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## Insights Into The Negotiation Strategies and Tactics Employed By U.S. Air Force Contract Negotiators

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INSIGHTS INTO THE NEGOTIATION STRATEGIES AND TACTICS  
EMPLOYED BY U. S. AIR FORCE CONTRACT NEGOTIATORS

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ABSTRACT

Negotiation of contract terms, conditions, and prices is an oft-used but little studied activity in the Department of Defense (DoD). Several recent research projects undertaken by graduate students and faculty at the Air Force Institute of Technology have focused on learning more about the negotiation process as practiced by Government (primarily Air Force) contract negotiators. This paper summarizes some of the more interesting findings of two of these research efforts in the area of strategies and tactics employed during negotiations.

INTRODUCTION

Historically, the preferred method for creating contracts has been that called formal advertising, or more recently, sealed bidding. It was (and is) a formalized and rigid process designed to guarantee fairness and equity to all participants. Discussions with bidders is not allowed, and competition among independent bidders establishes the lowest price as fair and reasonable to the government. Because of its many fine qualities, this method was the legally mandated method for Government contracting for most of the past two hundred years. Unfortunately, although preferred in law, it quickly became evident that it could not be used in every situation, and an alternative method, referred to as negotiation, or more recently, competitive proposals, was developed as an exception to the formal advertising rule. The exception became the rule, however, as negotiation has annually resulted in approximately 90 percent of all contracts awarded and nearly 95 percent of all dollars awarded. [Sherman, 1985]

In 1984 Public Law 98-369, popularly referred to as the Competition in Contracting Act, was passed including, among many other important provisions, a revision in the previous thinking about these two methods. Negotiation was given equal stature as a contracting method; that is, it was no longer considered an exception to the rule preferring sealed bidding. While sealed bidding was still to be used when feasible and practicable, negotiation was now accepted as a legal and valuable method of contracting.

This change places increased attention and importance upon the abilities of those who represent the DoD in negotiating contractual agreements

industrial suppliers. It is during the negotiating sessions that billions of dollars of taxpayers' money are committed to the purchase of weapon systems, equipment and supplies, and services. It would seem that the manner in which these negotiations were planned and conducted, and the strategies and tactics used by negotiators in this important process would be of interest to other negotiators, managers, policy makers, taxpayers, and many others. Unfortunately, the amount of attention given to this important process, either in research or in training, does not seem to have matched its increased significance.

#### PREVIOUS RESEARCH

Little real research has been accomplished concerning the activities, specifically the strategies and tactics employed, which make up the process of negotiation. Several popular, practical books have been written primarily for the business community, which approach the topic from a lessons learned, how-to-do-it or how-not-to-do-it perspective; but the reader of these must rely on the experience and judgment of the writer, not upon statistical data gathered and analyzed through an appropriate methodology.

Extensive surveys of the negotiation literature performed by graduate contracting students and faculty at the Air Force Institute of Technology at Wright-Patterson Air Force Base, Dayton, Ohio, [See Novak and Whitley, 1976; Bearden and Chipman, 1977; Catlin and Faenza, 1985; Peterson, 1986; Johnstone, 1986; Horton, 1987] have classified much of this popular writing into three categories: General Negotiations, Negotiator Characteristics, and Negotiating Tactics and Strategies. Of particular interest to this paper were those in the latter category. [See, for example, Schelling, 1960; Pace, 1970; Karrass, 1974; Marshall and Pratt, 1974; Waldman and Rutledge, 1975; Fuller, 1981; Shea, 1983].

#### CURRENT AIR FORCE STUDIES

At the Air Force Institute of Technology, Air Force military and civilian contracting professionals may pursue a Master of Science Degree in Contracting Management, fully accredited by the North Central Association of Colleges and Schools. As a required part of that degree program, students must accomplish a research project and document the results in a formal, written thesis acceptable to the faculty. In recent years the author, as Director of the Contracting and Manufacturing Management Program, has oriented several thesis research efforts toward the area of negotiation—effectiveness of negotiation, psychological profile of negotiators, strategies and tactics employed. Two recent efforts in the latter area are particularly noteworthy.

