage award without discussions whenever possible (Gotcher and Templin, 1993:4). The award without discussion policy is still evident today (ASC, 1993:39). This emphasis, however, may become a problem if it pressures a contracting officer to avoid discussions when he/she finds that discussions are probably warranted (Cook and Edwards, 1993:42.20). This policy may lead the decision to fix the issue after contract award rather than conducting discussions with all competitive offerors. This would put the Air Force at a disadvantage in subsequent negotiations to fix the contract since the contractor is no longer in the competitive, source selection environment. A greater risk may be the sustainment of a protest if another offeror can show that the Air Force should have conducted discussions.

Competitive Range Pitfall

If the decision is made to conduct discussions, a determination must be made by the contracting officer on which offerors to include in the competitive range. Only

those offerors in the competitive range will be able to participate in the discussions (FAR, 1990:15-14). The other offerors will be eliminated from further consideration. The FAR states that if the contracting officer "determines that a proposal no longer has a reasonable chance of being selected" it may be excluded from the competitive range (FAR, 1990: 15-14).

The number of offerors kept in the competitive range is important. The government will have to conduct negotiations with all offerors in the competitive range and ultimately review and evaluate the changes that each of them makes to their proposal. A possible problem under these circumstances could occur if the determination of the competitive range is made, in part, by a motivation to keep the number of remaining proposals low rather than on the "reasonable chance of being selected for award" criterion. (Gilbreth and Horst, 1994:B-39).

Discussion Pitfalls

After the competitive range has been established, the government will enter into discussions with each remaining offeror. The purpose of discussions is to maximize competition by allowing offerors to raise their proposal to an acceptable level. To do this the government must be specific about advising each offeror about of the deficiencies in his/her proposal (Source Selection Workshop, 1989:B-77). The FAR allows these discussions with offeror

to be written and/or oral (FAR, 1990: 15-15). Written discussions usually take the form of DRs or CRs.

There are several potential pitfalls that may occur during discussions. First, the government is required to provide meaningful discussions with each contractor. If the government fails to point out a deficiency to an offeror during discussions, then the discussions might not be found meaningful (Source Selection Workshop, 1989:B-81). The second possible discussion problem occurs when both written and oral discussions are conducted. In some source selections, the government will provide each offeror with the DRs and CRs and later discuss these issues face to face. A member of the government negotiation team may discuss aspects of the proposal other than those addressed in the CRs and DRs. If this happens there is a risk he/she may undermine the government's position (Crumbie, 1990:26, 27). Further, straying too far from the CRs and DRs may lead into such prohibited acts as disclosing aspects of competing offers, called technical transfusion (Source Selection Workshop, 1989:B-80). Even if the focus is on the written communication, forbidden actions such as technical transfusion, technical leveling and auctioning could occur (Crumbie, 1990:27). Technical leveling is when the government helps...

"...an offeror to bring it's proposal up to the level of other proposals through successive rounds of discussion, by pointing out weaknesses resulting from the offerors lack of

diligence [or] competence" (Source Selection Workshop, 1989:B-79).

Auctioning occurs when the government indicates a price level an offeror must reach to get further consideration or when the government reveals the price of other, competing offers (Source Selection Workshop, 1989:B-88).

BAFO Pitfall

After discussion are concluded, the government will ask for all offerors to submit their Best and Final Offers (BAFO). A problem that may arise at this point is if all the BAFOs exceed the funds available (ASC, 1993:30). If this occurs then additional funds would have to be secured or negotiations would have to be reopened and the scope of the requirement reduced.

Miscellaneous Pitfall

Finally, there may be a potential problem that is not part of the source selection process itself, but may have an impact on it. The problem is when new government personnel are introduced into the evaluation/negotiation phase of the source selection and were not involved during the development of the RFP and award criteria (ASC, 1993:39, 44).

Recap of Potential Pitfalls

The following is a recap of the possible source selection pitfalls that were found during the review of the source selection literature. They will be the focus of further study:

1. Evaluating a proposal based on another proposal, and not the standards in the RFP (Crumbie, 1990:21).
2. Similar strengths and weaknesses between proposals get rated differently (ASC, 1993:21).
3. Numerous rewrites of a CR/DR before it is approved, sometimes changing its original meaning (ASC, 1993:47).
4. High number of redundant deficiency reports, clarification requests, and modification requests (CR/DR) are generated (ASC, 1993:24).
5. Evaluators lack global view of proposal and do not pick up conflicting or clarifying information (ASC, 1993:21).
6. Past performance problems which, though relevant to the source selection, are unknown to or hidden from the PRAG (ASC, 1993:29).
7. Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted (Cook and Edwards, 1993:42.20).
8. The motivation during the competitive range determination is to reduce the number of offerors, not to retain offerors whose proposals have a reasonable chance of being selected for award (Gilbreth and Horst, 1994:B-39).

9. Not all proposal deficiencies are addressed during discussions with offerors (Source Selection Workshop, 1989:B-81).

10. Addressing issues during face to face discussions which were not addressed with a CR/DR (Crumbie, 1990:26, 27).

11. Technical leveling, transfusion or auctioning during negotiations (Crumbie, 1990:27).

12. BAFO prices exceed funds available (ASC, 1993:30).

13. Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria (ASC, 1993:39, 44).

Summary

This chapter reviewed the literature search that was accomplished for this study. First, it cited sources that contain descriptions of the overall source selection process. Next, it looked at the process in detail from proposal receipt until contract award, identifying possible pitfalls along the way. Finally, it recapped the potential pitfalls identified in the literature review that will be studied further. The next chapter will describe the methodology used to investigate these potential pitfalls.

III. Methodology

Introduction

This chapter describes the methodology used to conduct this study. As stated previously, the intent of the study was first to determine if there were common pitfalls which any source selection could encounter. If common pitfalls were present, the research investigated the possible consequences to each pitfall and the best practices to avoid it. AFFARS Appendix AA requires that a source selection lessons learned be compiled at the conclusion of each source selection (AFFARS, Appendix AA, 1993:22). Unfortunately, there has been little success in organizing this information into a coherent training guide. The existing literature therefore doesn't describe explicitly the pitfalls one can expect in a source selection. This fact drove the need for a two-stage research design study (Emory and Cooper, 1991:147). The first stage was exploratory with the objective of identifying the potential pitfalls. The second stage was a formal survey to test the existence of these suspected pitfalls, their consequences, and the best practices to avoid them.

Research Design

The type of data collected was ex post facto. In both stages the researcher relied on the past experiences of the participants. The type of study was descriptive, attempting

to describe through past experience the common pitfalls associated with source selections. Also, there was no ability to manipulate the variables so a causal study was not possible to conduct. The time dimension of this study was cross-sectional in nature. However, participants responded to both stages of the study based on the source selection experience they gained throughout their career. Although this research was not a case study, it was more in-depth than a standard survey. This was due to two factors: iterative survey rounds and feedback from previous rounds. This will be discussed in more depth under the Delphi technique discussion. The survey employed was administered using the Total Design Method (TDM) (Dillman, 1978:21). The environment in which the research was conducted was a field study, since all participants completed the survey at their place of work.

Stage I - Exploratory Phase

This phase was conducted through an informal experience survey. This is appropriate if published work on the research topic is scant or difficult to find (Emory and Cooper, 1991:146). This survey was very flexible and allowed participants latitude to fully cover the research topic. First they were given a list of potential pitfalls identified during the literature review and asked if they agreed whether or not each was a probable pitfall. Next,

each participant was asked to add additional source selection situations which he/she felt was a pitfall but wasn't identified during the literature review. This served to strengthen the content validity of the resulting Delphi survey.

As a result of the experience survey two more potential pitfalls were added and a pitfall already identified in Chapter 2 was modified to have broader coverage. The additions were:

1. **The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.**

2. **Trying to accomplish the source selection within an arbitrarily determined schedule.**

Also, the following potential pitfall identified in Chapter

II, "**Evaluating a proposal based on another proposal, not the standards in the Request for Proposal RFP.**" Was changed to read, "**A technical team member evaluates a proposal based on standards not in the Request for Proposal (RFP).**" The change on this potential pitfall made the situation broader. Now the pitfall can occur whenever an evaluator uses standards other than those described in the RFP to do his evaluation. These *other* standards may or may not be based on another proposal.

Delphi Technique

"The Delphi method is a name that has been applied to a technique used for the elicitation of opinions with the object of obtaining a group response from a panel of experts" (Brown, 1968:3). One way to arrive at a group opinion is through face to face discussions. However, research into the accuracy of group opinion points out several weaknesses of face to face discussions:

1. The influence of a dominant individual.

2. Noise. Interaction that is aimed at maintaining the group rather than effectively solving the problem.

3. Group pressure for conformity. (Dalkey:7)

Research has found that face to face discussions are often less accurate than an average group opinion without discussion (Dalkey:7). Further, when an additional round of surveying is added with feedback from the previous round, accuracy is again increased (18:12). These are both characteristics of the Delphi technique. The Delphi technique is best suited for problems that are ill defined or complex (Emory and Cooper:76). Because so little research had been done on investigating and organizing potential source selection pitfalls, the Delphi technique was well suited for this study.

Information gathered using Delphi is done through a series of surveys or questionnaires. Respondents are asked to give reasons for their stated opinions and these reasons are fed to all participants in subsequent rounds. This is intended to let respondents reflect on their previous response based on the informed judgment of others. This allowed for a controlled debate among respondents without the defects of face to face discussion. (Brown:3)

Stage II - Formal Survey

The second stage of the study consisted of developing and pre-testing the survey instrument, and conducting the formal Delphi survey.

Survey Construction - Round One

The pitfalls identified in Stage I, plus the research objectives, were used to develop the survey. Appendix A contains this round one survey. To determine whether a source selection situation was in fact a pitfall, two closed ended questions, called factors, were asked of each potential pitfall:

1. If this situation occurs, what is the impact on the acquisition program?
2. What is the likelihood that this situation could occur?

The participants responded to these factors using the following Likert scales:

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Initially, the researcher was going to use a Likert type scale for the first factor similar to the one suggested by Kerlinger (Kerlinger, 1986:460). This was a five point scale from Strongly Agree to Strongly Disagree. This, however, would not capture the information that the researcher was seeking. A survey participant may be able to Strongly Agree that two different situations are both pitfalls in the source selection process. But, he/she may be agreeing that one of the situations would probably have a minor impact on the acquisition while the other situation would have a significant impact on the acquisition. An agree-disagree a Likert scale would not be able to discriminate between these two situations. There were no scales already developed that would directly measure impact. Therefore the scale for factor one was developed by the researcher. The weakness of the scale is that it has not been tested and its reliability may be suspect. However, it

is the only scale that is able to measure the data of interest, impact, so it's validity is greater than any other scale considered. The scale for Factor 2 was taken from the Army's Questionnaire Construction Manual (Questionnaire Construction Manual, 1989:132).

The combination of these two factors, impact on the program and frequency of occurrence, were used together to identify pitfalls. In addition, comments were solicited on both factors' for each pitfall. This allowed respondents to provide the reasons why they responded the way they did. According to Dillman, allowing respondents to create their own answers is most often used when...

> ...the researcher cannot anticipate the various ways in which people are likely to respond to a question. They are used to stimulate free thought, solicit suggestions, probe people's memories, and clarify positions. (Dillman, 1978:87)

This open-ended response structure was used to provide feedback to respondents in the subsequent round; thus allowing respondents to consider each other's informed opinion.

Finally, for each potential pitfall, the survey solicited an open-ended response on the consequences of the pitfall and the best practice a source selection team can employ to avoid it.

Pre-testing

The survey was pre-tested using Source Selection Officers. The purpose of pre-testing this group was to ensure that survey questions were clear, unbiased, had understandable vocabulary and allowed adequate alternatives (Emory and Cooper, 1991:362). The survey was also pre-tested using AFIT faculty with source selection experience. Recommendations from the pretest were analyzed and incorporated into the survey as necessary. After this, the first round survey was sent to the survey participants.

Description of Population

A population is the total number of subjects that meet the target characteristics which are under study (Emory and Cooper, 1991:245). The purpose of this study was to identify common pitfalls that occur in source selections in the four AFMC product centers. Further, these pitfalls would be the ones that primarily affected the contract definitization team. Therefore the population is all source selections conducted in all of the product centers.

Description of Sample

Because source selection information is highly restricted, it would be impossible to evaluate source selection documentation to determine if common pitfalls existed. Further, the time involved to study many source selections in depth would be immense and costly. To get at the needed information, it was decided to elicit the opinion

of source selection personnel using the Delphi method. This method works best if the respondents used are experts on the topic being studied (Brown:4). Therefore, the sample used was source selection experts from the four AFMC product centers. Since these experts had participated in numerous source selections in each of the four centers, they represented a sample of all source selections conducted by the centers. The method of selection was judgmental sampling, with sample members being selected based on a criterion (Emory and Cooper:275). The experts sampled were chosen based on the recommendation of the Source Selection Officers (SSO) at each product center. Each SSO was instructed to recommend the most experienced source selection personnel in his/her product center. This researcher theorized that the most experienced people would have had the most exposure to the various problems encountered in a source selection and therefore would be best suited for this study. The selection was also based on a quota, with the sample having equal representation from each product center. This was done to help answer the inter-product center research objective.

Determining Consensus

Once the responses from the first round were received, each situation was analyzed to determine whether or not a consensus was reached.

There has been an ongoing series of theses at the Air Force Institute of Technology concerning the definition of contracting and acquisition terms. Each study has investigated a different set a acquisition related terms. These studies all sought consensus when testing a proposed definition using a five point Likert scale. The older theses used a 50% response rate in the two agreement response categories (Agree and Strongly Agree) to conclude that there is a consensus on the proposed definition (Moyle, 1990:3-8; Shelly, 1991:34; others). More recent studies for contracting terms, however, have employed a more restrictive decision rule of 66% for concluding consensus (Stormer and Zigman, 1993:A-6; others). According to Stormer and Zigman, if exactly 50% of respondents agree with a definition, then 50% of the respondents disagree also, showing a complete lack of agreement (Stormer and Zigman, 1993:A-6).

This researcher chose to use a more restrictive response rate to indicate a consensus. If at least two thirds (66.6%) of the responses fell into two adjacent categories, this was an indication of a group, consensus response. Unlike the theses on contracting terms, this study looked for a consensus on the entire spectrum of both

scales; Factors 1 and 2. Thus, if two thirds of the responses fell into the 1 and 2 categories, this also would indicate a consensus response.

A consensus of the consequences and best practices was not sought in this study for several reasons. First, in round one, for each potential pitfall, respondents described the consequences and best practices. Thus, possible consequences and best practices were not identified until after the first round. To find a consensus on the consequences and best practices, a third round questionnaire may have been needed. Time constraints did not allow for the development, administration, and analysis of a third round survey. Second, for each pitfall there could be several consequences and best practices. This would generate a number of new questions that would have to be added to the survey, making it extremely long (and potentially confusing). This violated the TDM approach to surveying (Dillman, 1978:12, 14). It was not reasonable to expect the survey participants to complete a three round survey that was extremely long. Finally, possible consequences of a pitfall are most likely probabilistic. There could be a wide range of possible outcomes if a pitfall is encountered, from mild to severe. Similarly, there may be several different actions a source selection team could take to avoid a pitfall. Seeking consensus in this situation seemed inappropriate. For purposes of this

study, it was considered more valuable and reasonable to describe the wide range of possible consequences and available best practices.

Survey Results - Round One

The respondents agreed on the impact and frequency on nine of the fifteen situations in the first round survey. Of the six situations they did not agree on, four were due to divergent opinions on the impact the situation would have on the program (Situations 2, 6, 8 and 12), one was due to divergent opinions on the frequency with which the situation occurred (Situation 14), and one received divergent responses on both impact and frequency (Situation 5).

Additionally, respondents provided the consequences of and best practices to avoid each situation. These responses will be discussed in detail in Chapters IV and V.

Survey Construction - Round Two

The round two survey re-tested the six situations that received divergent responses in the first round. The round two survey closely resembled the round one survey. The same two factors (impact and frequency) were again asked of each situation. The open-ended questions concerning consequences and best practices were not repeated in round two. This wasn't necessary as this information was already collected in round one. Additionally, the round two survey included the following feedback from round one on the six situations;

1. The frequency for all responses for each of the closed-ended questions.

2. The mean response for each closed-ended question.

3. The response the individual gave to each of the closed-ended questions.

4. All write in comments received on each question.

Appendix B shows the feedback given with the round two survey while Appendix C contains the round two survey.

Survey Results - Round Two

The survey participants converged in their responses in the second round on the remaining six situations. All six received more than the two-thirds response rate (indicating consensus) in adjacent categories for both factors.

The final results received for Factors 1 and 2 are shown for all situations in the histograms in Appendix D. For situations 2, 5, 6, 8, 12 and 14 these histograms reflect round two results. For all other situations, the histograms are based on round one data.

Analysis of Data

The five research objectives were analyzed for each situation in the following way.

Research Objective 1 - Examine the extent to which source selection experts can agree on situations that could be detrimental to a source selection.

Each factor in each situation was analyzed to determine if at least two thirds of the responses fell into adjacent categories.

Research Objective 2 - Examine the impact these situations have on the acquisition program and their frequency of occurrence.

Once a consensus was reached on a situation for both factors, the central tendency of the responses was sought. The central tendency was analyzed both in terms of median and mean. The open ended responses were also used to evaluate this research objective.

Research Objective 3 - Examine the extent to which these pitfalls are unique to particular product centers or common to all Air Force Material Command (AFMC) product centers.

For each factor, the medians of each product center was compared to the consensus response categories on each situation. This showed how each product center's central tendency compared to the group as a whole. The ranges of each product center were also used to compare dispersion.

Research Objective 4 - Determine what the consequences are to the acquisition process if one of these pitfalls is encountered.

The responses received to the opened ended questions concerning the consequences for each situation were used to answer this research objective.

Research Objective 5 - Determine the extent to which Air Force source selection personnel can take certain steps (best practices) to avoid these pitfalls before they occur.

The responses received to the opened ended questions concerning the best practices used to avoid each situation were used to investigate this research objective.

