

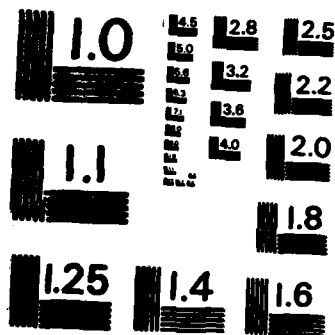
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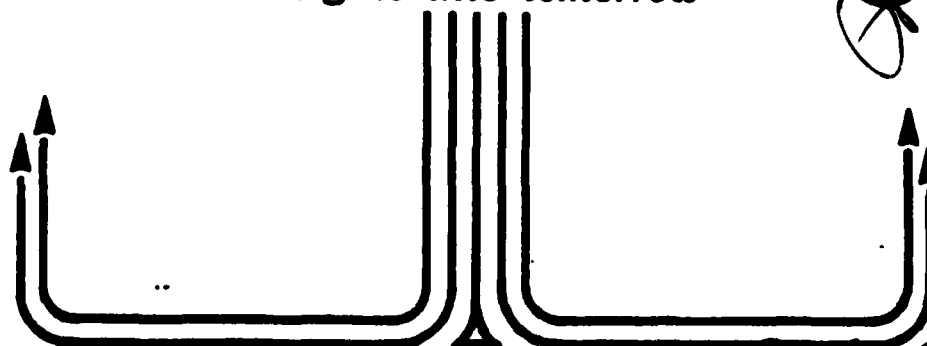
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REPORT NUMBER 86-0690

**TITLE THE INTEGRATION OF THE COMPETITION IN CONTRACTING
ACT OF 1984 IN SYSTEMS ACQUISITION**

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SPONSOR COLONEL EDWARD FINCHER, HQ AFSC/SDW

**Submitted to the faculty in partial fulfillment of
requirements for graduation.**

**AIR COMMAND AND STAFF COLLEGE
AIR UNIVERSITY
MAXWELL AFB, AL 36112**

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SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS AD-A166 742		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT STATEMENT "A" Approved for public release; Distribution is unlimited.		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE			4. PERFORMING ORGANIZATION REPORT NUMBER(S) 86-0690		
5. MONITORING ORGANIZATION REPORT NUMBER(S)			6a. NAME OF PERFORMING ORGANIZATION ACSC/EDCC		
6b. OFFICE SYMBOL (If applicable)			7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State and ZIP Code) Maxwell AFB AL 36112-5542			7b. ADDRESS (City, State and ZIP Code)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION			8b. OFFICE SYMBOL (If applicable)		
8c. ADDRESS (City, State and ZIP Code)			9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
11. TITLE (Include Security Classification) THE INTEGRATION OF THE COMPETITION			10. SOURCE OF FUNDING NOS.		
12. PERSONAL AUTHOR(S) Dick, Douglas R., Major, USAF			PROGRAM ELEMENT NO.		
13a. TYPE OF REPORT			PROJECT NO.		
13b. TIME COVERED FROM _____ TO _____			TASK NO.		
14. DATE OF REPORT (Yr., Mo., Day) 1986 April			WORK UNIT NO.		
15. PAGE COUNT 34			16. SUPPLEMENTARY NOTATION ITEM 11: IN CONTRACTING ACT OF 1984 INTO SYSTEMS ACQUISITION (U)		
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB. GR.			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) → The Competition in Contracting Act of 1984 became law in July of that year, and established new requirements in contracting procedures for federal procurement agencies. The study summarizes the requirements of the act and the responses of the federal procurement community. In light of the impact of the law, the study then makes recommendations for further Air Force responses.					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☒ DTIC USERS ☐			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL ACSC/EDCC Maxwell AFB AL 36112-5542			22b. TELEPHONE NUMBER (Include Area Code) (205) 293-2483		22c. OFFICE SYMBOL

PREFACE

The Honorable Jack Brooks of Texas introduced the Competition in Contracting Act of 1984 (CICA) to the House of Representatives as House Resolution 5184. The act in its final ammended form hitchhiked with the Deficit Reduction Act of 1984 (Public Law 98-369) and the President signed it into law on July 18, 1984. After some disputes between the executive and legislative branches, the CICA actually became fully effective on April 1, 1985. The act establishes new procurement requirements, clearly defines competitive and noncompetitive contract options, sets up new contractor protest procedures, and requires agency competition advocates. Although all the services had already appointed additional duty advocates and started a push for greater competition, the CICA made competition a matter of law. This mandate significantly impacts Air Force Systems Command (AFSC) and causes new developments in acquisition procedures. This paper examines the requirements of the CICA, its impact on federal procurement, responses to the CICA, and finally offers recommendations for further AFSC response. Anyone already familiar with the CICA will do well to skip the first chapter describing the requirements of the CICA, and move directly on to impacts and responses starting in Chapter Two.

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ABOUT THE AUTHOR

Major Dick was commissioned at the USAF Academy in 1973 after completing a B.S. in Engineering Management. From there he proceeded, under sponsorship of the Air Force Institute of Technology (AFIT), directly to the University of California at Los Angeles. While there, he completed the requirements for the degree of Master of Business Administration. Included in those requirements was a project for Northrop Corporation on rating and promoting line supervisors. In 1974 he started pilot training at Craig AFB, Alabama. Next, he went to Fairchild AFB, Washington, where he served as copilot and aircraft commander in KC-135s. Selected for rated supplement duty, he departed there in 1980 with an enroute stop at Squadron Officer School. Leaving SOS as a distinguished graduate, Major Dick continued on to Wright-Patterson AFB to become a program manager in the Civilian Institution Directorate of AFIT. While at AFIT, he completed the professional continuing education course in Systems Program Management. In 1983 he returned to the KC-135 cockpit at Grissom AFB, Indiana. During his two years there, he qualified as instructor pilot and qualified in all five models of the -135 at Grissom. Following ACSC, he will head for AFSC Headquarters at Andrews AFB.

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REPORT NUMBER

86-0690

AUTHOR(S)

MAJOR DOUGLAS R. DICK, USAF

TITLE

THE INTEGRATION OF THE COMPETITION IN CONTRACTING ACT OF 1984
IN SYSTEMS ACQUISITION

I. Purpose: To determine the impact of the requirements of the Competition in Contracting Act (CICA) on the federal acquisitions market and make recommendations for AFSC to more effectively address those requirements.

II. Problem: With the passage of the CICA in the summer of 1984, competition in contracting became a matter of federal law. This mandated certain changes in the way federal procurement agencies secured, reviewed, and approved acquisition contracts. The full impact of the act as well as the extent and details of response are not yet fully understood.

III. Data: President Reagan signed the CICA into law in the summer of 1984. It addresses competitive contracting procedures for federal procurement, protest procedures for contractors and federal offices, and the establishment of a competition advocacy system. Although competition requirements and advocacy predate the act, the CICA has forced further emphasis and legitimacy on competition in federal procurement. Each of the services have responded in their own way with the Air Force taking a more cautious approach. However, all services have increased competitive contracts consistently and with long strings of success stories. In examining these responses and successes, it becomes painfully apparent that nailing down the dollars saved through competition is neither standardized nor precise. One thing is certain though, the requirements

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of the CICA have placed new burdens on Air Force contracting officers and program managers that stretch the already long acquisition life cycle. Beyond cost reduction, the hoped for but not fully documented payoff is that greater competition will encourage greater production efficiency and pick up that lost time. Both the Air Force and its associated contractors are moving ahead in creative and cooperative efforts to follow the spirit of the CICA, and the general consensus is that the overall impact is a positive one.

