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Case Analysis of the Procurement Process for "Buying Commercial Items for the US Government"

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CULMINATING PROJECT

TITLE: CASE ANALYSIS OF THE PROCUREMENT PROCESS FOR "BUYING COMMERCIAL ITEMS FOR THE US GOVERNMENT"

BY

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The Air Force's acquisition of the F-15 Fighter Aircraft incorporated many innovations to improve the logistics posture at a lower cost. One of these was the manner which both initial and replenishment (follow-on) spares were procured. This new process has since been formalized in Air Force Regulation 800-26, entitled, "Spares Acquisition Integrated with Production (SAIP)". SAIP is, in essence, a procedure to decrease spares acquisition cost through concurrent ordering, production, shipment and pricing of production line installs and spares.

In 1973, aircraft production line cost for an item was compared to the cost for a spare and the significant lower cost for the production line item caused an intensive research program within the F-15 System Manager Division at Warner Robins Air Logistics Center to begin. The finding was the cost differential basically occurred because the spares were bought out of synchronization with the production line requirements. This caused additional production line set up and tear down charges and higher piece part prices for the spares fabrication. If the orders for the production line and the spares could be consolidated and released by the Prime as a single order, the cost differential would, for practical purposes be eliminated. An example of one sub-system is reflected below.

	CASE 1 SPARES PROCURED CONCURRENT WITH FY PRODUCTION	CASE 2 SPARES ORDERED AT VARIOUS TIMES DURING THE PROD YR
FISCAL YEAR	1977	1977
NR OF ITEMS	32	32
NR OF PIECES	303	303
TOTAL VALUE	$1,839,198	$2,381,573
AVG COST/PART	$6,071	$7,860

SUMMARY

CASE 2 COSTS ARE 129% OF CASE 1 COSTS

The System Manager, working in concert with the McDonnell Aircraft Corporation, evolved the procedure currently in use for spares acquisition for the F-15 Aircraft.

There are four specific goals to be achieved:

(1) Fiscal economics, by procuring spares concurrent with aircraft production releases,

(2) No impacts on current Air Force computer systems,

(3) Minimize impact on contractor internal procedures, and

(4) Retain configuration control and proration of assets.

To achieve these goals, a contract must be written having specified parameters. These are:

(1) The prime manufacturer must submit a production line sub-system Purchase Order release schedule,

(2) Proration of assets, when configuration changes occur,

(3) Configuration control,

(4) No early deliveries, and

(5) Unit price integrity

The Government, on its part, must also agree to certain restraints. These are:

(1) Once the basic order is released, the quantities are inviolate,

(2) Any increases will be treated as a separate "stand alone" order and not part of the basic SAIP procurement.

(3) There will be no decreases, instead, these overages will be applied to downstream requirements, and

(4) The only exception to (3) above is where an item is deleted and not replaced or superseded. In this case, the Government will accept termination charges up to date of approval of change, deleting the item.

These features are new in most instances to Government-Type contracts, but there are advantages to be realized by both Government and Industry. Implementation of this technique on the F-15 Aircraft has both fiscal and logistics advantages to the Air Force. Logistics requirements are produced concurrently with the installs. There is a simultaneous "cut-in" design change that results in production of properly configured spares. This timely proration reduces retrofit costs.

There is certainly an avoidance of production line "set up" and "tear down" charges with concurrent production of installs and spares. By procuring through the Prime, design changes are documented to aircraft serial number, not vendor unit serial number; "spares support" becomes more viable criteria for determining the point of design change incorporation. The Government receives the benefit of volume pricing by the combining of the spare and production line order. Under the unit price integrity clauses of the contract, the unit cost, once established, is only subject to re-negotiation when configuration/ design changes affect an item to the extent that it bears little or no resemblance to the item ordered.

The prime manufacturer enjoys advantages, also. Combining production line and spares procurements, the magnitude of the order drives the production line install cost down and he gains the earnings on all the spares orders. Last, the vendor achieves advantages such as one annual order for spares, rather than peice-meal orders throughout the year. He can collectively order piece parts for pricing advantages and the scheduling for manufacturing is very much simplified.

How does this SAIP procedure work in actuality? This is how it was and is applied to the F-15 Aircraft at Warner Robins Air Logistics Center, Robins AFB, Georgia.

The F-15 System Manager, utilizing its data base, isolated those sub-systems where most of the dollars had been spent. Nineteen sub-systems accounted for some eighty-five percent of the spares budget. The determination was made that SAIP procedures would be applied to these systems at the LRU/ SRU indenture level only.

McDonnell Aircraft Corporation (McAir) submits their annual Purchase Order Release Schedule to the System Manager, 180 days prior to their first P.O. release. The System Manager, acting as a focal point, submits to the Item Managers, at each of the five Logistics Centers listings of those items which are to be procured under the SAIP technique. They, in turn, send the procurement requirements for these items to the System Manager. The Purchase Request is then prepared and sent to Procurement for Contract Award. The Due-In Asset System is energized and all configuration management of these items is maintained by the System Manager.

Usually, this Purchase Request is released to coincide with the latest requirements computational cycle to ensure the most current procurement requirement is released to production. To date, this timeframe has caused Procurement to award Letter Contracts to meet deadlines of Purchase Order releases by McAir.

These Contract Awards averaged 25 days from date of receipt of the Purchase Request to award of Letter Contract. With this type of document, 100% obligations and lengthy definitization of schedules caused the Air Force to authorize the Warner Robins Air Logistics Center to prepare a specialized Basic Ordering Agreement for SAIP procurements. It contains provisions for:

(1) Priced Orders

(2) Unpriced Orders

(3) Unlimited delegation of authority to WR-ALC Commander to approve priced and unpriced SAIP Orders

(4) Hq AFLC after the fact review

(5) Only WR-ALC can issue SAIP Orders

(6) Multiple pricing methods. FPIS is primary with FPIF and FFP as options, and

(7) All the parameters of a SAIP contract previously discussed.

This BOA gives the F-15 Program the responsiveness and obligation rate desired.

This SAIP approach has proven to be a most expeditious and economical technique for the acquisition of spares. It can be equally applicable to both the Initial and Replenishment area of spares procurements. The F-15 Program has realized the following cost reductions:

$ 8.0M - 1974

$27.0M - 1975

$39.0M - 1976

$31.0M - 1977

$35.0M - 1978 (Estimated)

Within the Air Force, the A-10 and F-16 Aircraft are utilizing the SAIP technique and the Navy is considering it for the F-18.

As part of revised Department of Defense (DOD) Directive 4105.62, "Selection of Contractual Sources for Major Defense Systems", a service test of a four step source selection concept for the selection of sources and negotiation of contracts for advanced, engineering and operational systems development was established.[1]

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[1]Issued January 6, 1976, by the Deputy Secretary of Defense. See ASPR 4-101 for definitions of advanced, engineering and operational systems development.

The four-step process was initiated to improve weapons systems source selection and to correct the alleged procurement abuses of government technical leveling and auction techniques, and industry buy-ins.[2]

The four steps in the process are briefly summarized as follows:

(1) Solicitation, submission and evaluation of technical proposals,

(2) Submission and evaluation of cost/price proposals,

(3) Selection of contractor, and

(4) Negotiation and award of definitive contract.[3]

The Armed Services Procurement Regulation (ASPR) language applicable only to the special four-step test process was promulgated in Defense Procurement Circular (DPC) 75-7, Feb. 27, 1976[4], and modified the ASPR 3-805.3 (1975 edition) language by adding the following paragraph dealing with Discussions with Offerors:

> (b) In discussing technical proposals for procurements involving advanced, engineering or operational systems development (see (4-101)), contracting officers shall apprise offerors selected to participate in discussions of only those identified deficiencies in their proposals that lead to a conclusion that (i) the meaning of the proposal or some aspect thereof is not clear, (ii) the offeror has failed to adequately substantiate a proposed technical approach

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[2]"4-Step Source Selection", A Study to Test and Evaluate New Source Selection Procedures, Interim Report, 31 July 1977.

[3]Section III.D.5, DOD Directive 4105.62, supra note 1.

[4]Implementing instructions to start the service test of the four-step source selection process has been issued by Deputy Assistant Secretary of Defense for Procurement (I&L) Memorandum Oct. 28, 1975, and was reaffirmed and clarified by a similar memorandum of Mar. 4, 1976.

> or solution, or (iii) further clarification of the solicitation is required for effective competition. Technical deficiencies clearly relating to an offeror's management abilities, engineering or scientific judgment, or his lack of competence of inventiveness in preparing his proposal shall not be disclosed. Meaningful discussions shall be conducted with the respective offerors regarding their cost/price proposals. Such discussions may include:
>
> (i) cost realism;
>
> (ii) mathematical errors or inconsistencies:
>
> (iii) correlation between costs and related technical elements, and
>
> (iv) other cost/price factors necessary for complete understanding of both the Government requirement and the proposal for meeting it, including delivery schedule, other contract terms, and trade-off considerations (with supporting rationale) among such elements as performance, design to cost, life cycle cost, and logistic support. Offerors shall be afforded a reasonable opportunity to correct or resolve deficiencies and submit revisions to either their technical or cost/price proposals.[5] (Emphasis added)

The normal (not the special test) language of ASPR concerning discussions with offerors provides for the identification of proposal deficiencies of proposal deficiencies in the technical and cost/price areas and the opportunity for offerors to submit revisions to proposals based on those discussions.

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[5]The existing ASPR 3-805.3 language was unchanged except for renumbering paragraphs. It should be noted that the Armed Services Procurement Regulation (ASPR) was replaced by the Defense Acquisition Regulation (DAR), effective Mar. 8, 1976.

Importantly, a "deficiency" is defined, "as that part of an offeror's proposal which would not satisfy the Government's requirements".[6]

This dichotomy in handling discussions of proposal deficiencies between the normal and special test programs has caused misunderstanding and confusion on the part of both industry and government.

