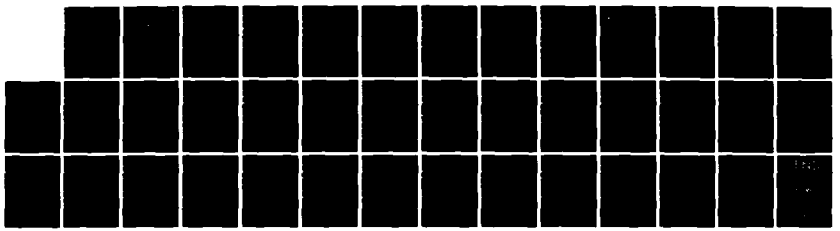
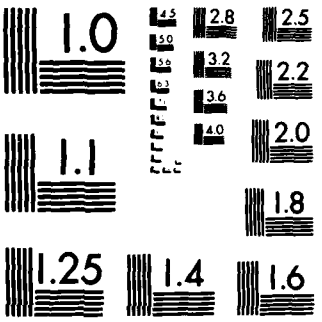
AD-A156 565 IMPACT OF PUBLIC LAW 98-369 ON AIR FORCE LOGISTICS COMMAND (AFLC) CONTRACT ADMINISTRATIVE LEADTIME(U) AIR COMMAND AND STAFF COLL MAXWELL AFB AL 1/1

UNCLASSIFIED D K HEDGES ET AL. APR 85 ACSC-85-1115 F/G 15/5 NL





AIR COMMAND AND STAFF COLLEGE

STUDENT REPORT

IMPACT OF PUBLIC LAW 98-369 ON AIR FORCE LOGISTICS COMMAND(AFLC) CONTRACT ADMINISTRATIVE LEADTIME

MAJOR DAVID K. HEDGES 85-1115

"insights into tomorrow"

DISCLAIMER

The views and conclusions expressed in this document are those of the author. They are not intended and should not be thought to represent official ideas, attitudes, or policies of any agency of the United States Government. The author has not had special access to official information or ideas and has employed only open-source material available to any writer on this subject.

This document is the property of the United States Government. It is available for distribution to the general public. A loan copy of the document may be obtained from the Air University Interlibrary Loan Service (AUL/LDEX, Maxwell AFB, Alabama, 36112) or the Defense Technical Information Center. Request must include the author's name and complete title of the study.

This document may be reproduced for use in other research reports or educational pursuits contingent upon the following stipulations:

-- Reproduction rights do not extend to any copyrighted material that may be contained in the research report.

-- All reproduced copies must contain the following credit line: "Reprinted by permission of the Air Command and Staff College."

-- All reproduced copies must contain the name(s) of the report's author(s).

-- If format modification is necessary to better serve the user's needs, adjustments may be made to this report--this authorization does not extend to copyrighted information or material. The following statement must accompany the modified document: "Adapted from Air Command and Staff Research Report (number) entitled (title) by (author) ."

-- This notice must be included with any reproduced or adapted portions of this document.

REPORT NUMBER 85-1115

TITLE IMPACT OF PUBLIC LAW 98-369 ON AIR FORCE LOGISTICS COMMAND(AFLC) CONTRACT ADMINISTRATIVE LEADTIME

AUTHOR(S) MAJOR DAVID K. HEDGES, USAF
MAJOR ALFRED E. MASON JR, USAF

FACULTY ADVISOR MAJOR MARK E. WARNER, ACSC/EDOWC

SPONSOR COL. FORREST E. DYE, HQ AFLC/PM-1

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

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

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION: UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S): 85-1115	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION: AFIT/ [illegible] — 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
6c. ADDRESS (City, State and ZIP Code): [illegible] AFB AL 36112	7b. ADDRESS (City, State and ZIP Code)
8a. NAME OF FUNDING/SPONSORING ORGANIZATION — 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State and ZIP Code)	10. SOURCE OF FUNDING NOS. — PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT NO.
11. TITLE (Include Security Classification): REPORT OF PUBLIC LAW 98-369 ON AIR	

12. PERSONAL AUTHOR(S): Hedges, David K., Major, USAF; Mason, Alfred E., Major, USAF

13a. TYPE OF REPORT	13b. TIME COVERED FROM ____ TO ____	14. DATE OF REPORT (Yr., Mo., Day)	15. PAGE COUNT
		1985 April	38

16. SUPPLEMENTARY NOTATION: [illegible] 11: FORCE LOGISTICS COMMAND(AFLC) CONTRACT ADMINISTRATIVE LEADTIME

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)

Provides an analysis of the impact of PL 98-369 on Air Force Logistics Commands Contract Administrative Leadtime(CALT). Results based on an analysis of the relationship between changes in contracting procedures and increases in CALT.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☒ DTIC USERS ☐	UNCLASSIFIED

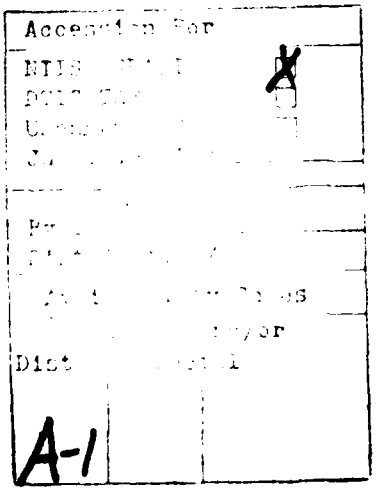
22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE NUMBER (Include Area Code)	22c. OFFICE SYMBOL
[illegible] AFB AL 36112	(205) [illegible]	

DD FORM 1473, 83 APR — EDITION OF 1 JAN 73 IS OBSOLETE. — UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

PREFACE

Congressional mandates have affected the DOD acquisition process in many ways. Frequently, laws are enacted without considering these impacts. The purpose of this project is to determine the impact of Public Law 98-369, the Competition in Contracting Act of 1984, on Air Force Logistics Command (AFLC) Contract Administrative Leadtime. This has been accomplished through analysis of existing legislation, historical AFLC leadtime data, and the applicable regulatory requirements. While the data used pertain to AFLC, the conclusions can be generalized to all wholesale logistics activities which deal in weapon system replenishment spare parts. The authors wish to acknowledge the invaluable assistance of **Col Forrest N. Dye**, Hq. AFLC/PM-1, sponsor and content monitor, and **Maj Mark Warner**, ACSC/EDOWC, faculty advisor. Their support and encouragement aided completion of this project.



ABOUT THE AUTHOR

Major Hedges began his Air Force career as a missile launch officer at Malmstrom AFB, Montana. He spent almost six years in Missile Operations and was then selected to participate in the Education With Industry program at Hercules Inc., Magna, Utah. From there he was assigned to the Ogden Air Logistics Center as an acquisition contracting officer buying F-16 replenishment spare parts. Subsequently, he was assigned as the Chief of the F-4 spares section. One year later he was assigned to the AFLC Career Broadening Program at Ogden completing the two year program in 1984. Major Hedges graduated from Brigham Young University in 1972 with a BS in Zoology and from the University of Montana in 1978 with a Masters in Business Administration. He is presently attending Air Command and Staff College in residence.

