ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of --	)	
	)	
Applied Companies	)	ASBCA No. 50593
	)	
Under Contract No. DAAK01-85-D-B013	)	

APPEARANCE FOR THE APPELLANT: Peter B. Jones, Esq.
Jones & Donovan
Newport Beach, CA

APPEARANCES FOR THE GOVERNMENT: COL Karl M. Ellcessor, III, JA
Chief Trial Attorney
Craig S. Clarke, Esq.
Deputy Chief Trial Attorney
MAJ Ralph J. Tremaglio, JA
CPT Patrick Kernan, JA
CPT William R. Hinchman, JA
Trial Attorneys

OPINION BY ADMINISTRATIVE JUDGE REED

This appeal and another (ASBCA No. 52102) involved claims under two separate contracts for equitable adjustments pursuant to the Value Engineering (VE) provisions of the contracts. Each appeal related to a claim under one contract. Each claim had two parts, demanding payment of (1) instant contract savings and (2) future contract savings. An earlier Board decision on cross-motions for partial summary judgment, addressed to the claimed future contract savings under each contract, denied the government's motion and dismissed appellant's motion as moot. *Applied Companies*, ASBCA Nos. 50593, 52102, 99-2 BCA ¶ 30,554. The parties then settled the matter of instant savings under this appeal and both instant and future savings under the other appeal. See the Board's Dismissal Order dated 17 September 2003 (unpublished). What remains for decision here is appellant's entitlement and quantum, if any, to future contract savings under this appeal. The contractor argues for recovery of $19,806,796.00, plus interest.

FINDINGS OF FACT

1. Contract No. DAAK01-85-D-B013 (the contract or the instant contract) was awarded to Applied Equipment Corporation (Applied, appellant, or contractor)[1] by a

[1] Refer to finding 5, below.

contracting officer (CO), Ms. Hale, of the Department of the Army, U.S. Army Materiel Command, U.S. Army Troop Support Command (TROSCOM) on 29 August 1985. The contract was a firm-fixed unit-priced multi-year requirements contract for supply of environmental control units, *i.e.*, specialized air conditioners (ACs), and related data. The ACs and related items were to be provided by way of delivery orders (DOs). The primary end item, priced at $5,990.00 per production unit, was described in the contract schedule as follows:

> FSC: 4120
> [AC], 36,000 BTU/HR [36K BTU/HR], Horizontal Compact, 208V, 3 PH, 60 HZ,[2] in accordance with TDPL TL-MIL-A-52767/TA 13225E9500 TL Rev B, Computer Run Date 29 Nov 84 and [mil spec] MIL-A-52767B(3) dated 4 Jun 84 [mil spec 52767B]. [Applied] Part Number 3791, [Applied] Model Number 3790.

The National Stock Number (NSN) assigned to the AC was initially listed for bidding purposes as 4120-00-951-9697. (Tr. 13, 163-68, 230-31, 267; R4, tab 3)

2. The contract incorporated by reference, among others, the following contract clauses: FAR 52.233-1, DISPUTES (APR 1984); FAR 52.248-1, VALUE ENGINEERING (APR 1984). In pertinent part, the VE provision of the contract stated the following:

> (a) *General*. The Contractor is encouraged to develop, prepare, and submit [VE] change proposals (VECP's [sic]) voluntarily. The Contractor shall share in any net acquisition savings realized from accepted VECP's [sic], in accordance with the incentive sharing rates in [¶] (f) below.
> (b) *Definitions*. "Acquisition savings," as used in this clause, means savings resulting from the application of a VECP to contracts awarded by the same contracting office or its successor . . . for essentially the same unit. Acquisition savings include-
> (1) Instant contract savings, which are the net cost reductions on this, the instant contract . . . .
>
> . . . .

[2] The parties agreed in Modification No. P00013 to the contract (mod P13), among other things, that "60 HZ" was a clerical error and should have read "50/60 HZ" because the applicable military specification (mil spec) "does not give the option of building only a 60 Hz unit" (R4, tab 18).

(3) Future contract savings, which are the product of the future unit cost reduction multiplied by the number of future contract units scheduled for delivery during the sharing period. If this contract is a multiyear contract, future contract savings include savings on all quantities funded after VECP acceptance.

. . . .

"Future unit cost reduction," as used in this clause, means the instant unit cost reduction . . . . It is calculated at the time the VECP is accepted and applies either (1) throughout the sharing period . . . or (2) to the calculation of a lump-sum payment . . . .

. . . .

"Instant contract," as used in this clause, means this contract, under which the VECP is submitted. It does not include increases in quantities after acceptance of the VECP that are due to contract modifications, exercise of options, or additional orders. If this is a multiyear contract, the term does not include quantities funded after VECP acceptance. . . .

"Instant unit cost reduction" means the amount of the decrease in unit cost of performance (without deducting any Contractor's development or implementation costs) resulting from using the VECP on this, the instant contract. . . .

. . . .

"Sharing base," as used in this clause, means the number of affected end items on contracts of the contracting office accepting the VECP . . . .

"Sharing period," as used in this clause, means the period beginning with acceptance of the first unit incorporating the VECP and ending at the later of (1) 3 years after the first unit affected by the VECP is accepted or (2) the last scheduled delivery date of an item accepted by the VECP under this contract's delivery schedule in effect at the time the VECP is accepted.

"Unit," as used in this clause, means the item or task to which the [CO] and the Contractor agree the VECP applies.

. . . .

(c) *VECP preparation*. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (8) below. . . .

(1) A description of the difference between the existing contract requirement and the proposed requirement . . . and any pertinent objective test data.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted . . . .

(3) Identification of the unit to which the VECP applies.

(4) A separate, detailed cost estimate for (i) the affected portions of the existing contract requirement and (ii) the VECP. . . .

. . . .

(f) *Sharing rates*. If a VECP is accepted, the Contractor shall share in net acquisition savings according to the percentages shown in the table below. [The applicable percentage shown in the table for "Contract Type," "Fixed-price (other than incentive)," "Sharing Arrangement," "Incentive (voluntary)," "Concurrent and future contract rate" was "50."]

(g) *Calculating net acquisition savings*. (1) Acquisition savings are realized when . . . (iii) future contracts are awarded, or (iv) agreement is reached on a lump-sum payment for future contract savings (see subparagraph (i)(4) below). . . .

. . . .

(i) *Concurrent and future contract savings*. . . .

. . . .

(3) The [CO] shall calculate the Contractor's share of future contract savings by (i) multiplying the future unit cost reduction by the number of future contract units scheduled for

> delivery during the sharing period . . . . and (iii) multiplying the result by the Contractor's sharing rate.
>
> (4) When the Government wishes and the Contractor agrees, the Contractor's share of future contract savings may be paid in a single lump sum rather than in a series of payments over time as future contracts are awarded. Under this alternate procedure, the future contract savings may be calculated when the VECP is accepted, on the basis of the [CO's] forecast of the number of units that will be delivered during the sharing period. . . .

(Tr. 165; R4, tab 3; Settlement Agreement)

3. In Mod P1 to the contract, signed for the contractor on 9 December 1985 and by the original CO on 19 December 1985, the parties agreed, among other things, that the NSN assigned to the specific 36K BTU/HR horizontal ACs being purchased under the contract was 4120-01-219-8759 (finding 1; R4, tab 4).

4. During the period 29 August 1985 through 26 November 1986, the original CO and the successor primary CO, Ms. Jones (hereinafter the primary CO), ordered 1,200[3] of the specified 36K BTU/HR horizontal ACs by way of DO Nos. 0001-04 (DOs 1-4), as modified (finding 1; R4, tabs 25-28).

5. By Mod A1 to the contract, signed by an administrative CO on 17 November 1986, pursuant to a Novation Agreement accepted by the government on 31 October 1986, Applied Companies was recognized as the successor-in-interest to Applied Equipment Corporation (finding 1; R4, tabs 14, 25-27).