Although seventeen DOD programs were selected as four-step test program candidates,[7] only two have gone through the complete procurement cycle including protest to the Comptroller General of the United States.

The grounds of protest to the General Accounting Office (GAO) in both the protest of Airesearch Manufacturing Company of Arizona[8] and GTE Sylvania, Inc.[9], centered, inter alia, on the Government's alleged failure to conduct meaningful discussions in violation of DOD Directive 4105.62. The meaningful discussion issue arose primarily because the government four-step evaluators and negotiators are not permitted to discuss an offeror's technical proposal deficiencies relative to his management abilities, lack of competence or inventiveness, or engineering or scientific judgment.

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[6]ASPR 3-805.3(a) (1976 edition): All offerors selected to participate in discussions shall be advised of deficiencies in their proposals and shall be offered a reasonable opportunity to correct or resolve the deficiencies and to submit such price or cost, technical or other revisions to their proposals that may result from discussions. A deficiency is defined as that part of an offeror's proposal which would not satisfy the Government's requirements.

[7]See note 2 supra. Not all selected procurements had to meet the DOD Directive 5000.1 definition of a major program,i.e., $50 million in projected R&D funds or $200 million in projected production funds.

[8]56 Comp. Gen. 989 (1977).

[9]Comp. Gen, Dec. B-188272, Nov. 30, 1977.

During the discussion period offerors may be apprised only of those identified deficiencies in their proposals that lead to a conclusion that "(a) the meaning of the proposal or some aspect thereof is not clear (b) the offeror has failed to adequately substantiate a proposed technical approach or solution, or (c) further clarification of the solicitation is required for effective competition".[10] Thus both industry and government contract negotiators have difficulty in determining what constitutes a proposal deficiency vis-a-vis a proposal clarification.

Although distinguishing between proposal deficiencies and proposal clarifications is relatively new to DOD participants in the four-step selection process, GAO has had occasion to deal with similar matters in several NASA procurements.[11] The DOD four-step source selection procedures are very similar to NASA's in that discussion of proposal deficiencies or weaknesses are specifically prohibited.[12] Both procedures state the need to allow competitive-range offerors the opportunity for discussions of technical proposals to clarify or substantiate the proposal, or clarify solicitation meaning when needed. Also the procedures specifically prohibit discussions of technical weaknesses (NASA's term) or deficiencies (DOD's term) relating to an offeror's lack of management abilities, engineering or scientific judgment.[13]

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[10] ASPR 3-805.3 test language supra.

[11] See e.g., 55 Comp. Gen. 802 (1976); 55 Comp. Gen. 715 (1976); 54 Comp. Gen. 562 (1975); 54 Comp. Gen. 408 (1974); and 53 Comp. Gen. 977 (1974).

[12] NASA Procurement Directive 70-15, December 3, 1975, currently in effect.

[13] Supra note 8.

In the protest of Sperry Rand Corporation,[19] GAO interpreted the phrase "discussions with offerors within the competitive range" to include the identification of ambiguities and uncertainties, but not technical deficiencies. The underlying rationale is that to point out deficiencies during discussions would unfairly compromise the competitive process by leveling the technical disparities between the weak and strong competitors.[20]

GAO has acknowledged the potential in research and development procurements for the disclosure to other competitors of the "fruits of an offeror's innovative efforts."[21] Thus, the weaknesses in a protestor's proposal were deficiencies only in comparison with relative strengths of the selected company. Therefore, discussions concerning deficiencies and comparative weaknesses would inevitably involve technical "leveling" and "transfusion".[22] To avoid this technical transfusion and leveling, discussions could be properly limited to the clarification of prpposals. Thus, "...where the meaning of a proposal is clear and (evaluators have) enough information to assess its validity and the proposal contains a weakness which is inherent in the proposer's management engineering or scientific judgment or is the result of its own lack of competence or inventiveness in preparing its proposal, the contracting officer shall not point out the weakness."[23]

GAO on ruling on the question of whether or not the statutory requirement for discussions required the identification of all deficiencies and weaknesses, stated:

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[19] 54 Comp. Gen. 408 (1974).

[20] Id., at 411.

[21] Comp. Gen. Dec. B-179030, Jan. 24, 1974.

[22] Supra note 8.

[23] Id.

Since the DOD procedures are comparable to the NASA procedures, GAO has used their prior decisions involving NASA procurements as an aid in deciding the DOD four-step source selection process protests.[14]

In deciding both AiResearch and GTE Sylvania, GAO utilizing their lengthy decision dealing with the selection procedure for the space shuttle main engine contractor.[15] GAO wrestled with the conflict between NASA's limited discussion rule and the 10 U.S.C. 2304(g) (1970) statutory requirement that "written or oral discussions shall be conducted with all responsible offerors who submit proposals within a competitive range, price, and other factors considered". GAO discussed the legislative history of the statute and concluded that while the statute did not define the nature, scope, or extent of the required discussions, it was clear in their view that competition was to be maximized and that discussions be "meaningful by making them discussions in fact and not just lip service".[16]

GAO has indicated that discussions, to be meaningful, must include the pointing out of deficiencies in an offeror's proposal.[17] However, GAO has recognized that limitations can be placed on the extent and content of discussions in order to avoid transfusion or leveling,[18] as evidenced by the NASA and DOD procedures.

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[14] Supra note 11.

[15] Comp. Gen. Dec. B-173677 (2), March 31, 1972; summarized in 51 Comp. Gen. 621 (1972).

[16] Id. at 622.

[17] See, 54 Comp. Gen. 60 (1974); cf. 50 Comp. Gen. 117 (1972).

[18] 55 Comp. Gen. 802, 807 (1976).

> . . . (It) is a matter of judgment primarily for determination by the procuring agency in light of all the circumstances of the particular procurement and the requirement for competitive negotiations, and that such determination is not subject to question by our Office unless clearly arbitrary or without a reasonable basis. However, the statute should not be interpreted in a manner which discriminates against or gives preferential treatment to any competitor. Any discussion with competing offerors raises the question as to how to avoid unfairness and unequal treatment. Obviously, disclosure to other proposers of one proposer's innovative or ingenious solution to a problem is unfair. We agreed that such 'transfusion' should be avoided. It is also unfair, we think, to help one proposer through successive rounds of discussions to bring his original inadequate proposal up to the level of other adequate proposals by pointing out those weaknesses which were the result of his own lack of diligence, competence, or inventiveness in preparing its proposal.[24]

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[24]See 56 Comp. Gen. 989 (1977); 51 Comp. Gen. 621 (1972); cf. 54 Comp. Gen. 562, 570, 571 (1975); aff'd, 54 Comp. Gen. 1009 (1975).

The protest of GTE Sylvania, Inc.[25] took a somewhat different tack on the issue of what constitutes meaningful discussions. The protestor alleged major, material changes to the winner's proposal in step four of the procurement process. The DOD Directive explicitly states what can and cannot be discussed in step four, i.e., final negotiations leading to a definitive contract:

> Negotiations after selection shall not involve material changes in the Government's requirements or the contractor's proposal which affect the basis for source selection. In the event that such changes are desired by the Government, the competition will be reopened in accordance with existing ASPR requirements.[26] (Emphasis added)

In the instant protest the Air Force admitted substantial changes amounting to a 35 percent increase in cost, however, such changes did not effect the "basis for source slection."[27]

GAO has previously held that where award of a cost-reimbursement contract is contemplated, the importance of analyzing proposed costs in terms of their realism is apparent, since, regardless of the proposed costs submitted the Government will be obliged to reimburse to the contractor its allowable costs. It is important that the Government contracting personnel exercise informed judgments as to whether proposals are realistic with respect to proposed costs and technical approach, and lack of realism may

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[25]Supra note 9.

[26]Supra note 3.

[27]Supra note 9.

esult in upward adjustment to an offeror's costs.[28]

While GAO has stated that the proper time for exploring costs of roposals within a competitive range is during negotiations and not after eceipt of best and final offerors,[29] they have approved of the Government's lecision to make significant cost and adjustments to proposals after best nd final offers are in.

In the protest of Bell Aerospace Company[30], a non-NASA, non-four step rocurement which did not expressly provide for this adjustment process, GAO aid:

> We see no significant difference between a process which allows cost adjustment of proposed costs after the close of discussions for purposes of determining the successful contractor - even though no formal adjustments of contract price is ultimately made - and an undisclosed cost adjustment process used in award selection which ultimately results in a changed contract price more in line with the Government evaluated price as was done here.[31]

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[28] See generally, Comp. Gen. Dec. B-181075, Oct. 30, 1974; see also Comp. Gen. Dec. B-178667, Dec. 14, 1973.

[29] 50 Comp. Gen. 739 (1971).

[30] 54 Comp. Gen. 352 (1974).

[31] Id., see, Comp. Gen. Dec. B-179030, Jan. 24, 1974.

It is interesting to note that while the NASA and DOD procedures track closely provision for provision, NASA has no comparable provision dealing with negotiations involving material changes in the final step of the selection process.[32]

This difference in the two procedures did not apparently bother GAO because, "both contemplate cost and technical adjustments in the selected proposal prior to award based on negotiations."[33]

GAO went on to say while they approve that significant percentage adjustments can be made in the selected offeror's proposal, such approval is based on assumptions that adequate cost and technical discussions have been previously conducted among competitive-range offerors; that all offerors have been permitted to submit best and final offers as a result of those discussions; that the Government projections of ultimate changes in the successful offeror's proposal are sound; and that the ultimate changes in the successful offeror's proposal do not affect the underlying assumptions which prompted the selection.[34]

In summarizing the GAO rules on what constitutes meaningful discussions, the Comptroller General has stated that, "extent and content of meaningful discussions ... are not subject to any fixed, inflexible rule,[35] and "what will constitute such discussion is a matter of judgment primarily for determination by the procuring agency in light of all the circumstances of the particular procurement and the requirement for competitive negotiations..."[36]

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[32]Supra note 9.