#### Air Force Systems Command Study

One recent thesis research project [Catlin and Faenza, 1985] guided by the author collected data regarding the strategies and tactics employed by contract negotiators in the Air Force Systems Command, the organization responsible for research, development and production of new weapon systems for the United States Air Force and for joint programs

assigned to it. Of particular interest were the most frequently used tactics of Air Force negotiators and of their counterparts in industry and the strategies employed in various contractual situations.

Definitions and Terms. The following definitions were provided:

**STRATEGY:** An organized plan or approach to negotiations from an overall perspective which may be comprised of one or more tactics.

**TACTIC:** Any specific action, words, or gestures designed to achieve both an immediate objective (such as countering an action by the other negotiating party) and the ultimate objective of a strategy.

In addition, the following lists of 10 potential strategies and 33 potential tactics were compiled from the literature reviews referred to above.

#### STRATEGIES

1. COMBINATION (THE "BIG POT"): Introducing many issues at one time, using "throw away" points to get major concessions.
2. COVERAGE ("BOTTOM LINE"): Negotiating on total cost/price basis versus item-by-item.
3. DEFINITE ACTION ("TESTING THE WATERS"): Taking a definite position forcing the opposition to either accept or reject your position.
4. LIMITS: Using authority, time, budget, or other limits to pressure concessions from the opposition.
5. PARTICIPATION/INVOLVEMENT: Designing the team composition to narrow or broaden the areas of negotiation.
6. PATIENCE ("BUYING TIME" OR "STALLING"): Using delay tactics to prolong consideration of an issue or to counter a time limit strategy.
7. SURPRISE: Any unexpected action to gain acceptance of a point or obtain concessions from the opposition.
8. REVERSAL ("THE LESSER OF EVILS"): Presenting increasingly more rigid demands forcing the opposition to accept a lesser (preceding or following) offer — your true objective.
9. STATISTICS ("FIGURES DON'T LIE"): Using learning curves, trend analyses, or historical records, as the primary support for your position.
10. STEP-BY-STEP: Presenting a series of acceptable minor points to obtain a major concession; often used to counter the "Bottom Line" strategy.

TACTICS

- |  |   |
|--|---|
| A. Adjust the thermostat                       | Q. "High-Ball" offers                         |
| B. Allow face savings exits                    | R. Impose "no-smoking rule"                   |
| C. Appeal to patriotism                        | S. "Low-Ball" offers                          |
| D. Ask for lots of data                        | T. Make an offer they must refuse.            |
| E. Belabor "Fair & Reasonable"                 | U. Massage opponent's ego                     |
| F. "Bogey" - Budget limits                     | V. "Must be on contract by _____"             |
| G. Call frequent caucuses                      | W. "My plane leaves at _____"                 |
| H. Change negotiators                          | X. Negotiate with limited authority.          |
| I. "Cherry-pick" the best deals                | Y. "Off-the-record" talks                     |
| J. Deadlock the negotiations                   | Z. Personal attack                            |
| K. Deliberate errors left in offer             | AA. Play hard to get                          |
| L. Deliberately expose notes or working papers | BB. Refer to the firm's past poor performance |
| M. Embarrass your opponent                     | CC. Refer to your generosity                  |
| N. Escalate to opponent's boss                 | DD. Reverse auctioning                        |
| O. Escalate to your boss                       | EE. "Split-the-difference" offers             |
| P. "Good guy - Bad guy" roles                  | FF. "Take it or leave it"                     |
|  | GG. Threaten to walk out                      |

Methodology. Questionnaires were developed which solicited demographic information on the respondent and which asked him/her

- (1) to select and rank the five tactics he/she used most frequently;
- (2) to select and rank the five tactics his/her negotiating opponents used most frequently;
- (3) to rank the ten strategies according to his/her preference for use;
- (4) to rank the ten strategies according to his/her frequency of use; and
- (5) to indicate his/her preferred strategy in each of several

negotiation situations (five different contract types, six levels of contract dollar amount, three types of contractual action, two program stages, and three degrees of competition).

These questionnaires were reviewed and validated and sent to 1,051 contract negotiators, the entire known population in the four major product buying divisions of the Air Force Systems Command. Responses were tabulated and analyzed using the Statistical Package for Social Sciences (SPSS). Rankings among various subgroups of respondents were analyzed using the Kendall Coefficient of Concordance and the Kendall Tau tests.