Summary

This study investigated the pitfalls, consequences and best practices in the evaluation, negotiation and award phases of a source selection for the four AFMC product centers. Because of the lack of potential pitfalls in existing literature, a two-stage research design was chosen. Stage I was an exploratory phase using an informal experience survey. It polled source selection experts on their views concerning pitfalls in the source selection process. They also rendered their opinion on a list of possible pitfalls identified by the researcher.

Stage II was a Delphi survey developed using the results of Stage I and the research objectives. The survey was conducted in two rounds. In the second round, the participants received feedback from the first round.

Data from these two rounds were analyzed to see if the respondents reached a consensus on any of the possible pitfalls and to identify the various consequences of and best practices to avoid these pitfalls. The results of this analysis is found in the next section, Chapter IV.

IV. Findings and Analysis

Overview

This chapter describes the analysis that was done for this study. First, the survey participants are discussed. Next, each situation is analyzed individually in the context of the survey results and Research Objectives 1, 2, 4 and 5. After this individual analysis of each situation, an analysis of the data for Research Objective 3 is presented.

Description of Survey Participants

A total of twenty surveys were sent out, five to each of the four product centers. Fourteen surveys were completed and returned for a 74% response rate. Fourteen second round surveys were sent out to the people that responded in the first round. All 14 second round surveys were completed and returned. The numbers of responses by product center are; ASC, ESC and SMC, three each; HSC, five. The rank or grade of ten of the fourteen participants was either GM-13 or above or Colonel, and thus indicated significant civil service or military experience. The participants were also well educated. Most (10 of 14) had a masters degree and one had a doctorate. The remaining three held a bachelors' degree. Twelve of the participants had five or more years of source selection experience. Seven of these had over ten years of source selection experience. Thus the sample represented people with a fairly high degree

of source selection experience. Complete background information on the participants is provided in the tables in Appendix E.

Final Results - Factors 1 and 2

Table 4.1 shows the final results received on all the situations for Factor 1, impact. For each situation, the table shows the number of responses received for each response category. For example, for Situation #1 no participants chose response categories 1-None or 2-Minor. Two participants chose response category 3-Moderate, five chose response category 4-Significant and seven participants chose response category 5-Very Significant. Response categories 4-Significant and 5-Very Significant are highlighted to show that the group consensus fell into these two response categories. The last column in the table shows the percentage of responses in these two categories to the total responses received. For Situation #1, the consensus rate is 85.7% (12 responses in categories 4 and 5 divided by the 14 responses received). Some situations have three response categories highlighted. This is because there are two possible sets of consensus categories that are equal to each other. In Situation #8, for example, a combination of either categories 3-Moderate and 4-Significant or 4-Significant and 5-Very Significant yields a response rate of 78.6%. Table 4.2 is constructed in the same fashion as

Table 4.1. Table 4.2 shows the final results for Factor 2, frequency.

Both tables show the range of responses, the degree of consensus, the most frequent response and the central tendency of responses for each situation. The information in these tables will be referred to as necessary during the analysis of each situation.

Table 4.1 - Final Results for Factor 1, Impact

#	Situation Description	Response Categories*					% in consensus categories
		1	2	3	4	5	
1	Standards not in RFP	0	0	2	**5**	**7**	85.7
2	Strengths and weaknesses rated differently	0	0	**6**	**7**	1	92.9
3	Evaluators lack of global view	0	4	**5**	**5**	0	71.4
4	Redundant CR/DRs	0	**8**	**3**	3	0	78.6
5	CR/DR rewrites change meaning	2	2	**3**	**7**	0	71.4
6	All costs unreasonable using analysis technique	0	1	2	**4**	**7**	78.6
7	Hidden past performance problems	2	2	**1**	**8**	0	69.2
8	Sticking by "award without discussions" policy	0	0	**3**	**8**	**3**	78.6
9	Eliminate offers in competitive range to reduce number	1	1	2	**6**	**4**	71.4
10	Discussing issues not addressed by a CR/DR/MR	1	**6**	**4**	2	0	76.9
11	Technical leveling, transfusion, auctioning	0	0	1	**4**	**8**	92.3
12	Not all deficiencies are discussed with offerors	0	0	3	**5**	**6**	78.6
13	BAFO prices exceed funds available	0	0	1	**6**	**6**	92.3
14	Bringing new people into the evaluation/negotiation phase	0	**5**	**7**	2	0	85.7
15	Arbitrary schedule	0	1	**5**	**7**	1	85.7

*Factor 1 scale (Impact): 1-None, 2-Minor, 3-Moderate, 4-Significant, 5-Very Significant

Table 4.2 - Final Results for Factor 2, Frequency

#	Situation Description	Response Categories* 1	2	3	4	5	% in consensus categories
1	Standards not in RFP	2	5	6	1	0	78.6
2	Strengths and weaknesses rated differently	0	4	9	1	0	92.9
3	Evaluators lack of global view	0	2	9	2	1	79.6
4	Redundant CR/DRs	0	4	6	3	1	71.4
5	CR/DR rewrites change meaning	1	2	8	2	1	71.4
6	All costs unreasonable using analysis technique	4	7	1	2	0	78.6
7	Hidden past performance problems	3	4	5	1	0	69.2
8	Sticking by "award without discussions" policy	3	4	7	0	0	78.6
9	Eliminate offers in competitive range to reduce number	6	5	1	2	0	78.6
10	Discussing issues not addressed by a CR/DR/MR	2	4	5	2	0	69.2
11	Technical leveling, transfusion, auctioning	4	8	1	0	0	92.3
12	Not all deficiencies are discussed with offerors	2	4	7	1	0	78.6
13	BAFO prices exceed funds available	2	6	4	0	0	83.3
14	Bringing new people into the evaluation/negotiation phase	0	0	3	8	3	78.6
15	Arbitrary schedule	0	0	5	8	1	92.9

*Factor 2 scale (Frequency): 1-Never, 2-Seldom, 3-Sometimes, 4-Usually, 5-Always

Research Objectives

The data received on each situation was analyzed for each research objective. Research Objective 1 concerned the extent to which the survey participants could agree on the situation tested. Research Objective 2 looked at the impact and frequency of these situations. Research Objectives 4

and 5 focused on the consequences and best practices of each situation respectively. Below are the results of this analysis for each situation. As stated previously, Research Objective 3 will be discussed after the analysis of each situations for the other four research objectives.

Analysis of Situation #1

Situation #1 was "A technical team member evaluates a proposal based on standards not in the Request for Proposal (RFP)."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. Tables 4.1 and 4.2 show that the extent of consensus for this situation was 85.7% for impact and 78.6% for frequency. Most participants stated that this was a significant problem and sometimes did occur. Generally, differences of opinion on impact was attributed to when the error was discovered. If the SSET found the discrepancy then the evaluation could be corrected. If it was discovered after award during the debriefing session with the unsuccessful contractor, then the potential for a protest would be very high. Because the impact was severe if the situation was discovered after award, many participants said they had never seen this happen. However, even if caught before contract award, correction of the improper evaluation would take "much time and effort", and thus would still be a problem. As one expert said, "[We] continuously have team members who are

unfamiliar with source selections." Responses on the best practices to avoid this situation included training technical team members before evaluations begin. Also, the contracting officer and SSET chairperson should monitor evaluations early and be prepared to correct this problem immediately should it occur.

Analysis of Situation #2

Situation #2 was "Similar strengths and weaknesses between proposals get rated differently."

Discussion: A consensus was not reached on the impact of this situation in the first round (64.3%). A consensus was reached in the second round. This situation had the highest rate of consensus for both factors of all the situations tested. The rate was 92.9% for both impact and frequency. Therefore, there was a very high degree of agreement among the participants on this situation. The impact of this situation was between "moderate" and "significant." The frequency with which this situation occurred was between "seldom" and "sometimes." The comments received on this situation revealed that the impact of this situation depended on two things; when it was caught and whether or not the part of the proposal that was rated differently was critical to the final selection. If the error occurred on a relatively minor evaluation factor, its impact would be relatively minor. One respondent indicated that the impact of this error could also vary depending on

each offeror's individual approach. If, for example, an offeror receives an unusually low score on his proposed subcontracting plan, the effect this would have on his chances of winning the contract would depend on how much of the work he has proposed to subcontract. The more work he proposed to contract out, the more impact this rating would have on the government's evaluation of his proposal. If, on the other hand, he intends to accomplish most of the work in house, the perceived weakness in his subcontracting plan (relative to similar offers) would have a smaller impact on his proposal. The consequences of this situation could include a sustained protest if the different ratings affected the final selection. Best practices included having one person evaluate or at least review all proposals for the same factor to ensure consistency.

Analysis of Situation #3

Situation #3 was "Evaluators lack global view of proposal and do not pick up conflicting or clarifying information."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. The consensus on impact for this situation was among the four lowest rates of all the situations tested at 71.4%. The comments received on this pitfall seemed to indicate that the respondents were somewhat divided. Several considered this a minor problem that would (and should) get fixed at a

higher level. As one respondent said, "As areas are rolled up to form an overall assessment these differences will surface." Another group thought that this could pose a problem to the source selection. Further, they felt action at the evaluator level was needed to correct it. According to one SMC respondent, "At SMC evaluators are required to read the entire proposal." Overall the impact was rated as "moderate." SMC respondents all rated the impact as "significant" while ASC and ESC respondents leaned toward a "minor" response. The frequency of this situation was rated as "sometimes" by most respondents. Possible consequences of this situation included post award problems such as disputed contractual requirements and increased modifications. Comments on the best practices were to either have evaluators read all proposals or, if this was not feasible, to have frequent meetings between teams to review and share information.

Analysis of Situation #4

Situation #4 was "High number of redundant deficiency reports and clarification requests (CR/DR) are generated."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. This situation had a consensus rate of 71.4% on frequency. This was among the four lowest consensus rates received for this factor. Some notable comments concerned the impact this situation has if encountered. Some experts saw this as a

positive sign. To them it meant that the evaluators were thoroughly reading the proposal and that they were being consistent in their evaluations. Further, they indicated that these redundancies could be consolidated at a higher level. This situation also ranked very low on the impact scale. On the basis of these results this situation cannot be considered a pitfall.

Analysis of Situation #5

Situation #5 was "Numerous rewrites of a DR/CR/MR before it is approved, sometimes changing its original meaning."

Discussion: This was the only situation tested that failed to get a consensus response on both impact and frequency. The first round results for impact and frequency were 64.3% and 57.1% respectively. A consensus on these two factors was reached in the second round, although it was still somewhat low relative to the other consensus rates. The rate for both factors was 71.4% in the second round.

There were two confusing issues that may have led to neither factor receiving a consensus response. First, some respondents did not understand who was doing the rewriting in the scenario, the government or the contractor. They felt that this could mean that the contractors themselves were responding to CR/DRs and had to rewrite the response several times before their response was accepted. This was not the intended interpretation of the situation. The

rewriting in the scenario was being done by government personnel before the CR/DR was approved and sent to the contractor.

The second confusing issue concerned the use of the term modification request (MR). Several respondents said that modification requests (MRs) did not fall into the same categories as clarification requests (CRs) and deficiency reports (DRs). The term MR refers to an RFP amendment. An amendment would not be issued using a process similar to DR/CR generation so these comments were valid.

As a result of these two finding this situation was reworded in the second round survey to read; "Numerous rewrites of a DR/CR during the government review process, before it is approved and issued to the offeror, sometimes changing its original meaning." Also, the comment about MRs for this scenario is also applicable to Situation #4.

Most comments indicated that if this situation occurred that further discussions would be needed to address the original problem. This would cause unnecessary delays. Best practices included giving evaluators training on how to write CR/DRs. Also, if a re-write is necessary, the evaluator should participate in or review the re-write to ensure its meaning hasn't changed.

Analysis of Situation #6

Situation #6 was "The price or cost analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied."

Discussion: A consensus was not reached on the impact of this situation in the first round (64.3%). It was in the second round. Several people felt that if this situation were encountered it could be fixed. May other respondents, however, indicated that the RFP would have to be canceled if this happened. This is clearly evident as the most frequent response for impact was "very significant." Respondents also indicated that this situation rarely happens. The consequences of this situation ranged from amending the RFP to canceling the solicitation. Best practices include using valid cost/price techniques to develop the government estimate. It was also important to use draft RFPs and pro-solicitation conferences to ensure the final RFP is clear.

Analysis of Situation #7

Situation #7 was "Past performance problems which, though relevant to the source selection, are unknown to or hidden from the Program Risk Assessment Group (PRAG)."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. This situation had the lowest combined consensus responses of any situation tested. The consensus response rate was 69.2% for both factors. This indicates that while a consensus was

reached, it was a weak consensus with some divergent opinions. Different opinions on the impact of this situation seemed to depend on whether the respondent was talking about the impact on the acquisition program or the source selection process. Most that referred to the impact on the acquisition program thought that this situation could have a significant impact. Those referring to the impact on the source selection process indicated that this situation would be minor. In effect, they said if the unfavorable information was unknown, it would have no bearing (and thus no impact) on the source selection. The acquisition program, however, would be affected because its success would be linked to a contractor with undesirable performance characteristics. One respondent summed up both of these perspectives. "While impact on the source selection may be minor, problems would likely arise during the performance on the contract." The best practices to avoid this situation included a suggestion to develop acquisition unique questionnaires to ensure that relevant information is gathered.

Analysis of Situation #8

Situation #8 was "Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted."

Discussion: A consensus was not reached on the impact of this situation in the first round (61.5%). It was

reached in the second. Most of the comments received for this situation were straight forward. One respondent indicated that this can become a "problem when [source selection personnel] are intimidated by pressure from the top to award." Surprisingly, seven respondents said that this situation occurs "sometimes." Very few of the comments concerned the possibility of a protest in this situation. Most addressed post award problems such as misunderstandings of the requirement, schedule delays and changes. Best practices included allowing sufficient time for discussions in the schedule. This was extremely interesting as arbitrarily determined source selection schedules was a situation tested in this study (Situation #15). It was also found to occur quite often.

Analysis of Situation #9

Situation #9 was "The motivation during the competitive range determination is to reduce the number of offerors, not to retain offerors whose proposals have a reasonable chance of being selected for award."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. The consensus response on impact was among the four lowest rates for this factor out of all the situations tested. It was 71.4%. Also, it was the only situation in which the responses for impact ranged from "none" to "very significant." One comment from SMC indicated that because they usually receive

only two to three proposals, this situation does not have a chance to occur. Most respondents thought a situation just the opposite from the one tested is more likely to happen. They said that offerors are more likely to be left in the competitive range when they should be eliminated. This situation received the greatest amount of responses in the "never" category of all the situations tested. Six respondents said that the situation tested "never" occurs. HSC differed from the rest of the group as three of the five HSC respondents said that this situation "sometimes" or "usually" occurs. The consequences if this happens is that the offeror who was excluded from the competitive range may file and win a protest. Best practices included having the competitive range determination reviewed by a government contracts attorney.

Analysis of Situation #10

Situation #10 was "Addressing issues during face to face discussions which were not addressed with a DR/CR/MR."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. The impact this situation had on the program depended on the nature of the fact-to-face discussions. Some saw these additional discussions as necessary if they brought to light a deficiency not covered by a CR/DR. Although this may create delays, it is "better late than never." A few other respondents indicated that additional discussions could lead

to problems such as technical leveling. Overall, most respondents found this to be only a minor problem. This situation tested lower than any other on the impact scale. They also indicated it did not happen very often. Based on this, Situation #10 is not considered a pitfall.

Analysis of Situation #11

Situation #11 was "Technical leveling, transfusion or auctioning during negotiations."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. This situation had a high consensus rate on both impact and frequency, both 92.3%. Most respondents found this situation would have a very significant impact on the program. Further, most said it will occur very infrequently. This is probably because technical leveling, transfusion and auctioning are explicitly prohibited by the FAR. An examination of the comments revealed an interesting insight. Several respondents said that technical leveling may occur as proposals are evaluated and may lead to technical transfusion. Auctioning is not significantly related to the other two actions. The frequency with which these actions occur may not be the same for all three actions. This evidence suggests that there are multiple issues within this situation. Based on this data, this situation should be re-tested as three separate situations.

The situation as written will not be included as a pitfall in this study.

Analysis of Situation #12

Situation #12 was "Not all proposal deficiencies are not addressed during discussions with offerors."

Discussion: A consensus was not reached on the impact of this situation in the first round (61.5%). It was reached in the second round. After receiving feedback on this pitfall in the first round, there was a shift in responses towards rating the impact of this situation more significantly. The response categories "significant" and "very significant" increased by four responses in the second round and the categories "minor" and "moderate" decreased by three responses. The consequences to this situation included having a protest sustained by an offeror who was not alerted to a proposal deficiency. Best practices include comparing identified weaknesses in a proposal to the CR/DRs that have been prepared. This will ensure that the offeror will be notified of any deficiencies. Another best practice would be to limit the areas to be evaluated to those things that are critical to performance. This will reduce proposal size and, consequently, the likelihood of overlooking a deficiency during the evaluations will be reduced.

Analysis of Situation #13

Situation #13 was "BAFO prices exceed funds available."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. There was a high degree of consensus on the impact of this situation, 92.3%. The consensus response on impact was from "significant" to "very significant." Most respondents said that this situation "seldom" occurs. Most of the consequences and best practices were very consistent for this situation. If this situation occurs many respondents said that the solicitation would have to be amended or canceled. Best practices to avoid this situation is to share the funding profile with offerors when funding is constrained.

Analysis of Situation #14

Situation #14 was "Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria."

Discussion: A consensus was not reached on the frequency that this situation occurs in the first round (64.3%). It was reached in the second. Some respondents said that adding people during the evaluation phase is natural, especially if a high number of proposals are received. Also noteworthy, many of the responses indicated that source selection managers do not have a great deal of

control over personnel issues such as this. Most respondents said this situation would have a "minor" to "moderate" impact on the program. Also, it appears that this situation is the norm for most source selections. Most respondents said that this "usually" occurs. The most likely consequence would be a delay in the source selection as new people are brought up to speed. Although source selection managers may not have complete control over this situation, the stability of personnel can be evaluated when selection source selection team members.