IV. Conclusions: Although innovative approaches have helped increase the volume and value of competitive contracts, the greatest obstacle to increased competition remains internal resistance. A good deal of the resistance is attributable to the deeply entrenched system and the burden of new responsibilities. The high contract review and approval levels required by the CICA only feed this resistance and aggravate the acquisition time problem. There also exists a lack of uniformity within and among the services that could cause problems down the road during required congressional reporting. In spite of resistance, increased competition is now a matter of law, Congress having removed many of the DOD's options in contracting procedures. In the midst of this competition, the DOD is finding that competition is, generally speaking, for the good of the services. Now, smoother procedures and new ideas must be adopted to overcome the remnant of resistance.

V. Recommendations: To simplify the decision to compete a contract, another attempt at developing an analytical and decision making model is overdue. Along this line, educational efforts in understanding the benefits and techniques of competition need to be enhanced. However, even a force well educated in this area would still be lacking clear cut Air Force regulatory guidance in implementing competitive requirements. Such an implementing regulation is desperately needed. Implementation could also be aided through broader communication in the Competition Advocacy system. Such communications should not only be vertically directed, but must also include greater lateral communications to distribute information in the field. To possibly regain some of the time lost through greater competitive efforts and responsibilities, the Air Force needs to hold its contractors' feet to the fire in the area of improved production efficiency. Time could also be regained later by developing a centralized data base of the rapidly broadening federal procurement market. Congress must be convinced to help in these time reductions by approving an Air Force initiated proposal for lowering contract review and approval levels

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based on competitive contracting progress. Competition Advocates should establish realistic yet challenging goals in full consideration of the probable effect of competition. One goal should be the dissolution of the Competition Advocate system as competition becomes a more natural part of federal procurement. Finally, the efforts of the streamlining initiative are compatible with enhancing the competitive environment. Therefore, coordination in these two efforts would be advisable. Moving on these recommendations should help integrate the requirements of the CICA into the acquisition environment and allow federal agencies to proceed with the business of procurement.

Chapter One

THE REQUIREMENTS OF THE COMPETITION IN CONTRACTING ACT

President Reagan came to office with promises of a stronger national defense and a balanced budget without tax increases. Part of his plans included attempts at balancing increased defense budgets with more efficient defense spending through attention on fraud, waste, and abuse. The focus on efficient defense spending aroused Congressional interest in competitive contracting. Several bills were introduced in the House and Senate, but the Competition in Contracting Act (CICA) of 1984 emerged as the predominant one. It was signed into law by President Reagan as part of the Deficit Reduction Act.

The CICA breaks out into three basic sections: contracting competition procedures, protest procedures, and competition advocacy. This chapter explains the requirements of each of these sections concentrating on the totally new and on changes to old procedures. Results of specific requirements and reflections on them will be reserved for subsequent chapters. Information is extracted from the act itself, the Congressional Records, and Congressional Report 98-1157.

COMPETITION PROCEDURES

The CICA recognizes effective competition starts prior to entering any contract. Therefore, it first requires advance planning and market research before soliciting bids or proposals. Lack of advanced planning is, in fact, specifically prohibited as justification for noncompetition. Advanced planning and market research includes becoming aware of as many potential bidders as possible and avoiding limiting their competition with restrictive requirements or specifications. The maximum number of bids or competitive proposals must be fully evaluated. Within this framework, contracts will either be classified as full and open competition or noncompetitive.

Full and open competition (FOC) is a phrase that's been with DOE contracting for many years. CICA clearly defines FOC as allowing and encouraging all responsible sources to submit sealed bids or competitive proposals. Sealed bids equate to what used to be called formal advertising. Similarly, competitive proposals parallel competitive negotiations. A subset of FOC is FOC after exclusion of sources. The

only difference is exclusion of a source or sources must be accompanied by documentation on the need for exclusion. The CICA calls this alternative competitive approach limited competition and allows it only under certain circumstances. This option of exceptions doesn't actually fall under FOC, but neither can it be considered noncompetitive.

Determination of which option a contract falls into follows a logical flow from most to least competitive: sealed bids or competitive proposals (FOC), limited competition, and noncompetitive contracts. Sealed bids are used when contract award is based on price or price related factors; there is no need to discuss bids with responding sources; or reasonable expectation exists for more than one bid. If sealed bids are not suitable, competitive proposals will be considered.

However, competition may be limited under four circumstances. First, limited competition is allowable when threat of serious injury to the government creates unusual and compelling urgency. Second, sources may be excluded in order to maintain alternative sources of supply. The last two circumstances allowing limited competition are to avoid compromising national security, and when required by small business statutes. When resorting to limited competition, the contracting officer must certify the written justification as accurate and complete. If the contract value exceeds \$500,000, the head of the procurement activity must approve the justification after contracting officer certification. If limited competition or FOC preliminaries yield only a single contractor, the contract is considered noncompetitive regardless of procedures followed. Therefore, appropriate noncompetitive procedures must be followed.

Non competitive or sole source contracts may be approved under any of the following seven conditions of the CICA:

- (1) the time constraints of an emergency public health or safety hazard prevent competition (justification is still required but may be made after the fact);
- (2) property or service is available from only one responsible source without competitive alternatives (the Federal Acquisition Regulations (FARs) provide several examples fitting this condition);
- (3) maintain a contractor during national emergency;
- (4) achieve national emergency mobilization;
- (5) maintain an essential research agency provided by educational, non-profit, or federally funded Research and Development centers;
- (6) required by international treaty or agreement, or;
- (7) law or regulation requires a sole source contract. (CICA directs appropriate rewrites to current procurement regulations.)

Approval for noncompetitive contracts is elevated to the head of the procurement activity or other senior official. Should the contract exceed \$500,000, approval must be by the agency's senior procurement executive. The vehicle for approval is called the Justification and replaces the old Determination and Findings (D&F). D&F are, however, still required by FAR

for all cases of limited competition except alternative sources or small business and labor surplus set asides. The Justification must include identification of requirements, determination of fair and reasonable anticipated costs, and demonstration that the proposed contractor is the only one meeting contract requirements. Production and assembly of spare parts are specifically excluded unless sole source is the only way to meet requirements and delivery schedules, or the contractor has legitimate proprietary interests. The Justification must also describe the market survey for other sources or justification of the survey's absence. Finally, the Justification lists interested responsible sources and why they are excluded, plus planned actions to overcome or remove barriers to competition.

In order to qualify as a "responsible" source, a contractor must satisfy several requirements. He must first demonstrate adequate financial resources (or the ability to obtain them) to perform the contract. Next, existing business commitments must not be expected to interfere with delivery and performance schedules. Having demonstrated these abilities, the contractor needs a satisfactory performance record and reputation for integrity. A responsible contractor also needs the necessary organization, experience, accounting, operational controls, and technical skills (or the ability to obtain them) to fulfill the contract. Similarly, the necessary production and construction capacity must be on line or obtainable. These conditions satisfied, any contractor can be qualified a "responsible" source.

The CICA also defines procurement notice procedures. Whenever the contract is expected to exceed \$10,000, the Secretary of Commerce publishes submitted notices in the Commerce Business Daily. Solicitation begins no earlier than 15 days after notice publication, and deadlines must allow at least 30 days after solicitation. Notices must include

- (1) accurate property or services descriptions not restrictive to competition;
- (2) contracting officer address and phone number;
- (3) contact point information for solicitation copies;
- (4) a statement encouraging response of all responsible sources, and;
- (5) a justification for noncompetitive contract (if it is expected) and the anticipated source.

If the notice would compromise national security or involve unique or innovative research, then notice is not required.

PROTEST PROCEDURES

The most controversial section of the CICA has been the new procurement protest procedures. The basis for controversy is the review of protests by the Comptroller General (CG). The executive branch, represented by the Attorney General, claimed this as the illegal direction of executive offices by a legislative agent. After the signing of the

act, all federal procurement agencies were directed by the Attorney General to ignore the requirements of this portion of the act. The dispute ultimately settled on the legislative side on the basis that CG findings were returned to executive agencies in the form of recommendations rather than orders or directives. However, the protest procedures for mandatory agency response to CG "recommendations" effectively reduce the issue to an argument of semantics.