6. In late Winter or early Spring 1989, TROSCOM's deputy commander for procurement and readiness (DCPR), COL Mills, who was not a CO, and TROSCOM's director of procurement and production (DPP), Mr. Mabrey, an authorized CO, although not active as such under the contract, assigned to a senior executive policy and oversight position, visited a contractor facility on account of unrelated claims that had been

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[3] Modification No. 000401 (Mod 401) to DO 4 under the contract, signed for Applied on 6 October 1988 and by the primary CO on 27 October 1988, stated that 387 ACs were to be delivered under DO 4. That number of ACs increased the total ordered under DO 4 by 55, bringing the total ordered under the contract and all DOs, as modified to that date, to 1,255. Mod 401 to DO 4 purports to revise the delivery schedule, only, not to increase the ordered quantity; however, the increased quantity was carried forward by both parties in subsequent bilateral modifications to the delivery order. (R4, tab 28)

submitted by the contractor. Among other matters regarding the contracting activity's mission and the contractor's work, the DCPR and the DPP were concerned about the costs of ACs purchased by the government and the number of claims received by the government in connection with the mil spec under which such ACs were being supplied as well as with the mil specs which governed supply of other products acquired by TROSCOM. Appellant's president/chief executive officer (CEO), Mr. Klinger, suggested to them that a series of controlled source parts on ACs being procured by the government could be replaced with equivalent commercially available parts, thereby lowering government costs. This was of interest to the DCPR and the DPP because they had been discussing matters related to "commercialization" of end items for some time. (Tr. 10-12, 23-25, 45-52, 60-62, 77-78, 321-28; supp. R4, tab 1)

7. Following that conversation with the contractor's CEO, the DCPR and the DPP, in discussions after they returned to TROSCOM from the visit to appellant's facility, determined that the best contracting method by which to further their aim of moving toward commercialization and away from mil specs was to convince appellant's CEO to submit a VECP demonstrating the feasibility of commercialization to specific end items. The DCPR was aware that removal of controlled source requirements under mil specs would place the burden on contractors to identify equivalent commercially available items. At a trade conference in May 1989, the DCPR met with the contractor's CEO and suggested to him the possibility of submitting a VECP. Thus it was that the DCPR and the DPP initiated and solicited appellant's submission of the VECP. The DCPR's main motivations, communicated to the contractor's CEO, were "to reduce the cost and [to] move away from the mil spec because of . . . problems [the government] had [experienced in administering] the spec . . . and claims that resulted . . . ." The government "had a hard time keeping our mil specs current [and] keeping our sole source parts list current." For his part, the DPP's intent was to allow qualifying commercial parts for the entire "family" of ACs and to remove the requirement for controlled sources of parts. That intent was to be tested by encouraging a demonstration through at least one of the ACs being procured at that time. Concurrently, the DPP was attempting to refine a contract provision that would allow commercialization. He intended to apply the VECP commercialization changes to future procurements of the entire "family" of ACs under military specifications "if the [VECP] worked out . . . ." Whether the change "worked out" was dependent on manufacturing/assembling one or more ACs and testing those ACs to determine whether the changed AC "performed . . . at least as good [sic] as the unmodified unit." The contractor's prospective VECP was, in effect, to be a test case of the commercialization concept being championed by the DCPR and the DPP. Other pre-VECP-submittal meetings followed to explore the specific AC component parts that could be substituted under the instant contract and under a separate contract for 36K BTU/HR vertical ACs, a different AC configuration (refer to finding 9 below), as well as the estimated savings that could be attained. During a meeting on 5 June 1989 to discuss, among other things, the prospective VECP under the instant contract, the attendees,

including the primary CO and the AC material manager for TROSCOM, Mr. Vincent, discussed the planned acquisition(s) and possible commercialization of 18K BTU/HR horizontal and vertical ACs; however, there is no record of any discussion of a specific quantity and the only "part" discussed in connection with the 18K BTU/HR ACs was addition of a "motor controller/logic control board (together referred to as the inverter)," a part not previously included on those ACs. The material manager attended because he was responsible for developing requirements for ACs of all configurations to be procured by TROSCOM. (Tr. 12-22, 47-62, 167-68, 192-94, 218-27, 321-34; supp. R4, tab 1)

8. Appellant's CEO believed that the entire "family" of ACs under mil spec 52767 could be improved by the VECP commercialization process. In June 1989, prior to submittal of the proposed VECP, appellant's CEO envisioned a negotiated, lump sum payment for the VECP, rather than "royalties over time," as applied to "the family of [ACs], as listed under 52767." That understanding was repeated in a letter from appellant's CEO to the successor TROSCOM DPP dated 17 April 1990, in which the CEO wrote, among other things, that appellant "has foregone sharing any savings on future buys of [ACs under the instant contract, under a concurrent contract for a similarly-sized AC, and spare parts by] the Government . . . ." His testimony made clear that the contractor had "foregone" savings in the form of royalties in favor of a negotiated lump sum.[4] The financial details of the VECP proposal and negotiations were delegated to appellant's chief financial officer (CFO), Mr. Fortin; however, the CEO retained "[w]ithin Applied" the "primary responsibility to review and approve the terms of [any VECP] modification." Such review and approval was to occur prior to signature of any VECP modification by any authorized person within appellant's organization. (Tr. 68, 81-91, 113, 130, 150-52, 185; R4, tab 82)

9. The above-described contacts led to the contractor's submittal of two VECPs, one under the instant contract and another under separate Contract No. DAAK01-86-D-C072 for 36K BTU/HR vertical ACs. The ACs being purchased under that contract, priced at $8,550.00 per production unit, assigned NSN 4120-01-244-6385, were described as follows in that contract's schedule:

[4] One week later, Applied's Executive Vice President (EVP) wrote a letter which included nearly identical language (supp. R4, tab 17). The earlier letter, quoted above, was drafted by the contractor's CEO (tr. 83-84). The EVP copied the language into his later letter. The CEO's testimony at the hearing explained the language as we found above. We rely for our finding on the CEO's words in the letter and his hearing testimony. Appellant's EVP did not testify at the hearing (refer to finding 11 below).

FSC: 4120
[AC], vertical Compact, 36,000 BTU/[illegible] 208V/3 Phase/400HZ in accordance with TDPL TIL-MIL-A-52767/TA13225E8210, TL Rev A, Computer Run Date 11/07/85.

(Tr. 13-19, 78; R4, tabs 29-30; supp. R4, tab 1)

10. By letter dated 7 July 1989, the contractor submitted its proposed VECP under the instant contract for "Commercialization parts substitution" in the specified 36K BTU/HR horizontal AC. The VECP addressed the substitution of parts only for the AC configuration specified under the instant contract and its unique drawing set No. TA13225E9500, although the document mentioned the future, second VECP under the separate contract described above. The gist of the VECP was to "[r]eplace source and specification controlled items with functionally equivalent commercial items." The VECP was to apply to, that is "begin with [the] first production unit" under the contract. In addition to savings under the instant contract, appellant projected unspecified "savings . . . in future procurements." The specific parts with particular characteristics (size, capacity, voltage, phasing, and/or frequency) to be deleted from the 36K BTU/HR horizontal AC or replaced, modified, and/or reconfigured within the AC by other specific parts with equivalent characteristics were the compressor, condenser, condenser fans, condenser motor, condenser louver, condenser motor brace and support, condenser coil, accumulator, evaporator fan motor, evaporator fan scroll, evaporator drain tubes, control relays, power relays, phase sequence relay, specified connectors, pressure relief valve (to be replaced with a fusible plug), metal hose assembly, junction box, and formed fresh air duct (to be replaced with aluminum tubing). Also proposed were alterations to the control voltage, changes in the housing configuration, use of different methods of construction or assembly, and alternate materials. All changes in component parts (specifically required in the contract and particularly called out in the proposed VECP) and other alterations were factored into the projected cost savings included in the proposed VECP. The direct materials cost savings were initially estimated by the contractor as $2,695.10 per AC, plus G&A (22.42%) and profit (10%) markups (which equals $3,629.28). Associated estimated increases in costs for "terminations" amounted to about $598.56 per AC. Cost increases for "Engineering & Quality support labor" were estimated to be about $159.62 per AC. The VECP was clarified and corrected in three contractor letters, two of which referred to "the commercialization of the 36K Horizontal [AC] . . . ." (Findings 1-2, 9; tr. 21-23, 79-81, 94-99, 115-26, 172, 249-58, 291, 302; R4, tabs 1, 13, 56, 58, 60-61, 92)