[33]Id.

[34]Id.

[35]Comp. Gen. Dec. B-182558, March 24, 1975.

[36]53 Comp. Gen. 240, 247 (1973); 53 Comp. Gen. 977, 1032 (1974).

As can be seen GAO's many pronouncements on meaningful discussions center on the maintenance of effective competition, and equal and fair treatment for all offerors within a framework which preserves the integrity of the procurement system and assures that the Government procures the goods and services which it requires on terms advantageous to the Government. Unfortunately the voluminous GAO comments on what constitutes "meaningful discussions" really gives little guidance to government and industry contract negotiators.

In at least one protest to GAO, the contracting officer decided that negotiations should be limited to price alone, as it was believed that discussions would have compromised the technical proposals through transfusion of ideas, methodology, and concepts.[37] While looking at such limitations on meaningful discussions in the abstract, they could become so limited in scope and content that the discussions would amount to nothing more than "a cermonial exercise with meaningful discussions transposed almost entirely into the final negotiations stage."[38] Conceivably, other contracting activities might ignore the tenor of the DOD Directive and conduct business as usual and have full blown negotiations rather than meaningful discussions within the context of the four-step directive.

It appears from close analysis of the GAO discussions of the AiResearch and GTE Sylvania cases that the government and contractor negotiators in the four-step process are often compelled to engage in potentially harmful word games. The government negotiator must carefully couch questions in very precise language to convey concerns relating to the offeror's proposal

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[37] 52 Comp. Gen. 870, 871 (1973).

[38] 54 Comp. Gen. 408, 411 (1974).

without violating the four-step procedures. Thus, while a question simply asks for clarification of the proposal, an offeror inevitably will search for possible hidden meanings. With this sort of transaction it is questionable whether or not the minds of the parties really meet prior to actual negotiations in step four. Since real negotiations do not commence until after the potential contractor has been selected, the potential for material changes in the final step based on misunderstandings is ripe. Or, on the other hand, a competent offeror might be eliminated from step four due to the fear of government representations of the likelihood of technical leveling.

The perceived fear of technical leveling may sacrifice the welfare of individual DOD programs in the name of the integrity of the procurement process. The suggested simple solution of forcing offerors to present their best proposal initially loses sight of the overall government's desire for scientific and technological superiority, especially in the area of research and development, which can only be achieved through full understanding by both parties.[39]

With more and more DOD procurements coming under the mantle of the four-step procurement process, it is anticipated that GAO will be frequently called upon to refine the meaningful discussion problem within the foregoing context. The determinative issue from GAO's standpoint is not necessarily whether meaningful discussions were conducted, but whether effective competition was maintained and whether offerors were permitted to compete on an equal basis.[40]

It is suggested that rather than the overly restrictive and obviously confusing language contained in the DOD Directive pertaining to the scope of

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[39]ASPR 4-102 (1976 edition).

[40]55 Comp. Gen. 802, 807 (1976).

meaningful discussions, a simple, concise statement that procuring activities shall not indulge in technical leveling during discussions would suffice.

In order for the government to obtain the optimum goods and services it desires, more liberal interpretations as to the extent of discussions should be permitted in order to fully inform offerors without misunderstanding of government requirements and eliminate problem areas in proposals, without technical levels.

It is time that someone spoke up for that much-maligned event in the source selection process called best-and-final offer. The most interesting aspect in the continuing bitter and biting criticism of that process is that it comes primarily from the aerospace industry. One of the latest was an article in the Defense Systems Management Journal which alleges that the "procedures places (sic) the procurement process in the realm of a used car auction . . ." (1:2 and 1:3) There are still a few of us around (but apparently not many!) who remember that the process was instituted as a result of complaints by that same industry. They very vigorously and insistently stated that some common cutoff date had to be established to prevent auctioning. How then did the best-and-final offer, which was devised to resolve that complaint, later become the culprit in new allegations of auctioning?

Let us review some history. In 1959, the ASPR read as follows:

> "(a) The normal procedure in negotiated procurements, after receipt of initial proposals, is to conduct such written or oral discussions as may be required to obtain agreements most advantageous to the Government. Negotiations shall be conducted as follows:

(i) where a responsible offeror submits a responsive proposal which, in the contracting offer's opinion, is clearly and substantially more advantageous to the Government than any other proposal, negotiations may be conducted with that offeror only; or

(ii) where several responsible offerors submit offers which are grouped so that a moderate change in either the price or the technical proposal would make any one of the group the most advantageous offer to the Government, further negotiations should be conducted with all offerors in that group. Whenever negotiations are conducted with more than one offeror, no indication shall be made to any offeror of a price which must be met to obtain further consideration, since such practice constitutes an auction technique which must be avoided. No information regarding the number of identity of the offerors participating in the negotiations shall be made available to the public or to anyone whose official duties do not require such knowledge. Whenever negotiations are being conducted with several offerors, while such negotiations may be conducted successively, all offerors participating in such negotiations shall be offered an equitable opportunity to submit such pricing, technical, or other revisions in their proposals as may result from the negotiations. All offerors shall be informed that after the submission of final revisions, no information will be furnished to any offeror until award has been made. Modifications of proposals received after the submission of final prices shall be considered only under the circumstances set forth in ASPR 3-804.2(b) (relating to late proposals)." (1:343)

Note that we could negotiate with only one proposer, if, in the judgment of the contracting officer, that one proposal was clearly the best.

Also note that, if negotiating with more than one proposer, "auction techniques" were forbidden, but the reference is in relation to improper indication of a price which must be met. Multiple negotiations could be held successively with those who submitted technically acceptable proposals, but each must be offered an opportunity to submit a "final revision." There is no mention of a single cutoff date for all revisions.

In practice what happened was that proposers maneuvered very carefully not to be the first to submit "final revisions." Their reasoning was that they were afraid those prices would leak and their competitors would come in below them. Sometimes they submitted a revision consisting of a portion of that which they were willing to reduce without calling it "final" and waited to see if the contracting officer was going to accept it or if he was going to negotiate with someone else. If the proposer found that in fact negotiations were going on with others, he often submitted another revision. The situation became like a game of tennis with three or four balls in play.

There were many criticisms of this system. There were accusations from industry that evaluators and/or contracting officers were arbitrary in their decisions to negotiate with only one proposer; there were claims of leaks (deliberate or otherwise) which led to auctioning. Contracting Officers complained of harassment by aggressive competitors during the successive negotiation cycles and of an inability to pin proposers down to a "final revision."

In 1962, the ASPR was revised to alleviate some of these perceived ills. Excerpts of that issue follow:

"(a) After receipt of initial proposals, written or oral discussions shall be conducted with all responsible offerors who submit proposals within a competitive range, price and other factors considered ...

(b) ... Whenever negotiations are conducted with several offerors, while such negotiations may be conducted successively, all offerors selected to participate in such negotiations (see 3-805.1(a) above) shall be offered an equitable opportunity to submit such price, technical, or other revisions in their proposals as may result from the negotiations. All such offerors shall be informed of the specified date (and time if desired) of the closing of negotiations and that any revisions to their proposals must be submitted by that date. All such offerors shall be informed that any revision received after such date shall be treated as a late proposal in accordance with the 'Late Proposals' provisions of the request for proposals . . ." (2:354.1)

Note the requirements to negotiate with all those "within a competitive range," the first time that phrase appears. Contracting Officers were required to inform proposers of a specified date and time of closing of negotiations and to apply the provisions concerning late proposals after that date.

This revision deleted the authority to negotiate with only one proposer unless award could be made without further discussion, and unless a notification as to that possibility had been placed in the request for proposal.

Now, we had ostensibly taken care of the problems under the previous method, but note that "competitive range" was in no way defined. Also, there was still latitude for the contractors to submit more than one revision since the words "best-and-final offer" or "common closing date" do not appear.

So once again we had allegations of unfair limiting of numbers of competitors and the contracting officer was beseiged by numerous changes from the competing contractors up until he declared negotiations "closed".

The words regarding best-and-final offer and common closing date are relatively recent. They did not appear in the ASPR until May 1973.

And where are we today? Since 1962, up until the recent test of the so-called "four-step" approach, contracting officers have had no latitude to negotiate with only one proposer. They have carried on extensive parallel negotiations with all those in the competitive range and competitive range is given a very broad interpretation in the current ASPR.

At the end of these discussions/negotiations, all competitors remaining in the competitive range have one final opportunity to submit revisions which (since 1973) must be received by a common cutoff date established by the contracting officer.

What complaints came from this sytem? First we have had the allegation that we do technical leveling in our discussions, but most of all we have had the allegation that best-and-final offer procedures constitute auctioning! The problem is that we hear that complaint, no matter what method is used to close negotiations but we hear no solutions. It will be very interesting to see what comes out of the requirement in the four-step approach for a common cutoff date for final proposals. Even though negotiations may subsequently take place with one offeror, won't that common cutoff date be viewed by industry as a last-and-final chance and therefore be considered as having auctioning overtones?

In fact, such allegations were made in connection with the test cases, i.e,, that contractors offered buy-in proposals at this point, after having "discovered" that competitor(s) were below them in price. (3:20)

I consider some common cutoff date a necessity unless we return to the 1959 system of discussing/negotiating only with the one who appears best technically on the basis of the original proposal without allowing any revisions. It appears that negotiating with one proposer is economical, both to the Government and to industry. Would industry be willing to accept the fact that, if they misunderstood the terms of the request for proposal in any way, they would not have an opportunity to offer supplemental or corrected material? Would the Government be willing to take that same chance, that someone highly competent might misconstrue and thereby lose all opportunity for award? Some Government negotiators offered as a criticism of the test of the four-step approach, the inability to hold any extensive discussions prior to selection of the one with whom to negotiate. But we must keep in mind that GAO has ruled that there must be an opportunity at a common time for best-and-final offers if any questions are discussed with any of the proposers, and therefore we are immediately back to the perception of auction if any discussions are necessary.