Major Mason is a navigator with 6 years operational experience, both overseas and CONUS, in the F-4D. He has been an acquisition contracting officer since 1978 and served as a contract negotiator and a contracting officer in AFLC. In addition, he was a contracting division chief at both the Air Logistics Center and Hq AFLC levels. Major Mason is a 1970 graduate of Youngstown State University with a B.S. in Business Administration and a 1982 graduate of Utah State University with a Masters in Business Administration. He is presently attending Air Command and Staff College in residence.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

TABLES

FIGURES

EXECUTIVE SUMMARY

Part of our College mission is distribution of the students' problem solving products to DoD sponsors and other interested agencies to enhance insight into contemporary, defense related issues. While the College has accepted this product as meeting academic requirements for graduation, the views and opinions expressed or implied are solely those of the author and should not be construed as carrying official sanction.

"insights into tomorrow"

REPORT NUMBER 85-1115

AUTHOR(S) MAJOR DAVID K. HEDGES, USAF; MAJOR ALFRED E. MASON, JR., USAF

TITLE THE IMPACT OF PUBLIC LAW 98-369 ON AIR FORCE LOGISTICS COMMAND CONTRACT ADMINISTRATIVE LEADTIME.

I. Purpose: To determine if the changes in contracting procedures specified in Public Law 98-369 will adversely impact Contract Administrative Leadtime (CALT).

II. Problem: Recently, the Congress has passed many laws in an attempt to legislate competition in the acquisition process. Frequently, these laws change contracting procedures and result in additional workload for contracting officers. These additional tasks usually require more time to accomplish and thus lengthen the acquisition process.

III. Analysis: It is possible to estimate the impact of changes in contracting procedures on CALT by analyzing the correlation between those changes and historical leadtime data. Leadtime data for fiscal years (FY) 82 - 84 were analyzed to determine the causes of fluctuations in CALT experienced during this period. From the analysis it was concluded that several events caused a significant leadtime increase, the majority of which related to increasing competition in the acquisition process. By comparing the procedural changes of PL 98-369 to past changes, the predicted CALT impact was determined to be an increase of approximately six days.

CONTINUED

[illegible]. Conclusion: PL 98-369 will add approximately six days to the acquisition process. This leadtime increase should cost AFLC approximately $41 million for increased inventory in FY 85. While this impact is significant, the impact on acquisitions exceeding $100,000 is even more significant. Almost 93% of AFLC's funds are spent in this category yet this accounts for less than 8% of the contracts issued. These are the contracts affected by the new law which ultimately will create a gap in the logistics pipeline. AFLC must act now to eliminate potential gaps in user support as a result of this law.

[illegible]. Recommendations: The Air Logistics Centers need to identify requirements affected by PL 98-369 immediately. In addition, the extended leadtimes must be entered into the requirements generation systems (DO-41 and DO-62) to compensate for the increased CALT.

Chapter One

INTRODUCTION

Background/Significance

Air Force Logistics Command (AFLC) replenishment spares contracting was the center of intense media scrutiny beginning in April, 1983. At that time, Air Force contracting practices were the subject of a special ABC News 20/20 report. The report highlighted many alleged instances of overpriced spare parts purchased by the Air Force from Pratt and Whitney Aircraft Company's West Palm Beach plant. This was the first of numerous media allegations of spare parts overpricing during 1983.

This "...media blitz highlighted to the Congress, to the general public and, perhaps for the first time in many years, to the senior Department of Defense and Air Force leadership, the recurring problems associated with the acquisition of spare parts."(8:1-1) This led Secretary of the Air Force Verne Orr to form the Air Force Management Analysis Group (AFMAG) to investigate the problem. He chose an experienced logistician and ALC commander, Major General Dewey K. K. Lowe, to lead a three month study of the replenishment spare parts process. During the AFMAG analysis, numerous cases of overpriced spare parts were discovered. To determine the ultimate cause of overpricing, the entire spare parts acquisition process was thoroughly examined. As a result, the AFMAG made 159 separate recommendations to solve problems discovered during their review.(8:3-4) The specific recommendations impacting contracting practices will be examined in Chapter Three.

The AFMAG recommendations were "institutionalized" in AFLC in the previously established Directorate of Competition Advocacy at each ALC and a new Headquarters AFLC Office of Competition Advocacy was created.(8:2-4) To provide the autonomy necessary to insure independent action, the Directors of Competition Advocacy were established directly under the ALC commander (at the AFLC, the AFLC commander).(8:3-40,3:3) The purpose of these new directorates was to analyze the spare parts process at each ALC, with particular attention given to improving the competitive status of all items to be acquired in

the next fiscal year. They were also tasked to evaluate the pricing of all spare parts currently in the ALC inventory.

Initially, the review process was intended to occur prior to the purchase request (PR) generation phase. This has not always been feasible and the result has been an increase in the time necessary to award a contract. It is unfair, however, to place the entire blame for the leadtime increase on the actions of the Competition Advocates. The aerospace industry, also blamed for the overpriced hardware displayed on 20/20, is reluctant to be placed in that position again. Therefore, all proposals are thoroughly reviewed prior to release to the government. The contractor review process also increases administrative leadtime.

This is significant because leadtime extensions require depot inventory level increases. The additional inventory permits the depot to fill requisitions without depleting required safety level stocks. This inventory stock level increase is extremely expensive. For example, as of 30 September 1984 the pipeline cost for one day of leadtime across AFLC was approximately $6.9 million per day for all items in the AFLC inventory. (11:-)

Therefore, administrative leadtime is an area of intense concern within AFLC. Anything that adversely impacts leadtime must have an offsetting benefit in the cost of the items purchased.

Definitions

The following definitions will be used throughout this report and are provided as a convenient reference for the reader.

AFMAG is the Air Force Management Analysis Group.

ALC is an Air Logistics Center, of which there are five:

OC-ALC is Oklahoma City ALC, Tinker AFB, OK.
OO-ALC is Ogden ALC, Hill AFB, UT.
SA-ALC is San Antonio ALC, Kelly AFB, TX.
SM-ALC is Sacramento ALC, McClellan AFB, CA.
WR-ALC is Warner-Robins ALC, Robins AFB, GA.

AFLCR 70-11 is the JO-41 Acquisition and Due-In System operating regulation and it:

a. Establishes the definition of Contracting Administrative Leadtime.

b. Establishes the definition of acquisition cycles.

c. Defines all data products used in this study.

Bid Board is a board located in the ALC visitor's reception center. Solicitations are posted on the board to inform prospective contractors about current acquisition actions.

CALT is Contract Administrative Leadtime.

CR is the Directorate of Competition Advocacy.

D & F "'Determination and findings' means a special form of written approval by an authorized official that is required by statute or regulation as a prerequisite to taking certain contracting actions. The 'determination' is a conclusion or decision supported by the 'findings.' The findings are statements of fact or rationale essential to support the determination and must cover each requirement of the statute or regulation."(7: 15-9)

FAR is the *Federal Acquisition Regulation* and all supplements thereto which codifies all regulatory restrictions on the contracting process.