Analysis of Situation #15

Situation #15 was "Trying to accomplish the source selection within an arbitrarily determined schedule."

Discussion: A consensus on impact and frequency was reached on this situation in the first round. This situation equaled Situation #2 for the highest consensus response rate on frequency of 92.9%. This situation had the highest combined scores on the impact and frequency of all the situations tested. In other words, it was the situation with the highest impact on a program that happened relatively often. The consensus response was between "moderate" and "significant" for impact and between "sometimes" and "usually" for frequency. Ironically, a best practice to avoid Situation #8, which was awarding without discussions, was to allow for discussions when developing the schedule. Yet it appears that arbitrarily determined

source selection schedules are the norm. It is possible that arbitrary schedules precipitate the decision to award without discussions, even when they are needed. If, on the other hand, proper source selection procedures are followed and the schedule slips, the user may become upset. The best practices to avoid this situation include allowing schedule time for contingencies when developing the source selection schedule.

Analysis of Research Objective 3

The low number of respondents from each of the four product centers (three each from ASC, ESC, and SMC; five from HSC) makes this research objective difficult to answer. Recognizing this limitation and acknowledging that further research is needed, the data did indicate that the frequency and impact may be different for some product centers than for AFMC as a whole. Tables 4.3 and 4.4 illustrate these possible differences. In Chapter III, a consensus response was defined as a factor that received at least two thirds of the total responses in adjacent categories. For each situation, the tables show in what adjacent categories this consensus was located. The tables also show what the median response was for each product center.

For example, in Table 4.3, Situation #3 shows that the median responses by product center were, 2-Minor for ASC and ESC, 3-Moderate for HSC and 4-Significant for SMC. The consensus response categories were 3-Moderate

Table 4.3 - Comparison of Product Center Median Responses and Ranges for Factor 1, Impact

#	Situation Description	Median Response*				Consensus Categories	Range of Responses				Group Range
		ASC	ESC	ESC	SMC		ASC	ESC	ESC	SMC	
1	Standards not in RFP	4	4	5	5	4,5	1	1	2	0	2
2	Strengths and weaknesses rated differently	4	3	4	4	3,4	1	1	2	1	2
3	Evaluators lack of global view	**2**	**2**	3	4	3,4	1	1	1	0	2
4	Redundant CR/DRs	2	2	3	**4**	2,3	0	1	2	2	2
5	CR/DR rewrites change meaning	4	**2**	3	4	3,4	3	3	2	1	3
6	All costs unreasonable using analysis technique	4	4	4	5	4,5	2	1	3	0	3
7	Hidden poor past performance	**2.5**	3	4	4	3,4	3	2	3	0	3
8	Sticking by "award without discussions" policy	4	3	4	4	3,4 or 4,5	1	1	2	1	2
9	Eliminate offers in competitive range to reduce number	4	**3**	4	5	4,5	1	2	4	0	4
10	Discussing issues not addressed by a CR/DR/MR	2	3	2	3	2,3	2	2	2	1	3
11	Technical leveling, transfusion, auctioning	4	4	5	5	4,5	0	2	0	0	2
12	Not all deficiencies are discussed with offerors	4	4	4	5	4,5	2	2	2	0	2
13	BAFO prices exceed funds available	4	4	4.5	5	4,5	1	1	1	0	2
14	Bringing new people into the evaluation/negotiation phase	3	3	3	3	2,3	2	1	2	1	2
15	Arbitrary schedule	3	4	4	4	3,4	1	1	2	1	3

*Factor 1 scale (Impact): 1-None, 2-Minor, 3-Moderate, 4-Significant, 5-Very Significant

Table 4.4 - Comparison of Product Center Median Responses and Ranges for Factor 2, Frequency

#	Situation Description	Median Response*				Consensus Categories	Range of Responses				Group Range
		ASC	ESC	HSC	SSC		ASC	ESC	HSC	SSC	
1	Standards not in RFP	3	2	3	2	2,3	1	2	3	0	3
2	Strengths and weaknesses rated differently	3	2	3	3	2,3	1	1	1	1	2
3	Evaluators lack of global view	3	3	3	3	2,3 or 3,4	2	0	2	1	3
4	Redundant CR/DRs	3	**4**	3	2	2,3	1	1	3	1	3
5	CR/DR rewrites change meaning	3	3	3	3	2,3 or 3,4	0	3	3	1	4
6	All costs unreasonable using analysis technique	2	2	2	1	1,2	3	1	2	1	3
7	Hidden poor past performance	**1.5**	2	3	2	2,3	1	2	2	2	3
8	Sticking by "award without discussions" policy	3	**1**	3	3	2,3	2	1	1	1	2
9	Eliminate offers in competitive range to reduce number	1	2	**3**	1	1,2	1	1	3	1	3
10	Discussing issues not addressed by a CR/DR/MR	3	2	3	2	2,3	1	2	3	1	3
11	Technical leveling, transfusion, auctioning	2	1	2	1	1,2	1	1	0	1	2
12	Not all deficiencies are discussed with offerors	3	**1**	3	2	2,3	0	2	2	0	3
13	BAFO prices exceed funds available	**1.5**	3	2	2	2,3	1	1	2	1	2
14	Bringing new people into the evaluation/negotiation phase	4	3	4	4	3,4 or 4,5	1	2	2	0	2
15	Arbitrary schedule	4	4	4	3	3,4	2	1	1	1	2

*Factor 2 scale (Frequency): 1-Never, 2-Seldom, 3-Sometimes, 4-Usually, 5-Always

and 4-Significant. These were the two categories that contained at least 66.6% of the total responses. The median responses for ASC and ESC are highlighted because their median responses were not in the consensus response categories. This analysis compares the central tendency of each product center to the central tendency of the group as a whole.

The tables also gives the range of responses for each product center as well as the group range. Looking back at Table 4.3, Situation #3, the range of responses for ASC is 1. This range was calculated by subtracting the lowest response received by an ASC respondent by the highest response received by an ASC respondent. For Situation #3, Factor 1, the lowest ASC response was 2-Minor and the highest ASC response was 3-Moderate. The difference between these two responses is 1. The product center ranges assess the amount of dispersion that is present within each product center. Table 4.3 contains median and range data for Factor 1, impact. Table 4.4 contains the same type of data for Factor 2, frequency.

To assess whether or not a situation was different for a product center for either impact or frequency from the group as a whole, a combination of central tendency and range were both analyzed. The central tendency was first assessed to see if it fell outside the consensus response categories. Next, the range was analyzed for those product centers whose median was found to be outside the consensus

categories. A low range (range of 0 or 1) indicated that respondents from the same product center were in general agreement among themselves.

For example, for Situation #3, Factor 1 in Table 4.3, the ESC median response falls outside the consensus categories. The range for ESC on this situation is low. Thus, not only is the ESC response outside the consensus range, but there is little dispersion among the ESC respondents for this response. Contrast this example with Situation #5, Factor 1 in the same table. The ESC median here is also not in the consensus categories. The range, however, is high and indicates that the agreement between the ESC participants on the impact of this situation is low. Because of this, it is not clear if the impact of this situation on ESC is really different than the impact on the entire group.

Product centers whose medians were not in the consensus range and whose range was low were judged to have a different response than the group response. Based on this criteria, it appears that the following product center responses differ from the group response:

Factor 1 (Impact) Differences

Situation #	Consensus Categories	Product Centers with Different Response
3. Evaluators lack global view.	3-Moderate 4-Significant	ASC (2-Minor) ESC (2-Minor)

Factor 2 (Frequency) Differences

Situation #	Consensus Categories	Product Center with Different Median Response
4. Redundant CR/DRs	2-Seldom 3-Sometimes	ESC (4-Usually)
7. Hidden poor past performance problems	2-Seldom 3-Sometimes	ASC (Between 1-Never and 2-Seldom)
8. Sticking by "award without discussions" policy	2-Seldom 3-Sometimes	ESC (1-Never)
13. BAFO prices exceed funds available	2-Seldom 3-Sometimes	ASC (Between 1-Never and 2-Seldom)

It is important to re-state the serious limitation on this conclusion. For ASC, ESC and HSC, the three product centers with only three respondents, a change in response by just one respondent could move that product center's median into or out of a consensus response category.

Summary

This chapter provided background information on the survey participants and provided descriptive statistics on the data collected. It also analyzed each situation based on the research objectives. Finally, it analyzed Research Objective 3 separately.

The next chapter will draw several conclusions and recommendations based on this study. It will also provide

a template of the consequences and best practices for the pitfalls identified in this study. Finally, research limitations and areas for further research will be discussed.

V. Conclusions and Recommendations

Overview

This chapter draws conclusions as a result of this study. First, it will use the data and data analysis to make some concluding remarks on the research objectives. Next, some general conclusions will be presented. Finally, recommendations, limitations of this study, and possible areas for future research will be discussed.

Research Objective 1 - Examine the extent to which source selection experts can agree on situations that could be detrimental to a source selection:

As stated previously, there were 15 situations that were tested as potential pitfalls. The survey participants agreed on the impact and frequency of all 15 situations. Nine of the 15 situations were agreed upon in the first round, with no feedback necessary for the participants to reach a consensus. Six of the situations did not achieve a consensus response in the first round. Table 5.1 shows the first round results.

Table 5.1 - Extent of Consensus of Round One for Factors 1 and 2

#	Situation Description	Percent of total responses in adjacent categories	
		Factor 1*	Factor 2**
1	Standards not in RFP	85.7%	78.6
2	Strengths and weaknesses rated differently	**64.3%**	85.7
3	Evaluators lack of global view	71.4%	79.6%
4	Redundant CR/DRs	78.6%	71.4%
5	CR/DR rewrites change meaning	**64.3%**	**57.1%**
6	All costs unreasonable using analysis technique	**64.3%**	78.6%
7	Hidden past performance problems	69.2%	69.2%
8	Sticking by "award without discussions" policy	**61.5%**	76.9%
9	Eliminate offers in competitive range to reduce number	71.4%	78.6%
10	Discussing issues not addressed by a CR/DR/MR	76.9%	69.2%
11	Technical leveling, transfusion, auctioning	92.3%	92.3%
12	Not all deficiencies are discussed with offerors	**61.5%**	76.9%
13	BAFO prices exceed funds available	92.3%	83.3%
14	Bringing new people into the evaluation/negotiation phase	92.9%	**64.3%**
15	Arbitrary schedule	85.7%	92.9%

*Factor 1 - Impact situation has on the acquisition program.

**Factor 2 - Frequency that situation occurs during source selections.

The six situations that did not have a consensus response on either impact, or frequency or both are highlighted in Table 5.1. These six situations were re-tested again in the second round survey. A consensus response was achieved on these six situations in the second round. The extent that a consensus was reached in the second round is shown in Table 5.2.

Table 5.2 - Extent of Consensus of Round Two for Factors 1 and 2

#	Situation Description	Percent of total responses in adjacent categories	
		Factor 1*	Factor 2**
2	Strengths and weaknesses rated differently	92.9%	92.9%
5	CR/DR rewrites change meaning	71.4%	71.4%
6	All costs unreasonable using analysis technique	78.6%	78.6%
8	Sticking by "award without discussions" policy	78.6%	78.6%
12	Not all deficiencies are discussed with offerors	78.6%	78.6%
14	Bringing new people into the evaluation, negotiation phase	85.7%	78.6%

*Factor 1 - Impact situation has on the acquisition program.

**Factor 2 - Frequency that situation occurs during source selections.

While all of the situations tested received a consensus response, there was a sizable range of consensus response rates between the situations. For each factor, there were a group of situations that had substantially lower consensus rates and another group of that had substantially higher consensus rates than the other situations tested. Here are the lowest and highest consensus response rates received for each factor:

Factor 1 (Impact)

Lowest Consensus Rates	Highest Consensus Rates
Situation #7 - 69.2%	Situation #2 - 92.9%
Situation #3 - 71.4%	Situation #14 - 92.9%
Situation #5 - 71.4%	Situation #11 - 92.3%
Situation #9 - 71.4%	Situation #13 - 92.3%

Factor 2 (Frequency)

Lowest Consensus Rates	Highest Consensus Rates
Situation #7 - 69.2%	Situation #2 - 92.9%
Situation #10 - 69.2%	Situation #15 - 92.9%
Situation #4 - 71.4%	Situation #11 - 92.3%
Situation #5 - 71.4%	

The situations with the lowest consensus rate for either impact or frequency may have less confidence associated with concluding they are pitfalls, while the situations with high consensus rates have a higher level of confidence.

The respondents were able to agree on both factors for all situations according to the two-thirds decision rule. Based on this it appears that the experiences from one source selection to another are similar.

Research Objective 2 - Examine the impact these situations have on the acquisition program and their frequency of occurrence.

Table 5.3 below shows the mean response of each situation for both factor scales.

Table 5.3 - Mean Responses, Final Results

#	Situation Description	Mean Responses	
		Factor 1*	Factor 2**
1	Evaluate on standards not in RFP	4.4	2.4
2	Strengths and weaknesses rated differently	3.6	2.8
3	Evaluators lack of global view	3.1	3.1
4	Redundant CR/DRs	2.6	3.1
5	CR/DR rewrites change meaning	3.1	3.0
6	All costs unreasonable using analysis technique	4.2	2.1
7	Hidden past performance problems	3.1	2.3
8	Sticking by "award without discussions" policy	4.0	2.3
9	Eliminate offers in competitive range to reduce number	3.8	1.9
10	Discussing issues not addressed by a CR/DR/MR	2.5	2.5
11	Technical leveling, transfusion, auctioning	4.5	1.8
12	Not all deficiencies are discussed with offerors	4.2	2.5
13	BAFO prices exceed funds available	4.4	2.2
14	Bringing new people into the evaluation/negotiation phase	2.8	4.0
15	Arbitrary schedule	3.6	3.7

*Factor 1 scale (Impact): 1-None, 2-Minor, 3-Moderate, 4-Significant, 5-Very Significant

**Factor 2 scale (Frequency): 1-Never, 2-Seldom, 3-Sometimes, 4-Usually, 5-Always

These means were used in Figure 5.1 to show the relative position of each situation tested using both the impact

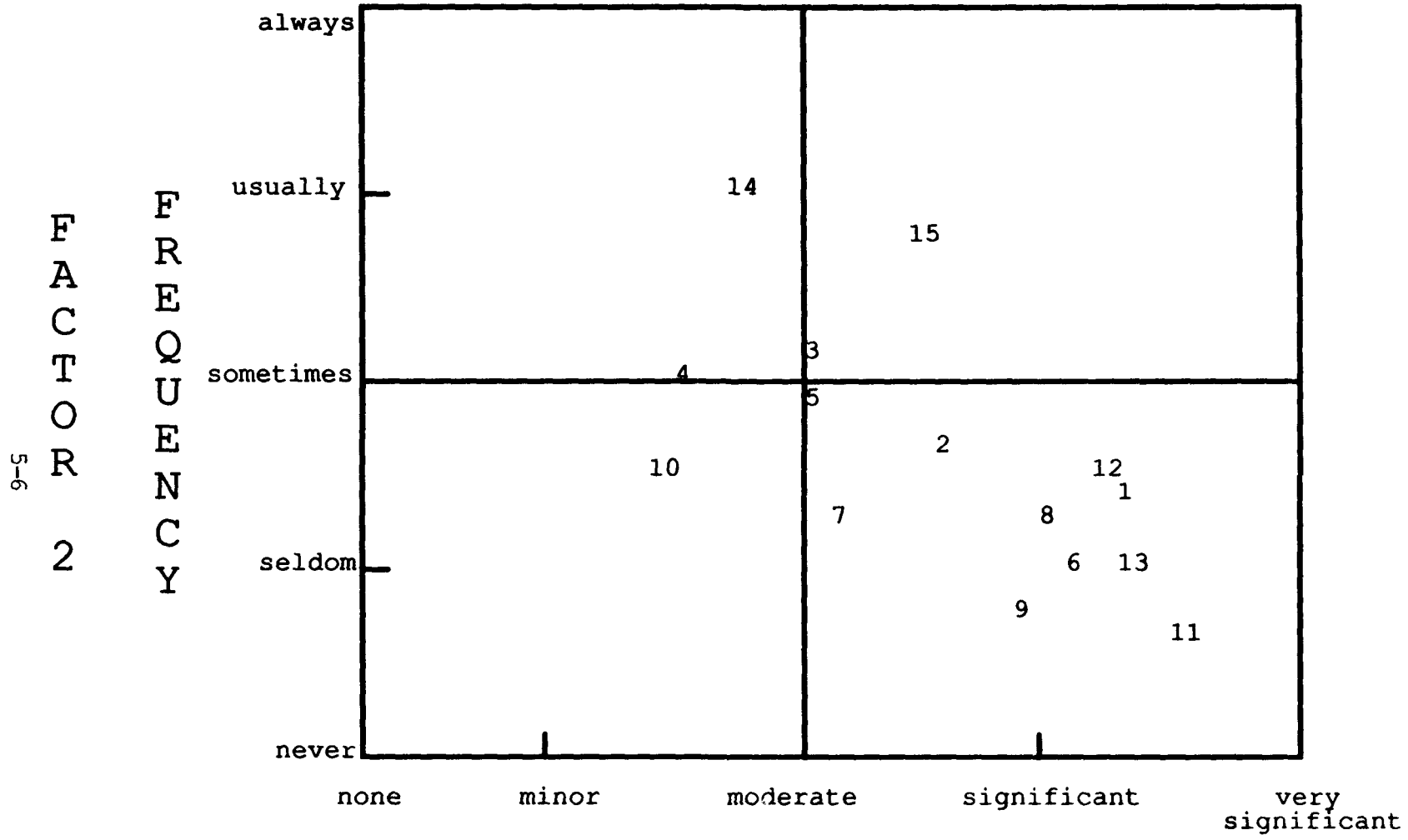

Figure 5.1 - Relative Impact/Frequency of Situations Tested

and frequency results of each situation. The horizontal axis measures the impact the situation has on the acquisition program. The axis is marked with the response categories for Factor 1. The vertical axis represents the frequency with which these situations occur in a source selection. This axis is marked with the response categories for Factor 2. To plot a situation on this graph, the mean for both impact and frequency was used. For example, Situation #2 had a mean of 3.6 for impact and 2.8 for frequency. Its impact then is between "moderate" and "significant" on the horizontal scale, leaning toward "significant." It is between "seldom" and "sometimes" on the vertical scale, being closer to "sometimes."