Or, even if we negotiate with more than one, would we really want to complete negotiations down to a firm handshake on price? Would the contracting officer be accused of deliberately accepting offers that were noncompetitive in order to force out some proposers?

In 1972, in an article printed in the NCMA Anthology, a vice-president of one of the major aerospace contractors, in discussing a then-new NASA directive, stated that the directive "...also recognizes that efforts to obtain, in the process of evaluation and selection, detailed commitment in contractual form from each of the competing sources lead inevitably to auction techniques ..." (4:83) So, if we tried to establish firm, final agreement during the negotiation process, we would return once more to the old allegations of auction.

The four-step method is an attempt to compromise the obvious disadvantages posed by the above questions. It has many positive aspects, although I do not believe it will eliminate the problem of buy-in or allegations of auctioning as long as we have "discussions" followed by a best-and-final offer, even though that process precedes negotiations with one offeror.

While there has been much ado in recent years concerning the erosion of the authority of the contracting officer, it appears highly unlikely that we will be able to revert to the authority he had in 1959. If we could, then at least on smaller or less complex procurements, which do not require full scale source selection procedures, we could permit the selection of one competitor with whom to negotiate without any requirement for discussion and revisions. The mere fact that this could be done would force the submission of the best possible offer on the first round of proposals, and selection of one with whom to negotiate under that system would eliminate any need for best-and-final offers.

However, having experienced the difficulties that can be caused by numerous, uncontrolled "revisions" in the 1959-62 era, it does not seem realistic or practical or desirable to eliminate a common cutoff for revisions.

including price revisions, if discussions or negotiations or clarifications --call it what you wish--are going to go on with several proposers, either under the four-step method or under the system of parallel negotiations. Notwithstanding the criticism leveled at best-and-final offer, it seems the only fair way. It can be abused, but I believe the allegations of abuse to be overstated. Repetitive requests for best-and-final offers are not the norm. Nevertheless, any administrative procedure can be abused and this one has been both abused and misused by both parties. Nevertheless, there seems to be no reasonable alternative. It is not credible that proposers or the contracting officers want to return to a system of repetitive revisions precipitated by the competitor's perception of where they stand in the competition as the source slection process evolves. Without some provision for a date for the final offer, that is exactly what would happen--again!

The KC-10 (also, Advanced Tanker/Cargo Aircraft (ATCA)) program began during the 1967-1970 time period when both the Air Force's Strategic Air Command (SAC) and Tactical Air Command (TAC) recognized a requirement for increased air refueling capability. The Air Force, therefore, conducted a study of advanced tanker design options which emphasized new aircraft capabilities and costs. All new design options were found to be cost prohibitive. In 1971/1972, flight tests were conducted to determine the feasibility of converting an existing wide-body commercial aircraft into a military tanker aircraft. Simulated refueling hookups were completed using a modified B-747 aircraft and foremating tests were completed using a DC-10. Simultaneously, renewed interest developed in an advanced capability cargo aircraft. As a result of these activities, the Air Staff issued a Program Management Directive (PMD) to the Air Force Systems Command (AFSC) in February 1974. The PMD directed the acquisition of a commercial widebody freighter aircraft modified only as necessary

to provide an air refueling capability, and fully exploit the aircraft's cargo carrying capability commensurate with the inherent design of the aircraft and the existing fuselage structure. Additionally, AFSC investigated the cost and modifications required to provide a commercial wide-bodied freighter aircraft with oversize and outsize cargo capability. It also made a comprehensive survey to assess the ability of industry to provide a full range of logistic support. After going through two starts and stops between 1974 and 1976, the procurement process for the program was finally initiated in early 1976. The Request for Proposal (RFP) for acquisition was released in August 1976 and the RFP for the contractor logistics support program was subsequently released in September 1976. The source selection process was suspended in February 1977 due to the elimination of funding from the President's proposed FY78 budget. After a six-month delay, source selection resumed in August 1977 and was completed in December 1977 with the award of both the acquisition and logistics support contracts to the Douglas Aircraft Company. The aircraft system was subsequently named the KC-10.

From its inception, the KC-10 program has been characterized by an innovative approach and the development of new acquisition and logistics support procurement methods. One of the most revolutionary steps taken by the KC-10 Program Office was the decision to procure contractor logistics support of a major weapon system concurrent with the procurement of the system itself. This decision was based on the conclusion that concurrent procurement would force early consideration of support requirements in the acquisition contract, encourage maximum competition for the logistics support contract, and foster

innovative support proposals. Additionally, more accurate life cycle cost estimates for aircraft selection purposes would result because actual support costs would be known.

The overall approach to the acquisition of the KC-10 was also novel in that the Air Force set out to find an existing aircraft that met its needs in lieu of designing, building and testing a system from the "ground up." The Boeing 747 and the Douglas DC-10 freighters were considered in order to take maximum advantage of commercial investment existing facilities and an on-going production line. The aircraft competition was limited to FAA certified wide-body freighter aircraft to reduce the Government's development investment required to qualify other wide-body manufacturers. An FAA certification requirement was imposed to allow the Air Force to take advantage of existing commercial investment, design, production and quality control concepts, thereby reducing overall costs. The choice of an FAA certified freighter also insured that commercial maintenance systems were already in existence. By limiting the selection to a derivative of an aircraft in active commercial service, the Air Force assured that benefits of spares pools, existing repair facilities, trained repair specialists, etc., would be available to support the aircraft.

The decision to procure logistics support concurrently with the aircraft acquisition presented the Air Force with some interesting problems. Contractors were being asked to develop a logistics support program that would provide support for an unknown type and quantity of airplanes located at an unknown base or bases. At first glance, the problem seemed baffling, but further research revealed the task could be accomplished. The methods used to accomplish this task will be explained in more depth later in this report.

The KC-10 Acquisition Contract is for the production engineering (nonrecurring), test and production of the KC-10 system. In addition to the effort required to modify the commercial DC-10-30CF aircraft into a KC-10, the following additional tasks will also be performed:

a. Initial aircrew training.

b. Predelivery test program.

c. Logistics support for predelivery test program.

d. Program management and systems engineering.

e. Data, technical orders and manuals required for the KC-10.

f. Provide KC-10 peculiar support equipment.

The overall philosophy, as stated above, was to take maximum advantage of the existing commercial wide-body aircraft investment, experience, resources, and business tructure. Additionally, a contractual program was desired which would provide flexibility to accommodate future funding fluctuations without requiring aircraft price renegotiation. Therefore, the following ground rules were established for the KC-10 acquisition procurement:

a. Existing commercial practices would be used to the maximum extent possible even on the military modifications. This would include business as well as technical and management consideration.

b. Federal Aviation Administration (FAA) type certification would be obtained on the total aircraft. This would include certification of the military modifications.

c. Military peculiar modifications to the basic commercial freighter would be made in-line.

d. Military specifications and requirements would be held to a minimum.

e. All nonrecurring costs would be incurred during the first two fiscal years of funding with no cancellation costs remaining at the end of any year. Such an approach would enable the Air Force "to bite off" a little piece of the program at a time without incurring a large termination liability. To do this, the contract strategy and structure provided for discrete efforts for each fiscal year with no obligation to start the next year's effort.

f. An aircraft Unit Price Matrix (UPM) would be included to provide aircraft prices accommodating varying fiscal year funding levels. This UPM established firm in-base year 76 dollars for each of two to sixty aircraft. Thus, with each fiscal year, the Government has the flexibility to purchase varying numbers of aircraft a predetermined price.

To insure the solicitation provided adequate opportunity to propose commercial practices, copies of the RFP in draft format were made available to each contractor for review and comment. A source selection team subsequently visited each contractor's facility to discuss RFP improvement/refinement suggestions. Simultaneously, an internal Air Force review of the draft RFP was conducted to resolve significant issues. The result was the release of an RFP which provided optimum contractor flexibility to propose commercial arrangements and procedures while still retaining the integrity of the Air Force's requirements. The draft RFP process also greatly enhanced the contractor's understanding of the overall procurement, resulted in the submission of complete and comprehensive proposals, and greatly facilitated the overall source selection process.

The source selection was conducted following the provisions outlined in AFR 70-15, "Source Selection Policy and Procedures". The Secretary of the Air Foce was the Selection Authority for both the acquisition and logistic support efforts. The Source Selection Advisory Council was jointly organized under

an Air Force Logistics Command chairman and an Air Force Systems Command deputy chairman. Further, the Source Selection Evaluation Board was formed with resources from the Joint Program Office forming the nucleus. People were drawn from many Air Force commands and placed on the technical, operations, logistics, management, contracts, test and cost panels.

Selection of the KC-10 aircraft was based on an integrated assessment of evaluation areas set forth in the RFP utilizing formal source selection procedures. The selection was based on the evaluation of all areas, including capability, cost (including life cycle costs), management and production systems, technical risk, supportability and schedule. "Terms and conditions" were also evaluated, including evaluation items for each offeror's overall business arrangement and certifications and representations.