The JO-41 Acquisition and Due-In System (ADIS) is the computer system from which the contracting data for this study are drawn. This system provides a complete audit trail of an acquisition from PR inception through final delivery of the hardware.

MIPR is a Military Interdepartmental Purchase Request. This is used by one branch of the service to purchase items managed by another branch.

Pacer Price is a pricing group established at OC-ALC to investigate spare parts pricing techniques. It was formally exported to all ALCs by the AFMAG recommendations.

Pipeline Cost is the cost to have all items in the AFLC inventory in the acquisition pipeline for 1 day. This includes both D041 investment (recoverable) items and Economic Ordering Quantity E300 (stock fund) items.(1:159-164)

PM is the Directorate of Contracting and Manufacturing.

Public Law 98-369 is the Competition in Contracting Act of 1984.

Sole source acquisition "...is a contract for the purchase of property, supplies or services which is entered into or proposed to be entered into by a Federal department after soliciting and negotiating with only one source." (6:348)

Assumptions

To accomplish this study, the authors made four assumptions:

1. Public Law 98-369 will have an impact on CALT.

2. On 1 April 84, the Defense Acquisition Regulation (DAR) was replaced by the FAR. The impact of this on CALT is assumed to be negligible.

3. No procedural changes will be made which could minimize the leadtime impact of the law. This does not mean that AFLC or the Air Force will not change procedures to decrease the impact of this law. Quantification of those future changes would not be possible at this time. Therefore, they will not be considered for this paper.

4. The approval of all sole source acquisitions between $1 million and $10 million will be accomplished at HQ AFLC.

Limitations

This study is intended to estimate the impact of PL 98-369 on AFLC CALT at the ALCs only. It is based on an analysis of the impact of previous competition initiatives in AFLC and is limited to the accuracy of the available data maintained in AFLC automated systems.

Objectives

This study is designed to determine the Contract Administrative Leadtime (CALT) impact of PL 98-369 by accomplishing the following objectives:

1. Define Contract Administrative Leadtime (CALT) and describe its importance. This will be accomplished by reviewing AFLC Regulation 70-11 and by briefly reviewing the AFLC acquisition process. In addition, AFLC Regulation 70-11 will be used to define the various acquisition cycles used to track the acquisition process.

2. Determine the actual AFLC CALT during the period from FY 82 - FY 84 by examining the JO-41 historical monthly CALT data. The data for acquisition cycles 4, 5, 6, and 8 will be arrayed to determine the CALT for FY 82 - FY 84.

3. Determine if there were any major fluctuations in CALT during this period by analyzing the CALT data presented in objective 2.

4. Determine if changes in contracting procedures caused the fluctuations in CALT. This will be accomplished by examining the contracting environment from FY 82 - FY 84 to discover any contracting procedural changes made during the period and to relate those changes to changes in CALT.

5. Determine if PL 98-369 will change any contracting procedures and to specify those changes. This will be accomplished by analyzing the current public laws and regulatory data to determine current contracting procedures and then studying PL 98-369 to discover procedural changes.

6. Determine if the procedural changes specified in the fifth objective will impact CALT and the nature of that impact. The data presented earlier in this report will be analyzed, arrayed, and manipulated to project the probable CALT impact of PL 98-369.

The six objectives above provide the structure for determining the CALT impact of PL 98-369. The process is straightforward: define the problem, define the factors which bear on the problem, analyze those factors to understand how they impact the problem, and finally, generalize that impact to predict the impact of changes on the problem. The results of this study can be used by HQ AFLC to understand the Contract Administrative Leadtime impact of PL 98-369 and take the necessary action to minimize that impact.

Chapter Two

Contract Administrative Leadtime

Contract Administrative Leadtime is defined as the elapsed time from the receipt of the purchase request (PR) in the Directorate of Contracting and Manufacturing (PM) until the contract is awarded. To clarify this concept, it is necessary to discuss briefly the replenishment spare parts acquisition process.

The process begins with the user who has a need for a part to repair a weapon system. The user requisitions that part from the base supply organization. As requisitions are filled, the inventory stock level is depleted. When the base inventory stock level drops to a specified value, the base requisitions replacement items from the depot (in AFLC, this is an ALC).

At the ALCs, inventory managers (IMs) receive the requisitions from the bases. They either must fill the requisitions from the ALC inventory or generate a PR to buy the item. In many cases, the IM will be able to fill the requisition from the inventory, but this will cause the depot inventory to fall below a predetermined safe stock level. Therefore, the IM will also generate a PR to replenish the ALC inventory. Thus, an IM can generate a PR for one of two reasons - to fill a requisition or to replenish the inventory stock level. After the IM completes the PR, it is sent to PM for the required acquisition actions. **This is the point at which CALT begins.**

After receipt of the PR, the contracting officer must accomplish many different tasks to place that item on contract. Various public laws and executive orders require the contracting officer to accomplish extra tasks when the acquisition exceeds a given dollar value; therefore, the number of tasks required to award a particular contract is directly related to the dollar value of the action. For example, on a small purchase contract under $25,000, a contracting officer can solicit telephone bids and usually award the contract within a few days of PR receipt. On actions over $25,000, however, the contracting officer is required to publish a notice of the acquisition in the Commerce Business Daily, use different contracting procedures, and ensure the contractor meets certain legal requirements. For example, a corporate officer must certify the company is or is not a sm

business; that it does or does not have an affirmative action plan, etc. There are numerous other legal requirements at this and many other dollar thresholds. In fact, in a study completed in 1981, the Logistics Management Institute identified 300 separate tasks tied to 49 different dollar thresholds which the contracting officer must accomplish during the acquisition process (10:1-4).

The number of tasks to be performed determines the time it takes to award a contract. To simplify overall performance tracking and to highlight problem areas, AFLC conveniently grouped these tasks into categories based on dollar thresholds. Each category, called an acquisition cycle, has a standard number of days it should take to award a contract in that cycle. Table 2-1 shows the cycles and their associated time standards.

In all, there are 22 acquisition cycles; however, for this paper we will only consider the following cycles: 4 (50 day standard), 5 (100 day standard), 6 (165 day standard), and 8 (180 day standard). There are three reasons for this: these cycles comprise the majority of the awards in AFLC, they constitute the bulk of the contract dollars awarded, and they encompass most of the competitive arena.

Table 2-2 provides the AFLC breakdown of contracts awarded by acquisition cycle. This only includes the major PR/MIPR generated actions.

Table 2-3 provides the dollar stratification of contracts awarded during the fiscal year. This stratification only approximates the acquisition cycles. The importance of this table is that approximately 50% of the dollars are awarded on actions exceeding $5 million.