11. By mod P9, signed by the contractor's EVP, Mr. Winkler, and by the primary CO on 25 July 1989, the parties agreed, among other things, that the VECP was conditionally accepted as applicable to "[horizontal AC] 36,000 BTU/HR NSN: 4120-01-219-8759." Appellant's CEO saw the proposed modification when the government

forwarded it to appellant for signature. The contractor's CFO had discussions with a TROSCOM alternate CO, Ms. Arne, a supervisor of the primary CO signing and administering mod P9, prior to appellant's acceptance of mod P9. Those conversations confirmed to the CFO, as agreed by the primary CO, and as stipulated by the parties at the hearing, that each party preferred the lump sum method of accounting for any future savings under the proposed VECP. Appellant's CFO then discussed proposed mod P9 with the CEO and obtained the CEO's approval of the proposed modification. Thereafter, the modification was signed as drafted by the government. In pertinent part, the modification provided as follows:

> 1. The purpose of this modification is to incorporate . . . [the] VECP . . . , Commercial Parts Substitution. [The] VECP . . . is hereby conditionally approved subject to sucessful [sic] completion of first article testing and approval of the first article test report.
>
> 2. This modification only includes the non[-]recurring costs and the production recurring [AC] savings portions of [the] VECP . . . which is applicable only to the instant contract.
>
> 3. Such incorporation of [the] VECP . . . should result in a minimum, not less than savings to the Government of $4,471,771.
>
> 4. a. As a basis for definitizing this modification, the following data are mutually agreed to be valid to the best of the knowledge of both parties:
>
> (1) NUMBER OF UNITS AFFECTED IN THE INSTANT CONTRACT: 1253[5]
>
> (2) GROSS CONTRACT SAVINGS: NOT LESS THAN $4,471,771.*

[5] The discrepancy between this number and the number of ACs specified in DOs 1-4, as modified at that time (1,255), is not fully explained in the record. One unit was shipped to a government research and development center prior to submittal of the VECP, leaving 1,254 units to be considered. However, the contractor's proposed VECP also listed 1,253 as the quantity for calculating estimated savings. (Finding 4 n.3; app. supp. R4, tabs 908, 912; R4, tabs 13, 56; supp. R4, tab 54)

(3) CONTRACTOR DEVELOPMENT AND IMPLEMENTATION COSTS: NOT MORE THAN $1,257,990.

(4) GOVERNMENT COSTS: $ 0.

(5) AVERAGE ANNUAL COLLATERAL SAVINGS: $ 0.

(6) CONCURRENT CONTRACTS INTO WHICH THE VECP HAS BEEN INCORPORATED AND RESULTANT SAVINGS IN EACH NOT APPLICABLE

(7) NUMBER OF UNITS PROJECTED FOR PROCUREMENT DURING THE FUTURE CONTRACT SHARING PERIOD: ZERO

. . . .

5. [The] VECP . . . shall be performed in accordance with Applied . . . letters [setting forth and clarifying the VECP]. [The] VECP . . . shall be considered modified as follows:

a. It is mutually agreed that as a minimum the tests listed below shall be conducted in accordance with [mil spec 52767D]. Units shall be manufactured in accordance with [mil spec 52767B].

. . . .

6. It is mutually agreed that within 30 days after signature of this modification, the Contractor will submit certifiable cost and pricing data in support of its proposal . . . . It is further agreed that, after submission of said data and pursuant to the [VE] clause of the contract, the savings will be negotiated and contractually definitized by modification. It is mutually understood and agreed that there will be no future contract sharing provisions.

> 7. This price adjustment is an estimate based upon contractor submitted cost data. Following Government review and evaluation of the cost data, the savings are subject to negotiation and final adjustment. If the Government and the contractor fail to agree on a final adjustment, the [CO] may unilaterally determine a final price. Further, it is mutually agreed that the negotiated settlement method shall be the "Lump-Sum Settlement Method." Production effectivity of the VECP is the first production unit.
>
> . . . .
>
> 10. The parties agree that [DOs 1-4] will be modified to reflect initial delivery of hardware items on 22 Jan 90, and subsequent deliveries scheduled so that final deliveries will conclude on 30 Nov 90 as scheduled.

We infer that the contractor's CEO and CFO read ¶ 7 of the proposed modification to mean that a lump sum would be paid in lieu of "royalty payments," that is, "savings on future procurements." Based on his discussions with the alternate and supervisory CO, prior to appellant's execution of mod P9, appellant's CFO construed ¶ 4a(7) of mod P9 to mean that "[u]ntil the VECP had been tested [pursuant to ¶ 1 of the modification] and the commercial units were approved, . . . there was no basis to assert or make any calculation as to [appellant's] contract savings." While no contemporaneous document prepared for appellant recounts the discussions with the alternate and supervisory CO or plainly expresses the CEO's and CFO's understandings in this connection, the CEO's later correspondence and the CFO's delay of the definitization of the VECP modification until all testing could be completed, concurred in by the primary CO until December 1991, tend to confirm Applied's position. The underlying details behind that position have not been refuted. In 1989, prior to unconditional approval of the VECP, additional ACs were added to the contract by mod P10 and mod 402 to DO4. Mod P10 provided, among other things, that: "The above increase in quantity is contingent on successful completion of first article testing and final approval of the VECP. The final unit price will be determined after negotiation of the VECP." Both Applied's CEO and CFO understood the reference in ¶ 6 of mod P9 to "future contract sharing provisions" to mean that the parties had agreed there would be a lump sum payment in lieu of a right to future payments. Concerning ¶¶ 4a(7) and 6, the primary CO's belief was that "[w]e're not ever going to be buying this configuration of this horizontal [AC] again." By "this configuration," the primary CO was referring to the identical original technical data package or "TDP that's listed in the [instant] contract." The primary CO was aware that other acquisitions of 36K BTU/HR horizontal ACs were being planned; however, those ACs were to be manufactured with a newly developed multiple power input (MPI)

configuration and commercial substitution would be permitted for all component parts if those parts met the performance standards and dimensional criteria for comparable mil spec parts. Accordingly, she envisioned no future contract savings because the identical 36K BTU/HR horizontal AC unit under the instant contract would not be purchased again. (Findings 2-3, 8, 10; tr. 8-9, 25-26, 81-93, 128-35, 149-51, 169-203, 218-23; app. supp. R4, tabs 906-07, 916; R4, tabs 1, 13, 15, 59-61, 82, 89, 90, 92; supp. R4, tab 64) Neither the Applied officer who signed mod P9 nor the government alternate and supervisory CO testified at the hearing. Other than the discussions described above, there is no evidence of negotiations between the parties related to the wording of ¶¶ 4a(7) or 6 of the modification.