Findings. Although a relatively small proportion of questionnaires was returned, giving rise to concerns of a possible nonresponse bias, the demographic statistics of the 278 respondents were fairly representative of their known population parameters.

Table I shows the frequencies with which each of the 33 tactics was listed among the top five by the respondents, first for their own use (under "A.F.") and then for use by contractors' negotiators (under "KTR"). The frequencies then are used to create rankings among the tactics. While some of the tactics are ranked similarly for both negotiating parties [see tactics 9, 16, 25, 29, 30, 31], many are inversely related [see tactics 2, 4, 5, 17, 19, 23]. Several of these latter tactics seem to indicate that the respondent feels he is the "good guy" while the contractor is the "bad guy." Tactics 2, 17, 19, and 23 especially portray this dichotomy. It must be remembered, however, that it is the Air Force negotiator here who is providing data on both his use of tactics and on the contractors' use; therefore, the contractors' views are not really represented. To assist in drawing conclusions, Table II displays the ten most frequently used tactics for each party. Here again, a "good guy versus bad guy" interpretation can be drawn from the rankings. The Kendall Tau test indicated the two rankings were independent, or not in agreement with each other.

Tables III and IV show the results from the respondents' ranking of the ten given strategies in terms of frequency of use and then preference for use, respectively. The "ARS" column shows the average rank score each strategy received, with the lowest number indicating highest rank. Then the strategies are assigned a final rank in the last column according to their average rank scores. The Kendall Coefficient of Concordance test indicated that there was strong consensus among the respondents on both rankings, frequency and preference. Coverage/Bottom Line was clearly the most frequently used and most preferred strategy, while Surprise, Reversal, and Patience were the least frequently used and least preferred. Statistics and Participation were given similar scores and ranked second and third respectively in frequency of use and third and second respectively in preference. Table V displays the frequency and preference rankings together. The observed similarity was substantiated by the Kendall Tau test, indicating strong agreement between the two rankings. This is interpreted to mean that negotiators are able to use most frequently those strategies they most prefer to use.

The respondents indicated their preferred strategy for various contractual situations presented to them. Frequencies were then tabulated from these preferences.

a. Table VI presents strategy preferences for five different types of contract (by compensation arrangement). Bottom Line was the preferred strategy for FFP and FPI contracts and its use diminished in the cost reimbursement type contracts, as might be expected. Definite Action, Participation, and Step-by-Step increase in use under the cost reimbursement types, and Statistics and Other Strategies (write-ins that were predominately combinations of two or more of the others) remain stable. Note the large numbers of respondents who do not have experience with each of the contract types (including ten with no experience in FFP contracts). There were also many No Preference responses.

b. Table VII shows results of respondents' selection of strategies for negotiation at various dollar levels. Bottom line gradually gives way to Statistics and Participation as dollar amounts climb above \$1 million. This may indicate increased complexity and the increased depth and breadth of evaluation required. The more uniform distribution at the higher dollar amounts may indicate that dollar value alone does not dictate a specific strategy adherence at those levels.

c. Respondents indicated very different strategy preferences when faced with the different situations of new contracts, modifications, and termination, as shown in Table VIII. Bottom Line dominates when negotiating modifications, and also leads for new contracts, followed closely by Combination and Participation. In termination actions, Statistics plays a large role, as it does in modifications. Nearly all respondents have had experience with modifications and the data indicates that two-thirds have had experience with terminations.

d. Table IX displays responses regarding the preferred strategy for research and development and that for production. Bottom Line is first for R&D and second for production, but the significant change is the shift from Participation in R&D to Statistics in production. This may indicate a need for technical experts during negotiations in R&D to assure the contractor understands the requirement, while production negotiations may be more concerned with the better defined and measured concepts such as production rates, learning, efficiency, and supportability. Other than this difference, the influence of phase of program on strategy seems to be limited.

e. Table X shows the distribution of key strategies for three levels of competition. Bottom Line dominates in the presence of competition. Dropping to only two competitors from three or more brings slight increases in the number preferring Participation, Combination, and Statistics, and a slight decrease in those preferring Bottom Line. In sole source (no competition), larger increases in these same three strategies can be seen.