An initial contracting obstacle was the development of a procedure for equalizing the disparity in price and capability existing between the two candidate aircraft. It was determined that normalcy in the competition could be achieved by stating "funding bogeys" in the RFP for FY77-82 based on the Five Year Defense Program (FYDP). This profile was referred to in the RFP as the "green line" profile. The contractors then used this profile to bid the maximum number of aircraft that could be provided each fiscal year after all nonrecurring engineering and test effort was accomplished. The resultant aircraft quantities and their inherent operational capability were then compared in the performance of specified missions in the evaluation process. Based on the fiscal year structure used in the solicitation process, the acquisition contract was eventually structured in the gernal format graphically summarized below:

CONTRACT YEAR	YF FUNDING	ITEM SUPPLY	PRICING STRUCTURE
Basic	FY-77	Initial Nonrecurring	Firm Fixed Price
Option 1	FY-79	(1) Complete Nonrecurring (2) First Aircraft (3) Predelivery Test and Follow-on Test Support	Firm Fixed Price
Option 2	FY-79	Production Aircraft	Firm Fixed Price
Option 3	FY-80	Production Aircraft	Fixed Price with Economic Adjustment
Option 4	FY-81	Production Aircraft	" " " " "
Option 5	FY-82	Production Aircraft	" " " " "
Option 6	FY-83	Production Aircraft	" " " " "

In addition to the unique approach of providing a quantity of aircraft for a given Government investment versus pricing a specific aircraft quantity, the solicitation also offered each offeror the opportunity to propose commercial provisions which were consistent with their existing business structure. This approach was referred to as the contractor's "Best Business Arrangement" and was an evaluation item in the source selection process. The Government formulated "Best Business Arrangement" objectives to evaluate the contractor's proposals against. All terms and conditions proposed were assessed for reasonable and acceptability. Commercial provisions proposed were generally accepted, with negotiations concentrating on tailoring them so as to be acceptable within the general framework of Government procurement rules and regulations. A brief summary of several of the more significant contract provisions and features follows:

a. Federal Aviation Administration (FAA) Requirements. This provision stipulates that the KC-10 aircraft must be FAA certified and sets forth the FAA certification documents associated with the aircraft's development and production which must be provided. Another provision of the contract, "Configuration Management," also requires that changes in FAA certification requirements will be incorporated in each undelivered aircraft at no change in contract price, if affecting all wide-body aircraft and promulgated within 18 months after contract award, or unique to the DC-10 regardless of when promulgated. This approach is considered consistent with commercial aircraft procurements.

b. Special Data Provisions. This provision sets forth the rights that shall be provided with all data delivered under the contract. All data associated with KC-10 peculiar requirements generated under this contract shall be provided with unlimited rights. All other data shall be provided with special rights which shall permit its dissemination by the Air Force for competitively

procuring all future logistics requirements for any Government-owned DC-10 type aircraft, with the exception of parts manufacture.

Economic Price Adjustment (EPA). Option aircraft for FY80-83 are priced in FY76 base year dollars. The contractor proposed their commercial EPA clause to adjust base year prices to the time of aircraft delivery. The clause adjusts the airframe and engine prices individually. The Airframe and engine base year prices are adjusted by the following established indexes:

	INDEX	WEIGHT
AIRFRAME	AVERAGE HOURLY	.75
	GROSS EARNINGS PER PRODUCTION WORKER ON PAYROLLS OF NON-AGRICULTURAL ESTABLISHMENTS - DURABLE GOODS (SIC 3721)	
	WHOLESALE PRICE INDEX OF INDUSTRIAL COMMODITIES	.25
ENGINE	HOURLY EARNINGS OF AIRCRAFT ENGINES AND ENGINE PARTS PRODUCTION WORKERS	.333
	INDUSTRIAL COMMODITIES INDEX	.333
	METALS AND METAL PRODUCTS INDEX	.333

d. Special Progress Payments. All payments for nonrecurring effort shall be made pursuant to normal Armed Services Procurement Regulation (ASPR) progress payment procedures. Production aircraft will be paid for pursuant to a predetermined payment profile based on estimated in lieu of actual costs. This profile is based on historical cost accumulation experience associated with the fabrication of a commercial DC-10. The contractor is required to provide a certification that payments made at any point in time do not exceed 80% of costs incurred to date.

e. Warranty and Service Life Policy. Douglas proposed their standard commercial Warranty and Service Life Policy to cover all aircraft and other deliverable equipment. The logistics support contractor can act on behalf of the Government in using all warranties. Douglas expanded their general warranty coverage from 2 years after aircraft delivery to 5 years to be compatible with projected KC-10 usage factors, 1-1/2 hours per day, 540 hours per year. Design defect warranty coverage has also been provided for a 24 month period after aircraft delivery, with all defects also to be corrected in all undelivered aircraft. The service life policy provides coverage on selected airframe components for 10 years/30,000 hours and selected landing gear components for 10 years/30,000 hours/20,000 landings. Adjustments under the service life policy are made on a "prorated" cost basis. The warranty includes several KC-10 peculiar structural components in addition to the items normally covered under their service life policy for the commercial aircraft.

f. Most Favored Customer Warranty. This warranty is a contractor commitment that the price charged the Government for the basic aircraft portion of each KC-10 shall not exceed the price charged any other commercial customer for the same basic aircraft model delivered during the same time period. The provision also provides similar price protection for catalog spare parts, standard commercial aircraft changes, and aircraft changes required to meet FAA certification requirements in all undelivered aircraft.

g. Follow-on Price Warranty. This provision is a contractor commitment that the Air Force will continue to receive most favored customer status as defined in each contract's Most Favored Customer Warranty provision in any future KC-10 procurements.

h. Options. This provision sets forth the options provided to the Government for purchase of production aircraft. It provides latitude to purchase aircraft through FY83 at predetermined base year FY76 prices. The Option clause sets forth two option environments. The basic (Green Line) option quantities and prices are set forth by fiscal year and are based on the RFP's Green Line funding profile. This option arrangement provides for the procurement of 20 total aircraft. In the event different quantities are ordered in any fiscal year, aircraft are purchased from the UPM which results in different prices dependent on the quantity of aircraft procured. The Matrix includes individual base year prices for a quantity of 2 to 60 aircraft. The contractor priced each aircraft using the following formula: Commercial airframe base price + KC-10 peculiar base price - airframe discount = net airframe base price + engine base price = total net base price. The pricing structure is consistent with commercial aircraft pricing arrangements. The UPM affords the flexibility to procure varying quantities of aircraft depending on fiscal year funding available. All options must be exercised by 1 December of each year. They must also be exercised consecutively and for at least the minimum quantities set forth in the contract.

i. General Provisions. The KC-10 contract contains essentially the general provisions required by the ASPRs, except where minor deviations were granted. In addition, certain general provisions have been made applicable to KC-10 peculiar requirements only. These provisions (e.g., Cost Accounting Standards, Administration of Cost Accounting Standards, etc.) are not applicable to articles whose prices are based on commerciality (i.e., DD Form 633-7) and were so limited.

j. Quality Assurance and Manufacturing Processes/Procedures. Quality assurance and manufacturing shall be accomplished in accordance with the contractor's FAA approved quality and manufacturing systems. It was determined that the existing approved FAA systems in both areas were consistent with applicable Government requirements.

k. Testing. The aircraft testing will be accomplished by the contractor during a six month period between April and October 1980 on the first KC-10. Air Force testing will be limited to those changes required to convert the DC-10 to a KC-10 and insure that all specification requirements are achieved.

l. Spares Acquisition Integrated with Production. Provisions were included in the acquisition contract to require the contractor to reduce the acquisition price of KC-10 peculiar spare parts and improve logistic support by (1) concurrent ordering of certain selected spare parts with the end item to take advantage of quantity and production economies, and (2) securing proposals for firm prices for spare parts to be supplied to the Government as investment material.

Under the KC-10 logistics support concept, the contractor is responsible for the majority of the KC-10 support effort. The contract support arrangements are predicated on operations being conducted primarily from a Main Operating Base (MOB) with short duration staging operations possible from other bases. Longer duration deployments involving establishment as operations/maintenance capabilities at forward operating locations are not contemplated. The supply support concept is for the contractor to support KC-10 spares requirements from a Contractor Operated and Maintained Base Supply (COMBS)

activity located on the MOB. The contractor may use any available commercial source when support for the KC-10 is required away from the MOB. The Air Force is responsible for the overall KC-10 maintenance management effort as well as organizational and intermediate level maintenance. Specifically, the work performed by Air Force personnel falls into six categories; preflight check/inspection, turnaround check/inspection, postflight/servicing inspection check, routine phase check, minor corrosion control check, and nonroutine/ corrective action maintenance. The contractor is responsible for all other intermediate and all depot level maintenance functions.

In order to solve the uncertainty problem caused by the concurrent procurement of logistics support and the acquisition of the aircraft, an attempt was made to break the logistic support effort into its simplest components. After many meetings with logisticians, maintenance personnel and operational Air Force organizations, the procurement team decided the effort could logically be broken down into six component parts. These components were: (a) a preoperational period, (b) initial lay in of spare parts and support equipment, (c) the mobilization effort necessary to activate the MOB(s), (d) flight hour component, (e) the fixed cost of operating and maintaining the MOB(s), and (f) a catch all area referred to as over and above.

The preoperational period was defined as the period of time from contract award date until the delivery of the first operational aircraft (approximately 33 months). The effort required of the contractor during this period is seen as a planning and coordinating task. Specific examples of tasks that will be performed during this phase of the contract are developing an Integrated Support Plan, performing an analysis and review of KC-10 support equipment requirements, performing an indepth study of materiel handling equipment requirements, evaluating the effect of proposed aircraft configuration changes

on the supportability of the KC-10, provisioning of both aircraft and support equipment spare parts, and defining specific maintenance tasks that will have to be performed.

The investment material component is comprised of all spare parts, support equipment and any other materials that are needed to support the aircraft. Materiel required to provide for replenishment, obsolescence, etc., is specifically excluded from the initial investment component. Because the KC-10 was expected to have a high degree of commonality with commercial versions of the aircraft chosen, it was expected that the logistics support contractor would be able to use existing commercial inventories to provide a portion of the investment materiel required. Accordingly, the offerors were given the latitude to commingling materiel specifically purchased for the KC-10 effort with existing inventories. The contractor will stack investment materiel to support our operational requirements and use the commercial base as the situation dictates.