Table 2-4 provides a sample breakdown of the acquisition cycles at one ALC. This clarifies the concept of acquisition cycles by detailing individual tasks comprising a contract action. Although each ALC may have a different time standard for the various tasks, the standards tend to be closely grouped around the sample values. **The importance of the cycle elements is that the time required to accomplish any one element may increase as greater emphasis is placed on competition.** For example, if a contractor historically had submitted his proposals for a given spare part in **40 days**, and if we assume that part was selected for competitive acquisition and it took **45 days** (15 days for synopsis + 30 days for bid receipt to receive bids on that part, there would be a five day increase in leadtime for that element or task (from 40 days to 45 days). This increase could be offset by a decrease in another element; however, the result has usually been an increase in overall CALT.

TYPE	TITLE	CYCLE	DAYS
	Advertised	1	90
	Two-Step	2	200
	Source Selection	3	200
PR/MIPR	**Small Purchase**	**4**	**50**
	Negotiated(Under $100K)	**5**	**100**
Generated	**Negotiated($100K-$6Mil)**	**6**	**165**
	Negotiated(over $6Mil)	**8**	**180**
Actions	Letter Contract Issuance	F	60
	Class IV Safety Modification	J	30
	Unpriced BOA Order Issuance	K	30
	Automated Delivery Order	L	10
	Delivery Order/Prepriced Call	M	25
	PR Generated Contract Modification	N	60
	Undefinitized Modification(Change Order)	S	25
NON-	Basic Contractual Agreement	A	55
PR/MIPR	Provisioned Items Order(Modification)	P	10
Generated	Non-PR/MIPR Modification	Q	25
Actions	Non-PR/MIPR Modification(PMD)	T	25
	Miscellaneous J041 input	Z	5
	Letter Contract	W	180
Other	Modification(Change Order)	X	180
Actions	Unpriced BOA Order	Y	150

Source: AFLCR 70-11

TABLE 2-1

AFLC Acquisition Cycle Time Standards

CYCLE	FY82	FY83	FY84
1	756	441	889
2	36	40	33
3	3	3	4
4	66,803	61,684	50,708
5	34,548	32,431	29,102
6	6,119	6,165	7,202
8	255	297	381
F	63	46	47
J	15	17	7
K	133	135	139
L	1,675	2,139	1,529
M	5,511	5,520	3,463
TOTAL	115,917	108,918	93,504

Source: Hq AFLC/PMXA Historical JO-41 files

TABLE 2-2

AFLC Contracting Actions by Cycle (ALCs only)

Dollar-Range	FY82	FY83	FY84
	Dollars(Millions)		
under 25K	$ 254	$ 234	$ 193
25K-100K	1,069	700	680
100K-500K	1,464	1,474	1,670
500K-1M	817	855	929
1M-5M	2,138	2,561	2,577
5M up	5,479	4,468	6,122
TOTAL	11,221	10,292	12,172

Source: RCS HAF-LGP(M&Q) 7201 part XIV

TABLE 2-3

Dollar Stratification of AFLC Acquisitions

CYCLES	4	5	6	8
	DAYS			
ACTION				
PR Receipt	7	7	7	7
Prepare Solicitation	0	15	15	15
Receipt of Proposals	33	30	40	40
Audit, Negotiate, Prepare Contract	6	24	73	73
Review, Approve, Distribute Contract	4	24	30	45
TOTAL	50	100	165	180

Source: Hq AFLC/PMXS historical JO-41 files

TABLE 2-4

Breakdown of Acquisition Cycle Times

Chapter Three

AFLC Contract Administrative Leadtime FY82 - FY84

Contract administrative leadtime for the five ALCs is maintained by HQ AFLC/PMXA using data gathered by the JO-41 Acquisition and Due-In System. Leadtime data are maintained for each ALC and are also aggregated at command level. This information is used to determine broad trends adversely impacting the acquisition process, and to determine when individual ALCs have developed a problem.

Tables 3-1 through 3-4 present AFLC aggregate leadtime data by month for cycles 4, 5, 6, and 8 for Fiscal Years 82-84.

Fiscal Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
84	60	59	60	65	68	67	67	66	73	75	78	84
83	46	44	45	50	48	45	46	44	47	50	53	55
82	49	50	50	51	49	51	50	51	53	53	51	50

TABLE 3-1

Small Purchases
Cycle 4 - Time Standard 50 Days
AFLC Average Processing Days

Fiscal Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
84	95	97	105	110	111	112	110	108	116	113	117	122
83	77	79	79	79	82	77	77	74	76	81	91	94
82	93	97	98	97	95	92	90	89	89	88	88	84

TABLE 3-2

Negotiated under $100,000
Cycle 5 - Time Standard 100 Days
AFLC Average Processing Days

Fiscal Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
84	137	138	152	166	166	167	163	163	158	179	180	173
83	129	127	124	126	128	110	121	115	125	139	145	153
82	156	169	157	165	159	153	148	147	144	152	147	129

TABLE 3-3

Negotiated over $100,000
Cycle 6 - Time Standard 165 Days
AFLC Average Processing Days

Fiscal Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
84	204	187	231	148	182	214	157	186	194	283	222	730
83	141	219	190	170	227	119	151	73	167	168	166	212
82	167	156	147	283	146	186	197	244	210	185	210	215

TABLE 3-4

Negotiated Over $6 Million
Cycle 8 - Time Standard 180 Days
AFLC Average Processing Days

The foregoing data shows the actual leadtime by acquisition cycle for the last three fiscal years. To comprehend the overall impact of the data, it must be aggregated into a more easily understood set of figures and examined to determine if there were any major fluctuations in CALT. Tables 3-5 through 3-7 are that determination by presenting monthly AFLC (ALCs only) weighted average processing time by fiscal year for FYs 82 - 84. The weighted average processing time standard is computed by multiplying the number of documents issued in each acquisition cycle for one month times the standard number of days allowed for that cycle. The result is then divided by the total number of contracts issued in all cycles during the month. The actual weighted average processing time is calculated in the same manner except the actual processing time is substituted for the standard time. This process is repeated for each of the acquisition cycles to determine the total weighted average processing times, both standard and actual. The total standard weighted average processing time is subtracted from the total actual weighted average processing time to determine the variance. Thus, the computation of variance is a three step process. Although all calculations of processing times and variance are accomplished within the JO-41 computer system, a simplified version of the formulae used in these computations is provided to illustrate the process as follows:

Where: A = Actual processing time.
C = Number of contracts issued.
S = Standard days allowed for the acquisition.
T = Total contracts issued during the month.
PTs = Weighted average processing time standard.
PTa = Weighted average processing time actual.
V = Variance.

Step 1

$$PTs = \frac{C \times S}{T} \qquad PTa = \frac{C \times A}{T}$$

Step 2

$$PTS = \Sigma\ (PTs(Cycle\ 1) + PTs(Cycle\ 2) + PTs(Cycle\ 3) \ldots.)$$

$$PTA = \Sigma\ (PTa(Cycle\ 1) + PTa(Cycle\ 2) + PTa(Cycle\ 3) \ldots.)$$

Step 3

$$V = PTA - PTS$$

Since variance is the difference between the standard and the actual processing times, it is the most important information in this series of tables. For example, in Table 3-7 the standard processing time increased from 75 days in October to 80 days in September. This means that the contracts issued in September were slightly more complex (ie. higher proportion of cycles 5, 6, & 8), on the average, than those issued in October. In addition, the actual processing time increased from 76 days in October to 106 days in September. The variance tells us that the actual time required to award an average contract increased 25 days more than the standard time increased during FY 84.