### Air Force Logistics Command Study

Another study [Peterson, 1986] parallel to the one above was carried out in 1986 to gain information on the negotiation strategy preferences and uses in the Air Force Logistics Command, responsible for supporting, maintaining, and modifying the operational weapon systems of the Air Force. This project had the same research questions (applied to the different command of interest), and used the same questionnaire and analysis methodology of the Air Force Systems Command study above. Fifty-six of the 226 questionnaires mailed were returned and/or complete enough to be used in the analysis, a return rate of 24.7 percent.

Findings. Table XI shows the frequency and rankings of the 33 tactics resulting from the new responses. Rankings here indicate a few similarities between the Air Force negotiators and contractor negotiators but a great many differences, as in the first study [see Table I]. Again, the Kendall Tau test indicated significant differences. Table XII indicates these differences among the five most frequently used tactics. Note that the Air Force top five and the contractor top five are quite similar between the AFLC (the present) study and the AFSC (the previous) study.

The next two tables provide the average rank scores and the resulting rankings for the ten strategies for this (AFLC) study and compares the rankings to the previous AFSC study for first, the frequency of use (Table XIII) and then, the preference for use (Table XIV). There is a moderately strong consensus among the AFLC respondents on both use and preference, although not as strong as in the previous study. Further, the AFLC and AFSC rankings were found to be correlated, per the Spearman Rank Correlation Coefficient. Again here [see Table XV], there was strong agreement between the rankings by use and the rankings by preference, indicating the two are quite similar in AFLC also.

The pattern of strategies selected for the various contractual situations was quite similar to the previous study also.

a. Table XVI shows the frequencies of strategy selection for the five types of contracts. For FFP, Bottom Line was again the most frequently selected with Statistics second. For FPI Statistics was the most frequent, but a large number indicated No Experience with this contract type. For cost reimbursement type contracts, Step-by-Step was the most frequently selected strategy, but the most frequent response was again No Experience.

b. Contract dollar value in this AFLC study gave rise to the same shift in strategies as did the AFSC study, but at lower dollar thresholds. Table XVII shows the results of the questions in this area. The shift to Statistics and Combination starts at \$100,000 and then, as dollar level increases, there is another shift toward Participation and Statistics and away from Bottom Line.

c. Table XVIII shows the most frequently selected strategies when faced with a new contract, modification to a contract, and termination.



Bottom Line and Participation were the most frequent choices for the new contract situation (the AFSC study had Combination second). Statistics was the dominate strategy selection for modifications (whereas Bottom Line was dominate in the AFSC study with Statistics second). Both studied agreed that Statistics was the preferred strategy for termination, although here again a large number indicated No Experience.

d. Table XIX indicates that fifty percent of the respondents had had no experience with R&D contract negotiations, not unexpected for negotiators in this support command. Of those who had experience, Step-by-Step was the preferred strategy, quite different from the AFSC study in which Bottom Line, Participation, and Combination were all selected more frequently than Step-by-Step. For production negotiations, Statistics was the most frequent selection in both studies.

e. The degree of competition brought slightly different results in this study. Table XX indicates that Combination and Bottom Line were the most frequently preferred when under competition in this study, while Bottom Line and Statistics were selected most in the AFSC study [see Table X]. In the sole source situation, this study's respondents opted for Statistics and Participation most frequently, while the AFSC study indicated Bottom Line and Statistics.

#### CONCLUSIONS

The data from these two studies suggest that negotiators tend to use the same tactics in different commands and tend to ascribe the same tactics use to their contractor counterpart. Furthermore, the negotiators seem to indicate that they use "good guy" tactics, reflecting a positive and cooperative approach, while several of those which they attribute to their counterparts in industry might be described as "bad guy" tactics, negative and contentious. While it would seem possible for negotiators to cross easily from one command to the other, at least as far as use of strategies and tactics is concerned, other studies have reported that there is relatively little crossflow between the two.