Figure 5.1 shows the relative impact and frequency that these situation have in relation to each other. Movements on this graph up and to the right indicate that a situation is increasing a problem to the acquisition program. For example, Situation #10 has about the same frequency of occurrence as Situation #12. However, the impact on the acquisition program is much more severe if Situation #12 is encountered than if Situation #10 is encountered. Therefore, acquisition managers should be much more concerned with ensuring all deficiencies are discussed with offerors (Situation #12) than with ensuring that issues not addressed by a CR/DR/MR are discussed with offerors (Situation #10). Conclusions drawn are more tenuous using a

similar analysis between Situation #12 and Situation #15. Although Situation #12 has a greater impact on the program, Situation #15 occurs much more frequently. It appears that acquisition managers should pay attention to both of these pitfalls.

Two situations scored low on both impact and frequency. They were "redundant CR/DRs" (Situation #4) and "discussing issues not addressed by a CR/DR/MR" (Situation #10). They do not appear to happen with great regularity during source selections and when they do, their impact isn't significant. As stated in Chapter IV, these situation are not considered source selection pitfalls. Situation #11, "Technical transfusion, technical leveling and auctioning" will also not be considered a pitfall for this study. As discussed during the analysis of this situation in Chapter IV, it appears that there are multiple issues within this situation. As a result, these issues should be separated and re-tested in a future study. The remaining situations tested are considered pitfalls in the source selection process.

Research Objective 3 - Examine the extent to which these pitfalls are common to particular product centers or to all Air Force Material Command (AFMC) product centers.

As stated in Chapter IV, low number of respondents from each of the four product centers makes this research

objective difficult to draw conclusions. There did, however, appear to be some differences in the impact and frequency of these situation between product centers. As stated in Chapter IV, the following situations may affect some product centers differently than others:

Situation #3. Evaluators lack global view.

Situation #4. Redundant CR/DRs.

Situation #7. Hidden poor past performance problems.

Situation #8. Sticking by "award without discussions" policy.

Situation #13. BAFO prices exceed funds available.

One plausible explanation for these differences may be the different products that they buy. Further research is first needed to validate whether or not these differences exist. Once these differences are validated, the reasons for the differences can be further investigated.

Research Objectives 4 and 5 - Determine what the consequences are to the acquisition process if one of these pitfalls is encountered and the extent to which Air Force source selection personnel can take certain steps (best practices) to avoid these pitfalls before they occur.

All of the possible consequences and best practices for the situations tested are contained in Appendix F. Table 5.4 summarizes these responses in template form for each situation that was determined to be a pitfall in this

study. Each column is a separate pitfall. The first row of each column is the description of the pitfall. The second row contains the possible consequences if the pitfall is encountered. The third row is the frequency with which the pitfall occurs and the last row contains the best practices to avoid the pitfall.

Table 5.4 Template of Consequences and Best Practices

Pitfall	A technical team member evaluates a proposal based on standards not in the RFP.	Similar strengths and weaknesses between proposals get rated differently.	Evaluators lack global view of proposal and do not pick up conflicting or clarifying information.
Consequences	Another evaluation of the proposal is necessary. Sustained protest.	Sustained protest. SSA decision, difficult and confusing; time consuming because re-evaluation required.	The best offeror may not be selected. Realize that contractual requirements are in dispute after award.
Frequency of Occurrence	Seldom to Sometimes	Seldom to Sometimes	Sometimes
Best Practices	Train technical team members before the evaluations began. Contracting officer and SSET chairperson monitor the evaluations early to correct this problem up front should it occur.	One team member should someone review across proposals to ensure consistency of evaluations. Follow color/risk rating definitions closely. Challenge evaluators to defend write-up to ensure they an understanding of what is a weakness and what is a strength.	Have SSET meetings to discuss CR/DRs. Attendees must be familiar enough with their factors to clarify or identify potential discrepancies. Have technical and management teams to at least read/review other pertinent parts of proposal. Have experienced personnel to read and digest entire proposal.

Table 5.4 Template of Consequences and Best Practices (continued)

Pitfall	Numerous rewrites of a DR/CR during the government review process, before it is approved and issued to the offeror, sometimes changing its original meaning.	The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.	Past performance problems which, though relevant to the source selection, are unknown to or hidden from the Program Risk Assessment Group (PRAG).
Consequences	Offerors will not get a clear message on what they should be responding to. The real deficiency or clarification is not answered. Another round of discussions are necessary.	Re-solicitation and significant delays. Restructuring of program. Would require an amendment to the RFP and new cost proposals. If it is not a government estimate problem, the RFP must be unclear.	Delve deep. Draft acquisition unique questionnaires. Look beyond CPARS and what the offeror tells you.
Frequency of Occurrence	Sometimes	Seldom	Seldom to Sometimes
Best Practices	Train evaluators on how to write CR/DRs. Have evaluator involved during the rewrite process to ensure the meaning isn't changed. Avoid having too many review levels.	Use draft RFP and pre-solicitation conferences. Use only validated price/cost analysis techniques.	Offeror may be selected without proper risk identified on past performance.

Table 5.4 Template of Consequences and Best Practices (continued)

Pitfall	Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted.	The motivation during the competitive range determination is to reduce the number of offerors, not to retain offerors whose proposals have a reasonable chance of being selected for award.	Not all proposal deficiencies are addressed during discussions with offerors.
Consequences	Possible award to wrong offeror. An increased likelihood of post award modifications due to ECPs. Offer may not support the best needs of the government.	Protest may be sustained if an offeror is arbitrarily eliminated.	An increased likelihood of ECPs after award. RFP cancellation or second round of discussions. Protest when unsuccessful offeror sees at debriefing a deficiency not disclosed during negotiations.
Frequency of Occurrence	**Seldom to Sometimes**	**Never to Seldom***	**Seldom to Sometimes**
Best Practices	Ensure acquisition milestones allow for discussions. Don't rush the process if it is detrimental to award. Contracting Officer and SSET chairperson must have morale fortitude to tell SSA that discussions are essential and back up assertion with rationale.	Have all PCO determinations to exclude offers from the competitive range reviewed by the JAG office and the staff source selection officer.	Review and compare weaknesses/deficiencies with CR/DRs prepared. Identify any new deficiencies as soon as they are discovered. Limit areas to be evaluated to those things that are critical to performance.

*Only HSC respondents said that this may occur and they were not in complete agreement on this issue.

Table 5.4 Template of Consequences and Best Practices (continued)

Pitfall	**BAFO prices exceed funds available.**	Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria.	Trying to accomplish the source selection within an arbitrarily determined schedule.
Consequences	Unable to award contract. Second round of discussions and BAFOs or additional funds obtained.	Evaluators may not understand or agree with RFP requirements or award criteria. Effort is expended during the source selection to bring people up to speed. No team buy in.	Schedule slips and unhappy customers and offerors. May affect morale of employees. May have inadequate time to effectively evaluate all proposals and make improper award.
Frequency of Occurrence	**Seldom to Sometimes**	**Usually**	**Sometimes to Usually**
Best Practices	If funds are constrained, provide funding profile to all offerors with RFP to ensure award can be made. Consider conducting a "Best Value" procurement. Prepare the government estimate using the same methods to be used in the source selection evaluation.	Evaluate stability when selecting team members.	Use the IASP procedures to develop schedule. Base schedule on realistic mile-stones. Establish daily tasks for team members to complete Ensure realistic milestones and allow for some contingencies. Have schedule reviewed by the center source selection offeror.

General Conclusions

The following are several conclusions that have been drawn as a result of this study.

1. There are many pitfalls that are common to source selections in the five AFMC product centers. Survey respondents reached a consensus on all fifteen of the potential pitfalls tested in this study. For each situation, a consensus was reached on its impact on the acquisition program if encountered and its frequency of occurrence.

2. Tentatively, there appears to be a difference by product center on the impact and frequency caused by some of these pitfalls. The reasons for these possible differences needs further study.

3. The situation with the greatest combined impact and frequency was #15, "Trying to accomplish the source selection within an arbitrarily determined schedule." Of the situations tested, this is the one most likely to be encountered that could have a significant negative impact on the acquisition program.

4. There is a possible link between this situation and Situation #8, "Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted." The most frequently cited consequence of Situation #15 was that source selection personnel may rush the source selection process in order to keep it on

schedule. One way to cut on the source selection time significantly is to have no discussions and award on the basis of the initial proposals only. Awarding without discussions may be one way that source selection teams deal with arbitrary schedules.

Recommendations

As a result of this study, the following recommendations are made.

1. A source selection guide, identifying the pitfalls, consequences and best practices should be developed for use by source selection personnel. This guide could be similar to the *Willoughby Templates*, referred to in Chapter I.

2. Current source selection training material and training should be amended to include the pitfalls, consequences and best practices identified in this study.

Limitations

The validity and applicability of this research are subject to the following limitations.

1. The research participants were from the four AFMC product centers. Therefore, the conclusions drawn are limited to the four product centers. It is not known whether any of the findings are applicable to the AFMC logistic centers, other commands, or other services.

2. The sample size for this research was small, consisting of only 14 participants. The background information, however, did show that most participants had a significant amount of source selection experience. Therefore, they were considered appropriate subjects for this Delphi study.

3. The research was limited to the perspective of contracting personnel. Their views, therefore, may be affected by parochial interests. The extent to which source selection personnel from other disciplines agree with the findings of this study is not known.

4. The situations tested in this study are not intended to represent an exhaustive list of the pitfalls that may be encountered in the evaluation and negotiation phases of a source selection. There may be other situations during these phases that could have a significant negative effect on an acquisition program.

Recommendations for Future Research

The following recommendation for future research in the area of source selection would compliment this study.

1. This study only looked at the source selection process from receipt of proposals to contract award. A similar study is suggested for the RFP and evaluation criteria development phases of a source selection.

2. This study focused on the four AFMC product centers. A similar study is suggested for the AFMC logistics centers. This replication would determine the extent to which the pitfalls faced by source selections in the logistics centers are similar to those faced by the product centers. Similar studies could also be accomplished with personnel from other disciplines such as program management and engineering. This may provide a broader perspective on the pitfalls encountered in a source selection.

3. This study could be replicated with a larger sample size. Another study with more participants could validate the results of this research. This is especially true for the results supporting research objective three in this study. A large enough sample from each of the four product centers could verify if differences really do exist on the impact and frequency of the situations tested between the different product centers.

4. Finally, this study found a possible link between source selection schedules and awards without discussions. A study could be developed to investigate the extent to which there is a link between arbitrarily determined source selection schedules and the decision not to conduct discussions.

Appendix A: Survey - Round One

BACKGROUND INFORMATION

1. Name _____.

2. Military Rank or Civilian Grade.
_____.

3. Office Symbol. _____.

4. AFMC Product Center. _____.
   - o ASC o HSC
   - o ESC o SMC

5. Which acquisition phase are you most familiar with? (may select more than one answer)
   - o Concept Exploration
   - o Demonstration/Validation
   - o Engineering/Manufacturing Development
   - o Production
   - o Other (specify)

6. Which type of Acquisition are you most familiar with?
   - o Aircraft
   - o Armament
   - o Electronics
   - o Space/Missile
   - o Other (please specify)

7. Years of **Source Selection** experience:
   - o 0-2 years o 10-15 years
   - o 2-5 years o 15-20 years
   - o 5-10 years o more than 20 years

8. Number of Source Selections in which you have participated: _____.

9. Current Air Force Specialty Code or civilian equivalent specialty: _____.

10. Education (Highest degree awarded).
    - o High School Diploma
    - o Associate Degree
    - o Bachelors Degree
    - o Master Degree
    - o Doctorate Degree

Potential Pitfalls

Potential Evaluation Pitfalls

Four the purposes of this survey a pitfall is defined as a situation that management action or inaction can prevent that causes a negative impact on the acquisition program. This impact can manifest itself as program delays, reduced quality of the resulting contract or sustained protests. Not only must the situation have a negative impact on the acquisition program, there must also be a moderate risk that the source selection will encounter the situation because of the management action or inaction.

Situation #1: A technical team member evaluates a proposal based on standards not in the Request for Proposal (RFP).

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #2. Similar strengths and weaknesses between proposals get rated differently.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to. .(comment)

Situation #3. Evaluators lack global view of proposal and do not pick up conflicting or clarifying information.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #4. High number of redundant deficiency reports, clarification requests, and modification requests (DR/CR./MR.) are generated.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #5. Numerous rewrites of a DR/CR/MR. before it is approved, sometimes changing its original meaning.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #6. The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #7. Past performance problems which, though relevant to the source selection, are unknown to or hidden from the Program Risk Assessment Group (PRAG).

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Potential Pitfalls between Evaluation and Discussions

Situation #8. Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #9. The motivation during the competitive range determination is to reduce the number of offerors, not to retain offerors whose proposals have a reasonable chance of being selected for award.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Potential Discussion Pitfalls

Situation #10. Addressing issues during face to face discussions which were not addressed with a DR/CR/MR.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #11. Technical leveling, transfusion or auctioning during negotiations.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #12. Not all proposal deficiencies are addressed during discussions with offerors.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Potential Best and Final Offers (BAFO) Pitfall

Situation #13. BAFO prices exceed funds available.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Overall Potential Pitfall

Situation #14. Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Situation #15. Trying to accomplish the source selection within an arbitrarily determined schedule.

Part 1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Comments:

Part 2

1. If this situation is encountered, the consequences to the acquisition program will most likely be...(comment)

2. The best practice a source selection team can employ to avoid this situation is to...(comment)

Appendix B: Round One Feedback

The following six situations will be tested again in this round.

Situation #2. Similar strengths and weaknesses between proposals get rated differently.

*Situation #5. Numerous rewrites of a DR/CR during the government review process, before it is approved and issued to the offeror, sometimes changing its original meaning.

Situation #6. The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.

Situation #8. Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted.

Situation #12. Not all proposal deficiencies are addressed during discussions with offerors.

Situation #14. Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria.

* This situation was modified to remove the acronym MR, which stands for Modification Request. Some people were unfamiliar with this term. Others said it did not fall into the same categories as CRs and DRs. The term is used by ASC (and maybe other product centers) to refer to an RFP amendment. An amendment would not be issued using a process similar to DR/CR generation and so was eliminated from the situation. Finally, some found it confusing deciding who was doing the rewriting, the government or the offerors. The situation was also modified to clarify this.

The following is a reminder of the statements and scales used for Factor 1 (impact) and Factor 2 (frequency).

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Frequency of Responses, Round 1

Situation Number	Factor	Response Categories 1	2	3	4	5	Group Avg.	Your Response
2	Factor 1	0	2	3	6	3	3.71	
	Factor 2	0	5	7	2	0	2.79	
5	Factor 1	2	3	1	8	0	3.07	
	Factor 2	1	5	3	5	0	2.86	
6	Factor 1	1	2	2	3	6	3.79	
	Factor 2	5	6	2	1	0	1.93	
8	Factor 1	0	1	4	4	4	3.85	
	Factor 2	3	6	4	0	0	2.08	
12	Factor 1	0	1	5	3	4	3.77	
	Factor 2	3	3	7	0	0	2.31	
14	Factor 1	0	4	9	1	0	2.82	
	Factor 2	0	1	5	4	4	3.79	

The following comments were received on these six situations in round one.

Situation #2: Similar strengths and weaknesses between proposals get rated differently.

If you have too many team members or a team chief that is not strong, this is very likely to occur.

In a close race for the award this possibly could make the difference.

Normally won't occur if standards are followed and [the] same review team [is] used.

Similar strengths and weaknesses can have different impacts on offerors depending on their [each offeror's] individual approach.

Situation #5: Numerous rewrites of a DR/CR during the government review process, before it is approved and issued to the offeror, sometimes changing its original meaning.

A fact of life due to situation #4. (Situation #4 was "High number of redundant deficiency reports and clarification requests (DR/CR) are generated." Respondent said this isn't always negative because it shows that evaluators are reading proposal. SSET/SSEB can then edit CRs/DRs for consistency.

Offerors may not get a clear message as to what they should be responding to. More effort [is] expended to clarify our questions.

Could lead to another round of discussions

Probably nothing [no impact] however, if the changed meaning is the straw that puts someone out of the competitive range a protest may be expected.

Situation #6: The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.

[May] require an amendment to the RFP and new cost proposals.

No award possible without significant discussions. RFP amendment or cancellation may be necessary.

Situation #8: Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted.

Discussions have been held in the majority of cases I have been involved in.

Can be a big problem when evaluators are intimidated by pressure from the top to award.

[If contract is awarded under these conditions] then [the Air Force is] forced to rectify shortcomings in a sole source environment.

Situation #12: Not all proposal deficiencies are addressed during discussions with offerors.

Need good review to assure this doesn't happen.

A deficiency makes an offeror unawardable.

Probably results in [a] poor competitive range determination prior to BAFO.

Situation #14: Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria.

Evaluators do not know what to look for and what [the] award criteria is. A lot of effort [is] expended during source selection to bring [these] people up to speed.

My experience has been that you are dealing with a small number of people in the development phase and a larger group in the evaluation phase.

Insignificant if they are well trained.

No team buy in. Problems with evaluation due to lack of understanding.

Normally on larger source selections, additional parties are brought into the process for "greybeard" input. Normally these are not big issues and don't impact the process.

Usually a way of life as only [a] limited number of people are involved in the development of the RFP.

May slow down the source selection process but [I] do not believe it is a significant problem.

Appendix C: Survey - Round Two

Situation #2. Similar strengths and weaknesses between proposals get rated differently.

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Situation #5. Numerous rewrites of a DR/CR during the government review process, before it is approved and issued to the offeror, sometimes changing its original meaning.

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Situation #6. The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Situation #8. Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted.

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Situation #12. Not all proposal deficiencies are addressed during discussions with offerors.

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Situation #14. Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria.

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	**Minor**	**Moderate**	**Significant**	**Very Significant**

Factor 2: This situation is (_____) encountered during a source selection.