Figure 3-1 summarizes the information provided in Tables 3-5 through 3-7 in a more easily understood manner. It is obvious from the chart there were, in fact, substantial fluctuations in CALT during FY 82 - FY 84. However, the increase in CALT is much more dramatic than the decrease; therefore, the balance of this chapter will attempt to determine if changes in contracting procedures caused the increase in CALT.

Processing Time	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Actual	67	67	66	70	67	67	66	67	70	66	66	63
Standard	71	68	68	70	70	70	71	71	67	69	70	70
Variance	-4	-1	-2	0	-3	-3	-5	-4	-3	-3	-4	-7

TABLE 3-5

Weighted Average Processing Time FY 82

Processing Time	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Actual	60	58	57	59	60	56	57	54	57	63	68	75
Standard	73	71	67	67	69	69	69	69	69	70	71	75
Variance	-13	-13	-10	-8	-9	-13	-12	-15	-12	-7	-3	0

TABLE 3-6

Weighted Average Processing Time FY 83

At this point it is important to understand there will be a lag from the time a contracting procedural change is made until it impacts leadtime. This is due to the way leadtime data are collected. No information on a given acquisition is gathered until after a contract is awarded; therefore, changes affecting contracts in process will not be immediately apparent.

Processing Time	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Actual	76	73	78	84	87	86	85	85	88	91	97	106
Standard	75	72	72	73	74	73	73	74	71	71	75	83
Variance	+1	+1	+6	+11	+13	+13	+12	+11	+17	+20	+22	+23

TABLE 3-7

Weighted Average Processing Time FY 84

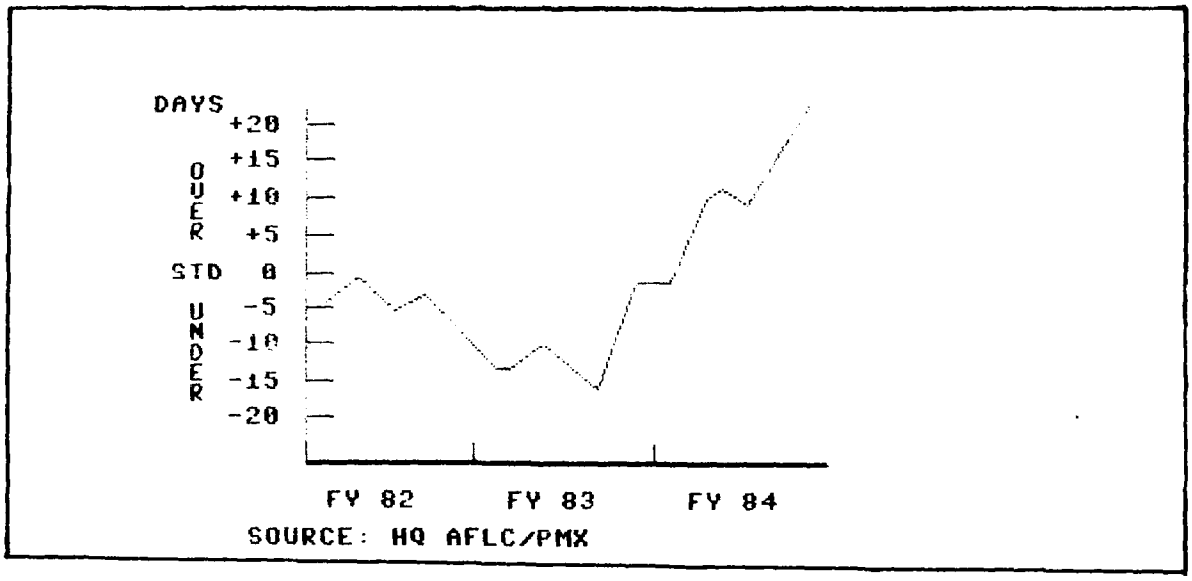


Figure 3-1

AFLC Weighted Average Processing Time
FY 82 - 84

To determine the cause of the increase in PALT, [illegible] examine the situation which led to the [illegible] increase. The foundation of the [illegible] processing [illegible] at this time was laid in Chapter One. It [illegible]

not necessary to recreate it here. The events of mid FY 83 are important because they caused significant changes in the contracting process. The first changes were implemented at OC-ALC because they were the focus of the 20/20 news report. The OC-ALC response to the publicity was to establish a program called **Pacer Price**. This program examined the items to be bought to determine if they could establish a reasonable price for the items prior to purchasing them from the vendor.

In addition to the Pacer Price effort at OC-ALC, several other initiatives were instituted AFLC wide. They were Pacer Bid, Public Law 98-72, and the elimination of certain changes to the leadtime accounting methodology which had been in place since late FY 82.

Pacer Bid was a HQ AFLC test project which reduced the threshold for posting sole source solicitations on the bid board from $10,000 to $2,500. Posting solicitations on the bid board increased CALT by increasing the opportunity for competition thus extending the time allowed for solicitation response. This procedure provided an opportunity for interested contractors to bid competitively on these items.(14:-)

Public Law 98-72 required the procuring activity to delay issuing a solicitation until 15 days after a synopsis of the acquisition was published in the Commerce Business Daily (CBD). In addition, it required that negotiations for award of a contract could not begin until 30 days after the synopsis had been published in the CBD. This procedure worked much like Pacer Bid in that it allowed interested contractors to competitively bid on items. This added at least 15 days leadtime to all acquisitions exceeding $10,000.(5:403-404)

The changes in leadtime accounting methods partially accounted for the drop in reported leadtime during the last quarter of FY 82 by not counting leadtime on certain tasks over which the buyer had no control. The net effect was an artificial reduction in the reported leadtime. Elimination of the method changes removed the artificial reduction and therefore raised the reported CALT.

In addition to the government caused factors stated above, the DOD contractors also caused increases in CALT. Since they did not want to be accused of unfair business practices, they took more time to submit their proposal. They had two objectives: to insure complete pricing accuracy of the proposal and to examine the possibility of permitting a vendor to supply the part directly to the government. To achieve these objectives, the contractors established a review process which essentially allowed coordinating the quote through more levels of the firm. (9:-,15:2)

The final factor remaining to be discussed is the impact of the increased emphasis on competition which occurred after the 20/20 special and the resulting media attention on spare parts acquisition. As previously stated, this led to the formation of the AFMAG which made some 159 recommendations for changes in the AFLC replenishment spare parts process. Of these, 28 separate recommendations resulted in changes to contracting procedures. Headquarters AFLC directed implementation of the AFMAG recommendations at all ALCs by 15 Sep 83. Institutionalizing those recommendations in the Directorate of Competition Advocacy (CR) and the Directorate Contracting and Manufacturing (PM) was the most significant change in contracting procedures in AFLC during FY 83.