In the area of strategy use and preference, there was generally strong statistical evidence of agreement between the two commands, although the most frequently used strategy was different (Statistics for this study and Bottom Line for the AFSC study). Minor differences appear in the selection of strategies in various contractual situations; however, in general, there is much consensus between the two commands.

While more follow-on research is needed to increase the database and confirm these preliminary findings, a picture of the Air Force negotiator is beginning to emerge. Additional research into the effectiveness of negotiations [for example, Horton, 1987] will help us to better understand how we negotiate and, possibly, how we should negotiate.

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TABLE I  
Frequency and Ranking of Tactics

Tactic Code and Name	Frequencies		Rankings	
	A.F.	KTR	A.F.	KTR
1. Adjust the thermostat	8	0	26	32.5
2. Allow face-saving exits	95	4	4	29.0
3. Appeal to patriotism	25	3	17	30.0
4. Ask for lots of data	115	6	1	27.0
5. Belabor fair and reasonable	103	21	2	19.0
6. "Bogey" budget limits	36	8	13	24.0
7. Call frequent caucuses	68	35	6	16.0
8. Change negotiators	3	14	30	21.0
9. "Cherry-pick" the best deal	11	12	24	22.0
10. Deadlock the negotiations	25	63	18	7.0
11. Deliberate errors left in offers	17	51	21	10.0
12. Deliberately expose notes or papers	10	2	25	31.0
13. Embarrass your opponent	5	9	28	23.0
14. Escalate to opponent's boss	59	27	9	18.0
15. Escalate to your boss	55	36	10	15.0
16. "Good-guy/bad-guy" roles	45	39	11	13.0
17. "High-ball" offers	1	106	32	3.0
18. Impose "no smoking rule"	4	0	29	32.5
19. "Low-ball" offers	64	7	7	26.0
20. Make an offer they must refuse	20	39	20	14.0
21. Massage opponent's ego	33	30	14	17.0
22. "Must be on contract by ...!"	24	77	19	5.0
23. "My plane leaves at ... o'clock."	2	41	31	12.0
24. Negotiate with limited authority	32	113	15	2.0
25. "Off the record" discussions	74	64	5	6.0
26. Personal attack	1	19	33	20.0
27. Play hard to get	16	46	22	11.0
28. Refer to firm's past poor performance	41	6	12	28.0
29. Refer to your side's generosity	63	58	8	8.0
30. Reverse auctioning	6	8	27	25.0
31. "Split-the-difference" offers	97	142	3	1.0
32. "Take it or leave it" offers	32	88	16	4.0
33. Threaten to walk out	16	53	23	9.0
34. Other write-in tactics	-	-	-	-

TABLE II  
Ten Most Frequently Used Tactics

Rank	Air Force Tactics	Contractor Tactics
1	Ask for lots of data	Split the difference
2	Belabor fair and reasonable	Negotiate with limited authority
3	Split the difference	High-ball offers
4	Allow face-saving exits	Take-it-or-leave-it offers
5	Off-the-record discussions	Must be on contract by ...
6	Call frequent caucuses	Off-the-record discussions
7	Low-ball offers	Deadlock the negotiations
8	Refer to your side's generosity	Refer to your side's generosity
9	Escalate to opponent's boss	Threaten to walk out
10	Escalate to your boss	Deliberate errors in offers

TABLE III  
Average Rank Scores and ARS Ranking of Strategy Frequency

Strategy	A R S	ARS-Rank
1. Combination	5.04688	4
2. Coverage/Bottom Line	2.86458	1
3. Definite Action	5.89583	7
4. Limits	5.51563	6
5. Participation	4.68229	3
6. Patience	6.57813	8
7. Surprise	7.39583	10
8. Reversal	7.25521	9
9. Statistics	4.48438	2
10. Step-by-Step	5.37500	5

TABLE IV

Average Rank Scores and ARS Ranking of Strategy Preference

Strategy	A R S	ARS-Rank
1. Combination	5.08854	4
2. Bottom Line	3.42188	1
3. Definite Action	5.75000	6
4. Limits	6.04167	7
5. Participation	4.13542	2
6. Patience	6.50521	8
7. Surprise	7.43750	10
8. Reversal	7.31771	9
9. Statistics	4.29167	3
10. Step-by-Step	5.21875	5