The CICA structures protest procedures to encourage protest and, therefor, discourage competition violations. Any contractor having a stake in a particular procurement may protest a suspected infraction of law to the CG. Should the protest lack merit, the CG may immediately dismiss it. The CG must notify the appropriate executive agency within one working day of protest receipt. The agency normally has 25 working days to reply, a deadline the CG may extend or reduce to no shorter than 10 working days. The CG must reach a final decision within 90 working days. However, this deadline may at CG discretion be extended under specific unique circumstances. The 90 day deadline along with all associated intermediate deadlines may also be reduced to an accelerated 45 day schedule. While the protest is pending, the contract may not be awarded. If already awarded and fewer than 30 days have transpired since award, performance will cease or the contract will be suspended. The agency senior procurement executive may override cessation or suspension following written finding of impact on the vital interests of the United States. Should the CG find in favor of the claimant, any one of the following recommendations will be made to the agency:

- (1) refrain from exercising contract options;
- (2) immediate reaccomplishment of the contract;
- (3) issuance of new solicitation;
- (4) contract termination;
- (5) contract award consistent with law, or;
- (6) any combination of the above.

Upon receipt of the above recommendations, the senior procurement executive must respond to the CG withing 60 days. The CG annually (prior to January 31) reports failures to comply to the appropriate House and Senate committees. The overall process, by simplifying protest submission and hampering procurement progress, acts as a deterrent to noncompetitive contracts or attempts at skirting the provisions of the CICA.

COMPETITION ADVOCACY

The final section of the CICA provides for the establishment of Competition Advocates in procuring activities plus recording and reporting requirements. These advocates are to have no conflicting duties and be supported by necessary staff. Although the armed services appointed such advocates about 3 years prior to the passage of the CICA, the act legally sanctioned their positions, expanded their responsibilities, and prohibited the job as an additional duty. In reviewing the purchasing and

contracting activities of their agencies, they identify and report certain activities directly to the agency head. In addition to opportunities and actions supporting FOC, the advocates monitor specifications and Statements of Need to insure they are not overly detailed or restrictive. They review noncompetitive contract justifications over \$500,000 and provide a written statement of validity to the senior agency executive. Advocates also submit annual reports to agency heads detailing agency competition progress and barriers to progress. With staff assistance, the advocates set fiscal year (FY) goals and develop plans for higher competition. Such plans will include personal and organizational accountability, as well as competition emphasis in procurement training programs.

Further recording and reporting requirements are also required under this last section of the CICA. The head of an executive agency must maintain a 5-year computerized file of all procurements other than small purchases. More comprehensive records are required of procurements using limited competition or noncompetitive procedures. Furthermore, prior to January 31, a summary of competition progress and plans must be annually reported by each head to appropriate congressional committees.

Once President Reagan signed the Deficit Reduction Act and hence the CICA, federal procurement agencies began making adjustments. Some initial confusion grew out of the executive and legislative branch disputes, but each agency began to shift procedures and reporting. Each agency response affects the others, so they must be considered in total as the next chapter examines the impact of the CICA.

Chapter Two

THE IMPACTS OF THE CICA

As previously mentioned, the DOD started its move toward competition emphasis prior to the actual passage of the CICA. In the last 5 years, the number of competitive contracts has increased 37 percent. The FY 94 DOD competitive dollars awarded comprised 43 percent of the total (22:1). Although not counted as competitive dollars, another 29 percent of total dollars awarded was follow-on funding for contracts originally competed. In addition to the earlier moves, there have been several other pieces of legislation beyond the CICA. They have been more limited in their scope, dealing with specific areas such as small business. The point surfacing being that the CICA hardly takes exclusive claim to competition impacts on acquisitions. Therefore, this chapter will make occasional references to the impact of competition in a collective as well as a CICA specific sense.

Perhaps the greatest single impact of the CICA is that it has made competition a matter of law rather than initiative or regulation. While under the previous initiative, flexibility in competition still existed to some degree. The current educational process has boiled down to realizing that competition is by law and that old choices simply no longer exist. Conference room discussions still banter around the pros and cons of competition, but they are beginning to come to the ultimate conclusion that the law requires competition (35:--). In other words, go back to the office and, in spite of personal bias, compete the contract. Right now, perhaps the greatest obstacle to competition improvements is the inertia of a system as broad and complicated as federal procurement. As in many organizations, resistance to change can be attributed to being locked in to old procedures and the inherent security of knowing what you are doing under those old procedures. Commodore Stuart Platt, the Navy's Competition Advocate General, says that "institutional bias against competition is the weak link in the procurement cycle (9:6)."

Commodore Platt is part of another of the CICA's specific impacts -- a well defined competition advocate system. While competition advocates started coming on line in late 1981 and early 1982, their duties were additional to their primary responsibilities. Due to the CICA, each service appointed an advocate general with the appropriate staff. (The Navy started early with Commodore Platt in 1983.) In 1985, there were about 200 Air Force competition advocates, mostly full time, dispersed over 160 locations. Support personnel are planned to almost triple in FY86 to 1550 people (2:121). In addition to overseeing and encouraging competition, these advocates will be submitting an annual report to Congress in January 1986 via the Secretary of the Air Force (17:18). All

DOD procurement agencies will be submitting similar reports to the appropriate Congressional committees during the same period. In such an environment, comparison is unavoidable. How the Air Force stacks up to sister services in terms of dollars saved and progress anticipated will likely effect congressional favoritism at budget cutting time. After all, the primary thrust of the CICA is to save taxpayer dollars.

This question of dollar savings is one of the most difficult to nail down with pertinent specific facts. Furthermore, it may be approached from a variety of view points. Each of the services seems to be taking a slightly different approach. The next several pages examine different perspectives and detail some of the statistical arguments on competition.

In terms of competition advocacy, the Navy has had the most aggressive approach from the beginning. They were the first to come on line with an advocate general, beating the CICA by almost a year (24:16). As the Navy transitioned to the new emphasis, pressure increased from approving some sole source contracts to giving major sole source contracts 18 to 24 months to get on line as competitive programs (24:18). This author's review of contracting and procurement periodicals revealed a very positive naval emphasis of competition and higher frequency of published "success stories" -- some of which will be subsequently discussed. The naval position is best revealed by the comments of Commodore Platt in an interview just prior to passage of the CICA: "The Navy is deadly serious about implementing the new competitive procurement procedures, even to the point of seriously disrupting some long standing sole source arrangements (9:5)."

Elsewhere on the advocacy spectrum lies the U.S. Army. The Army advocacy is out of synchronization with the Navy due more to timeliness than to effort or emphasis. This is not meant negatively, but rather as a reflection of who was at the starting line first. The "success stories" are there and the overall emphasis appears to be to salute smartly and proceed as ordered. These points, and the question of timeliness, are best illustrated in an October 1985 article by Army Competition Advocate General Brigadier General Charles Henry (17:14). The thrust of General Henry's statements is that the Army is laying its foundation for competition in procurement. Explanations of the requirements of the CICA and a few of the associated changes support his direction. The comments seem to be about where the Navy was two years ago. The direction in which the Army will move is shown by General Henry's statement that through "plans for competition in the acquisition strategy for a new system, competition can be employed throughout the acquisition life cycle (17:18)." Should the Army take advantage of naval experience, they could accelerate quite quickly during the next year.