The competition advocates changed contracting procedures by insuring all FY 84 acquisitions were screened for competitive status. This meant all PRs had to pass through the CR organization before acquisition action could begin. Many PRs, already in the Directorate of Contracting and Manufacturing (PM), were recalled for this CR screening. This meant the buyer could not make an award on the PR until it returned from CR thus increasing CALT.(4:1) In addition, some of the sole source acquisitions had been made on simplified purchasing arrangements which could be awarded in a minimum amount of time. After CR review, these arrangements could not be used because the item was no longer a sole source item. Therefore, a contract which had previously been awarded in as little as 15 days now required at least 50 days to award.(4:2)

In summary, between mid FY 83 and the end of FY 84, AFLC CALT increased by 41 days (Fig. 3-1). During this time, there were numerous changes in contracting procedures. All but two of them - the change in leadtime accounting procedures and FAR implementation on 1 Apr 84 - were directly related to increasing competition. From this, it can be easily seen that procedures designed to increase competition are directly related to increased CALT. Congress has chosen to attempt to increase competition by legislating a bureaucratic change in contracting procedures, namely, PL 98-369.

Chapter Four

IMPACT OF PUBLIC LAW 98-369 ON CALT

Provisions

On 18 July 84, the President signed PL 98-369 into law. The law will become effective on 1 April 85 and will impact the acquisition activities of all branches of government. An extract from the law clearly states the intent of the new legislation.

> The law "...is designed to increase the use of competition in Government contracting and to impose more stringent restrictions on the awarding of noncompetitive -- sole-source -- contracts. Agencies are required to use competitive procedures, whether by soliciting sealed bids or requesting competitive proposals, unless a statutory exception is met to use noncompetitive procedures." (9:129)

The major changes in contracting procedures brought about by PL 98-369 are:

1. Determinations and findings are no longer required.
2. The number of reasons allowing the issuance of noncompetitive contracts was reduced from 17 to 7.
3. A competition advocate function is established.
4. A new procedure for protesting an acquisition action to the General Accounting Office has been established.
5. Contracting activities are permitted to exclude a particular supplier if it would increase competition.
6. The approval process for noncompetitive contracts has changed significantly.
7. The threshold at which contractors must certify the price accuracy of their proposal has been lowered from $500,000 to $100,000.(9:3)

Impact

For convenience in discussing the impacts of the law, the changes to existing procedures will be grouped into three categories: those having no impact on CALT, those which could decrease CALT, and those which will increase CALT. Most of the changes will not impact CALT. The first four changes listed above fall in this category. The specific rationale for this conclusion follows:

1. Determinations and Findings are accomplished with other administrative tasks and only require a few minutes to complete. The exception to this are those D & Fs which require approval by the Secretary of the Air Force or his designated representative. Since AFLC does very few Secretarial D & Fs their impact on CALT is negligible. Therefore, the elimination of this task will not impact CALT.
2. A reduction in the number of circumstances permitting noncompetitive acquisitions was accomplished in four ways, none of which will impact CALT. First, some previously authorized exceptions to competition were combined with others and not really eliminated. Second, one circumstance permitting noncompetitive acquisition, exception reason 10, (not practical to obtain competition) was extensively used by the ALCs. The use of this exception reason had already been severely curtailed by the competition advocates; therefore, no additional impact should occur. Third, some of the eliminated exceptions did not apply to ALC contracting operations. Finally, three of the eliminated exceptions were almost never used since they required approval by the Secretary of the Air Force.(7:15-2 thru 15-8; 7:12-17)
3. Competition advocates have been taking an active role in AFLC acquisitions since 15 September 83. The new law adds no new tasking which could further impact AFLC CALT.(4:1)
4. The new GAO protest procedure will not impact the acquisition process until after a contract is awarded, thus CALT is not affected.

Therefore, these changes will not impact CALT even though they change contracting procedures and are designed to increase competition.

The next category to discuss is that change in contracting procedures which could decrease CALT. The exclusion of a particular source to increase competition could decrease CALT only if the excluded source had a lengthy proposal cycle. For example, a particular contractor may take three months to prepare a proposal for an item which they have not produced recently. Excluding them from competition could decrease CALT if

a new bidder was more responsive in quoting.

The last three changes will increase CALT. As before, the rationale for this statement follows:

> 5. One other outcome from eliminating a source could be an increase in CALT. This would occur if a simplified contractual arrangement existed with that source. For example, some large contractors have negotiated pre-priced agreements with the government which allow contract awards in as little as one day. Excluding this contractor from the acquisition process for the items covered by the agreement would increase CALT because competitive proposals normally take 30 days.(5:404)
> 6. Finally, the new approval process will impact significantly those acquisitions over $1 million. Although the approval process begins at $100,000, the approval of those contracts under $1 million can be accomplished at the ALC level. Actions which exceed $1 million will require HQ AFLC approval. This approval process is expected to take approximately 14 days.(13:-)Those actions exceeding $10 million require the approval of the Under Secretary of the Air Force for Acquisition and Logistics (SAF/AL). Since this procedure is similar to secretarial approval of Determinations and Findings, which takes approximately six months, AFLC anticipates a 180 day increase in CALT for these contracts.(15:-)
> 7. Lowering the threshold for submitting certified cost and pricing data will increase the number of contracts which must be audited by the Defense Contract Audit Agency before any negotiations on the acquisition can begin. This is part of the field pricing support process which requires 70 days to complete and directly impacts CALT.(14:-)

Analysis

To quantify the impacts mentioned in the previous section, several facts must be known. How many total contracts are expected to be awarded in the fiscal year, how many contracts will be issued in the categories affected by the procedural changes, and how many days will each individual change add to CALT?

There are many ways to estimate the number of contracts to be awarded in FY 85. Among the possible methods are: using the same number of contracts as in FY 84, using the same number of contracts as in FY 84 plus or minus some fixed percentage for change, or using a trend line analysis. Of the possible techniques, trend line analysis will generally produce a more reliable projection since it considers the past historical trend when making the projection. Therefore, this technique was used

to make the projections for FY 85. In this manner, the number of contracts expected to be awarded in FY 85 can be estimated at 83,700 (Fig. 4-1). This is based on the historical data presented in Table 2-2 and assumes that the established trend will continue. This trend should continue in the short run since it reflects the continued emphasis on requirements consolidation by AFLC.