TABLE VI

Frequencies of Strategies Under Different Contract Types

Strategy	FFP	FPI	CPFF	CPIF	CPAF
1. Combination	30	31	16	14	10*
2. Bottom Line	104	44	35	16	15*
3. Definite Action	5	5	14	16	11
4. Limits	3	4	6	7	6
5. Participation	9	14	27	19	22*
6. Patience	3	1	1	2	2
7. Surprise	0	0	0	1	0
8. Reversal	3	6	2	4	2
9. Statistics	35	41	31	29	22*
10. Step-by-Step	9	11	16	9	7
11. No Preference	32	38	37	41	36
12. No Experience	10	50	60	97	112*
13. Other Strategies	35	33	33	33	33

\*Strategies with significant changes in selection frequency.

TABLE V

Ranking of Strategies Used to Strategies Preferred

Strategy	Rank by Frequency	Rank by Preference
1. Combination	4	4
2. Bottom Line	1	1
3. Definite Action	7	6
4. Limits	6	7
5. Participation	3	2
6. Patience	8	8
7. Surprise	10	10
8. Reversal	9	9
9. Statistics	2	3
10. Step-by-Step	5	5

TABLE VII

Strategy Frequencies Based on Dollar Value

Strategy	Dollars in Millions			
	Up to \$1	\$1 - \$10	\$10 - \$25	Over \$25
Combination	20 ( 7.2%)	26 ( 9.4%)	21 ( 7.6%)	20 ( 7.2%)
Bottom Line	71 (25.5%)	33 (11.9%)	26 ( 9.4%)	19 ( 6.8%)
Participation	10 ( 3.6%)	28 (10.1%)	29 (10.4%)	35 (12.6%)
Statistics	34 (12.2%)	43 (15.5%)	37 (13.3%)	34 (12.2%)
No Preference	47 (16.9%)	45 (16.2%)	41 (14.7%)	40 (14.4%)
No Experience	9 ( 3.2%)	18 ( 6.5%)	48 (17.3%)	54 (19.4%)
Other*	45 (16.2%)	52 (18.7%)	49 (17.6%)	51 (18.3%)

\*Combinations of listed strategies and others.

TABLE VIII

Strategy Rankings Based on Contractual Action

Strategy	New Contract	Modification	Termination
1. Combination	41 (14.7%)	21 (7.6%)	10 (3.6%)
2. Bottom Line	48 (17.3%)	80 (28.8%)	21 (7.6%)
3. Participation	35 (12.6%)	12 (4.3%)	5 (1.8%)
4. Statistics	27 (9.7%)	46 (16.5%)	35 (12.6%)
5. Step-by-Step	15 (5.3%)	10 (3.6%)	8 (2.9%)
6. No Preference	34 (12.2%)	30 (10.8%)	32 (11.5%)
7. No Experience	18 (6.5%)	5 (1.8%)	89 (32.0%)
9. Other Strategy*	43 (15.5%)	43 (15.5%)	42 (15.1%)

TABLE IX

Strategy Rankings Based on Type of Acquisition or Program

Strategy	R & D	Production
1. Combination	26 (9.4%)	26 (9.4%)
2. Bottom Line	45 (16.2%)	41 (14.7%)
3. Participation	38 (13.7%)	16 (5.8%)
4. Statistics	19 (6.8%)	64 (23.0%)
5. Step-by-Step	13 (4.7%)	8 (2.9%)
6. No Preference	30 (10.8%)	34 (12.2%)
7. No Experience	35 (12.6%)	32 (11.5%)
8. Other Strategy	45 (16.2%)	44 (15.8%)

TABLE X

Strategy Rankings Based on Degree of Competition

Strategy	Three or More Contractors	Two Contractors	Sole Source
1. Combination	16 (5.8%)	17 (6.1%)	28 (10.1%)
2. Bottom Line	52 (18.7%)	48 (17.3%)	42 (15.1%)
3. Definite Action	18 (6.5%)	19 (6.8%)	15 (5.4%)
4. Participation	16 (5.8%)	21 (7.6%)	30 (10.8%)
5. Statistics	24 (8.6%)	26 (9.4%)	36 (12.9%)
6. No Preference	35 (12.6%)	32 (11.5%)	34 (12.2%)
7. No Experience	49 (17.6%)	44 (15.8%)	5 (1.8%)
8. Other	42 (15.1%)	44 (15.8%)	55 (19.8%)

\*Combinations of listed strategies and others.