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Usually**	**Always**

Appendix D: Final Results for Factors 1 (Impact) and 2 (Frequency)

Situation #1: A technical team member evaluates a proposal based on standards not in the Request for Proposal (RFP).

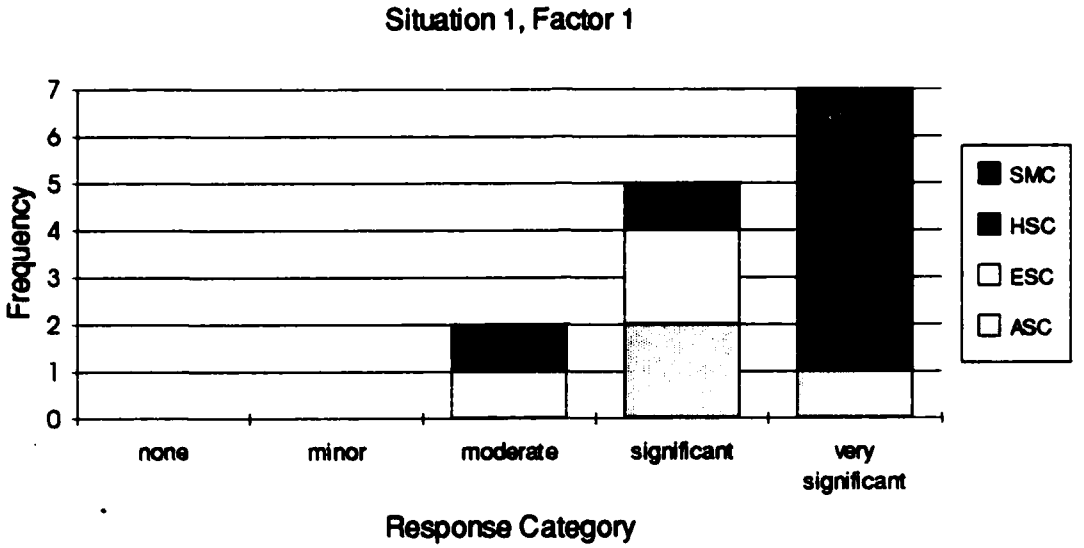

Figure D.1

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

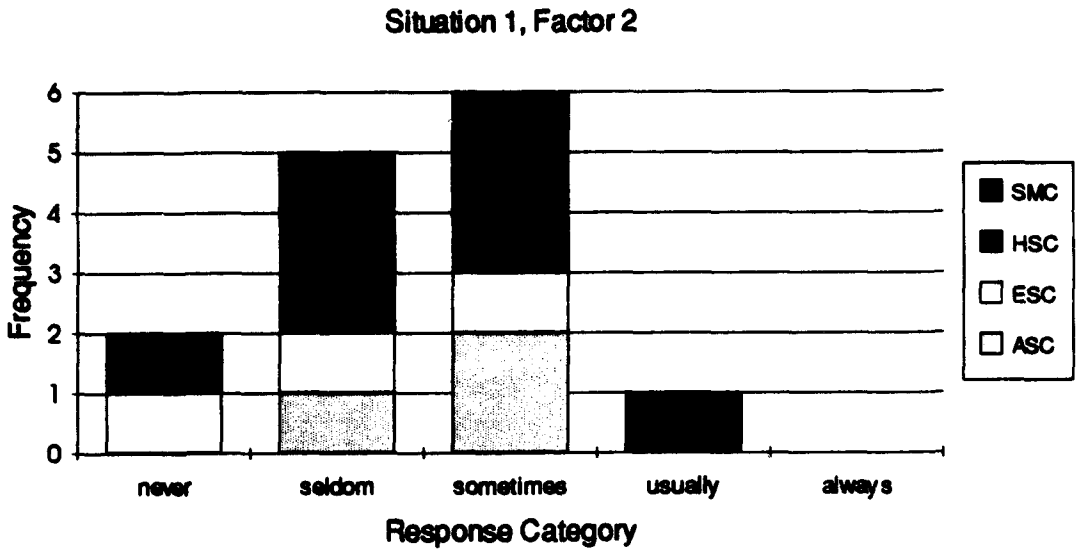

Figure D.2

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #2. Similar strengths and weaknesses between proposals get rated differently.

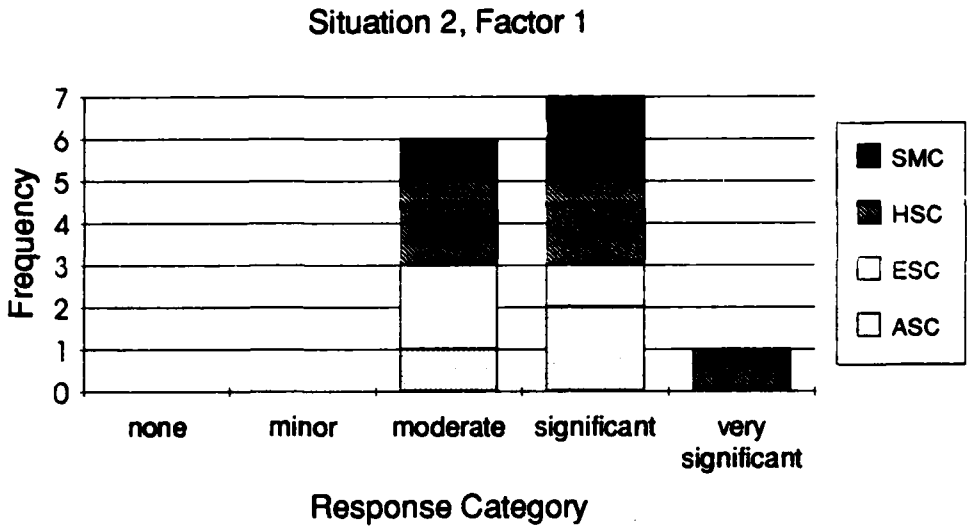

Figure D.3

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

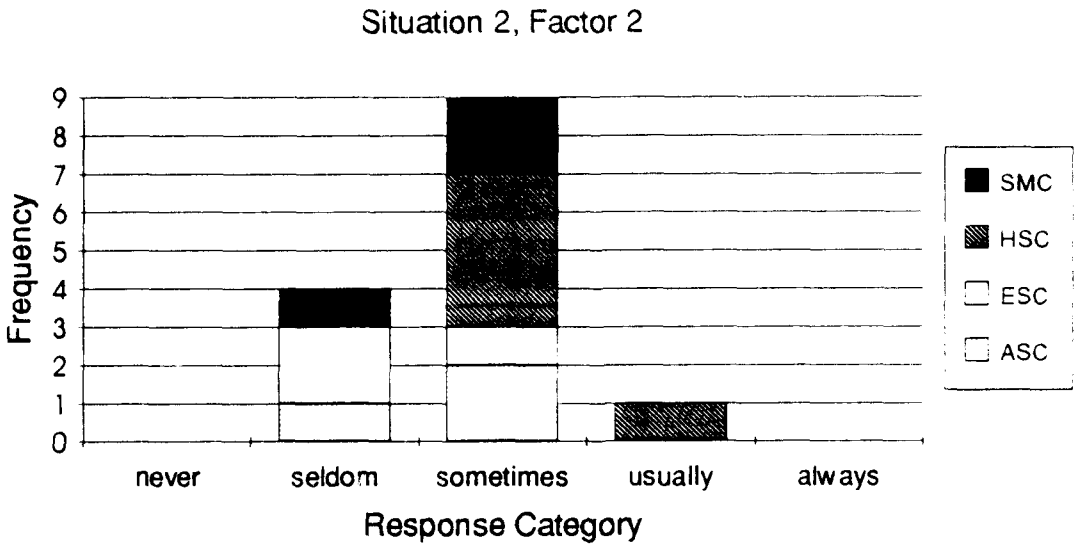

Figure D.4

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #3. Evaluators lack global view of proposal and do not pick up conflicting or clarifying information.

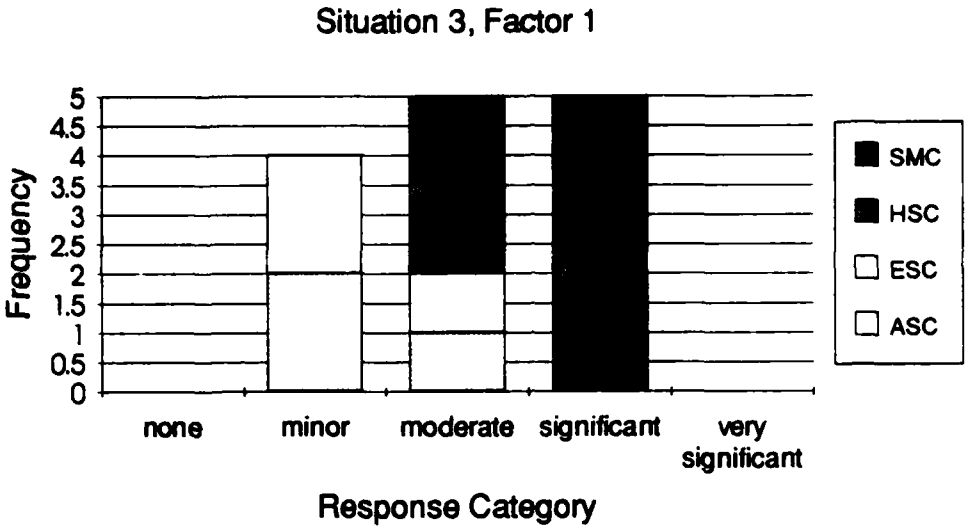

Figure D.5

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

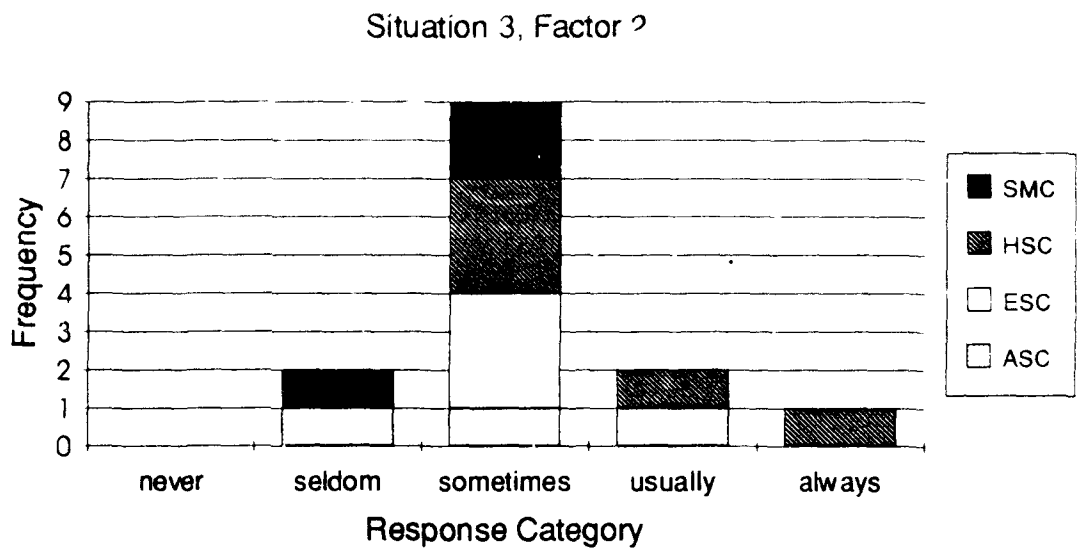

Figure D.6

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #4. High number of redundant deficiency reports and clarification requests (DR/CRs) are generated.

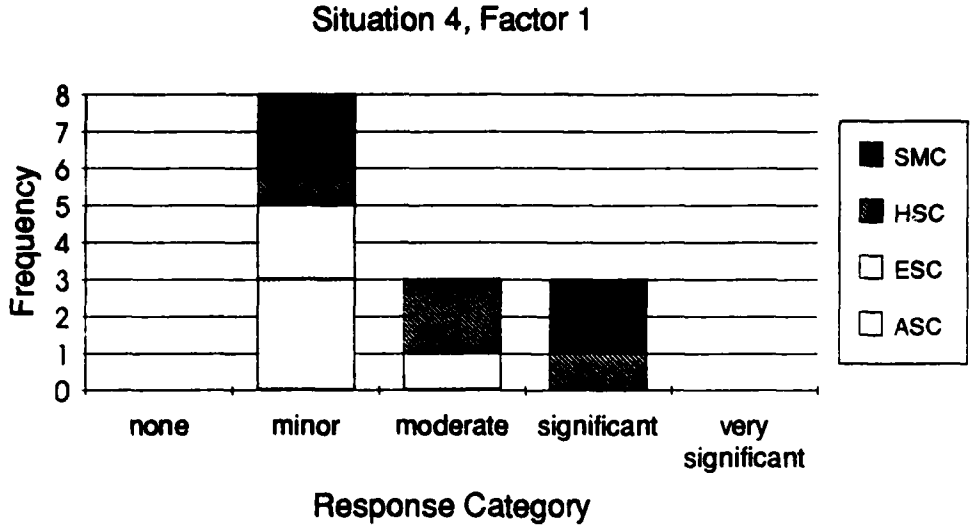

Figure D.7

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

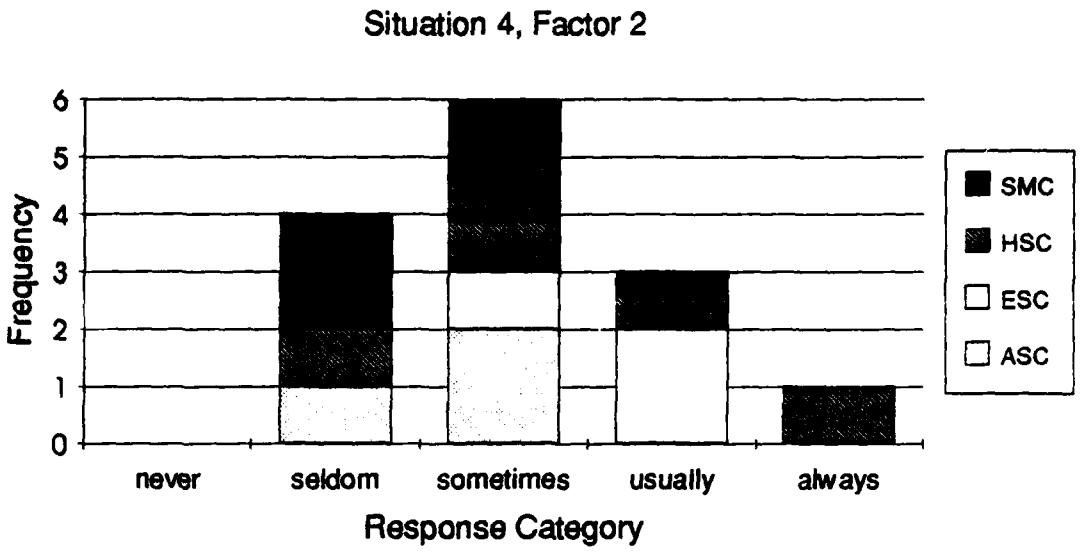

Figure D.8

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #5. Numerous rewrites of a DR/CR during the government review process, before it is approved and issued to the offeror, sometimes changing its original meaning.

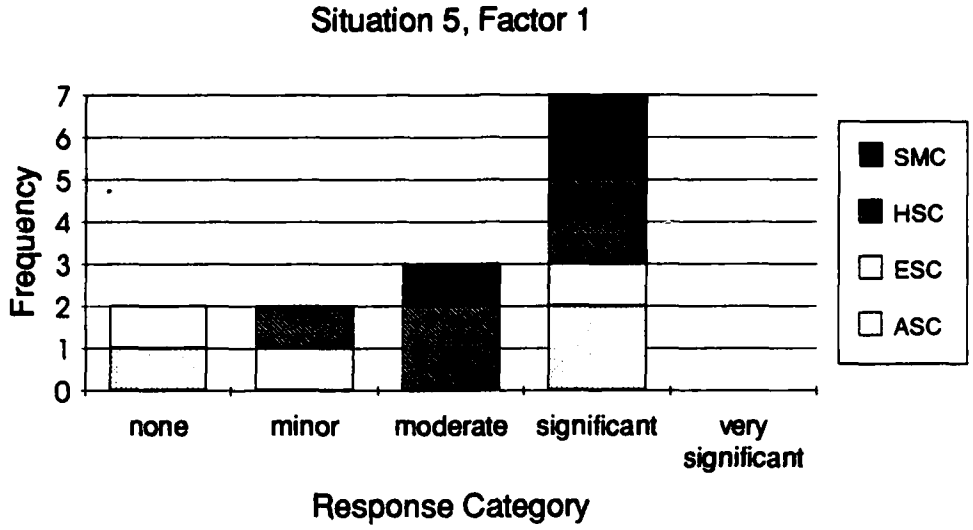

Figure D.9

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

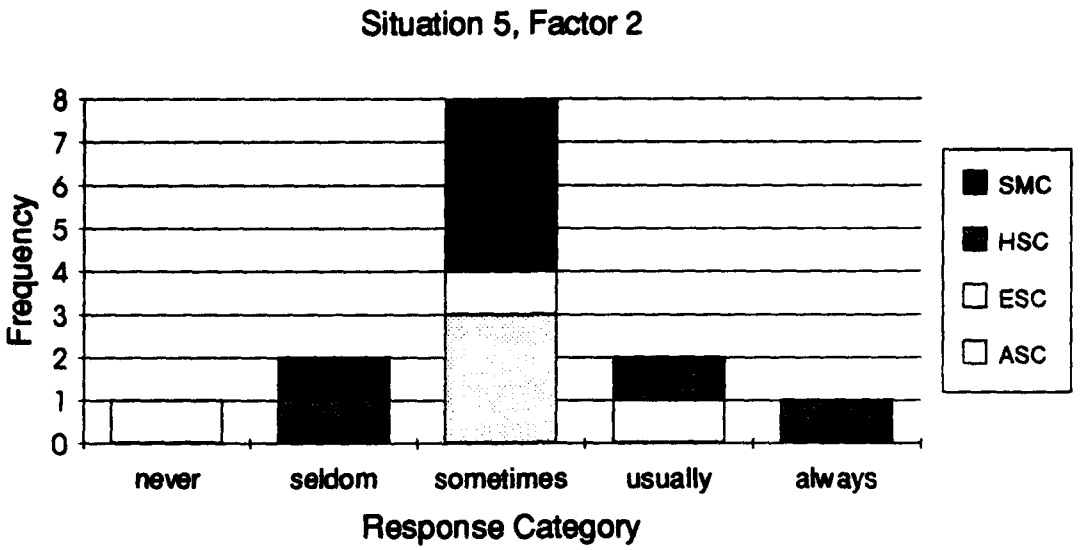

Figure D.10

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #6. The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.