The MOB activation component is comprised of the nonrecurring effort necessary to activate the contractor's operations at the MOB(s). The efforts include moving employees to the MOB site, providing the necessary communications, furnishings, shelving and warehouse material handling equipment.

The flight hour component encompasses the labor effort and material necessary to operate the aircraft on a daily basis. In performance of this effort, the contractor provides replenishment spares, spares maintenance, periodic aircraft inspections and the maintenance effort for all support equipment, except that drawn from USAF inventories. The costs

associated with this effort are a function of aircraft flying hours. Accordingly, this effort is seen as the variable cost per flight hour portion of the maintenance effort.

The fifth category of effort consists of all fixed cost activities necessary to maintain and operate the contractor's activities at the MOB. This effort consists of such activities as providing supply and clerical personnel necessary to manage the spare parts operation, providing contractor field service representative to act as advisors to the Air Force performed on aircraft maintenance effort, and providing the house-keeping supplies and services necessary to operate the MOB.

A sixth, unpriced area called "over and above" was added to the contract. This category includes all work required by the contractor but not included in the previous five categories. This category is seen as emergency or special contingency type work. The prices and performance periods for over and above work will be negotiated at a time when specific over and above work is identified. Over and above work includes such things as field team crash damage repair, unscheduled heavy maintenance, aircraft modifications resulting from service bulletins or engineering change proposals after the aircraft are placed in service and flying hours in excess of those provided for in the flying hour component of the contract.

In order to contractually accommodate this breakdown of the effort required, the logistics support contract made liberal use of recurring options. The basic contract served as the procurement vehicle for the preoperational phase effort, an unpriced line item was incorporated to

provide the over and above capability and four options were established to provide the capability to procure the remainder of the effort.

The option to provide the returnable investment material is a recurring option. It consists of a matrix of ceiling prices which allow the Air Force to procure returnable investment material for 1 to 16 aircraft at from 1 to 3 MOBs. The Air Force has freedom to control both the number of aircraft and the number of MOBs. There is no requirement to completely fill one MOB with 16 aircraft before activating another MOB.

It is stressed that the matrix is composed of ceilting prices. The matrix contained in the contract appears below:

CUMULATIVE CEILING PRICES IN BASE YEAR DOLLARS ($ IN MILLIONS)

TOTAL KC-10 SUPPORTED AT EACH MOB	MOB NO. 1	MOB NO. 2	MOB NO. 3
1	$12.7	$10.6	$10.3
2	14.1	11.2	11.0
3	15.3	12.0	12.0
4	17.2	13.8	12.8
5	21.1	17.8	16.5
6	22.5	18.8	17.8
7	25.1	20.5	19.6
8	26.2	21.5	20.6
9	30.3	26.1	25.1
10	31.4	27.2	26.2
11	32.1	28.5	26.9
12	32.8	29.5	27.9
13	34.2	30.9	29.7
14	41.8	35.3	34.0
15	42.5	36.0	34.7
16	43.3	36.8	35.5

This matrix operates as follows. Suppose that the Air Force has a projected KC-10 fleet of three aircraft. For the first year, Option one would be exercised for three aircraft, with a ceiling price of 15.3 million dollars. Upon option exercise, the contractor begins his provisioning process and determines the kinds and quantities of returnable investment material required to support three aircraft. The contractor then compiles a priced listing of the required material and submits the listing to the Air Force for review. The Air Force then reviews the listing for the purpose of determining if some listed items may be available from existing Air Force inventories. If items are available, then the Air Force can remove them from the listing submitted by the contractor and provide Government equipment to perform the required tasks. In the event of such substitution, the ceiling price is reduced by an amount equal to the corresponding amount on the priced listing originally submitted. The contractor is then paid for equipment purchased as it is delivered up to the ceiling price amount. The contractor is required to provide investment material in sufficient quantities to support a 1200 hour per year flying program for each aircraft. If the provisioning model used by the contractor does not provide investment material adequate to meet the performance parameters set forth in the contract, the contractor is obligated to procure additional investment material. Should this be necessary, however, the contract price will only be increased to the ceiling price. Any material required after the ceiling price has been reached must be provided at contractor expense.

If, at some time in the future, the KC-10 force size would be increased to 10 aircraft, the option ceiling price would be increased to 31.4 million. At this point, the contractor would start the process over by submitting a proposed list of equipment to be purchased with the additional 16.1 million dollars to support the 7 additional aircraft.

Contractual coverage for the site activation, flying hour program, and MOB operation portions of the logistics support effort was also provided through the use of options. Option 2 for site activation is exercised once for each MOB on a fixed price basis. Option 3 (flying hour program) and Option 4 (MOB operation) are exercised on a recurring fiscal year basis. Option 3 prices are fixed prices on a flying hour dependent matrix and Option 4 prices are fixed prices on an airplane per MOB dependent matrix.

The requirement for an exercise of Options 3 and 4 each fiscal year places a requirement on the Air Force to take positive action each year in order to continue the effort under this contract. In the absence of this positive action, the contract simply experies, all returnable investment material procured through Option 1 is retained by the Air Force, and no termination liability is incurred by the Government. The end result is a contract with built-in flexibility to allow the Air Force wide latitude in the area of contractor logistics support.

The use of contractor logistics support results in a significant reduction of facilities' investment cost to the Air Force. These savings were realized because the logistics support contractor chose not to invest in any new repair or maintenance facilities, but to use existing excess

capacity in the hands of the commercial airlines. Although no single airline has reserve capacity great enough to handle all of the KC-10 requirements, the total of this excess capacity is more than adequate to meet the KC-10's needs. The logistics support contractor is able to take advantage of this excess capacity by the use of extensive subcontracting.

When a part or defective item of support equipment is turned over to the logistics support contractor, he turns it over to a commercial FAA certified repair facility. The details of accomplishment such as modifications, improvements or configuration standards will be managed by the contractor. The repair agency will be tasked with providing all the effort required to complete the repair. There will be no exchange of components at the repair facility. The same part will be returned to the logistic support contractor upon completion of the repair. This feature assures that KC-10 components will all retain the same configuration status.

Another savings advantage accrues to the Air Force in the area of provisioning. At the time of KC-10 provisioning, a cumulation of data compiled over three and one half million flying hours of commercial DC-10 will have been amassed. Employment of a contractor originated computer program utilizing Mean Time Between Failure (MTBF), removal rates, flight frequency, minimum protection level, aircraft utilization, repair turn-around time, and procurement lead time help to insure that only the minimum number of spares required to do the job will be purchased.

Compounding this savings is the advantage gained by not having to procure high dollar low usage spare parts (Insurance Spares). Insurance items are always expensive and are usually not actually used. They are generally procured and stored in a warehouse. If they are used, it is generally only for the period of time that it takes to repair the damaged unit. If and when there is a need for such items on the KC-10, we will be able to rent an item for the period of time it takes to get the damaged item repaired from the logistic support contractor's inventory of such items that is maintained in support of the commercial users of the DC-10.

Because the contractors were asked to quote firm or redeterminable price arrangements for logistics support extending to September of 1984, it was felt that the contractors would build in an excessive hedge against inflation unless an economic price adjustment provision was included in the contract. Since the pre-operational support effort called for by the basic contract will be completed in October 1980, we didn't feel the risk of inflation on the cost of this effort would be too great for the contractor to assume. For this reason, the economic price adjustment clause negotiated and included in the contract is applicable to the Option provisions only.

The economic price adjustment clause included in the logistics support contract adjusts the Option prices in accordance with the movements of the Department of Labor Index of Employment and Earnings, SIC 3721, and the Wholesale Price and Price Index for industrial commodities. For Option 1, which contains a great many spare aircraft parts, the movements of the metal and metal products classification of the Wholesale Price and Price Index have also been factored into the economic price adjustment formula.

During the proposal evaluation the movements of these indexes were gathered for the last ten years and were analyzed for any indication of abnormal movement. This analysis revealed that the indexes acted as a reasonable predictor of actual economic conditions and that no significant advantage would have been gained by the contractor over this period of time if an agreement identical to the contractual economic price adjustment provision had been in effect.

In the operational aspect of this contract, the contractor has been given physical control over the resources required to support the KC-10. This may not sound like a great achievement, but it is in the area that a tremendous, "hidden savings" can be realized by the Government. By placing the property under the control of the contractor and by not entering the purchased equipment into the Government property control system until such time as the contractor logistics support is discontinued, the Air Force relieves itself of a gigantic record keeping task and the associated overhead costs that go with it. Problems of inventory control, configuration management, procurement of small lot sizes, product shelf life, pilferage, etc., are now problems that must be handled by the contractor. Although the costs for these functions must, by necessity, be included in the contract price, the logistics support contractor is working with a specialized system designed for the task at hand. This specialized system allows the contractor to manage and control valuable resources in a very efficient manner that is not obtainable in the large cumbersome omnibus system established for the control of Government inventories.

At the same time, the substitution capability in Option 1 allows the Air Force to take advantage of the Government supply system for those items that are currently in the Government inventory and are being efficiently managed by the Government system. As can be seen, the Air Force derives the best of both worlds in the area of resource management. Items which will be used on the KC-10 which are not readily available through the existing Government supply system will be controlled and managed by a small system custom designed for specific applications. Items required for logistics support of the KC-10 that have a broader application will be managed and controlled through the existing system allowing the Air Force to take advantage of the economies of scale inherent in a resource control system designed for large quantities of material and equipment.