12. The record evidence of planned procurements by TROSCOM of ACs during FY91-93 consists of four different scenarios.

a. First, the primary CO's undocumented verbal coordination with TROSCOM's material manager responsible for AC acquisition planning indicated that no 36K BTU/HR horizontal ACs using the identical TDP would be purchased. Therefore, the entry "NUMBER OF UNITS PROJECTED FOR PROCUREMENT DURING THE FUTURE CONTRACT SHARING PERIOD: ZERO" was included by the primary CO in mod P9 to the contract. The scope of the conversations between the primary CO and the material manager was limited to the exact unit originally specified under the contract, without commercialization changes and using the electrical characteristics and technology that preceded the MPI configuration. The primary CO obtained no information concerning the number of 36K BTU/HR horizontal ACs that might be acquired by the government using other configurations and/or component parts, except that she understood that those ACs to be acquired would not incorporate the identical mil spec component part numbers originally required under the instant contract.

b. Second, sometime between 25 July 1989 and 17 August 1990, appellant obtained from a small business advocate in TROSCOM's small business office a copy of a one page document entitled "TROSCOM ECU PROCUREMENT," which was a so-called "wish list" or "shopping list" summary of planned acquisitions that TROSCOM "would hope to make." The summary was prepared by an unknown person or persons either from TROSCOM's requirements section or from TROSCOM's competition advocate's office. The document was prepared prior to the start of FY85, *i.e.*, prior to 1 October 1984, and listed projections for ten years, during FY85-94, of seven sizes and as many as 18 different configurations of ACs (based on BTU/HR and model numbers, including 38K BTU/HR and 50K BTU/HR, neither of which were addressed in mil spec 52767B). The FY85-94 document indicated that during FY91-93, a total of 10,057 ACs of a number of sizes and/or configurations were projected. The number of 36K BTU/HR ACs (three different model numbers) projected for the same time period amounted to 1,484. Eighteen line items on the summary show different model numbers for ACs (*e.g.*,

"M702 A/C 6K BTU," "M899 A/C 18K BTU," "M916 A/C 9K BTU"). Among the line items on the summary is the following: "M811 [horizontal] A/C 36K BTU [as specified in the instant contract]" (a total of 1,320 projected FY91 and FY93). The summary list does not correlate model numbers with the various configurations of ACs by type, size, and class as categorized in mil spec 52767B (explained below in finding 14). Projections of the type shown on the summary list were susceptible of change from year-to-year.

c. Third, a TROSCOM briefing chart of unknown origin shows quantities of "MIL-STANDARD REQUIREMENTS FY 89-FY 96" for 6K, 9K, 18K, 36K, and 60K BTU/HR ACs totaling 25,101, including 3,980 of size 36K BTU/HR. The quantities are not segregated by FY. The number of 36K BTU/HR ACs is not listed separately by horizontal or vertical configurations.

d. Fourth, when the VECP was conditionally accepted by the government in mod P9, subject to testing of the commercialized AC and definitization of cost savings, as described above, an additional quantity of ACs was projected for purchase during FY91-93. A 36K BTU/HR horizontal AC with the MPI configuration was being separately developed by the government in about 1988-89 to allow greater adaptability to various electrical sources. Those 36K BTU/HR horizontal ACs are described in more detail below (at findings 16-17) in connection with a solicitation dated 15 June 1990 and the resulting awarded contract dated 30 August 1990.

(Tr. 27-40, 55-67, 142-53, 172-76, 187-88, 198-203, 218-27, 247-48, 260-64, 296-97, 311; app. supp. R4, tabs 940-41, 944, 967; R4, tab 89; supp. R4, tabs 21, 84) Neither the material manager, the competition advocate, the small business advocate, the author(s) of the FY85-94 one page summary, nor the author(s) of the FY89-96 briefing chart testified at the hearing.

13. By letter dated 21 July 1989, Applied submitted a different VECP for commercialization of the 36K BTU/HR vertical AC under a separate contract governed by drawing set No. TA13225E210 which is unique to that AC configuration. That TDP differed from the TDP for the instant contract. The second VECP used identical general descriptive language on the engineering change proposal form concerning the purpose and scope of the changes. The only differences in language related to drawing numbers that are specific to each different AC configuration, different contract numbers, and different descriptions of the ACs (vertical versus horizontal). Parts that were to be deleted, replaced, modified, and/or reconfigured within the 36K BTU/HR horizontal AC under the instant contract but not mentioned in connection with the later VECP for the 36K BTU/HR vertical AC included the condenser motor, condenser louver, condenser motor brace and support, accumulator, evaporator fan scroll, evaporator drain tubes, phase sequence relay, metal hose assembly, junction box, and formed fresh air duct. Parts that were to be deleted, replaced, modified, and/or reconfigured within the 36K BTU/HR vertical AC

under the later VECP but not mentioned in connection with the VECP under the instant contract for the 36K BTU/HR horizontal AC included fabricated condenser scrolls and evaporator fans. All changes in component parts (specifically required in the contract and particularly called out in the proposed VECP) and other alterations were factored into the projected cost savings included in the proposed VECP. The savings were initially estimated as $1,807.38 per AC, exclusive of G&A and profit markups. Associated estimated increases in costs for "Terminations" amounted to about $539.01 per AC. Cost increases for "Engineering & Quality Support Labor" were estimated to be about $212.77 per AC. All of these dollar amounts differ from comparable amounts proposed under the VECP at issue here. (Findings 2, 10; tr. 98-103, 115-23, 217, 231-32, 284-85; R4, tabs 2, 36, 62, 93)

14. The mil spec governing manufacture of the ACs under the instant contract was MIL-A-52767B. That specification covered "self-contained . . . compact" ACs of two types, vertical and horizontal. Vertical type ACs were specified in five sizes, based on BTU/HR (neither 38K nor 50K BTU/HR ACs are listed). Each size was specified in two classes, based on electrical requirements for voltage, phasing, and frequency (expressed as hertz). Horizontal type ACs were specified in four sizes (neither 6K, 38K, nor 50K BTU/HR sizes are listed). Size A included four classes. Size B included three classes. Sizes C and D each included two classes. Altogether, mil spec 52767B governed 23 different configurations of ACs of various types, sizes, and classes. For example, the AC specified under the instant contract was designated in the mil spec as Type II (Horizontal), Size C (36,000 BTU/HR), Class 1 (208-volt, 3-phase, 50/60-hertz). Twenty-three unique sets of drawings were called out in the mil spec, one for each of the various configurations. Each set of drawings, the TDP, contained hundreds of drawings showing every detail needed to manufacture and assemble each AC type, size, and class. In some respects, the ACs described in the mil spec were governed by similar standards and requirements. Similar components were tested similarly and had similar functionality, that is, different AC compressors, condensers, condenser coils, condenser fans, condenser motors, evaporators, evaporator fans, evaporator fan motors, control relays, power relays, connectors, valves, and hoses performed a similar function although models, capacities, sizes, and characteristics of those component parts and their costs differed among the various AC configurations. Further, there were differences in internal arrangement, different external sizes of AC units, and differences in manufacturing processes and/or assembly of various AC configurations. For example, cooling capacity or BTU per hour differed, electrical voltage requirements varied among 115 volts (single-phase), 208 volts (3-phase), or 230 volts (single-phase), weight of ACs ranged from 175 to 620 pounds, evaporator airflow minimums ranged from 280 to 2020 standard cubic feet per minute, power consumption maximums ranged from 2.2 to 18.6 kW, and maximum current draw ranged from 11.3 to 82 amperes. A close examination of mil spec 52767B under the instant contract reveals some differences in performance and other characteristics between the 36K BTU/HR horizontal AC and the 36K BTU/HR

vertical AC. While, the differences appear minor and their significance, if any, was not explained in detail, it is clear that before a commercially-available AC would be considered equal to a mil spec AC, the different configurations with different component parts for each configuration would need to be tested and approved by the government. Such differences would involve different costs for different substituted, deleted, or altered component parts. (Findings 1, 10, 12-13; tr. 40-43, 62-76, 89-121, 142, 165-66, 206-07, 231-300, 309-11; app. supp. R4, tab 967; supp. R4, tabs 84, 92-93)