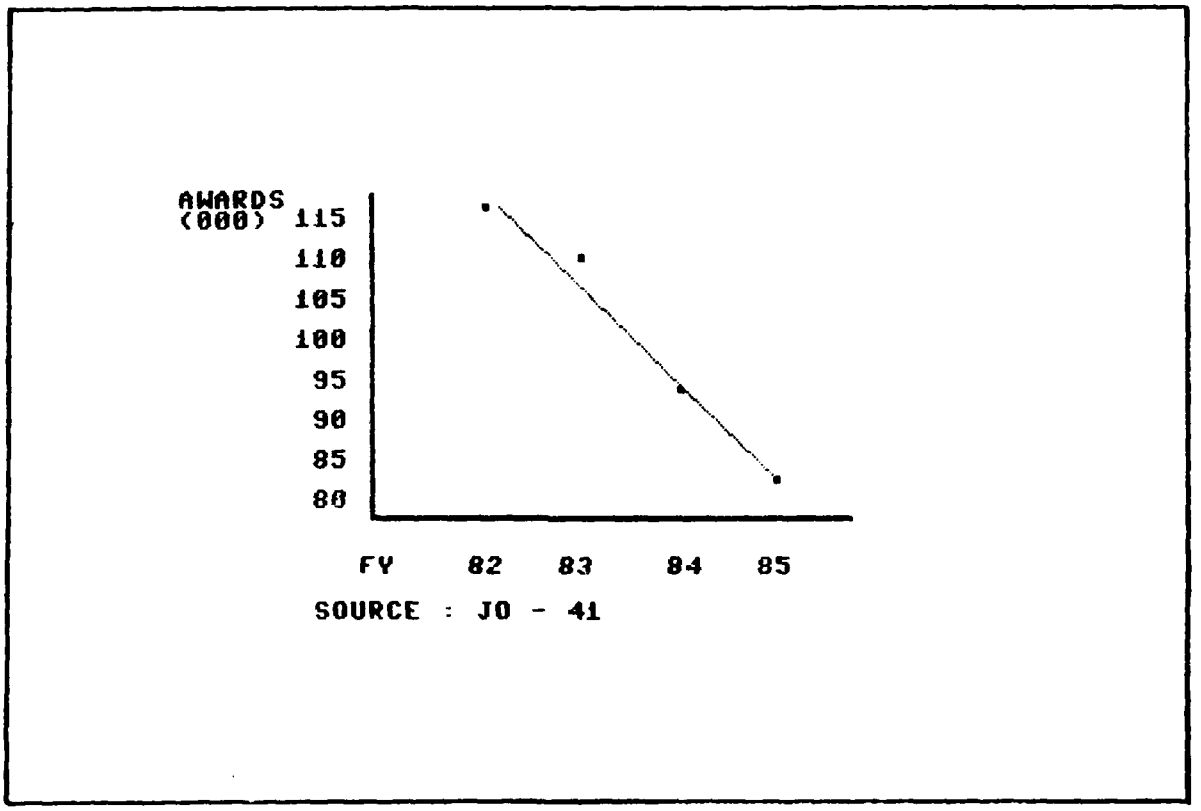


Figure 4-1

Trend Line Prediction of FY 85 Contract Awards

Consolidation impacts the contracting process in two ways. First, it reduces the number of contracts issued since several items are placed on one contract. Second, it increases the dollar value of the contract, resulting in the contract being awarded in a higher cycle. Thus, as shown in Table 2-2, there has been a steady reduction in the number of contracts issued and a steady migration of contracts from the lower acquisition cycles (4 and 5) to the higher acquisition cycles (6 and 8).

AFLC efforts to consolidate requirements were aided by Congress as AFLC was funded at a higher percentage of their stated spare parts requirements in the last two fiscal years. Funding improvement aids consolidation by permitting one large annual acquisition of an item rather than several separate smaller contracts. This results in fewer contracts being awarded for higher average dollar values and in higher acquisition cycles.(1:167,169a) Thus, the trend line projection of contracts to be issued in FY 85 is considered valid.

One final step must be taken before the computation of CALT impact can be accomplished, since the lawmakers established actions to be taken at dollar thresholds that did not coincide with AFLC's acquisition cycles. For example, sole source acquisitions over $10 million require secretarial approval, while AFLC's largest acquisition cycle begins at $8 million. Therefore, data aggregated by acquisition cycle are not totally useful to determine the impact of the law. To determine the impact of PL 98-369 the data must be reaggregated along the statutory dollar thresholds. This was accomplished by a special interrogation of the JO-41 Acquisition and Due-In System. The historical data gathered by these methods and a trend line projection for FY 85 are shown in Table 4-1.

DOLLARS	FY82	FY83	FY84	FY85
	CONTRACTS(SOLE-SOURCE)			
100K-500K	2,669	2,723	3,273	3,492
100K-1M	2,421	4,653	4,516	5,958
1M-10M	256	575	509	699
Over 10M	79	76	47	35

Source: JO-41 Interrogation (DAR-LOG-PMX-J83-615)

TABLE 4-1

Reaggregation of AFLC Contract Award Data
By Dollar Value

To compute the impact of the legislative change, it is necessary to determine the number of contracts in each category, multiply them by the anticipated increase in CALT, and finally divide the product by the total number of contracts issued. As mentioned earlier, only three changes could impact CALT: the exclusion of a particular source, lowering the threshold for certified cost and pricing data, and the new approval process for sole source acquisitions exceeding $1 million. The CALT impact of excluding a particular source is assumed to be negligible for two reasons. First, excluding a particular source can increase or decrease CALT, depending on the circumstances of the acquisition. Second, there are no AFLC data available to assess the impact of the change. However, the other two changes will impact CALT. The formula for determining the impact and the computation of that impact are as follows:

$$\Delta \text{ CALT} = \frac{(\text{Contracts}) \times (\text{Leadtime})}{\text{Total Contracts}}$$

Calculations

100K-500K	1 Million-10 Million	Over 10 Million
$5.54 = \frac{(3492) \times (70)}{44,110}$	$.222 = \frac{(699) \times (14)}{44,110}$	$.1432 = \frac{(35) \times (180)}{44,110}$

One last operation must be performed on the derived CALT increase. Since the law will not become effective until 1 April 85, it will only affect those contracts initiated in the last six months of the fiscal year. Headquarters AFLC/PMXA historical JO-41 data show that approximately 52.7% of the contracts awarded in all acquisition cycles are awarded between 1 April and 30 September each year. Therefore, the total number of contracts issued during FY 85 (83,700, Table 4-1) must be multiplied by .527 to determine the number of contracts to be issued during the last half of FY 85. Thus, lowering the threshold for submitting cost and pricing data from $500K to $100K will increase AFLC CALT by 5.54 days. A similar operation performed on those sole source acquisitions over $1 million and $10 million yields a CALT impact of .222 and .143 days respectively. The impact of PL 98-369 on CALT is now clear. All contracts awarded in the last half of FY 85 will take an additional 5.905 days to award. This analysis assumes that the leadtimes for all contracts except those analyzed will remain constant.

This analysis is designed to determine the overall CALT impact of PL 98-369. However, when considered in aggregate terms, the effect of this law on individual cycles is obscured.

As previously mentioned, approximately 50% of the dollars spent in AFLC are on contracts over $5 million (Table 2-3). These are the contracts most affected by the new law. The CALT on those contracts will increase by as little as two weeks to as much as six months.(13:-,15:-) This impairs AFLC's ability to support the users in the field by leaving a gap in the logistics pipeline.