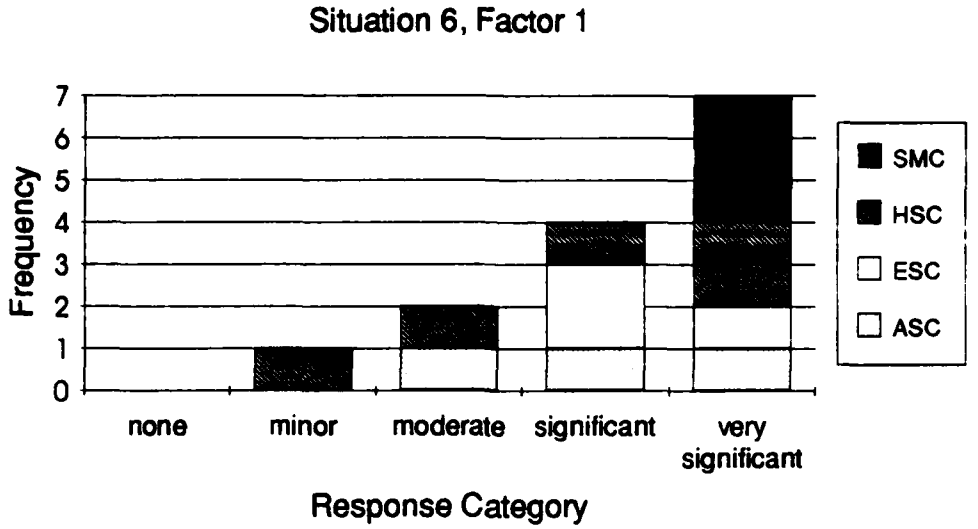

Figure D.11

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

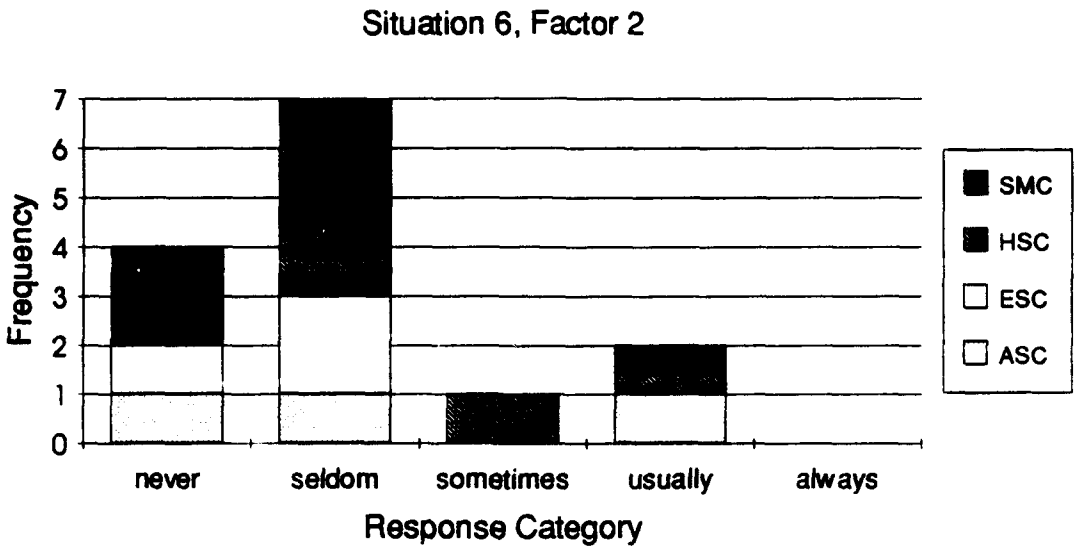

Figure D.12

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #7. Past performance problems which, though relevant to the source selection, are unknown to or hidden from the Program Risk Assessment Group (PRAG).

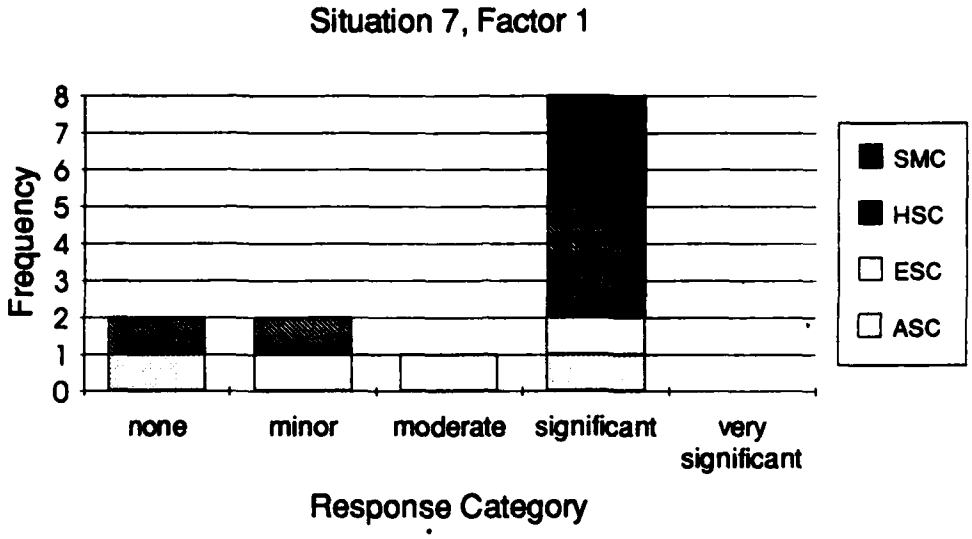

Figure D.13

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

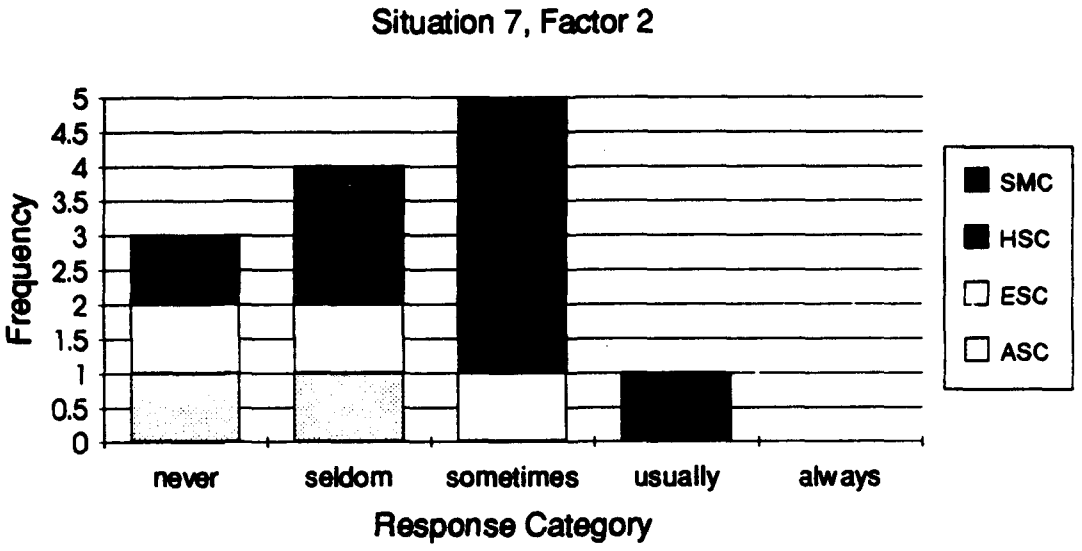

Figure D.14

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #8. Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted.

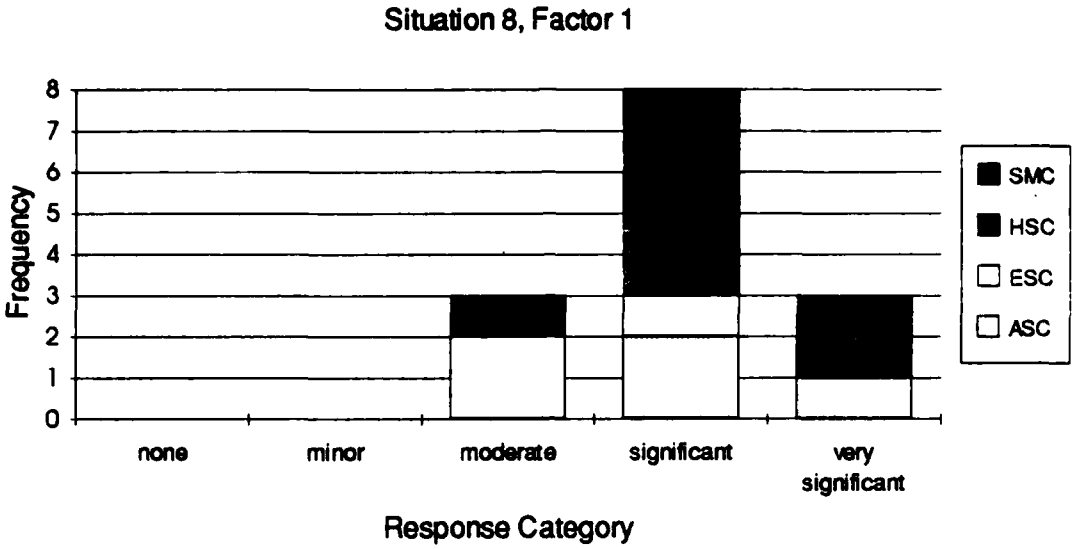

Figure D.15

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

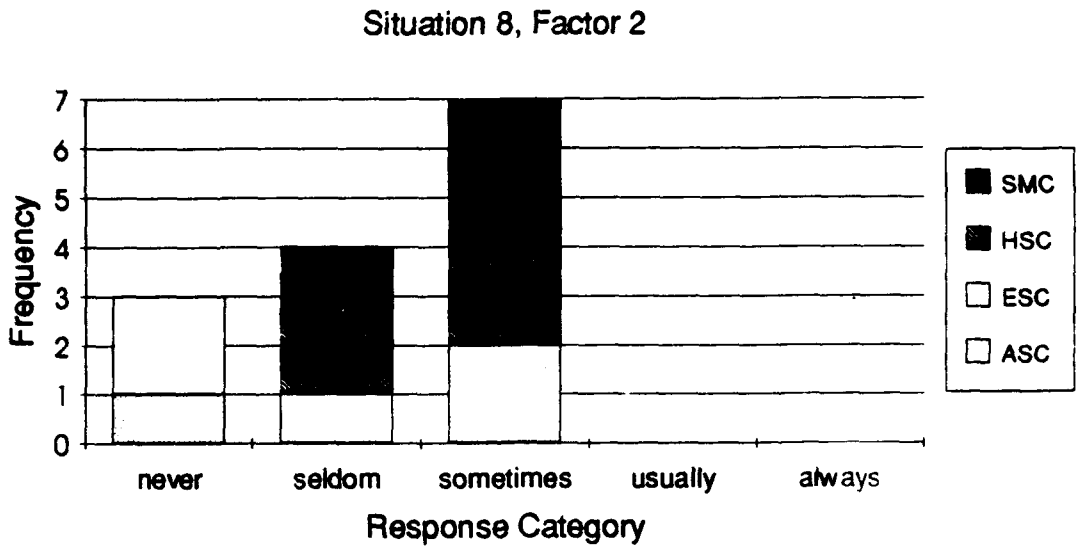

Figure D.16

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #9. The motivation during the competitive range determination is to reduce the number of offerors, not to retain offerors whose proposals have a reasonable chance of being selected for award.

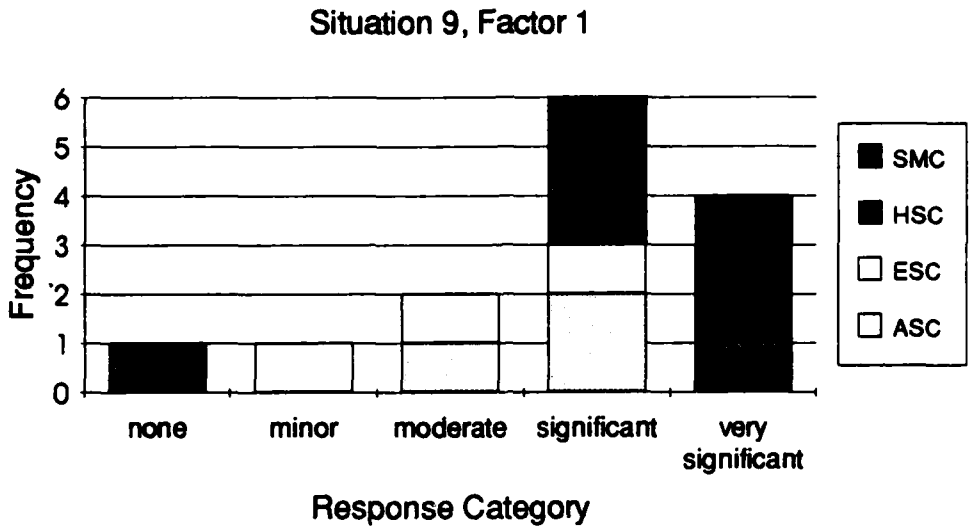

Figure D.17

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

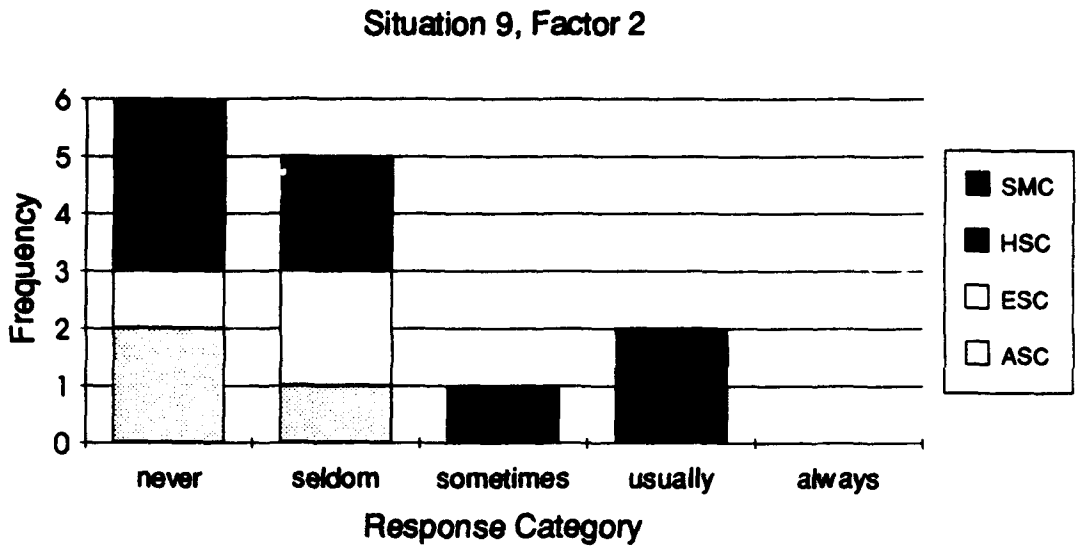

Figure D.18

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #10. Addressing issues during face to face discussions which were not addressed with a DR/CR/MR.

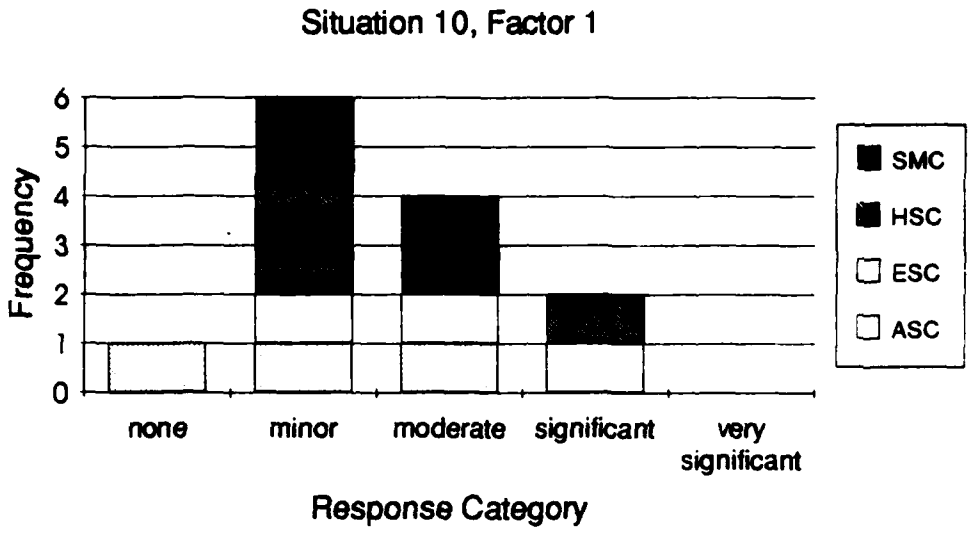

Figure D.19

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

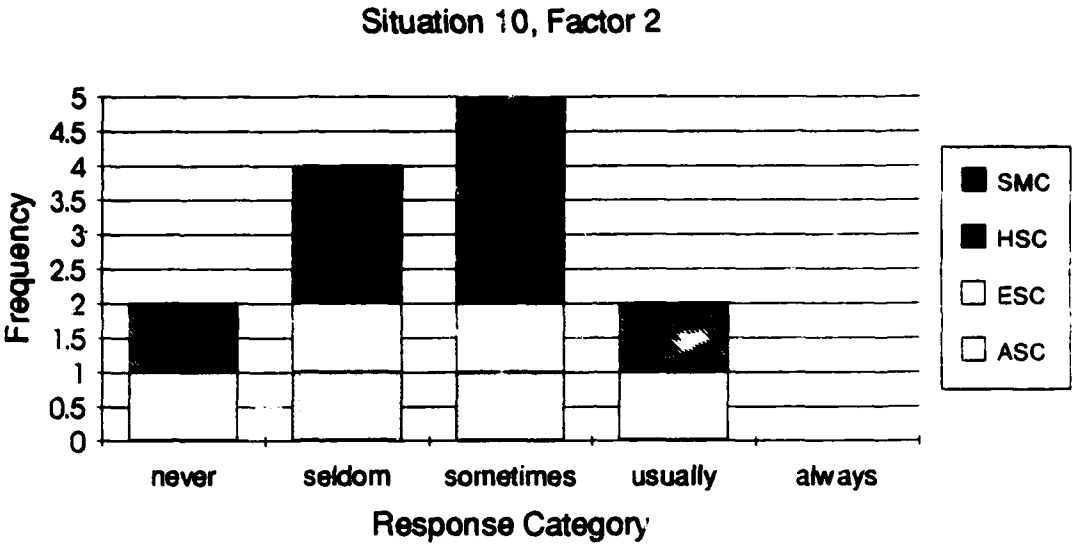

Figure D.20

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #11. Technical leveling, transfusion or auctioning during negotiations.