15. The VECP-modified, *i.e.*, commercialized, 36K BTU/HR horizontal ACs under the instant contract were successfully tested by the parties after further substitution of certain component parts during testing and were unconditionally accepted by the government. On 17 August 1990, the first article test report and the first article AC affected by the VECP were accepted, with discrepancies to be examined on early production ACs. Examination of an early production AC, as modified by the VECP, led to unconditional acceptance of production models of VECP-modified 36K BTU/HR horizontal ACs on 15 October 1990. The last scheduled delivery date of an AC affected by the VECP under the contract's delivery schedule in effect at the time the VECP was accepted, pursuant to mod P10 to the contract and mod 402 to DO 4, was 31 December 1990. The three-year sharing period was thus established as 15 October 1990 through 14 October 1993. (Findings 2, 11; tr. 87, 109, 134, 151, 179, 221-22, 261, 298; app. supp. R4, tab 969; R4, tabs 1, 15, 28, 88; supp. R4, tabs 27)

16. An extract of Request for Proposals No. DAAK01-90-R-0089 dated 15 June 1990 (the 1990 solicitation)[6], shows that the government planned to acquire essentially the same 36K BTU/HR horizontal ACs. Under the 1990 solicitation, the specified TDP number and mil spec number differed from the 36K BTU/HR horizontal ACs that were the subject of the VECPs under the instant contract. However, the same NSN initially listed in the instant contract is also used here. Further, based on hearing testimony, the only proven differences in component parts[7] between the 36K BTU/HR horizontal ACs that were the subject of the VECP and the later solicited 36K BTU/HR horizontal ACs

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[6] Government counsel objected, at the hearing, that the solicitation was "incomplete." The then presiding administrative judge in ruling that the document would be admitted, also allowed "the government 30 days, after the date of this hearing, to submit the rest of these documents into the record . . . ." (Tr. 212-13) No additional documents were received by the Board with regard to the 1990 solicitation or any related award or contract administration documents.

[7] A government engineer testified that component part numbers and manufacturers [also] differed; however, other than as described above, no proof was provided that the parts were other than comparable commercially available parts in lieu of controlled source parts. To the extent that the parts were not identical, the significance of [any] differences was not proved. (Tr. 355-63)

were (1) the MPI unit with electromagnetic pulse protected cabling and associated "technology," performance characteristics, and testing requirements, and (2) a different motor controller with logic board. Use of these component parts required an examination by the government of other component parts to determine whether such other parts would fit within the unchanged outer dimensions of the AC unit as a whole. The extent, if any, to which such other parts were changed on account of inclusion of the above-described parts was not explained, with one exception: a different size grill and different size fans were needed on one side of the AC to accommodate heat generated by the MPI unit. Also concerning the 36K BTU/HR horizontal ACs solicited in 1990, a government engineer noted that the earlier VECP-substituted commercially available evaporator fan motor might not have had sufficient insulation when compared with the controlled source part; however, that component part, *i.e.*, the commercially available evaporator fan motor, was accepted by the government when the earlier VECP-modified 36K BTU/HR horizontal AC was unconditionally accepted in October 1990 (VECP savings ultimately were not realized for that specific fan; refer to finding 18). Further, no proof of any difference in costs was presented as between the MPI unit and motor controller with logic board and the comparable component part(s) of the VECP-modified 36K BTU/HR horizontal AC under the instant contract. The 1990 solicitation also included a "Control Drawings" provision, developed under the oversight of the government's DPP. That provision allowed prospective contractors to obtain some component parts from any approved source rather than from a required controlled source if the component parts satisfied the performance requirements indicated in the TDP. In other words, not unlike the earlier VECP-modified ACs, commercial parts substitution was allowed by the 1990 solicitation for certain component parts while other parts remained controlled source parts. Inclusion of the "Control Drawings" provision was part of an ongoing attempt at employing a contract provision that would advance a pre-existing government-initiated policy shift toward commercialization and away from controlled source mil spec parts. The VECP under the instant contract and the "Control Drawings" provision were a result of the implementation by the government of a process to move away from controlled source parts toward commercially available parts. An amendment to the 1990 solicitation stated that the VECP-modified unit was not yet available as of 20 July 1990 and implied that the solicited ACs were not essentially the same as those VECP-modified. However, that statement pre-dated final VECP approval on 15 October 1990. Therefore, we find that VECP-modified 36K BTU/HR horizontal ACs would have been acceptable, following final VECP approval, pursuant to the Control Drawings provision in the 1990 solicitation and contract. (Findings 1-2, 6-7, 15; tr. 197-218, 247-75, 286-92, 302-20, 332-63; app. supp. R4, tabs 941-42, 968, 971-72; R4, tabs 3, 13, 83, 91)

17. The 1990 solicitation resulted in award of Contract No. DAAK01-90-D-0062, dated 30 August 1990 (the 1990 contract). DO 1 under that contract provided for nine monthly deliveries totaling 422 units, the number of units indicated in "ORDERING PERIOD ONE" of the 1990 solicitation. The deliveries were scheduled for 13 August

1992-16 April 1993. Fifty units were delivered each month except the first month, when 22 units were delivered. The time between each delivery was between 30 and 33 days. The 1990 solicitation included "OPTIONAL ORDERING PERIOD TWO" with an estimated quantity of 350 units. Based on the delivery pattern established by the original, unmodified delivery orders under the instant contract, deliveries usually continued in the next month following conclusion of orders under the previous delivery order and at the same number of units per month. Given the pattern of deliveries under the instant contract and the 1990 contract, the government's estimated quantities to be delivered pursuant to the 1990 contract would have continued every 30-33 days after 16 April 1993, and similarly thereafter, at a rate of 50 units per delivery. Accordingly, 50 units per delivery would be estimated for monthly delivery during the remaining portion of the sharing period, *i.e.*, 17 May - 14 October 1993, a total of 250 units prior to 15 October 1993. Therefore, as of 15 October 1990, the best estimate of the number of units to be delivered during the sharing period, based on the record before us, is 672 (422 + 250). The primary CO unilaterally definitized the VECP modification to the instant contract in mod P15 dated 28 January 1992. No future savings were allowed as the "[n]umber of units projected for procurement during the fugure [sic - future] sharing period" was listed as "00." (Finding 15; tr. 185-88, 203-08, 216, 249, 360-61; app. supp. R4, tabs 904, 908, 911, 940-41, 971; R4, tabs 1, 18, 20, 25-28; supp. R4, tab 89)

18. Appellant's actual cost savings for materials changed from those estimated in the initial VECP submittal, as explained below.

a. Applied's original VECP submittal dated 7 July 1989, included with the contractor's claim, listed the materials savings for 13 different component parts totaling estimated costs of $2,695.10 per unit (finding 10). As explained below at finding 23, appellant's CFO used that estimated savings amount at the hearing, with markups, to explain his calculation of the claimed future savings.

b. A pre-audit costs summary dated 3 August 2001, addresses, in pertinent part, the materials savings for 3 of the 13 different component parts affected by the VECP (supp. R4, tab 83, ex. 1, lines E, E-1A. and B.). The estimated cost savings for 10 of the 13 items were not addressed in the pre-audit costs summary and have not been questioned. We find that the proposed cost savings for those 10 items were realized by implementation of the VECP.