This brings us back to the Air Force and what appears to be a balanced yet cautious approach. It is balanced in that Air Force competition has increased steadily over the last 5 years, and cautious in that, of all the services, the Air Force leads the way in pointing out the drawbacks of competition (a conclusion reached in researching the risks of

competition discussed at the end of this chapter). Under Air Force Competition Advocate General Brigadier General Gerald Schwankl, each Air Force Command has developed a three year plan encouraging competition in the development phase when affordable and through production when suitable (2:122). Current programs are also being reviewed to check for suitability for conversion to competition. General Schwankl's comments show a common Air Force bias for dealing with competition. The idea of competition when "affordable" or "suitable" shows the Air Force has not really decided whether or when competition is most likely to be affordable or suitable. The Air Force approaches competition on a case-by-case basis rather than with the service wide push of the Navy.

Just why this diversity of approaches exists deals with the existing arguments on competition and the statistical manipulation of data. The final verdict is not yet in, so a look at a few of these arguments is still in order. Few individuals would argue that in a general economic sense, competition keeps prices down. Unfortunately, DOD procurement is far from the unencumbered conditions of an open or free market.

William Brueggeman sites three primary differences between the DOD and the free market (7:139). First, the DOD procurement market has the sellers or contractors on one side faced by a sole buyer. This makes it a high risk environment for contractors since there is limited opportunity to share the market. The second market difference is that demand is driven by military objectives rather than typical market forces. The final variation is that due to the high cost of multi-year development, sellers can only afford to develop under the umbrella of guaranteed sales. The only close comparison of the two markets, according to Brueggeman, is in off-the-shelf purchases. Only here, he says, are free market forces in effect with no investment required by DOD to enhance competition.

Although Brueggeman's points are valid ones, anyone using them to argue against competition may be effectively countered. While it is true the DOD represents a sole buyer in its acquisitions, market competition is among sellers, not buyers. The DOD can be as much a part of a competitive market as any single buyer of a new car. The obvious difference is that if the DOD (figuratively) buys from another car dealer, there are no other buyers standing in line -- hence the high risk. However, the risk level has not created a shortage of companies wanting to enter the federal procurement game. In fact, a more common complaint is the high number of responses creating a heavy work load (30:--). Brueggeman's second contrast of demand being driven by military objectives is also a weak argument against competition. Once again, the point is true but its relevance to an anti-competition argument is questionable. Military objectives is just another term for needs, a fundamental creator of demand. The difference lies in the fact that a successful free market producer must anticipate or create his market's needs. An error in judgement means no sale. The military announces its needs. If anything, this should encourage competition. The only risk to the contractor is a shift in objectives in midstream -- the crux of Brueggeman's third competition counterpoint. To say high cost multiyear development requires

sellers to conduct Research and Development (R&D) under the assurance of guaranteed sales might hold true outside of, but not within, the procurement market. Companies producing outside the DOD market must assume the risks of R&D. They proceed only if market research reveals high prospects for sale. The R&D costs are absorbed when and if the market research pays off. However, DOD contractors are paid for R&D during that phase. If production goes to another contractor, the original contractor can still walk away with a profit, or at least break even. This assumes contractors will recognize that, due to competition, an R&D contract doesn't necessarily guarantee a production contract. Such an understanding would avoid an underbid "foot in the door" mentality. This collection of arguments should serve more as a stimulant for rather than an argument against competition.

In arguing for competition, "success stories" inevitably appear. So, here (Table 1) are a few systems showing branch of service and the savings attributed to competition. The examples given cross several fiscal years and one even projects 10 years ahead. The total, a figure not attributable to a single year nor service, is provided more for interest than utility.

SYSTEM	BRANCH	SAVINGS	Reference
HELLFIRE Missile	Army	\$ 37.5M	(17:17)
AEGIS Cruiser	Navy	228 M	(37:3)
Los Angeles Class Nuc Subs	"	108 M	"
Shipboard Magnetic Tape Drives	"	20 M	"
Thinline Sonar Arrays	"	10 M	"
Teleprinters	"	50 M	"
Perry Class Frigates	"	100 M	(24:16)
CG 47s	"	184.5M	"
MCMs	"	11 M	"
AH-1T	"	10 M	"
AN-AYK Air Computers	"	27 M	"
AN-UYK 43 TAC Computers	"	951 M*	"
HARPOON missile subassemblies	"	36 M	"
PHOENIX missile subassemblies	"	10.8M	"
A-10 Main Landing Gear Struts	AF	3 M	(19:17)
Reconnaissance Camera Systems	"	3.7M	"
TOTAL saved with competition		\$1790.5M	
(*-projected over 10 years)			

Table 1: SUCCESS STORIES

In addition to these efforts, there are others that did not lend themselves to listing. In FY 84, the Air Force started competing service contracts for the F100 (Pratt & Whitney) and F110 (General Electric)

fighter engines. As a result, support cost dropped from \$600 to \$300 per flying hour (28:18). Washers costing \$1.44 a piece were competed out to result in a 99 percent cost cut to \$.45 per hundred. An F-111 wrench ordered in low quantity cost \$410 due to special casting requirements. The casting requirements were judged unnecessary and the wrench was competed for \$14.50 (22:17). These finds are examples of the results of an 18 month Air Force search of 90,000 sole source items of which 18,000 were designated for competition. During FY84, competition in aircraft spares tripled (1:36). Additionally, the Air Force Combat Logistics Division claims the DOD saved \$575 million in spare parts acquisitions (27:3). The successes aren't limited to just spare parts as shown by competing the dual role fighter between the F-15 and F-16. The winning F-15E came in 27 percent below McDonnell Douglas' original proposal. However, General Schwankl points out that this is an exception (2:121), and the Air Force expects to make its money emphasizing subcontracting competition.

All these efforts are part of a DOD-wide move toward ever greater competition. Secretary Weinberger says that from FY 80 to 84, the number of competitive contracts increased 37 percent to a total of over six million. Also \$53 billion, or 43 percent of FY84 procurement dollars, went to competitive contracts (27:1). The Air Force FY85 goal was to compete about 33 percent of procurement dollars (2:122). Although this is about the same percentage as FY 84, it represented an increase in total dollars since the budget increased. Also, as pointed out by the AFSC Competition Advocate, Mr. Tony Deluca, competition goals are faced with an interesting anomaly. As competition results in savings, it effectively reduces the percentage of outlay dollars attributable to competition (14:17). To illustrate, if 40 out of 100 billion budgeted dollars are competed resulting in \$15B in savings, the competed contracts move from 40 percent of budget to about 30 percent of outlay. The difficulty in forecasting the total impact of competition makes goal setting difficult. Nonetheless, the Air Force goal obviously lags behind the DOD standard.

The Navy appears to be the service holding up that norm. About 4 years ago, the Navy competed 25 percent of its ships; the rest were sole source. As of last year, 90 percent were competed. By 1989, they expect all but the Trident Submarines to be competed (9:5). Of course, the 25 percent figure was at the beginning of the surge for a 600 ship fleet, so percentages are a little deceptive. In addition, ships are not contracted in total. This brings us full circle to the question posed earlier: Why the difference in emphasis? There are a number of arguments supporting the cautious Air Force approach.

One of the leading arguments for caution may have been part of the motivation for a MAJCOM request last May for a report of cost savings initiatives. The request indicated a desire for an auditable report of cost savings due to competition. The emphasis is supposed to have been on "auditable" because of the expected Congressional question: "Where are the dollars you have been saving (35:--)?" The reason this question is so perplexing is apparent in the reply to the MAJCOM request:

"The question of the amount of cost saving or cost avoidance that result from competition is not new and, despite numerous studies, a satisfactory answer has not as yet been provided. Air Force Systems Command commissioned an Air University Study in 1983 ... to examine the feasibility of developing a quantitative method -- an algorithm if possible -- that would yield the competition savings on a given program. After researching numerous previous studies and analyzing their underlying data, the study concluded that the desired model 'could not be developed.'" (34:atch 1)

As for the still nagging question of where are the saved dollars, they are not at this point being turned back over to Congress as surplus. Congress would like that, but it goes drastically against the grain of the system as well as the law. The best answer to the question appears to be that the DOD now gets "more bang for the buck," or manages to stretch its dollars a little further. The reply to the MAJCOM letter came up with some cost savings. The savings were significant, but the actual numbers are still sensitive due to the not so sure way in which field sources generated replies under a short suspense (34:1). With available information, the cautious approach of the Air Force in pushing competition may, for the time, have merit.