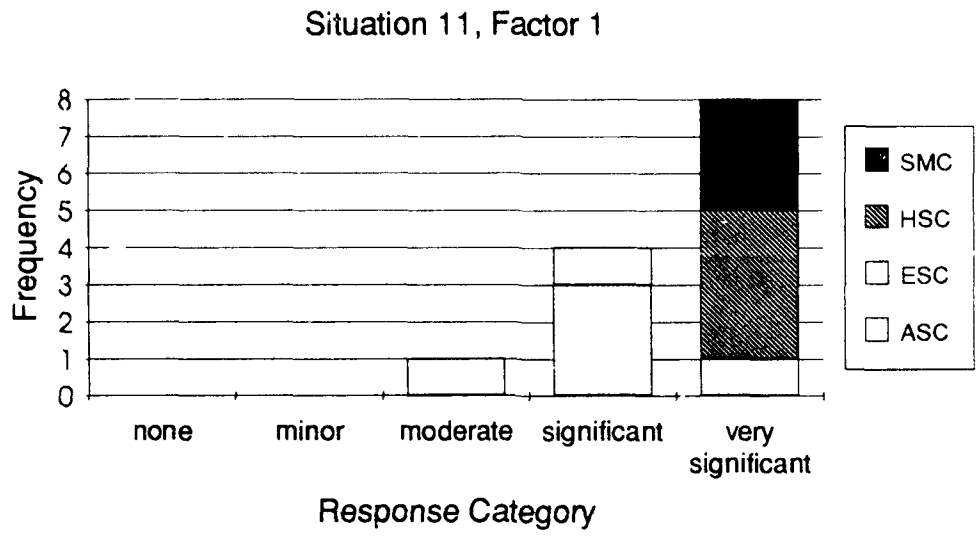

Figure D.21

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

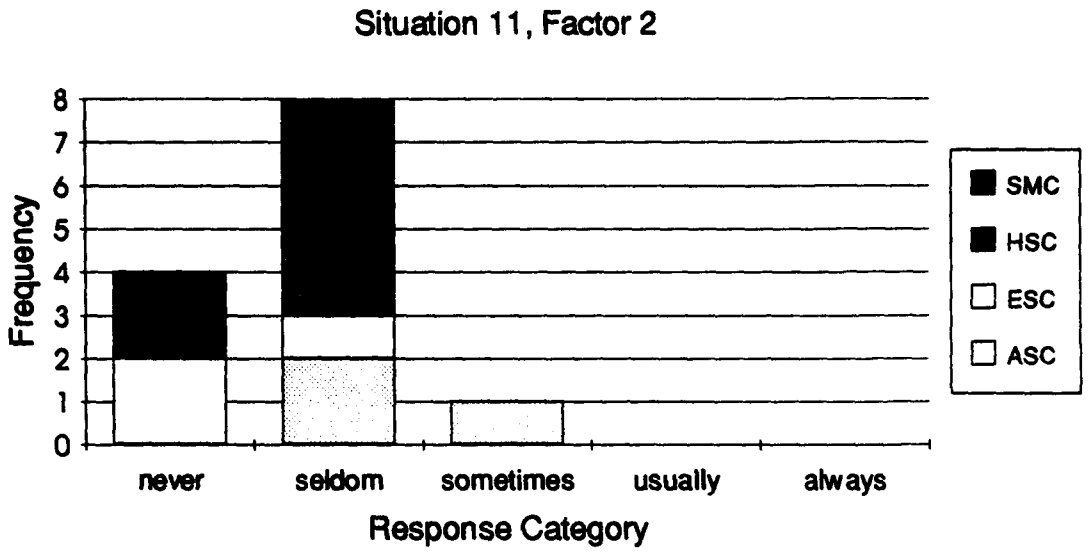

Figure D.22

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #12. Not all proposal deficiencies are addressed during discussions with offerors.

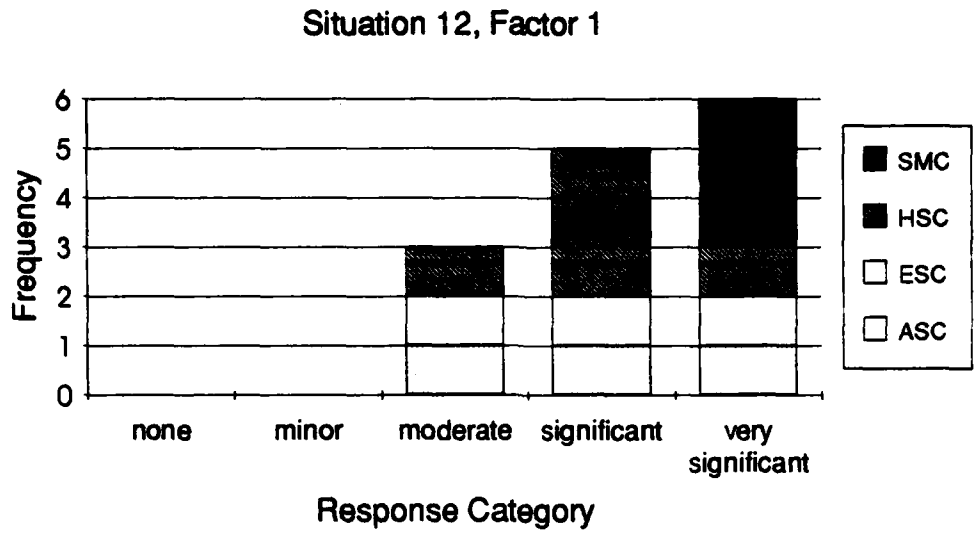

Figure D.23

. Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

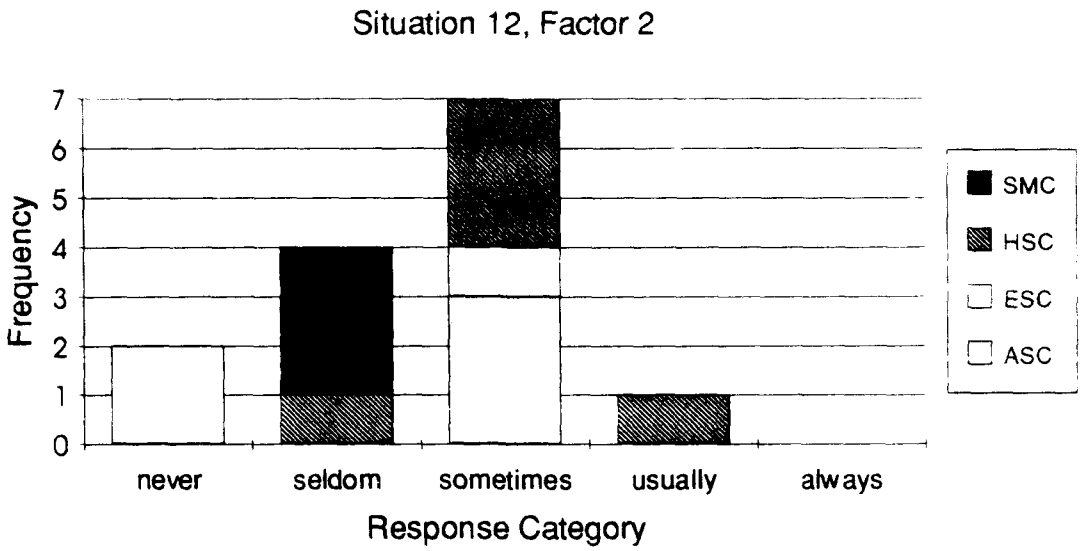

Figure D.24

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #13. BAFO prices exceed funds available.

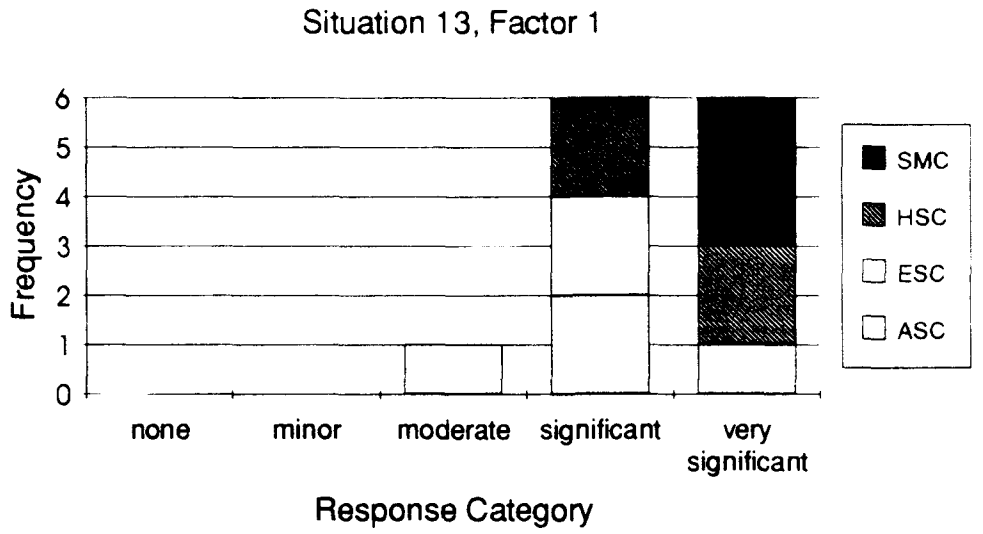

Figure D.25

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

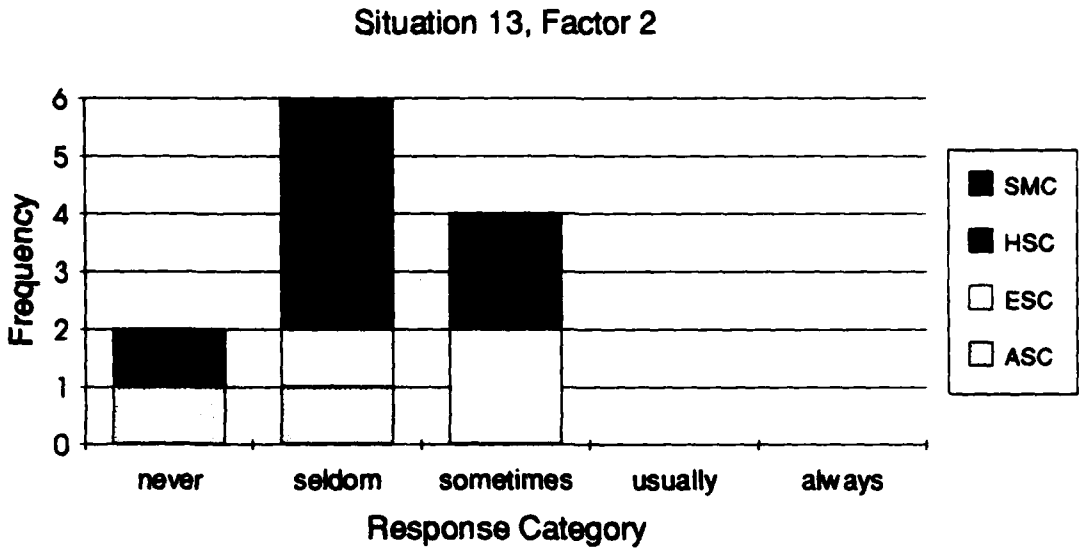

Figure D.26

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #14. Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria.

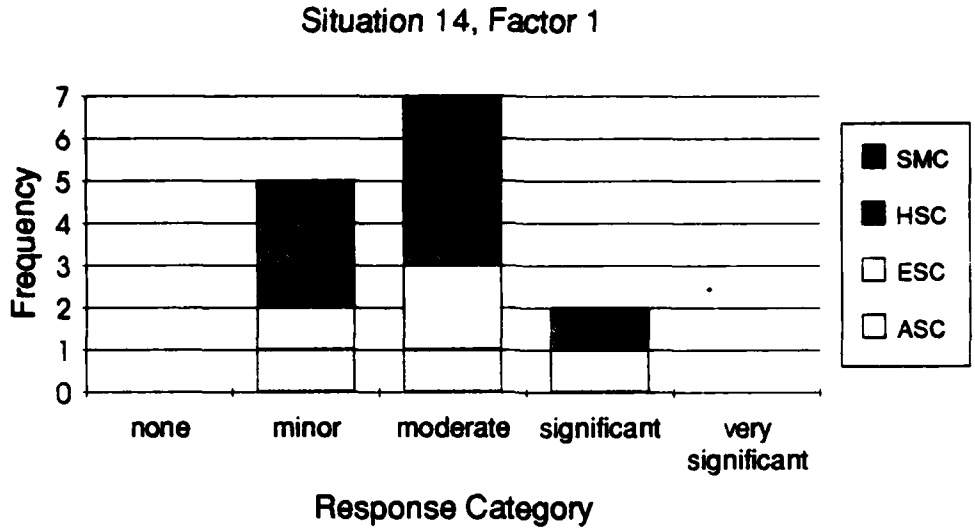

Figure D.27

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

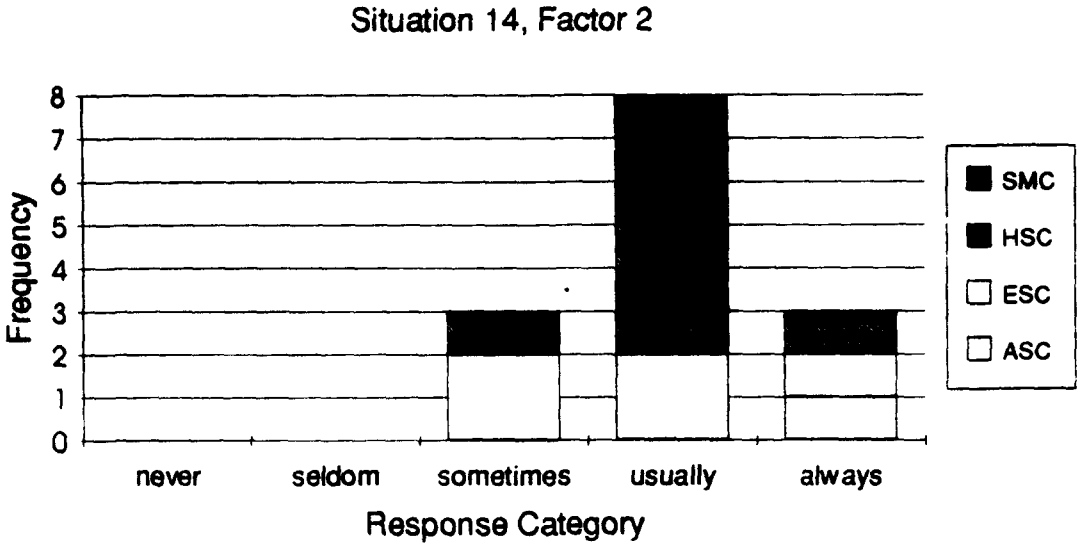

Figure D.28

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Situation #15. Trying to accomplish the source selection within an arbitrarily determined schedule.

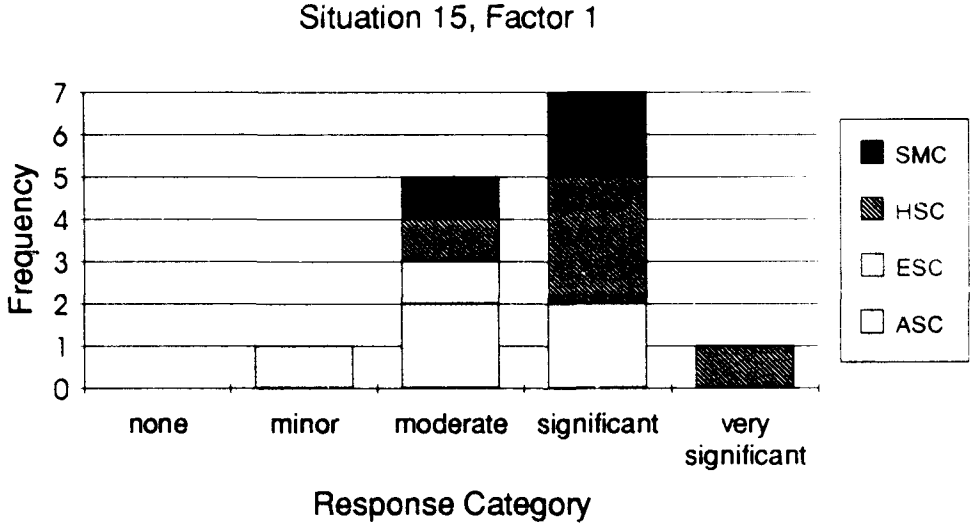

Figure D.29

Factor 1: If this situation occurs, it's negative impact on the acquisition program is likely to be (_____).