c. VECP original submittal item No. 1, compressor, indicated a unit cost of $1,000 each for the original Carrier compressor. The VECP estimated the unit cost for the replacement compressor, an Applied model, as $247.34. Therefore, the original estimated savings for the compressor was $752.66 per unit ($1,000 - $247.34). (R4, tab 1, "Engineering Change Proposal," DD Form 1693, block 15, sheet 4 of 8) The pre-audit costs summary calculated a composite unit cost for compressors of $563.28, comprised

of 972 Bristol compressors at a unit cost of $399.74 and 364 Carrier compressors at a unit cost of $1,000 (((972 x $399.74) + (364 x $1,000)) divided by 1336 compressors = $563.28 per compressor) (supp. R4, tab 83, ex. 1, line E.2. with marginal notes adjacent to lines E.3. and E.4.) Accordingly, the pre-audit costs summary showed decreased compressor savings of $315.94 per unit ($563.28 - $247.34) (R4, tab 18; supp. R4, tabs 29, 41, 83, ex. 1, line E.3.).

d. The most recent Defense Contract Audit Agency (DCAA) audit took no exception to the original compressor cost of $1,000 per compressor; however, the audit questioned the composite unit cost of $563.28 per compressor, included in the pre-audit costs summary, based on an examination of contractor purchase orders. The audit report does not indicate the compressor unit prices found on appellant's purchase orders by the auditor. (Supp. R4, tabs 29, Schedule B-2 at 2, 91, ¶ 7 at 6). Applied's CFO concurred with the questioned costs (supp. R4, tab 91, ¶ 7a at 6 and first full paragraph at 8).

e. A revised post-audit costs summary shows a revised composite unit cost of $408.27 per compressor (app. supp. R4, tab 968, ex. 1, line E.2.). The revised post-audit costs summary, as it concerns compressor costs, agrees with the audit report. The revised post-audit compressor costs savings with markups totals $268,941.58 (rounded to $268,942) (app. supp. R4, tab 968, ex. 1, line E.10.). That amount, added to the questioned compressor costs shown in the audit report for the instant contract, $259,048 (supp. R4, tab 91, chart at 2, "Questioned Costs," column "B013" (the last four alphanumeric components of the instant contract No. (finding 1), line "Compressor not changed")), equals $527,990 ($268,942 + $259,048), the amount shown in the pre-audit costs summary for total compressor costs savings (supp. R4, tab 83, ex. 1, line E.10., rounded from $527,989.83). From the revised composite unit cost of $408.27 per compressor, the Board derived the audited and revised unit cost for the 972 non-Carrier compressors: $186.67 (((972 x $y) + (364 x $1,000)) divided by 1336 compressors = $408.27 per compressor; $y = $186.67). That unit cost for a replacement compressor is corroborated by the compressor cost proposed by Applied, submitted in response to the 1990 solicitation on its "Costed Bill of Materials," dated 26 July 1990, at 3 of 6, item No. 99, which shows a unit cost of $186.67. Accordingly, the VECP compressor savings per unit amounted to $813.33 ($1,000 - $186.67), not $752.66. We find that the VECP savings for compressors per unit were increased $60.67 ($813.33 - $752.66).

f. VECP original submittal item No. 3, evaporator fan motor, had a unit cost of $264.15 each for the original IMC motor and Morton shaft extensions ($251.25 + $12.90). The VECP estimated the unit cost for the replacement motor without shaft extension, an AO Smith model, as $70.00. Therefore, the original estimated savings for the evaporator fan motor and shaft was $194.15 per unit ($264.15 - $70.00). (R4, tab 1, "Engineering Change Proposal," DD Form 1693, block 15, sheet 5 of 8; supp. R4, tab 29, Schedule B-2 at 3 and "Procurement Required By VECP Commercial Parts

Substitution") The pre-audit costs summary indicated that savings were not realized for the evaporator fan motor and shafts. That component part was replaced after final approval of the VECP-modified unit in 1990 based on testing in 1991 pursuant to the "Comparison Test" provision, contract clause I.3 of the contract. (Finding 15; R4, tabs 3 at 38 of 70, 21, 92, letter dated 6 March 1992, ¶ f at 2; Supp. R4, tab 83, ex. 1, lines E-1, E-1 B., E-1 B.1.) Accordingly, the pre-audit costs summary showed evaporator fan motor savings not realized of $194.15 per unit (supp. R4, tab 83, ex. 1, line E-1, B.1.).

g. The DCAA audit did not question that portion of the pre-audit costs summary (supp. R4, tab 91, ¶ 9 at 7). The post-audit costs summary showed the same information concerning savings not realized for the evaporator motor and shaft extension (app. supp. R4, tab 968, ex. 1, lines E-2 and E-2, 1.). Accordingly, we find that there are no proven savings per unit for the evaporator fan motor and shaft extension. VECP savings for materials per unit were decreased $194.15.

h. VECP original submittal item No. 10, Metrix pressure relief valve, showed a unit cost of $21.66. The VECP proposed a change to an Imperial Eastman fusible plug estimated to cost $1.86 each. The original estimated savings for a fusible plug instead of the pressure relief valve was $19.80 per unit ($21.66 - $1.86). (R4, tab 1, "Engineering Change Proposal," DD Form 1693, block 15, sheet 6 of 8; supp. R4, tab 29, Schedule B-2 at 1 and "Procurement Required By VECP Commercial Parts Substitution") The pre-audit costs summary indicated no savings for item No. 10, fusible plug (supp. R4, tab 83, ex. 1, lines E-1 and E-1, A.). The fusible plug was replaced after final approval of the VECP-modified unit in 1990 based on testing in 1991 pursuant to the "Comparison Test" provision, contract clause I.3 of the contract (finding 15; app. supp. R4, tab 958; R4, tabs 3 at 38 of 70, 21, 92, letter dated 6 March 1992, ¶ f at 2; supp. R4, tabs 29, 31, 35, 40, 44-45, 54, 58, 83, ex. 1, line E-1, A.) Accordingly, the pre-audit costs summary showed fusible plug savings not realized of $19.80 per unit (supp. R4, tab 83, ex. 1, line E-1, A.1.).

i. The DCAA audit did not question that portion of the pre-audit costs summary (supp. R4, tab 91, ¶ 8 at 6-7). The post-audit costs summary showed the same information concerning savings not realized for the fusible plug (app. supp. R4, tab 968, ex. 1, lines E-1 and E-1, 1.) Accordingly, we find that there are no proven savings per unit for the fusible plug. VECP savings for materials per unit were decreased $19.80.

j. Based on the above evidence and analysis, we find that the original contractor estimate of VECP unit savings for materials amounting to $2,695.10 must be reduced to $2,541.82 ($2,695.10 + $60.67 - $194.15 - $19.80).

k. The original VECP submittal proposed an estimated G&A markup of 22.42% (R4, tab 1, "Engineering Change Proposal," DD Form 1693, block 15, sheet 8 of 8). The

pre-audit costs summary indicates a 17.2% G&A (supp. R4, tab 83, ex. 1, lines E.6., E-1, A.4. and B.4.). The DCAA audit did not question that portion of the pre-audit costs summary (supp. R4, tab 91). The post-audit costs summary showed the same information concerning G&A (app. supp. R4, tab 968, ex. 1, lines E.6., E-1, 4., E-2, 4.). Accordingly, we find that VECP unit savings for materials of $2,541.82 should be marked up by 17.2% for G&A, *i.e.*, $437.19. We find that the total VECP cost savings per unit amount to $2,979.01.