The dollar savings given most frequently represent gross savings, but competition efforts can cost money (5:154). Even Commodore Platt warns of the "razor blade syndrome" of visible short term savings and not so apparent long term costs (23:13). An Air Force Office of Scientific Research (AFOSR) sponsored summer faculty research program explored the efforts of an F-15 Support Equipment "Tiger Team." The research broke out some of the hidden offsetting costs in a 78 per cent, \$5 million, gross savings figure (33:9). Researchers listed these costs as manpower ("Tiger Team") effort in identifying competent support equipment, trips to potential sites for evaluation and qualification, manpower costs from seven associated DOD and contractor offices, and the costs of managing support equipment after delivery to the prime. The list appeared to be a valid list of costs, but did not include a dollar breakout. In fairness to the AFOSR effort, accurate data was probably not available since manhours aren't typically tracked against specific taskings. This author's curiosity led to a hypothetical breakout without access to "Tiger Team" statistics to determine costs. The figures used are admittedly mere educated guesses deliberately liberalized to allow a conservative figure. AFOSR researchers stated the "Tiger Team" consisted of five people employed at least half-time over 180 days (about 1/2 year). If these five individuals earn \$45,000 a year, that comes to a total team personnel cost of \$56,250. As for trips, allow one trip per person per day at an average cost of \$300 travel and \$50 per diem -- that's 900 trips (five people over 180 days) for a total \$315,000. Accounting for the costs of contributions of seven other offices would be very difficult. But, with sporadic inputs over the total period, their contribution would not likely exceed the specific "Tiger Team" efforts -- another \$56,250. The final cost of

managing delivered support equipment would include personnel for planning and scheduling plus the costs of inventory control. On the \$6.5 million contract, \$1 million should be a generous estimate. These figures, summarized below, bring the total offsetting costs to \$1,427,500. The net savings would still be over 50 percent.

Gross Savings		\$5,000,000
Less		
Tiger Team Manpower	\$ 56250	
Travel	315000	
Support Office Manpower	56250	
Managing Support Equip	<u>1000000</u>	<u>\$1,427,500</u>
Net Savings		<u><u>\$3,572,500</u></u>

As already mentioned, these numbers are not based on fact. Furthermore, the AFOSR researchers go on to reference an unpublished masters thesis listing 14 offsetting cost categories (33:10). This exercise demonstrates, however, that casual reference to offsetting costs is not an acceptable argument against competition. In order to stand up, the costs should be clearly documented under a traceable audit trail.

Unfortunately, such documentation can be more easily called for than found. The F-15 project researchers found numerous references advocating case-by-case cost analysis. The same references, however, stated that "methodologies and guidelines are not currently available for accomplishing these estimates accurately (33:10)." Rather than attempting to make justifications in terms of obscure dollar costs, another alternative may be pursued. While procurement agencies do not track manhours against taskings, they have always tracked timelines.

One of the most annoying impacts of the CICA and other competitive legislation is the associated increase in administrative lead time. General Skantze, as AFSC Commander, said it succinctly, "The longer the acquisition cycle, the more we're spending (22:2)." In identifying four trends ailing the acquisition process, Dr. Jacques Gansler identified the third and worsening one as the increasing time to develop and procure new weapon systems (13:95). What, then, are some of the specific sources of these time drains.

The CICA's requirement for procurement agencies to pick up duties previously accomplished by contractors is one of the largest collective causes of time drains. This impacts transition and manning. For example, in transitioning from spares procurement through prime contractors to direct procurement from subcontractors and vendors, the Air Force must develop a whole new base of government contractors. Although much of this base already exists through the primes, it has been run under a different set of rules. Educating these new contractors takes time, not to mention evaluating and qualifying them as responsible bidders. When the primes handled these duties, they weren't subject to political constraints of contract placement nor were they forced to accept the lowest bidder

(27:17). But, before these problems can even be confronted, several other associated time crunches must be addressed.

Prior to advertising, time must be taken to review appropriate items for breakout -- the Air Force currently pushes this subcontracting effort (2:121). To do this, items with little or no value added by the prime must be earmarked (22:76). Then, caution must be exercised to avoid invalidating a prime contractor's warranty. Throughout the process, inherent risks of quality assurance and scheduling develop (19:15). The ideal negative example is the transition to spares breakout in the F100 engine. Newly competed parts were often found to be low in quality or late. The new review process added to lead time as did the change in contractors. Old subcontractors selected by the prime under their own rules were of adequate size to absorb gear up costs prior to actual order receipt. Unable to afford such luxuries, the new low overhead contractors increased lead time from 58 to 159 days. This predicament, believed to temporarily render half of the Air Force's F100 spares inventory unusable, is estimated to require a one year recovery time (20:16). An important observation would be that adjustments to this transition problem are leading to recovery and contributing to the AFSC learning curve. The problem of adequate manning adjustments to cope with the problem still lingers.

Another time problem attributable to competition efforts surfaced in the R&D area (30:--). Under new legislation a new additional synopsis is required (31:18). Anyone can request a copy of the Request for Proposal after initial solicitation, and responses must be made without screening. In addition to the response commitments, security clearance requirements for classified solicitations have almost quadrupled. The increase in requests has not, however, significantly enhanced competition. For example, when 164 solicitations were issued following 145 responses to a second synopsis, only four proposals were actually received (31:10). The added workload of these requirements has increased the already lengthy lead time from 183 to 219 days on competitive contracts. The workload coupled with sole source justification requirements has even more dramatically increased sole source lead time from 90 to 181 days (31:15). This example provides the type of ammunition required to fight for amendments to some of the complications associated with the CICA.

One last area of resistance to the requirements of the CICA is in the area of services contracts. Higher cost services contracts have often been sole source with companies keeping a full time work force employed. Although this theoretically maintains a highly qualified work force, it also forces up costs through the associated higher overhead costs. In a competitive environment, the small front office that hires after securing the contract can submit the lower bid due to lower overhead. Quality assurance can become a problem. The counterargument is that if a contractor meets standards and can do it for less, go with the savings. Documentation in this area appears lacking beyond personal opinions. However, the decision seems to be moving toward the counterargument. Commodore Platt advocates beefing up competition in support services

contracting (23:13). Army policy, according to Dr. Jay Sculley, Assistant Secretary of the Army, is, "If it is a service contract, compete it (17:18)." For now, it's a matter of law and only documented negative results are likely to change it.

This line of thinking parallels the overall DOD perspective on competition. Although concessions on occasional inadequacies of competitive bidding are easy to come by, the competition in the acquisition process generally leads to price reductions (5:150,153). Questions still exist on the extent and general applicability of competition, and some will be addressed in the next chapter.

Chapter Three

QUESTIONS AND ANSWERS

Having examined the impact of the CICA, many questions or points for further discussion may have arisen. This chapter addresses five questions which surfaced frequently during research. The answers will broaden the perspective on competition in contracting and lead to conclusions and recommendations of the final chapter.

QUESTION ONE

How much competition is competition, or how many contractors should be involved in source selection to assure competition?