TABLE XI  
Frequency and Ranking of Tactics

Tactic Code and Name	Frequencies		Rankings	
	AF	KTR	AF	KTR
1. Adjust the thermostat	2	1	24.5	28.5
2. Allow face-saving exits	16	1	5.0	28.5
3. Appeal to patriotism	6	2	17.5	24.5
4. Ask for lots of data	31	3	1.0	22.0
5. Belabor fair and reasonable	26	2	2.0	24.5
6. "Bogey" budget limits	8	2	14.5	24.5
7. Call frequent caucuses	15	9	6.5	12.5
8. Change negotiators	2	6	24.5	18.5
9. "Cherry-pick" the best deal	3	6	21.5	18.5
10. Deadlock the negotiations	5	18	19.0	5.5
11. Deliberate errors left in offers	2	14	24.5	7.0
12. Deliberately expose papers	2	0	24.5	32.0
13. Embarrass your opponent	0	0	30.5	32.0
14. Escalate to opponent's boss	10	8	11.0	15.0
15. Escalate to your boss	10	8	11.0	15.0
16. "Good-guy/bad-guy" roles	10	4	11.0	20.5
17. "High-ball" offers	0	22	30.5	2.0
18. Impose "no smoking rule"	0	0	30.5	32.0
19. "Low-ball" offers	14	1	8.0	28.5
20. Make an offer they must refuse	8	10	14.5	11.0
21. Massage opponent's ego	8	12	14.5	8.5
22. "Must be on contract by ... I"	15	7	6.5	17.0
23. "My plane leaves at ... o'clock."	0	11	30.5	10.0
24. Negotiate with limited authority	11	20	9.0	4.0
25. "Off the record" discussions	8	18	14.5	5.5
26. Personal attack	0	4	30.5	20.5
27. Play hard to get	3	12	21.5	8.5
28. Refer to firm's poor performance	6	2	17.5	24.5
29. Refer to your side's generosity	22	8	4.0	15.0
30. Reverse attribution	0	1	30.5	28.5
31. "Split-the-difference" offers	23	33	3.0	1.0
32. "Take it or leave it" offers	4	21	20.0	3.0
33. Threaten to walk out	1	9	27.0	12.5

TABLE XII  
Most Frequently Used Tactics

Rank	Air Force Tactics	AFLC	Contractor Tactics
1.	Ask for lots of data		"Split the difference" offers
2	Belabor fair and reasonable		"High-ball" offers
3	"Split the difference" offers		"Take it or leave it" offers
4	Refer to your side's generosity		Negotiate with limited authority
5	Allow face-saving exits		Deadlock the negotiations
			"Off the record" discussions (tie)
		<b>AFLC</b>	
1	Ask for lots of data		"Split the difference" offers
2	Belabor fair and reasonable		Negotiate with limited authority
3	"Split the difference" offers		"High-ball" offers
4	Allow face-saving exits		"Take it or leave it" offers
5	"Off the record" discussions		"Must be on contract by ..."

Table XIII  
Average Rank Scores and ARS Ranking of Strategy Frequency

Strategy	A R S	AFLC-Rank	AFSC-Rank
1. Combination	4.94643	4	4
2. Coverage/Bottom Line	4.23214	2	1
3. Definite Action	5.48214	6	7
4. Limits	5.57143	7	6
5. Participation	5.33929	5	3
6. Patience	6.28571	8	8
7. Surprise	7.42857	10	10
8. Reversal	7.14286	9	9
9. Statistics	3.96429	1	2
10. Step-by-Step	4.71429	3	5

Table XIV  
Average Rank Scores and ARS Ranking of Strategy Preference

Strategy	A R S	AFLC-Rank	AFSC Rank
1. Combination	5.17857	5	4
2. Coverage/Bottom Line	4.73214	4	1
3. Definite Action	5.19643	6	6
4. Limits	6.07143	7	7
5. Participation	4.53571	2	2
6. Patience	6.26786	8	8
7. Surprise	7.39286	10	10
8. Reversal	7.05357	9	9
9. Statistics	3.80357	1	3
10. Step-by-Step	4.67857	3	5