19. Appellant's claim was submitted to a successor command, U.S. Army Aviation and Troop Command by letter dated 9 January 1995. The letter, among other things, demanded payment of "$20,250,000 for shared cost savings realized by the Army's abandonment of 'specified source control' vendors being replaced by commercial off the shelf (COTS) items readily available or specification control items available from many alternative suppliers." The claimed amount was not specified as derived from instant contract savings, concurrent contract savings, future contract savings, or collateral savings, although appellant's pre-hearing brief asserts that the amount claimed is "for 50% of the agency's expected savings on other contracts." Appellant further asserted in the claim, as to the underlying facts: "It was mutually agreed that if the VECP proposal was accepted the cost savings for the VECP would be restricted to the referenced [instant contract] and the affiliated 36,000 [BTU/HR] vertical [AC] procured under [the other contract described above at finding 9]. This effectively excluded the collateralized savings expected with the adoption of the utilization of COTS to be realized throughout the entire ARMY family of [ACs]. This savings was projected to be in excess of $81,000,000, as calculated by the [TROSCOM] Small Business Office . . . ." Regardless, the contractor's claim argued that the government was "liable for one half of the cost savings accruing to Applied for the adoption of the 'COTS' and universal change to 'specification control' permitting massive quantities of new suppliers and components heretofore never able to be utilized on a MIL-SPEC program. . . . Applied herein requests entitlement for the one half anticipated savings of the total of $81 million to be realized by the Army." Citing then recent events, appellant alleged the connection of its VECPs to "Department of Defense [adoption of] a unilateral new policy initiated by the President and implemented by the Department of Defense Secretary . . . requiring the Pentagon to use commercial standards rather than the complex and detailed military standards. . . . This is exactly the concept proposed by Applied in the VECP . . . ." The claim in this regard was quantified by taking half of $81,000,000 ($40,500,000) and assigning half of that amount to the VECP under the instant contract ($20,250,000) and half to the VECP under the contract for 36K BTU/HR vertical ACs. According to Applied's CFO, although he could not explain how the $81,000,000 figure was derived, it included "reduction in spare parts, acquisition costs with commercial parts, . . . inventory levels, which would be reduced because of commercially available parts [and other product lines, such as power generation equipment]. . . . There was a whole series of discussions that we were talking about in terms of cost savings. We specifically made

an agreement to only calculate a lump sum payment based on the gross savings of the VECP on the contract times the number of units, which incorporated the commercial parts substitution clause, as opposed to a [sic] mil spec components." A corrected claim certificate was submitted by letter dated 2 February 1995. (Finding 2, tr. 135-39; R4, tabs 1-2, 97; compl. & answer, ¶¶ 20; app. pre-hearing br. at 7) No small business office representative testified at the hearing. No documentation or other convincing evidence explaining the $81,000,000 figure is in the record.

20. In a letter dated 13 November 1995, Applied further explained its claim. Among other things, appellant repeated that, in submitting its VECP, it had "agreed to forego collateralized savings on other Army contracts wherein commercial components would be substituted." That statement was connected by appellant with an allegation that information provided by the "U.S. Army Small Business Officer . . . that this savings would be realized by the Army in an amount in excess of $80 million." The contractor's letter argued, at page 10, that the original intent of the VECPs was to share in commercialization savings related to ACs only. (R4, tab 102)

21. In a successor CO final decision (COFD) dated 27 November 1996, the claim was denied for lack of proof of entitlement. By letter dated 10 February 1997 from a second successor CO, the earlier COFD was clarified. Applied timely appealed to the Board by letter dated 19 February 1997. (R4, tabs 110, 115, 117; compl. & answer, ¶¶ 21)

22. On 23 and 24 October 2001, respectively, a third successor CO and Applied's CFO each signed a "Settlement Agreement." It purported to settle "all matters in dispute under ASBCA Nos. 50593, 52102 and Contract Nos. DAAK01-85-D-B013 [the instant contract], DAAK01-86-D-C072 [the separate contract for 36K BTU/HR vertical ACs], except the issue of the alleged future savings in regards to Contract No. DAAK01-85-D-B013." (Findings 1, 9; Bd. corr. file, Settlement Agreement at 3)

23. At the hearing, appellant's CEO could not specify the exact savings on account of the VECP. Applied's CFO used the government's summary of planned acquisitions for FY85-94 and the proposed VECP under the instant contract to calculate the claimed savings. He added the quantity of all ACs listed on the summary of planned acquisitions document for FY90-92 (10,915). The CFO then multiplied that number of ACs by the originally estimated dollar savings per unit of $3,629.28. The total alleged savings amount to $39,613,591.20,[8] of which Applied claimed half. The CFO rounded the savings to $19,000,000.00. (Finding 10; tr. 111, 142-47; R4, tab 13) No probative

[8] The CFO testified that he calculated $3,622.30 per AC and $39,537,041 in total savings, which he rounded to $39,537,000 (tr. 146). The arithmetic discrepancies were not explained.

evidence supporting the original cost savings of $3,629.28 was presented; however, refer to finding 18 above.

24. A person with knowledge of AC engineering, manufacturing, and assembly, such as Applied's CEO, could determine the feasibility of substituting specific commercial parts and could calculate an estimate of the cost savings for each of the 23 distinct configurations of ACs governed by mil spec 52767B (finding 14; tr. 69-78, 90-127). Feasibility studies for 21 of the 23 configurations were not submitted by appellant for the government's evaluation. The only evidence establishing cost savings was that for the 36K BTU/HR horizontal and vertical ACs in the instant and other contract described above at finding 9.

DECISION

Entitlement

The contractor views this case as one to resolve quantum, only, of future VECP savings under the instant contract. Based on mod P9 to the contract, the government concedes a *prima facie* case for entitlement to future VECP savings. However, the government contends that mod P9 indicates agreement by the parties that there would be no future savings. (Finding 11; tr. 6 (app. opening statement); app. br. at 1; gov't pre-hearing br. at 9-10; gov't br. at 37-39)

The contract provided for future savings, if any, upon proposal and acceptance of a VECP. Applied submitted a proposed VECP under the contract and the government accepted the VECP, initially with conditions and later unconditionally. The initial conditional acceptance was subject to (1) approval by testing of the VECP-changed AC that was specified under the contract, (2) submittal by appellant of cost information related to the VECP, (3) review of that cost information by the government, and (4) definitization of the VECP modification by negotiation of the VECP cost savings or, failing agreement by negotiation, a CO unilateral determination of the cost savings. (Findings 1-2, 9-11, 15, 17)

The only dispute concerning whether appellant is entitled to recover future cost savings under the instant contract relates to whether any claim for future cost savings was discharged by accord and satisfaction when Applied signed mod P9. The government contends that what the contract and certain provisions of mod P9 allow by way of entitlement to future cost savings is taken away by other provisions of mod P9 to which the contractor agreed. Appellant disagrees.

Accord and Satisfaction

a. Applicable Law

The four elements of accord and satisfaction include meeting of the minds of the parties. *Mil-Spec Contractors, Inc. v. United States*, 835 F.2d 865, 867 (Fed. Cir. 1987); *Precision Standard, Inc.*, ASBCA No. 54027, 03-2 BCA ¶ 32,265 at 159,600. The government bears the burden of proving its affirmative defense of accord and satisfaction. *Precision Standard, id.*

Whether future savings were resolved with finality by the parties in mod P9 is a matter of each party's intent in signing the contract modification. As with contract interpretation in general, we construe the language in the modification and the parties' intentions with regard to that document by reference to the context of the entire contract, including the modification, as well as the contemporaneous circumstances. The parties' understandings when mod P9 was drafted and signed as well as other pre-dispute actions are afforded great weight in judging the intent of the parties in agreeing to the modification. *Metric Constructors, Inc. v. NASA*, 169 F.3d 747, 752 (Fed. Cir. 1999); *Arizona v. United States*, 216 Ct. Cl. 221, 234-35, 575 F.2d 855, 863 (1978); *Dittmore-Freimuth Corp. v. United States*, 182 Ct. Cl. 507, 530, 390 F.2d 664, 679 (1968); *Aerometals, Inc.*, ASBCA No. 53688, 03-2 BCA ¶ 32,295 at 159,799-800; *CTA Inc.*, ASBCA No. 47062, 00-2 BCA ¶ 30,947 at 152,753, 152,757.