There exists a simple answer to this question. According to DAR (para 3-807.7) competition exists if, in response to solicitation, two responsible bidders who can meet requirements independently contend for a contract awarded to the lowest evaluated bid (5:151). Although it's tempting to stop here, there's more to be said. DAR gives a minimum and congressionally acceptable level of competition for many cases. However, the CICA directs encouraging competition to the maximum extent possible. This means adequate market research and solicitation to encourage the fullest possible response. If this results in only two responsible bidders, the intent of the CICA is satisfied. There really is no magic ratio for solicitations to responsible responses. The R&D sample cited in the last chapter showed the possible extremes. The emphasis then is not on counting responders, but on documenting effort.

There is another more complicated facet to this question. Now that the Air Force breaks out contracts and goes straight to the subcontractors, how will major weapon systems be viewed as competitive? Somehow the Navy manages to count 90 percent of their ships as competitive contracts. Just what this means is difficult to tell since the Navy does not publish, along with this claim, a listing of the ships and the associated contracts. So, does a major weapons system become "competitive" when the prime is dual sourced through production; when over 50 percent of the associated contracts are competed; when over 50 percent of the total dollar value of the final system is competed; or should a system be considered "competitive" when both associated contracts and dollar value exceed 50 percent? The definitive answer is not yet here, and a good deal of flexibility in massaging statistics only further clouds the issue. In the final analysis the contracting officer's

responsibility to the CICA is to create an environment encouraging more than one response.

QUESTION TWO

Is there a data base suggesting when competition is or is not appropriate?

This question arises out of a need for a simplified decision tree to aid in deciding to move either toward competition or not. This need is based on the confusion caused by past experiences and present requirements. Federal procurement regulations and the DAR have for many years required competition to the maximum extent possible. As a result, a maximum number of sources should have been included consistent with the nature and requirements of the supplies or services to be procured. Additionally, the GAO handled protests by invalidating procurements on the basis of inadequate or improper synopsis, an unreasonably high price, or the deliberate effort to exclude a potential contractor (25:43). Apparently, the CICA has not changed the requirements for competition so much as it has the emphasis. Therefore, without fundamentally changing the requirements, a contract once acceptable as sole source must now be competed. The natural confusion in the field is based on reconciling prior experience to go sole source with new emphasis to compete. Given the dilemma of already lengthy acquisition cycles, the conscientious procurement officer wants to avoid the further delays of an early wrong move: hence the request for a data base.

Unfortunately, neither a data base nor regulatory guidance exists to aid in the implementation of the competitive spirit of the CICA. A decision tree so specific as to automatically type cast a contract as competitive or noncompetitive is neither likely nor prudent. However, the existence of general economic principles and market forces suggests the procurement officer could be assisted through implementation regulations and specific policies. Free market forces and competitive response are more likely in off the shelf procurements, especially when no (or minimal) DOD specifications require modification. Also, competitive contracts are ideal when competitive markets already exist negating the need for DOD investment to enhance competition. Certain products such as computers, office equipment, some test equipment, and catalog items can be listed for expected competition (7:40). However, until a data base can be developed, comprehensive market research will determine the feasibility of pursuing competitive bids and proposals.

QUESTION THREE

Can source selection be simplified or accelerated?

The increase in responses attributed to competition only complicates an already labor intensive source selection effort. Since the primary

change to source selection deals with handling a larger market, the computer should be of great aid in addressing the problem. Several papers addressing this issue were presented two years ago at the Federal Acquisition Research Symposium. Two of the papers reported time and resource reductions of 20 to 50 percent in various phases of source selection (3:527;4:19). One software package called Computer Aided Source Selection (CASS) specifically addresses evaluation and status review. The CASS programs are written in BASIC, CPM compatible, and are suitable for most desk top microprocessors. A master scheduling system contributing to the processes of auditing, negotiations, and contract writing was in development at the time of the symposium. Furthermore, the developers were exploring computerized report generation for Source Selection Advisory Council and Evaluation Board reports (22:216). The use and tracking of forms such as deficiency notices and clarification requests is ideally suited for computer generation (3:527). AFSC already utilizes computerized form preparation in some phases of acquisition with great success (4:19). All of these programs were in their infancy stages two years ago and should now present effective means of time management in source selection.

QUESTION FOUR

How far into the acquisition cycle should competitive processes be expected to continue, and what are some approaches to competition later in the cycle?

According to the AFSC Competition Advocate, Mr. Tony Deluca, Systems Command has not done well in competition beyond full scale development. He says that the total buy of high cost systems coupled with spreading the buy over a number of years makes competition inadequate due to the loss of economies of scale (9:18). Multi-year procurement, such as with the F-16, coupled with DOD component breakout to subcontractors addresses both increased competition and economies of scale. By competitively contracting for components for subsequent year buys, a program can be front loaded with economical volume contracts. For example, if 750 airframes are expected to be acquired over 4 years, the brake system components for the whole lot might be broken out and competitively contracted in only the first year. Components purchased at the high volume lower price are then stockpiled until the major systems come on line. Although significantly dropping unit costs in the out years, such buys dramatically force up unit cost up front. This higher initial cost makes continued purchases difficult to sell to a Congress skeptical of cost overruns. There are also two other risks involved. First could be losing out year funding for airframes when parts have already been acquired. Second, components acquired up front will eliminate change options later on.

A different and increasingly favored option for competitively carrying a contract through production is dual sourcing. This is especially suited to contracts appropriately noncompetitive in development

but adapted to full and open competition for production (25:45). It may go as far as subsidizing a second source in order to bring it on line (19:2). Even when cost reduction doesn't result from dual sourcing, it often encourages production performance efficiencies (27:2).

However, there are some problems and risks associated with dual sourcing. One has already been mentioned -- high cost low volume buys are often not economically split between contractors. Another risk is the possibility that competition will be for the high price rather than the low. To illustrate simply, suppose two contractors each bid on the same program. Contractor A, with the lower bid of \$2M per unit is awarded a 50 unit buy or a \$100M gross. Contractor B deliberately bids high at \$5M per unit and is awarded a 10 unit buy or \$50M gross. Each contractor has overhead and fixed costs of \$30M, but contractor A saves on volume with a variable unit cost of \$1.3M. His net profit is \$5M. Contractor B, with the higher unit cost of \$1.5M can still earn the same net profit at a higher margin. A summation is provided for clarity:

	<u>Contractor A</u>		<u>Contractor B</u>	
50 units at \$2M	\$100M		10 units at \$5M	\$50M
LESS Fixed Cost	30M		30M	
Var Cost	65M	95M	15M	45M
NET PROFIT/	<u>\$ 5M</u>		<u>\$ 5M</u>	
MARGIN	<u>5%</u>		<u>10%</u>	

This type of risk runs highest when the second source is brought on late in the acquisition cycle just to develop competition for the sake of complying with competition emphasis. A predetermined fixed quantity split (i.e. 70 percent to the high bidder and 30 percent to the low bidder) only encourages gaming by the contractors. The simple retort to this risk might be "winner-take-all" bids. However, aside from discouraging industry support, this eliminates dual sourcing by awarding a single source. Once again, AFSC would be reduced to not doing well beyond development. There is a compromise approach which is neither winner take all nor a predetermined fixed quantity split (19:3). A formula split tied to price difference in bids could allow a split over a range of, for example, 50/50 to 75/25. If the price difference drives the split outside the range, the high bid would get nothing. Such a method puts the risk on the contractor who goes for a high price and encourages a low price bid as the low risk approach.