The KC-10 procurement is a unique attempt to convert a commercially proven aircraft into an advanced strategic weapon system and provide contractor logistics support. These innovations, such as simultaneous award of acquisition and logistics support, the Green Line, and the Unit Price Matrix, combined with the inherent flexibility provided by the contracts, permit the Government to take advantage of Doughlas' commercial structure and system while remaining within the confines of acceptable Government procurement practices.

This procurement avoids the expense of development costs for a program with a great deal of commonality with a commercial program. It further emphasizes an early consideration of total program costs by the simultaneous award of the logistics support contract. This had the dual benefit of forcing early consideration of support costs in the acquisition,

and working in a more competitive environment for the logistics support contract itself.

Finally, and most important, the Government is acquiring a greatly improved capability at a reasonable cost by using procurement techniques which provide the flexibility to best satisfy the Government's needs.

These are the thousands of products bought and used every day by the general public, industry, and nonprofit organizations, as well as by the Government. The thesis is that most of the Government's needs for commercial products can be acquired more effectively and cheaply by relying primarily on "off-the-shelf competition" than on solicitations based on Government specifications.

As a result of the language used in Federal procurement statutes and the implementing regulations, it has become traditional practice in Government to: Determine its specifications in such a way that any potential supplier can produce the item. Request bids or proposals for products that meet the description. Award a contract to the supplier offering the lowest price.

The practice works well for special needs, but it is a costly way to buy products that are readily available on the commercial market. In addition to the cost of the process, the result is a hodgepodge of products made or modified to just barely meet the Government specification. This "competition by specification" is also limited to firms that are willing to compete in this manner.

The problem has been recognized in many Government studies including that made by the Congressional Commission on Goverment Procurement. As a result of the Commission's findings, the Office of Federal Procurement Policy (OFPP), Office of Management and Budget (OMB), issued a Federal procurement and supply policy requiring that: "The Government will purchase commercial, off-the-shelf, products when such products will adequately serve the Government's requirements, provided such products have an established commercial market acceptability. The Government will utilize commercial distribution channels in supplying commercial products to its users."

But how do you buy off-the-shelf products using timeworn Government purchase methods? The Department of Defense has established a "Commercial Commodity Acquisition Program" (CCAP) to find the answer to this question. One difficulty in finding the answer is the Government's concept of competition. It is generally referred to as "adequate price competition." Guidelines in procurement directives to obtain price competition require offers that are responsive to a solicitation specifying or describing a minimum Government need. Therefore, many Federal officials still insist that negotiations based onprices established in the marketplace for off-the-shelf products do not meet the Government's concept of adequate price competition. The result is continuation of the complex and costly specification system for many products that could more effectively be purchased off-the-shelf.

However, a few Government activities have established prepriced contractual arrangements with multiple sources on the basis of established catalog or market prices. These arrangements cover off-the-shelf

products for selection to fit the need at the user level. We believe that provision should be made in procurement statutes and directives to use off-the-shelf competition as a primary method of purchasing commercial products. Consolidation of requirements for competition by specification would only be used when warranted by significant total cost benefits.

Let us now review the needs of Government users for commercial products and compare "competition by specification" versus "off-the-shelf competition" in meeting these needs.

The primary purpose of Government procurement and distribution, systems is to provide the ultimate user with the supplies, equipment, and services required to accomplish a job or fulfill a need.

There are many users, especially in the Department of Defense that, by the nature or complexity of the equipment they need and the way it has to be supported, must be provided with products of special design or that must be of standard configuration. But most Government users are engaged in functions with needs that are similar or identical to those outside the Government. These are the commercial product users.

A survey of commercial product users by the Commission on Government Procurement revealed that their greatest concern is for product suitability, responsive delivery, and ordering simplicity. Users invariably compare Government procurement and support of commercial products with their own ability to buy the same kinds of items and services on the commercial market for their own personal use. Even though they become resigned to the

"system" within which they must function, they are not satisfied unless their needs are met more efficiently and economically than they believe they could do for themselves.

Many item are bought by the Government that are not suitable for a wide range of intended purposes. These items are not used effectively and many are disposed of as surplus without ever having been used. Where users know what off-the-shelf products are available that will best fill their needs, product suitability is an important consideration.

The most critical need for responsiveness is in parts and supplies needed in maintenance where requirements cannot be predicted. However, in filling any need, where the user knows that a suitable item is available from a local commercial outlet, delays occasioned by a lengthy purchasing or requisitioning process are irratating and costly. Yet the Government has established huge depot and distribution systems for commercially available items that only involve sporadic Government demands.

Most users know what they need and can easily communicate this requirement to a colleague, but they have difficulty in describing the need to the procurement community for purchase action. This problem lies with Government procurement requirements for specifying needs so that many potential supplier can respond by offering a product that will meet the specified need. But products made for the marketplace differ in form, function, and quality. The users believe they know (by experience or profession) the products in the marketplace that can best satisfy their needs; but procurement requires a nonrestrictive description of minimum Government need to solicit offers from all potential suppliers.

General policy on the use of specifications and purchase descriptions is provided in ASPR 1-1200 and in FPR 1-1.305. General policy is that Federal and military specifications, as well as industry documents adopted by the Government, are mandatory in the procurement of supplies and services covered by such specifications.

The term "adequate price competition" is referred to in the statutes as "full and free competition." In ASPR 3-807 and FPR 1.3-807, Pricing Techniques, the term is further defined as something that exists when (i) at least two responsible offerors (ii) who can satisfy the purchaser's (e.g., the Government's) requirements (iii) independently contend for a contract to be awarded to the responsive and responsible offeror submitting the lowest evaluated price (iv) by submitting priced offers responsive to the expressed requirements of the solicitation.

Compliance with these directives is achieved by solicitation of bids or proposals from all prospective suppliers to furnish products that meet the need. The supplier submitting the lowest priced item is generally awarded the contract without comparing value of products offered. Although the concept is straight-forward, the most important factor is item price with little consideration for total cost to the Government.

The procurement process is part of total cost. It includes an inordinate effort in: Quantifying requirements. Developing specifications or purchase descriptions. Soliciting bids or proposals. Evaluating offers. Making awards. And managing the resultant contract to assure delivery of products meeting the specification or description.

In addition to the administrative cost and the delays in delivery occasioned by complexity of the process, other actions occur that further increase total costs. Since the process is recognized by management as costly, and economy of scale is assumed, there is a strong tendency to reduce duplication by centralized the function and consolidating requirements for many activities. Computing stock requirements in anticipation of requisitions frequently result in huge surpluses. Estimation and computation of needs for many activities, of a single product, takes months.

When development of a new product specification or description is required it may take a year or two from identification of a need to providing procurement with a complete purchase request. The contracting process can also take a year or more due to delays in complying with administrative requirements, particularly if protests must be answered. All this cost and time is considered to be a normal requirement of the process as dictated by Congress. There is no accounting for the cost to the taxpayer or relationship of total costs to benefits in using the concept of "competition by specification" in purchase of commercial products.

An alternative to the Government process of "competition by specification" is "off-the-shelf competition" for commercial products. The basic difference in the two concepts is that instead of asking industry to offer products meeting a Government specification or description, the Government acts as another customer for privately designed and developed products currently offered by industry in the marketplace. This is now done by the Government in making small purchases, in emergencies, and in

several other indefinite delivery contract arrangements that are not expressly provided for in the procurement statutes or implementing directives.

The following programs are cited as examples of where off-the-shelf items are bought without use of product specifications by negotiating discounts from established market prices.

- Federal Supply Service multiple-award schedule program. This program was initiated by the Treasury Department over 50 years ago. It consists of a pricing arrangement with each manufacturer or supplier that sells commercial products in the marketplace who will provide these same products to any Government ordering activity at an agreed upon price. The value of orders under this program for fiscal 1977 was $1.5 billion.

  Initial solicitation is for offers of entire lines of off-the-shelf products at a discount from established catalog or market prices. The offers are evaluated and negotiations are conducted with each firm that has a product the Government may need during the contract period. Award criteria is a price objective (benchmark) determined appropriate by the buyer in consideration of the anticipated volume of Government business and the range of discounts offered by competitors for the same range of products. The resulting contracts are made available to every Government activity for ordering

needed items directly from the supplier without further negotiation. These using activities select the lowest priced item that will fill their needs from the multiple sources on contract.

·Department of Defense food supply bulletin program. This program is very similar to the Federal Supply Schedule Program but it is for processed foods that are purchased for resale through Department of Defense Commissaries. The solicitation procedures, negotiations, and resulting contracts may differ from multiple-award Federal Supply Schedules, but the concept of using off-the-shelf competition as a basis for contract pricing is the same.

·Air Force Buy U. S. Here (BUSH) Program. This program was instituted in 1962 to provide DOD activities located overseas with many off-the-shelf products covered by Federal Supply Schedules in the United States. The contracts are limited to those U.S. firms that have overseas distribution systems and can deliver and service U.S. made products to overseas activities more effectively and economically than if the items were obtained from the United States through Government distribution channels. The solicitation, negotiations and contracting practices established by the Air Force for this program are similar to those used in the Federal Supply Service multiple-award schedule program.

The FSS cites Section 302(c)(10) of the Federal Property and Administrative Services Act as authority to negotiate multiple-award Federal Supply Schedules. This exception to formal advertising is "for property or services for which it is impracticable to secure competition.' An identical exception is included in the Armed Services Procurement Act.

Examples of when this authority may be used are given in the Federal Procurement Regulations (FPR) and the Armed Services Procurement Regulation (ASPR). These examples include cases where the supplies or services can be obtained from only one person or firm "sole source" and when it is impossible to draft adequate specifications or purchase descriptions for a solicitation for bids.