The gap will be most apparent on those actions exceeding $10 million since approximately 180 days will be added to the processing time for these actions. This means that the sole source justification process must start before the beginning of the fiscal year to permit contract award before the end of it. For example, at the the end of FY 84, it took an average of 230 days to award a contract over $6 million. If the 180 days are added to this time the approval process must begin 410 days prior to the end of FY 85. In other words, the approval process should have started in mid August 1984 to assure contract award by the end of FY 85. This is almost impossible since initiation of the acquisition process usually can't begin until the ALC receives its Program Authority (PA)(money). This usually occurs near the beginning of the fiscal year.

Once the ALC receives its PA, it must begin the requirements generation process to align requirements with the dollars available to satisfy them. Ultimately, this process may take up to four months to generate a PR to buy the necessary parts. AFLC is attempting to make the process more responsive by upgrading the current D0 41 and D0-62 systems with the Requirements Data Bank. This should accelerate the requirements generation process.(12:-)

The data presented and analyzed in this chapter have pointed out the CALT impact of Public Law 98-369. It is apparent that some significant conclusions can be drawn from this analytical process.

Chapter Five

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The purpose of this paper was to analyze the contract administrative leadtime impact of Public Law 98-369. This will allow AFLC to determine the dollar costs associated with implementing this public law and to take the necessary action(s) to minimize the impact of the new law.

This study has shown that PL 98-369 definitely will impact AFLC CALT. Although it only adds approximately six additional days to the process, it must be remembered that each day of CALT has an associated dollar value of $6.9 million/day.(11:-) If the CALT increase is multiplied by the cost per day, the result is an additional $41 million are required to cover the resulting pipeline costs.

The CALT impact of this law would have been much greater if numerous actions to increase competition had not previously been taken. Implementation of initiatives such as Pacer Price, Pacer Bid, PL 98-72, Competition Advocacy, and the AFMAG recommendations have already resulted in the 41 day (Figure 3-1) increase in CALT (worth $282.9 million) from mid FY 83 through the end of FY 84.

Although the aggregate leadtime impact of the law is not extremely large, aggregation tends to understate its impact on individual acquisition cycles. Of particular concern is the award of sole source contracts over $10 million, which will be impeded dramatically . While the law does not become effective until 1 April 85, it is necessary to begin the approval process on those actions immediately, if contract award is to be made before the close of FY 85. In addition, those sole source contracts between $100,000 and $500,000 will now require field pricing support. This will add 70 days processing time to the 3,492 contracts in that category. Finally, although the final decision on approval level has not been made, the contracts between $1 million and $10 million will have approximately 14 days processing time added to them.

The temporary gap in the logistics pipeline caused by the dramatic increase in leadtime on those contracts over $100,000 can seriously impair the readiness of our combat forces. The impairment becomes more obvious when one considers that over $11.3 billion (93% of all AFLC awards, Table 2-3) were obligated on contracts over $100,000 (8% of the total awards, Table 2-3 in F 34. Of this $11.3 billion, 75.2% were sole source awards. Thus, the increased leadtime on large dollar acquisitions translates to decreased combat capability. It is essential that AFLC attempt to eliminate the potential gap by acting now to solve the problem.

Recommendations

The Air Logistics Centers need to act now to identify the requirements that could be affected by this public law. Sole source requirements over $10 million must be immediately identified to begin the approval process. This is essential for AFLC to maintain user support.

The required approval time for these sole source contracts over $10 million should be entered into the acquisition systems (DO-41 and DO-62) now. This will generate requirements earlier to compensate for the increase in CALT.

The additional leadtime for sole source actions between $100,000 and $500,000 must also be entered into the DO-41 and DO-62 systems. This will compensate for the additional 70 days leadtime required for field pricing support.

Identification of those requirements affected by PL 98-369 will not be easy; however, identification of the requirements and implementation of these recommendations can help AFLC minimize the Contract Administrative Leadtime impact of Public Law 98-369.

BIBLIOGRAPHY

Books

1. Barr, Jim, Rutenberg, David and others. Equipping and Sustaining Aerospace Forces. Maxwell AFB, AL: ACSC, 1984.

2. U.S. Department of the Air Force: HQ Air Force Logistics Command. Contracting and Acquisition, Acquisition And Due-In System (ADIS) (JO4). AFLC Regulation 70-11. Wright-Patterson AFB, OH 45433. 1 Apr 1982.

3. U.S. Department of the Air Force: HQ Air Force Logistics Command. Organization And Mission-Field, OFFICE OF THE COMPETITION ADVOCATE. AFLC Regulation 23-49. Wright-Patterson AFB, OH 45433. 12 May 1983.

4. U.S. Department of the Air Force: HQ Air Force Logistics Command. Organization And Mission-Field, DIRECTORATE OF COMPETITION ADVOCACY. AFLC Regulation 23-49. Wright-Patterson AFB, OH 45433. 29 Aug 1984.

5. U.S. Government: U.S. Congress. "Commerce Business Daily, Public Law 98-72." United States Code Congressional and Administrative News 98th Congress--First Session 1983. Volume 1. St. Paul, MN: West Publishing Co., 1983.

6. U.S. Government: U.S. Congress. "Small Business Act, 15 USC 637." United States Code Annotated. Pamphlet Number 3. St. Paul, MN: West Publishing Co., Nov 1983.

7. U.S. Government: Department of Defense, General Services Administration, National Aeronautics and Space Administration. Federal Acquisition Regulation. Volume 1/ Parts 1-51. Washington D.C., Apr 1984.

Official Documents

8. Lowe, Terence P., Maj, Ger, USAF and others. "Spare Parts Acquisition." Air Force Management Analysis Group Oct, 1983.

CONTINUED

9. U.S. Department of the Air Force: HQ United States Air Force (RDC-OAR). Information Guide to Competition in Contracting Act (CICA) of 1984. Washington D.C., 27 Jul 84.

10. Young, Robert S. and others. "Procurement Workload versus Workforce--A Growing Imbalance." Logistics Management Institute, May 1981.

Unpublished Materials

11. Bayless, Thomas H. II., GS-13, HQ AFLC/PMXA, Wright-Patterson AFB, OH 45433. Telephone Interview, 18 Jan 1985.

12. Bird, Karl C., GM-14, HQ AFLC/PMXA, Wright-Patterson AFB, OH 45433. Telephone Interview, 18 Jan 1985.

13. Dye, Forrest N., Col. USAF, HQ AFLC/ PM-1, Wright-Patterson AFB, OH 45433. Telephone Interview, 30 Jan 1985.

14. Minch, James L., GS-13, HQ AFLC/PMPF, Wright-Patterson AFB, OH 45433. Telephone Interview, 25 Jan 1985.

15. Steely, Phillip W., GM-14, HQ AFLC/ PMPL, Wright-Patterson AFB, OH 45433. Telephone Interview, 18 Jan 1985.

16. U.S. Department of the Air Force, HQ Air Force Logistics Command(PM). "AFLC Unpriced Actions Report, FY84." Letter to AF/RDC, Wright-Patterson AFB, OH 45433, 19 Nov.1984.

END

FILMED

8-85

DTIC