Another method of developing dual sourcing during production is called leader-follower. Among the most successful efforts at this technique is the Army's HELLFIRE missile (16:51). The missile, having two distinct components, was competitively contracted by component. The winning contractors, Rockwell and Martin-Marietta, each taught the other how to make their component. Then both competed under dual sourcing for the whole system. With each company acting as "leader" in one component and "follower" in the other, one of the main drawbacks of this technique was overcome. That drawback is that the "leader" or more experienced company will initially have an advantage and, therefor, could lack

motivation for submitting its lowest price in early rounds (19:2)

The Navy's Vertical Launch System team carefully considered prerequisites for successful dual sourcing before committing to their approach. They saw possessing a stable design with no expected major engineering changes as a key to effective dual sourcing. They also recognized the need for more manpower to evaluate competitive options and deal with each source. Comparing second source start up costs to the unit buy over time was another crucial factor. Finally, the team realized that a formal competition for the second source could take years. The prime's learning curve progress during that time would make a second source of limited value. The solution was selecting a second source from among the original competitors (10:26). To make such an approach feasible, it needed to have been planned well in advance of initial source selection. This example along with HELLFIRE shows that advanced planning for competition is vital to derive its greatest benefits, especially in the later stages of the acquisition cycle.

If competition can be carried through production, can it go further still into test and evaluation? Yes, in fact it's been done in many cases. The Vulcan Air Defense System has a testing procedure requiring specific radar equipment. Testing without a government furnished radar would have been noncompetitive. Further investigation turned up an available supply and subsequent competition resulted in savings of about \$740,000 (15:14).

The final answer to the question originally posed is that competition is not only feasible but potentially profitable throughout the entire acquisition life cycle. Its only limits when planned for early are economic feasibility and creativity. Competition at the lower cost, lower risk spectrum of concept exploration not only encourages subsequent competition, but exploits the synergistic effect of multiple sources and ideas. Likewise, advanced planning for competition makes implementation more effective in later stages (7:39). Although cost-benefit analysis is complex when many costs cannot be nailed down nor benefits forecast, such analysis is vital to advanced planning. The current DOD emphasis stemming from the CICA dictates that close analyses should lean toward a competitive decision at all cycle phases. It admittedly may not be suitable for all major weapon systems in all phases, but the potential payoffs warrant case-by-case review (14:157).

QUESTION FIVE

How are prime contractors responding to changes caused by the CICA?

The CICA was not on the street long before federal contractors and analysts started evaluating changes, associated risks, and opportunities (6:S3). The expected reduction in sole source contracts made it quickly discernable that contractors expecting to maintain their share of the market would need to adapt quickly. However, there doesn't appear to be

much anxiety over contracts lost to component breakout. In fact, many primes seem to be glad to relinquish that complex function due to marginal profitability in spite of 40-45 percent markups (23:75+).

Initial shifting indicates a desire of contractors to make themselves more positively visible in the new competitive market. The law precludes reviewing unsolicited research proposals from a sole source or noncompetitive source unless it is unique and innovative. This limits such proposals as a means of market entry. However, by simply expressing written interest in contracts being considered noncompetitively by the government, a contractor may open the market. They can also effect contract approval levels through pricing strategy if educated in approval thresholds. The CICA's emphasis on advanced planning and market research also opens the market to contractors making information available to procurement agencies (6:S5). The wider door on protests, a potential area for negative visibility in the procurement market, was expected to be a major area for industry response. While the GAO has turned back more protests as lacking merit, the number of protests actually reaching Systems Command has held very close to historical rates (34:--). Therefore, initial trends appear to indicate an accomodating response to the competitive emphasis.

A hoped for response from contractors is improvement in production efficiency. Such a response would enhance the image of the defense industrial complex which has come under harsh criticism in recent years. News of overpricing brought accusations of federal contractor irresponsibility in pricing and productivity. For example, production inefficiencies documented by the Air Force showed contractors taking twice the negotiated production time. A 1983 survey of the production of 35 major systems disclosed an average efficiency of only 46 percent (13:1284). Analysts derived this efficiency rating by dividing the contractor's estimated manufacturing time by the actual time to complete the work. Conversely, efficiency rating in nondefense industry runs from 95 percent here in the United States to over 100 percent in some Japanese firms. The blame ranges from contractor overstaffing and bad management to DOD low volume purchases and frequent design changes. Another principal reason for low efficiency is the lack of competition once contracts are awarded. As long as the military continues to put itself in positions of dependence on single suppliers, there will be little incentive for contractors to improve bids or efficiency (11:96). Therefore, pushing for competition later in the cycle should at least encourage industry to improve production efficiency.

Prime contractors are also moving to improve their public image in response to accusations of overpricing. Following the lead of Boeing Company and Grumman Aerospace, General Electric is backing a spares refund proposal. This policy would involve a voluntary refund for spares and support equipment deemed unreasonably priced by the DOD within 90 days of delivery (12:21). Although such a proposal may be superficially tempting, it has risks for the DOD. First, it appears to place the responsibility of reasonable pricing on the contractor. The reality is that the DOD will

be forced into determining reasonableness, and must do it with a deadline. Second, "reasonable" can be a vague term. For example, the \$410 F-111 wrench cited in Chapter Two might appear unreasonable. But when the price is attributed to Air Force overspecification, the DOD would have trouble arguing "reasonableness." Lastly, even if DOD invoked the option, it would be faced with an unfilled need. Nonetheless, the offers of these defense contractors indicate a cooperative spirit.

The fluctuations and adjustments of the federal procurement contractors offer many benefits to DOD representatives. Uppermost of those is assistance in establishing a broad base of competitive contractors. However, even acknowledging the existence of honorable responsible contractors, their movements are primarily motivated by the need to improve their own position. Excessive dependence on their good intentions could actually have the effect of operating with blinders and closing some competitive doors. The recommendations summarized in the final chapter are designed to keep those doors open while advancing the position of the DOD.

Chapter Four

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The Competition in Contracting Act, other competitive legislation, and the associated DOD-wide emphasis on competition have really stirred the federal procurement pot. Although innovative approaches have helped increase the number and value of competitive contracts, the greatest obstacle to increased competition remains internal resistance. This resistance is fueled by several factors. First, there exists a lack of confidence in accounting techniques used to prove the cost savings of competition. Second, resistance to changing a deeply entrenched system is a normal reaction. This factor is fueled by the next, time constraints. In an environment where time is crucial, competition only appears to add time. Finally, resistance is fueled by the higher approval levels required by law. These levels aggravate those decision makers who are not allowed to make decisions and only further aggravate the time factor. Any improvements in competition advocacy must address these problems.

Another problem is a lack of uniformity in DOD agency approaches to competition. Each of the services is taking a slightly different approach. As long as the programs were informal and basically belonged to the services, this was a workable system. However, the CICA formalized competition advocacy and forced a DOD program rather than a service program. Goals not closely aligned and nonstandardized statistical reporting will present an ununited front and probably promote interservice rivalries at annual congressional report time. The decision for monthly informal meetings between DOD Competition Advocate Generals is a move in the right direction (2:122), but more information needs to be distributed out of those meetings. Additionally, the lack of unity is not just between the Air Force and other agencies, it exists within the Air Force itself. The reason for this lies in the formative process of competition advocacy. The competition advocacy structure was originally an informal additional duty program. With passage of the CICA it had to be formalized and placed under HQ USAF direction. As a result, organization followed a bottom up format fostering command and program unique initiatives with minimal Air Force coordination. Successful creative ideas can be used once and then fall through the cracks in this environment, or they may get no farther than being hailed as another success story. Progress in competition must follow recommendations addressing these difficulties.

But this statement presupposes the last and probably most important conclusion.

In order to push for progress in competition, the Air Force must first conclude that competition is in fact good for the Air Force. Policy statements of flag officers indicate that this is believed at high levels. However, middle management seems to be lingering in yesterday's sole source contracts. The vast majority of data indicates that with only a few exceptions the Air Force benefits from well planned and conceived competition. Accepting this conclusion, exceptions can be isolated and well documented as precedent for future noncompetitive contracts. That done, the emphasis on competition can continue following the majority set of effective examples. The initiative in competition should not be held back by gut level feelings or examples of competitive failures based on poor planning forced at too late a time. Many of the problems of competition techniques are transitory in nature and will be overcome with time if efforts are pooled and well guided.