Table XV  
Rankings of Strategies Used to Strategies Preferred

Strategy	Rank by Frequency	Rank by Preference
1. Combination	4	5
2. Coverage/Bottom Line	2	4
3. Definite Action	6	6
4. Limits	7	7
5. Participation	5	2
6. Patience	8	8
7. Surprise	10	10
8. Reversal	9	9
9. Statistics	1	1
10. Step-by-Step	3	3

Table XVI  
Frequency of Strategies Under Different Contract Types

Strategy	FFP	FPI	CPFF	CPIF	CPAF
1. Combination	6	5	3	1	2
2. Coverage/Bottom Line	20	5	2	0	1
3. Definite Action	3	2	3	3	2
4. Limits	2	1	4	0	1
5. Participation	5	4	5	3	4
6. Patience	0	0	0	0	0
7. Surprise	0	0	0	0	0
8. Reversal	0	0	1	2	2
9. Statistics	13	10	5	3	2
10. Step-by-Step	6	6	10	6	4
11. No Preference	0	2	2	3	2
12. No Experience	0	25	20	34	35
13. Other Strategies	1	1	1	1	1

TABLE XVII  
Strategy Frequencies Based on Dollar Value

Strategy	\$25-100K	\$100K-1M	\$1-10M	\$10-25M
Combination	6-10.7%	10-17.9%	6-10.7%	6-10.7%
Bottom Line	20-35.7%	8-14.3%	5-8.9%	1-1.8%
Participation	1-1.8%	4-7.1%	8-14.3%	7-12.5%
Statistics	6-10.7%	9-16.1%	8-14.3%	7-12.5%
Step-by-Step	3-5.4%	5-8.9%	3-5.4%	5-10.7%
No Preference	2-3.6%	1-1.8%	1-1.8%	2-3.6%
No Experience	3-5.4%	4-7.1%	9-16.1%	16-28.6%
Other	5-8.9%	5-8.9%	5-8.9%	6-10.7%



TABLE XVIII  
Strategy Rankings Based on Contractual Action

Strategy	New Contract	Modification	Termination
1. Combination	8-14.3%	7-12.5%	2-3.6%
2. Bottom Line	10-17.9%	4-7.1%	3-5.4%
5. Participation	10-17.9%	3-5.4%	1-1.8%
9. Statistics	7-12.5%	23-41.1%	6-10.7%
10. Step-by-Step	8-14.3%	2-3.6%	6-10.7%
11. No Preference	1-1.8%	1-1.8%	1-1.8%
12. No Experience	1-1.8%	5-8.9%	20-35.7%
13. Other	4-7.1%	4-7.1%	5-8.9%

TABLE XIX  
Strategy Rankings Based on Type of Acquisition or Program

Strategy	R & D	Production
1. Combination	4-7.1%	5-8.9%
2. Bottom Line	1-1.8%	6-10.7%
5. Participation	2-3.6%	5-8.9%
9. Statistics	4-7.1%	16-25.0%
10. Step-by-Step	7-12.5%	2-3.6%
11. No Preference	1-1.8%	0-0.0%
12. No Experience	28-50.0%	11-19.6%
13. Other	6-10.7%	7-12.5%

TABLE XX  
Strategy Rankings Based on Degree of Competition

Strategy	Three or More	Two	Sole Source
	Contractors	Contractors	
1. Combination	10-17.9%	7-12.5%	9-16.1%
2. Bottom Line	9-16.1%	7-12.5%	4-7.1%
5. Participation	4-7.1%	3-5.4%	10-17.9%
9. Statistics	3-5.4%	7-12.5%	15-26.8%
10. Step-by-Step	3-5.4%	3-5.4%	5-8.9%
11. No Preference	3-5.4%	3-5.4%	0-0.0%
12. No Experience	3-5.4%	3-5.4%	0-0.0%
13. Other	9-16.1%	10-17.9%	5-8.9%