Unfortunately the wording of this exception and the examples for its use convey the impression that "competition" is not feasible when using this authority. Even the FSS refers to single-award schedules as competitive, inferring that multiple-award schedules are noncompetitive. But those managing the multiple-award program recognize it as being based on off-the-shelf competition with two additional competitive steps acheived, one in the process of contract negotiations and one in product selection at point of use.

Multiple-source contracts come under a type of contract defined in the FPR and ASPR as "indefinite delivery." These are prepriced arrangements for a period of time where the quantity is either indefinite or is dependent on Government needs. However, the FPR and ASPR do not provide for multiple-source indefinite delivery contracts. Instructions are provided in the directives for placing orders against multiple-award FSS schedules but even there the ASPR indicates that non-mandatory FSS schedules are to be considered "another source of supply."

The criteria for commercial product evaluation must be based on satisfaction of the user's need. Accordingly, suitability of the product for its intended use and responsive delivery must be considered along with ordering simplicity. Simplified small purchase procedures are currently provided for by statute and procurement directives for purchases under $10,000. However, in attempts to reduce the number of individual purchase actions by Government activities these purchases are limited to items that are not easily provided by a central depot type activity. Small purchases made at the point of use can be accomplished quickly and effectively without development of detailed specifications. But when small purchases are consolidated to exceed $10,000, they must follow the procurement process for competition by specification.

As the size of the purchase increases so does the cost of the process and the expectation of being offered off-the-shelf products is reduced. The cost of the process increases due to the time involved in estimating and consolidating requirements, preparing more detailed specifications, using greater care in technical evaluations, and in debriefing of unsuccessful offerors. The product offered in response to a solicitation may be an off-the-shelf item if one is readily available that meets the specification. But if the size of the order is large enough for separate production, a modified version of the off-the-shelf item that barely meets the specification will most likely be offered. There is no assurance that the item offered has the same quality, reliability or features of its commercial counterpart. When the quantity is large enough the solicitation also encourages bids or proposals from firms that do not make that particular item for sale in the commercial marketplace. Thus evaluation of products offered becomes increasingly difficult as the quantity procured increases, and the potential problems in maintaining the item also increase.

Attempts to solve this problem by using performance type specifications are hampered by lack of credible procedures in comparing the value of items offered on large quantity purchases of commercial products.

The programs cited as examples of using off-the-shelf competition in purchase of commercial products all result in multiple source contracts. These contracts represent the range of products and services that the contracting officer believes will be needed during the contract period. They are all sold in substantial quantities to the general public. They have met the test of the marketplace for quality and reliability. They are not modified to meet a minimum government specification. They represent various quality levels as needed in the marketplace. Government users are familiar with these products through their own private use or by keeping up with technology as part of their professional or technical interests. These are the products that are referenced in trade journals and are used by the industry counterpart to the Government technician. They represent the latest technology in consumer products with attendant benefits of the latest consumer product safety requirements.

When the user (professional or technician) prepares a request for a commercial product he will identify those items that he is familiar with and knows that their quality and features meet his needs. When multiple source contracts have already been established for these product lines the user can contact the local purchasing office for information on those items covered by contract. He may then select the lowest priced item that fills his needs. The purchase request can then cite the item by manufacturers

description or model designation without development of a specification. If other than the lowest priced item is requested it must be justified by the user. The requesting process is responsive, simple, and easily understood by users.

There is much concern by managers of centralized buying activities that central control is lost when user activities are authorized to select products to fit their needs. They believe that users will select a greater capacity or quality that they need. This may sometimes occur but with less frequency than when selection is far removed from the point of use. In fact, central buying by specification results in standardization that exceeds the need of all those users below the standard and those with needs above the standard will not use the item anyway.

The activity purchase office can quickly place a delivery order against a multiple source contract on a one page form. Many companies provide for these orders to be placed with a local retail outlet for more responsive delivery and customer service. In fact the purchasing office can even place the order by telephone and confirm it by the one page delivery order. The responsiveness of delivery is as fast as the user would receive if he made the purchase for his own use.

When users feel that they are a part of the selection process they are less inclined to find fault with the resulting product but this is not the only benefit when purchasing off-the-shelf items. Multiple source contracts are designed to use the commercial distribution system so there is no Government stock to become obsolete, pilfered or lost. Deliveries are made from the same stock that serves industry and the general public

so the product not only meets quality requirements of the marketplace but it probably comes with a commercial warranty. Further, the level of quality needed for a particular application can be selected since the entire line of each source is prepriced by discount from market prices.

The basic multiple source contract does not assure any sales so the companies must complete with one another continuously during the contract period. If service is poor or product quality drops for any company they will no longer be competitive. And fortunately the Government is not "locked in" on a long term contract arrangement for large quantities.

One of the assumptions of the Government is that any reduction in unit price achieved by making large quantity purchases is a savings. Since there is no accounting for efforts expended in consolidating requirements, preparing specifications, solicitation, inspection, warehousing, distribution, and management of these activities, these costs are not considered in comparing alternative methods of acquiring commercial products.

The price negotiated on multiple source contracts is based on the terms and conditions of the solicitation. Price and discount offers are solicited for the commercial line of products. In the case of the FSS multiple award schedules no total quantities are established, orders are placed by thousands of ordering officers throughout the United States, and destination delivery is required to each user. A frequent criticism of multiple source contracts is that the system does not assure the lowest possible priced item is not always selected for the specific need. The average size of each order as established on our user level survey was $531. Obviously the contract prices, including transportation costs, which

cannot be determined at time of contract negotiation, are averaged so those larger user activities that are in urban areas can separately obtain better prices at the expense of isolated low-volume activities. Variations in the pricing structure for large users could be arranged without detracting from the advantages of the concept.

Selection of the least total cost item at the point of use is a judgment decision that can best be made at the local site to fit the specific need. These decisions have to be justified to the satisfaction of the contracting officer and the discipline for making the right decision is a responsibility of management.

In addition to the three competitive levels (i.e., marketplace, negotiated discount, and user selection), the pricing of multiple-source contracts is fixed for a period of one year. The exception is for reductions that are made in the basic market price from which discounts were computed and are subject to price reduction provisions. Therefore, the Government has the benefit of a fixed price for a year even though prices are rising in the marketplace. During periods of very high rates of inflation, such as during wartime, economic price adjustment provision can be included in the contracts.

- Product suitability, responsive delivery, and ordering simplicity, are criteria for evaluation of systems that provide commercial products to Government users.

- Procurement statutes have established Government purchase methodology for commercial type products that are effective in achieving low unit prices but the process is slow and costly and the products are likely to be of a quality that may not be the best buy for the Government.

- Purchase mechanisms are in use throughout the Government that benefit from "competition of the marketplace" by providing Government users the same products that are available to non-Government users. These procedures are not provided for in procurement statutes or in basic procurement directives.

- The total cost of purchasing by various methods is not generally known and is not considered in selection of purchase methods and techniques.

- There is a need for recognition in procurement statues and procurement directives of purchase methods that are based on "off-the-shelf competition" and for consideration of the cost of the acquisition process as part of total cost to the Government.

- Recognition by the Congress and procurement managers of the potential for economy and effectiveness by increasing reliance on off-the-shelf competition would lead to improvement in procurement practices and increased use of the concept when it is the most cost effective method. Institutionalization of the concept would significantly reduce costs of Government.

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3. Section III.D.5, DOD Directive 4105.62, supra note 1.

4. Implementing instructions to start the service test of the four-step source selection process had been issued by Deputy Assistant Secretary of Defense for Procurement (I&L) Memorandum Oct. 28, 1975, and was reaffirmed and clarified by a similar memorandum of Mar. 4, 1976.

5. The existing ASPR 3-805.3 language was unchanged except for renumbering paragraphs. It should be noted that the Armed Services Procurement Regulation (ASPR) was replaced by the Defense Acquisition Regulation (DAR), effective Mar. 8, 1976.

6. ASPR 3-805.3(a) (1976 eidtion);

   All offerors selected to participate in discussions shall be advised of deficiencies in their proposals and shall be offered a reasonable opportunity to correct or resolve the deficiencies and to submit such price or cost, technical or other revisions to their proposals that may result from discussions. A deficiency is defined as that part of an offeror's proposal which would not satisfy the Government's requirements.

7. See note 2 supra. Not all selected procurements had to meet the DOD Directive 5000.1 definition of a major program, i.e., $50 million in projected R&D funds or $200 million in projected production funds.

8. 56 Comp. Gen. 989 (1977).

9. Comp. Gen. Dec. B-188272, Nov. 30, 1977.

10. ASPR 3-805.3 test language supra.

11. See e.g., 55 Comp. Gen. 802 (1976); 55 Comp. Gen. 715 (1976); 54 Comp. Gen. 562 (1975); 54 Comp. Gen. 408 (1974); and 53 Comp. Gen.977 (1974).

12. NASA Procurement Directive 70-15, December 3, 1975, currently in effect.

13. Supra note 8.

14. Supra note 11.

15. Comp. Gen. Dec. B-173677 (2), March 31, 1972; summarized in 51 Comp. Gen. 621 (1972).

16. Id. at 622.

17. See, 54 Comp. Gen. 60 (1974); cf. 50 Comp. Gen. 117 (1972).

18. 55 Comp. Gen. 802, 807 (1976).

19. 54 Comp. Gen. 408 (1974).

20. Id., at 411.

21. Comp. Gen. Dec. B-179030, Jan. 24, 1974.

22. Supra note 8.

23. Id.

24. See 56 Comp. Gen. 989 (1977); 51 Comp. Gen. 621 (1972); cf. 54 Comp. Gen. 562, 570, 571 (1975); aff'd, 54 Comp. Gen. 1009 (1975).

25. Supra note 9.

26. Supra note 3.

27. Supra note 9.

28. See generally, Comp. Gen. Dec. B-181075, Oct. 30, 1974; see also Comp. Gen. Dec. B-178667, Dec. 14, 1973.

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