RECOMMENDATIONS

1. It's time for another attempt at financial modeling techniques for program analysis and decision making. If models can be developed for analyzing world and regional economies, they should be feasible at this level. Although comparing these two models is like apples to oranges, their scale and complexity is similar. These factors should not, therefore, be automatic cause for a refused attempt. Decision makers in the field need the models to promote or defeat competitive processes. Analysts need them to better evaluate programs and processes. Models are not a cure all, but they do provide a good framework for analysis.

Before starting research, clear unrestrictive guidance should be given for the models. A quantitative algorithmic model (as was requested of the 1983-84 Air University study (31:atch1)) has advantages, but stating that as a preference can be restrictive for a researcher. Above all, simplicity when possible must be emphasized. Otherwise, the model will lack adaptability and flexibility for general use. Auditable inputs will lend credibility and allow authentication. When such inputs are not possible, standards for estimations should be developed. Guidelines and methodology for computing competition's offsetting costs will significantly enhance the model. A good model should be usable not only for cost-benefit analysis, but for evaluation as well.

Other sources outside Air University should be explored. A problem of this scope is too complex to be addressed within the tenure of an Air University student. If possible, more than one study should be commissioned. If Air Force Institute of Technology (AFIT) sponsored students are used (another cost effective approach), the development of an innovative financial model is PhD level research. One or more AFIT students selected from either the resident or civilian institution directorates should be sponsored and supported at the MAJCOM level. The

third and more costly option is professionally commissioned research. I recommend selecting an AFIT student already familiar with federal procurement and having a personal stake in the results.

2. An April 1983 policy letter from General Robert Marsh to his Air Force Systems Command field commanders included emphasis on competition in contracting. Among his policies was one to develop programs to "better educate everyone involved in the acquisition process regarding the benefits of effective competition" (14:156). Educational efforts are fundamental vehicles for breaking down resistance to change and developing new procedures. The central point for education in procurement through either professional continuing education (PCE) or graduate education is the Air Force Institute of Technology (AFIT). The PCE curriculum includes a short course in Acquisition Systems Program Management which discusses competition. Graduate education gives topical coverage to competition in several courses including one core course. There is no single course devoted to competition (32:-- ,33:--). Accumulated knowledge plus current emphasis justifies the need for such a course.

3. A clear cut regulatory means of implementing competitive procedures is desperately needed. Although the FAR and DAR have been updated to reflect the requirements of the CICA, a single Air Force regulation addressing competitive procedures would go a long way towards unifying Air Force wide efforts. It should address formalized competition advocacy procedures and reporting plus give competition the emphasis expected by the CICA. Comparable regulations are the Acquisition Baselineing Regulation (AFR 800-25) or the Life Cycle Cost Management Program (AFR 800-11). Another option would be to include the guidance as a new attachment to AFR 800-2 similar to the attachment on multiyear selection criteria.

4. Air Force wide communication in competition advocacy must increase. Flowing down, monthly reports of Advocates General meetings should be made available to command and field competition advocates. Similarly, field reports of ideas, successes, and failures need to flow uphill. This flow of communication needs to expand laterally as well -- first between directorates and programs and then between commands. Only through such communication may the synergistic effect of previously unknown collaborative efforts be derived. It should be the tasking of the field competition advocates to ferret out such efforts and have a vehicle for reporting them up their advocacy chain of command. As the Air Force effort expands, so will opportunities to share with other DOD agencies.

5. As the Air Force acquisition time line expands due to these required competitive efforts, a tradeoff with contractors should be developed, encouraged, and expected. The Air Force is picking up many duties and responsibilities once held by contractors. Contractor willingness to help in this transitory time is of great benefit, but the Air Force should also begin to get some of that lost time back prior to IOC. Right now, due largely to bad press, the defense industry seeks a better public image. One area in which that image may be improved is production efficiencies.

Competition should encourage it and the Air Force needs to hold industry's feet to the fire on this issue.

6. The time is now, in the developmental stages of a new subcontractor competitive market base, to develop a centralized data base. Coordination with AFLC as their massive new ADP acquisitions come on line would help overcome commonality problems and take advantage of the synergy of multiple users of a data base. In its initial stages, the base might be limited to Air Force use. However, it should be planned to be expandable to DOD wide use. A data base containing company names, addresses, contact points, qualification and evaluation comments, geographical indexing, track record information, indexed product lines, etc., could be of immeasurable use in recovering lost time. Furthermore, such a base could be interactive with centralized programs for source selection and forms output developed from the work of Major Barry and Mr. Bono (3:--;4:--). Another problem of commonality is the varied markets of major weapon systems and base level procurement. Geographical indexing should address that point while allowing expansion of base level competitive markets. Inputs to the system could be controlled through the regulation mentioned in recommendation three. Further delay on this recommendation will only encourage continued decentralized efforts benefitting only specialized procurement sectors.

7. The trend in elevating review and approval levels of contracts must be reversed. The high levels are a prime irritant in dragging out lead time. Little or no resistance to this recommendation exists within the DOD. However, since the recommendation goes directly against the CICA, the resistance is based in Congress and must be approached at that level. There are three probable reasons for setting the levels so high. First, a lack of satisfaction exists with prior lower level decision results in developing adequate competition. Second, higher level approval and review becomes centralized and easier for congressional monitoring. Third, by mandating high level approval, Congress simultaneously legislated high level internal emphasis on competition. If, during annual congressional reports, the DOD can show adequate levels of competition, a well established competitive system requiring no further scheduled congressional monitoring, and sustained high level emphasis, then perhaps Congress can be persuaded to reduce approval levels. A DOD recommended time line and dollar level for gradual reduction to prior levels could help nudge Congress in the right direction.

8. Goals for competition need to be challenging yet realistic. Linked to this are needs for standardized DOD measures of competition. Currently, along with most competitive figures comes the explanation that not included with the figures are contracts originally competed but now noncompetitive because they are part of a continuing buy from the only source making the product. Such apologies should be either dropped or the contracts should be included as competitive. They were counted competitive in the initial purchase, a purchase that could have been a one time life cycle buy if not for budget constraints. Also, in spite of the definitions of the CICA, there are still some statistical manipulations in

reporting competitive contracts. Some standardization would help in setting reasonable goals. Goals should then be set taking into account their probable impact. For example, competition is expected to reduce prices. Therefore, the rationale that competition reduces prices and, as a result, the total number of competitive dollars, is not very good justification for failure to meet a percentage goal. Such factors should be considered in realistic goal setting. Offering them as an excuse for falling short only makes the goal setting process appear ill conceived. Goals should also be multi-year, possibly in line with the Five Year Defense Plan (FYDP). Finally, one of the goals of Competition Advocacy should be its ultimate dissolution. As competition in contracting develops an inertia of its own, and it will, the time will come when it should no longer be needed. Of course, such a goal would have to be congressionally coordinated due to the requirements of the CICA.

9. The final recommendation is to coordinate competition advocacy efforts with the streamlining initiative. Command level advocates of both programs should initially explore the feasibility of collaborative efforts. The competition and streamlining programs fit hand in glove since one of the natural derivatives of streamlining is to promote a competitive environment. An Army example of this was the rewriting of a Technical Data Package (TDP) on a distribution box. The TDP originally forced sole source. A rewrite allowed competition, a 70 percent unit price drop, and savings of almost \$800,000 (15:14). In addition to coordinating with streamlining, the close ties of the streamlining and transition initiatives (26:24) indicate possible benefits in transition as well.

SUMMARY

Response to the Competition in Contracting Act of 1984 is wide spread, developing good results, and gathering momentum. However, the effort lacks the direction and coordination of a well orchestrated initiative. Many of the growing pains are transitional and will be solved with time. But, a better organized and regulated program will reduce that time and more quickly allow the DOD to return the monkey to whence it came.

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