1	2	3	4	5
None	Minor	Moderate	Significant	Very Significant

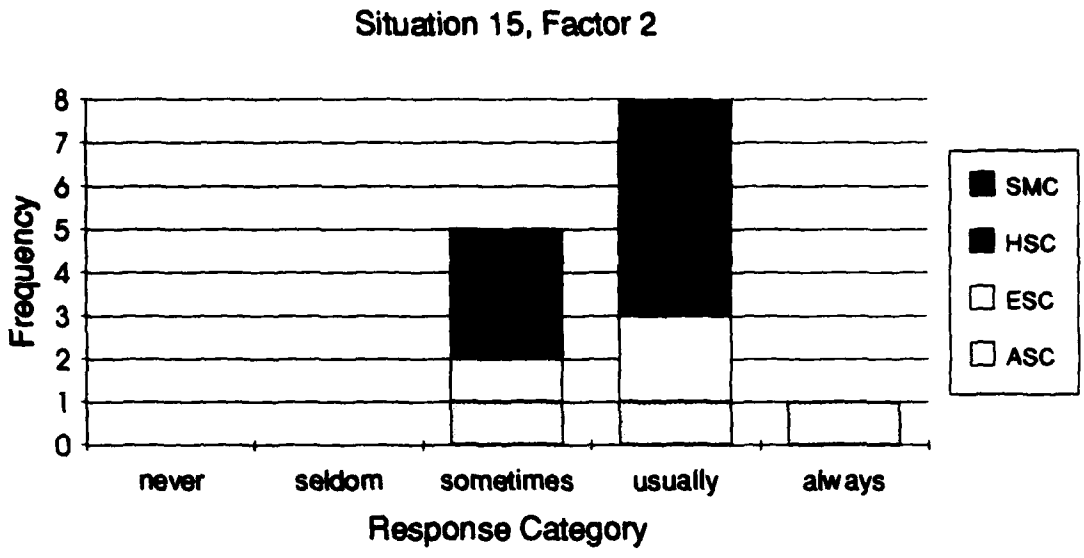

Figure D.30

Factor 2: This situation (_____) encountered during a source selection evaluation.

1	2	3	4	5
Never	Seldom	Sometimes	Usually	Always

Appendix E: Background Information of Survey Participants

Table E.1

Military Rank or Civilian Grade

Rank or Grade	Number of Respondents
COL	1
CAPT	2
GM-15	1
GM-14	3
GM-13	5
GS-12	2
TOTAL	14

Table E.2

Highest Education Level

Degree	Number of Respondents
Bachelors	3
Masters	10
Doctorate	1
TOTAL	14

Table E.3

Current Product Center Working
Respondents are Working At

Product Center	Number of Respondents
ASC	3
ESC	3
HSC	5
SMC	3
TOTAL	14

Table E.4

Current AFSC Specialty Code
or Civilian Equivalent

AFSC	Number of Respondents
1102	10
1101	1
64A4	2
XXXX	1
TOTAL	14

Table E.5

Years of Source Selection Experience

Experience (Years)	Number of Respondents
0-2	2
2-5	3
5-10	1
10-15	7
TOTAL	13????

Table E.6

Number of Source Selections (SS)
Respondent has Participated In

Number of SS	Number of Respondents
1-5	7
6-15	2
16-30	2
31-50	1
51+	2
TOTAL	14

Table E.7

Acquisition Phase Most Familiar With

Phase	Number of Respondents**
Concept Exploration	2
Demonstration/Validation	4
Engineering Manufacturing Development	7
Production	4
Other	5

** NOTE: MULTIPLE RESPONSES WERE POSSIBLE

Table E.8

Acquisition Type Most Familiar With

Type	Number of Respondents**
Aircraft	1
Armament	0
Electronics	2
Space/Missile	4
Other	9

** NOTE: MULTIPLE RESPONSES WERE POSSIBLE

Appendix F: Responses to the Consequences and Best Practices for Each Situation Tested

Situation #1: A technical team member evaluates a proposal based on standards not in the Request for Proposal (RFP).

Consequences:

Not awarding to the most qualified contractor, protest potential we're sure to lose; time consuming because re-evaluation necessary.

Sustained protest. All offerors should be compared against pre-defined standards.

Have to perform evaluation again IAW standards.

Corrected during the process by SSET review.

Best Practices:

Ensure evaluators have a copy of the standards, understand the evaluation process; buyer/CO and SSET chairman monitor evaluations early to correct this situation ASAP and get the evaluators back on track.

Train team to evaluate against standards. Ensure chairperson reviews all weaknesses and strengths against standards.

Up front briefing. Oversight by team chief. Written documentation.

Have briefings by the CO/SSET chairman on procedures. Make sure team chiefs have good understanding of the process. Have the team chief, chairman and CO thoroughly review evaluations.

Have each technical member evaluate only one element.

Select technical team membership using higher criteria than just having experience or involvement in the program. Need some sort of prerequisite training.

Review evaluation write-ups and challenge those that are not, or do not appear to be based on the evaluation standards.

Situation #2. Similar strengths and weaknesses between proposals get rated differently.

Consequences:

Not significant unless overall ratings are very close. This should alert management to do a quality review on these proposals.

This makes selection for SSA difficult and confusing; time consuming because re-evaluation required.

Sustained protest, if awardee had same weakness but was rated differently.

Moderate, if the strengths are in items/factors that are more important.

Award could be slanted towards incumbent (if performance and relations with the technical members are good).

Don't have more than one item captain for each item, even if you have a large quantity of proposals.

Best Practices:

Have the same evaluator evaluate all proposals for one factor, then review the strengths and weaknesses for all and associated ratings for consistency. CO/buyer and SSET Chairman as well as area/factor captains review area/factor and summaries for consistency.

Have someone review across proposals to ensure consistency of evaluations. Follow color/risk rating definitions closely.

Evaluators should be challenged to defend write-up to ensure they have a clear understanding of what is a weakness or what is a strength.

Use members that are not closely involved with incumbent. This may not be possible. Standards could be stated as such that they are more objective.

Situation #3. Evaluators lack global view of proposal and do not pick up conflicting or clarifying information.

Consequences:

Award goes to contractor not qualified or visa versa. May result in problems after award.

The best offeror may not be selected.

Contract will have an increase in modifications after award.

Not significant as areas are rolled up to form any overall assessment these differences will surface.

If conflicting information is overlooked, could award contract and discover you have disputed contractual requirements.

Best Practices:

Have SSET meetings to discuss CR/DRs. Attendees must be familiar enough with their factors to clarify or identify potential discrepancies. I don't think it is realistic to have each evaluator read all areas in a proposal.

Train the team to key in on important factors to select the best offeror. Ensure chairperson reviews and questions what team discovers.

Get technical and management teams to at least read/review other pertinent parts of proposal and have good team cross-talks. Everyone must function as a team.

Have one member of the SSET review a proposal holistically while others review by assigned elements.

Use a few experienced personnel who can read and digest entire proposal. Call for page limits on proposals. Hold daily team or area meetings to discuss findings/issues/CR/DRs.

Have the evaluators read the entire proposal and not just their little section.

<u>Situation #4. High number of redundant deficiency reports and clarification requests (DR/CRs) are generated.</u>

Consequences:

Mostly a delay in award because of the need for extensive discussions to clean up the CR/DRs.

Not significant. Offerors will answer same questions twice.

This is not always an indication of a negative result. It shows that the evaluators are reading proposal. SSET/SSEB can then edit CR/DRs for consistency.

Easy to fix. I would rather have redundant CR/DRs than fail to identify problems to an offeror.

Delay in reaching a decision and increased risk of "re-proposals" via the CR/DR process.

Delays the acquisition and does not add value to the process.

Minor; CO and SSA must filter out.

Serves as a cross check that the team is appropriately evaluating against the standards.

Lots of extra time and impact to schedule for award.

Best Practices:

Issue a draft RFP and have a pre-proposal conference. The reason for redundant CR/DRs is because something in the RFP was not clear. Provide a vehicle for contractors to review the RFP and ask questions up front. This should reduce the number of CR/DRs.

Have chairperson review for duplication. Consolidate like items. Have team work together to create CR/DRs.

Aggressive reviews by the PCO and SSET chairperson prior to release of any CR/DR.

Situation #5. Numerous rewrites of a DR/CR during the government review process, before it is approved and issued to the offeror, sometimes changing its original meaning.

Consequences:

Failure to conduct meaningful discussions.

May be a delay in issuing CR/DRs, potential delay in award. If the meaning is changed, it is obvious the true concern will not be addressed. Then the question becomes, do we issue more CR/DRs or end discussions and the offeror suffers as a result of our error.

The offerors may not get a clear message as to what they should be responding to. More effort expended to clarify our response.

Consequence is positive. It shows SSET/SSEB is doing their job and makes for a better product when CR/DRs are issued.

The real deficiency or clarification is not answered.

The original deficiency becomes obscured.

Not getting the response you expected and having to enter another round of discussions.

Probably nothing. However, if this changed meaning is the straw that puts someone out of the competitive range a protest may be expected.

Best Practices:

Train evaluators on how to write CR/DRs. If a rewrite is necessary, the evaluator should be involved during the rewrite process to ensure the meaning isn't changed.

Team effort to discuss/write-up CR/DRs. Chairperson must establish clear guidance. Evaluate all write-ups in draft form before finalizing.

I don't think you want to avoid this situation.

Have technical expert review it before it goes out.

Avoid too many review levels. Ensure that the CR/DR agrees with what was in the RFP and the evaluation.

Situation #6. The price or costs analysis technique developed for the cost/price evaluation renders all or most offers unrealistic and unreasonable when applied.

Consequences:

May not be able to justify award of best offeror. SSA cannot make a decision based on the analysis.

Re-solicitation and significant delays. Restructuring of program.

This would require an amendment to the RFP and new cost proposals.

If it is not a government estimate problem, the RFP must be unclear.

An uninformed decision and poor contract cost performance.

No award possible without significant discussions. RFP amendment or cancellation may be necessary.

Best Practices:

Establish reasonable assessments of costs associated with proposals. Review against funding available to ensure offers are affordable.

Use draft RFP and pre-solicitation conferences.

Work on government estimate early to get out all the kinks.

Use only validated price/cost analysis techniques.

Situation #7. Past performance problems which, though relevant to the source selection, are unknown to or hidden from the Program Risk Assessment Group (PRAG).

Consequences:

Offeror may be selected without proper risk identified on past performance.

Best Practices:

Ensure source selection team identifies all past performance issues to PRAG. Ensure PRAG gets proper information from on-going acquisition programs.

Get information from as many sources as possible.

Delve deep. Draft acquisition unique questionnaires. Look beyond CPARS and what the offeror tells you.

Situation #8. Sticking by an 'award without discussions' policy when it is found that discussions are probably warranted.

Consequences:

A contract that is not as good as it can be.

Are discussions warranted because every proposal has a CR/DR or because it is in the best interest of the government. In the latter case, it could result in selection of a lesser qualified company. Sometimes the government is better off not opening discussions, especially in a service contract source selection.

We do not get the system we believed we were getting.

Probably not encountered until after award when SPO realizes what they failed to understand as part of offeror's proposal.

Possible award to wrong offeror.

An increased likelihood of post award modifications due to ECPs and CCPs.

Offer may not support the best needs of the government.

Technical, schedule and cost problems once on contract. Expensive fixes because you've lost the competitive environment.

Best Practices:

Do not award without discussions if all items are not clearly identified and a clear understanding is not obtained.

Avoid unreasonable time constraints.

Ensure that sufficient acquisition milestones are in place to allow for discussions and that any needed discussions are held. Don't rush the process if it is detrimental to the final award.

PCO must be adamant in requesting permission from the SSA to enter into discussions.

Source selection team chief must have morale fortitude to tell SSA that discussions are absolutely essential and back up assertion with rationale.

Make sure that the evaluators are instructed to write up all CR/DRs.

If in doubt, spend time up front to avoid problems later. Use the competitive environment to negotiate changes.

<u>Situation #9. The motivation during the competitive range determination is to reduce the number of offerors, not to retain offerors whose proposals have a reasonable chance of being selected for award.</u>

Consequences:

Protest may be sustained if an offeror is arbitrarily eliminated.

Best Practices:

Ensure only those offerors who don't have a reasonable chance for award are removed from the competitive range. Ensure evaluations are accurate and provide offerors with all CR/DRs with letter that tells them they are not in the competitive range.

Have all PCO determinations to exclude offers from the competitive range reviewed by the JAG office and the staff source selection officer.

Situation #10. Addressing issues during face to face discussions which were not addressed with a DR/CR/MR.

Consequences:

Technical people have a tendency to bring up issues not part of the CR/DR.

Offeror may protest that they were unfairly evaluated and did not have time to address issues presented.

Additional time for offeror to document additional discussion issues. This puts initial evaluation at risk. But better to catch it now than to never discuss it.

Possible technical leveling.

Most important caveat is meaningful discussions. In other words, better late than never.

Best Practices:

Train people on etiquette for discussions (face-to-face).

Allow offeror time to address any new discoveries at face-to-face follow-up with a CR/DR. Ensure team completes thorough evaluation prior to calling face-to-face discussions.

Team chiefs need to do traceability of write-ups to CR/DRs.

Answer all question in writing to all offerors.

Write down a discussion guide prior to the face to face meeting, cross reference it to the CR/DR and stick to the guide during the discussion.

Situation #11. Technical leveling, transfusion or auctioning during negotiations.

Consequences:

Unsuccessful offerors may protest award.

Best Practices:

Evaluate against standards only, not against other proposals. Ensure discussions at face-to-face only address things in the offeror's proposal. Train team members to ensure they understand rules/role in face-to-face discussions.

Control who sits in on discussions. Carefully screen CR/DRs. Ensure no side discussions take place.

Ensure CR/DRs adequately address the weakness/deficiency without leveling or transfusion. CO and committee review and coordination can prevent this.

Situation #12. Not all proposal deficiencies are addressed during discussions with offerors.

Consequences:

The problem occurs when offerors are treated differently, not addressing all DRs with one contractor but doing so with another contractor.

Failure to conduct meaningful discussions.

Sustained protest.

A misunderstanding of proposal versus government requirement.

An increased likelihood of ECPs after award.

Canceled solicitation or second round of discussions and BAFOs.

A protest from an unsuccessful offeror when he sees at the debriefing a deficiency that was not disclosed to him during negotiations.

Best Practices:

Review and compare weaknesses/deficiencies with CRs and DRs prepared.

Ensure all things were addressed before completing discussions. Identify any new deficiencies as soon as they are discovered.

Easy to avoid if DRs were initially documented if a log is kept. Establish an agenda for discussions and stick to it. Have contractor submit minutes after each session.

Have SSET leader do a careful quality review.

Limit areas to be evaluated to those things that are critical to performance.

Situation #13. BAFO prices exceed funds available.

Consequences:

Unable to award contract.

Second round of discussions and BAFOs or additional funds obtained.

Best Practices:

If funds are significantly constrained, provide funding profile to all offerors with RFP to ensure an award can be made.

Consider conducting a "Best Value" procurement.

Prepare the government estimate using the same methods to be used in the source selection evaluation.

In some circumstances share funding profile on years that are constrained. Set forth funding constraints in Section L. Discuss this during discussion and reiterate in BAFO request.

The government should disclose available funds for any final year that is critical and state in the proposal preparation instructions that the offeror must comply with any funding constraints noted in the RFP.

Situation #14. Bringing people into the evaluation/negotiation phase of the source selection who were not involved in the development of the RFP and award criteria.

Consequences:

A bigger learning curve and possibly a longer acquisition time frame.

Evaluators not understanding or agreeing with RFP requirements or award criteria.

Evaluators do not know what to look for and what the award criterion is. A lot of effort is expended during the source selection to bring people up to speed.

Minor if individual has been briefed on program and understands requirements and has read proposals and solicitation.

No team buy in. Problems with evaluation due to lack of understanding.

Added time to get new people up to speed. Usually a way of life as only a limited number of people are involved in the development of the RFP.

Best Practices:

We brought people in because of sheer volume of proposals received. It took us a month to get the technical team on track. Additionally, most had no source selection experience.

In a perfect world, the people who developed the RFP would also evaluate the proposals submitted in response to it.

Keep team together from RFP through award. New members must be trained before evaluation of proposals. Ensure key players understand requirements and are responsible for screening all evaluations.

Evaluate stability when selecting team members.

Normally on larger source selections additional parties are brought into the process for greybeard input. Normally these are not big issues and don't impact the process.

Situation #15. Trying to accomplish the source selection within an arbitrarily determined schedule.

Consequences:

Work may not be complete on time, schedule slips.

Unhappy customers and offerors.

Source selection periods are normally somewhat arbitrarily set based on user needs and resource allocations.

May affect morale of employees.

May have inadequate time to effectively evaluate all proposals. May award contract to a lesser qualified offeror.

Best Practices:

Use the IASP procedures and closely monitor schedule.

Base schedule on realistic mile-stones. Establish daily tasks for team members to complete. If schedule is unachievable, reevaluate and set up realistic schedule.

Ensure realistic milestones and allow for some contingencies.

Plan for delays throughout the program.

Don't be too optimistic.

Make sure the proposal schedule has been reviewed by the center source selection offeror.

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13. ABSTRACT *(Maximum 200 words)*

Source Selection is the process used by the Federal government to select contractors for large, complex and important requirements. Recent studies have indicated that the inexperience of source selection personnel continues to be a significant problem in source selections. Air Force Federal Acquisition Regulation Appendix AA requires that lessons learned be compiled at the conclusion of every source selection. Unfortunately, there has been little success in organizing this information into a coherent training guide. This research attempts to fill this gap by using source selection experts to identify source selection pitfalls, their consequences, and the best practices to avoid them. Fifteen situations that could be detrimental to a source selection were identified through a literature review. Next, source selection experts were surveyed to see if they could agree on the nature and affect these situations had on source selections. The experts evaluated each situation in terms of its negative impact on an acquisition program and its frequency of occurrence. The experts were surveyed using the Delphi method, characterized by iterative survey rounds and feedback from previous rounds. The two factors of impact and frequency, as well as expert comments, were used to identify which situations were pitfalls. Twelve of the fifteen situations tested were found to be source selection pitfalls. The experts also provided the possible consequences of and best practices to avoid each pitfall.

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