Further, absent release language in the modification, as in this case, we narrowly and strictly construe the modification as it relates to the disputed future savings. The failure of mod P9 to include any statement that VECP savings were being settled or other indicia of final resolution of the proposed VECP leads us to examine the circumstances surrounding the agreement to determine whether it was intended to be a fully integrated settlement of matters related to the VECP. *Massachusetts Bay Transportation Authority v. United States*, 129 F.3d 1226, 1235-36 (Fed. Cir. 1997); *American Mechanical, Inc.*, ASBCA No. 52033, 03-1 BCA ¶ 32,134 at 158,888; *Edward H. Foran*, ASBCA Nos. 51596 *et al.*, 01-1 BCA ¶ 31,323 at 154,722; *CTA*, 00-2 BCA at 152,752-53.

To sustain the government's position, we would need to understand the accord as a mutual agreement between the parties with the stated and understood intent that future savings were settled with finality at the time of mod P9's execution. Such an accord, enforceable by the government against the contractor, must be supported by a meeting of the minds of the parties with the intention of the accord clearly stated and known to the contractor. *Precision Standard, id.*

b. Interpretation of Mod P9

The government's argument is built on two provisions of the modification, ¶¶ 4a(7) and 6. The government's interpretation of those provisions is as follows: (1) the parties agreed, as a basis for definitizing the modification, that "zero" units were projected for procurement by the government during the future contract sharing period; and (2) the parties agreed that there would be "no future contract sharing provisions."

Appellant asserts (1) that the recitation of "zero" future units was based on an error of law and (2) that mod P9 was not final but was subject to later resolution by the parties. The latter understanding and intent of appellant in signing mod P9 was based on the provisional language of the modification, bolstered by comments made by an alternate and supervisory CO to the effect that final, definitized agreement on the VECP was subject to testing and approval of the VECP-modified AC unit.

Considering Applied's second argument first, we conclude that mod P9 did not resolve the matter of future savings under the instant contract. Indeed, mod P9 settled little with finality. Based on the language of the modification, considered as a whole, the agreement is a conditional approval of the proposed VECP subject to successful performance tests of the VECP-modified AC unit. The modification constituted only an agreement to examine the feasibility of commercializing the 36K BTU/HR horizontal AC unit. Technical details were subject to test and approval. Financial agreements were conditioned on the submission of cost and pricing data, examination of that data, and negotiation. Final approval of the VECP-modified AC unit and the cost and pricing ramifications were to be accomplished after mod P9 was signed. Accordingly, no cost adjustments could have been resolved by mod P9 because the VECP-modified units had not yet been assembled and successfully tested and no definitive cost and pricing information was available at that time. Instant and future VECP cost savings, if any, could not yet be known. The modification included no all-encompassing release language. Rather, a lump sum adjustment to the contract price, to be determined later, was contemplated by both parties. (Findings 11, 15, 17-18)

To better understand the modification's language related to possible future savings, one must consider the circumstances. First, a lump sum adjustment was the agreed procedure. Therefore, there would be no provision for future sharing by way of royalties as future AC units were procured. Accordingly, there was no need for "future contract sharing provisions" in the modification. In addition, when the modification was presented to appellant for signature, Applied's CEO and CFO understood the provisional nature of the VECP approval. They understood that no basis existed at that time for calculation of cost savings and price adjustments that might be achieved by the VECP-modified 36K BTU/HR horizontal AC production unit. Therefore, a determination of the number of projected future units into which the VECP would be

incorporated was not yet pertinent. This was the same understanding held by the alternate and supervisory CO and shared with Applied's principals. Only when the VECP was unconditionally accepted could actual cost savings and a projection of future units scheduled for delivery during the yet-to-be-determined[9] sharing period be compiled for use in calculating the appropriate lump sum payment, which necessarily awaited final approval of the VECP-modified unit after testing. Language in ¶ 7 of mod P9 referring to the "Lump-Sum Settlement Method" concerns only future savings under the VECP provision of the contract. The government's interpretation of mod P9 would render that language meaningless. (Findings 2, 10-11, 15-18)

Second, the parties' actions in preparing to negotiate the final cost and price effects of the VECP further indicate the provisional nature of the agreements reached in mod P9. Final cost and price agreements were delayed until all testing could be completed and actual costs could be compiled. These actions lend support to and show the reasonableness of appellant's interpretation of mod P9 as it relates to future savings. (Findings 11, 18)

We also agree with appellant that the CO's determination that there would be zero future units (finding 17) is incorrect as a matter of law and is unreasonable *per se*. Future savings are to be calculated based, in part, on "future contract units scheduled for delivery during the sharing period." Such units may, but need not be, identical to the unit that was procured under the instant contract. Rather, items that are "essentially the same" are to be included in calculating future savings. FAR 52.248-1(b); *see M. Bianchi of California v. Perry*, 31 F.3d 1163, 1168 (Fed. Cir. 1994) (earlier VE provision); *also see M. Bianchi of California*, ASBCA No. 36518, 93-2 BCA ¶ 25,801 at 128,409 ("one and the same" differs from "essentially the same;" earlier VE provision), *aff'd without opinion*, 19 F.3d 40 (Fed. Cir. 1994) (table). (Finding 2)

The primary CO had an obligation to forecast future acquisitions of 36K BTU/HR horizontal ACs, including those that were essentially the same unit, based on all reasonably available information. The record does not show that the primary CO considered whether the future 36K BTU/HR horizontal ACs were essentially the same unit. Instead, she ignored them. Her calculation of future savings, based on this faulty foundation, cannot support a proper application of the VECP provision to future savings.

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[9] The government argues that for appellant's interpretation to be reasonable, "zero" should have been "to be determined" (gov't br. at 3, 47). While "to be determined" might make Applied's interpretation more reasonable, it does not render the contractor's stated interpretation unreasonable. Appellant's interpretation need not be the most reasonable, merely an interpretation within the "zone of reasonableness." *Metric Constructors*, 169 F.3d at 751; *Intercontinental Manufacturing Co.*, ASBCA No. 48506, 03-1 BCA ¶ 32,131 at 158,866.

See Sayco, Ltd., ASBCA No. 36534, 89-1 BCA ¶ 21,319 at 107,500-01 (government motion for summary judgment denied; modification allowing lump sum payment for VECP future savings did not bar claim for alleged breach of CO duty to use all relevant, reasonably available information to forecast units to be delivered; earlier VE provision).

The primary CO incorrectly construed the requirement to be one of identical items or units. The unilateral definitization of the VECP by mod P15 was based on information limited to projections of future procurements of identical ACs (there were none). The primary CO did not include known projected government purchases of 36K BTU/HR horizontal ACs with an MPI configuration, even though those units were essentially the same. (Findings 16-17)

Given the above explanations for each party's interpretation of mod P9 and the totality of the circumstances related to the modification and the administration of the VECP, we conclude that there was no meeting of the minds concerning VECP future savings under the instant contract except that any such savings were to be paid in a lump sum. The contractor's VECP dated 7 July 1989 referred to future savings (finding 10). Between that submission and the government's provisional acceptance of it by mod P9 on 25 July 1989 (finding 11), we see no evidence of a negotiated agreement by which Applied discharged its proposal for future savings by agreeing to terms or performance different from the possible future savings suggested by the VECP. There was no agreement in mod P9 on a liquidated specific substitute lump sum amount for possible future savings in full satisfaction of the expected but indefinite future savings to be estimated and paid later as a lump sum instead of paid out over time as "royalties." *Brock & Blevins Co. v. United States*, 170 Ct. Cl. 52, 58, 343 F.2d 951, 955 (1965), quoting 6 Arthur Corbin, CONTRACTS, § 1276 (1962). Accord and satisfaction must be grounded upon mutual agreement between the parties. *Precision Standard, id.; Foran*, 01-1 BCA at 154,721-22. Such an agreement was lacking here as regards the quantum of future cost savings and the subsidiary factors by which future cost savings could be calculated.

c. Attachments to Government Brief

Applied's interpretation of mod P9 relies, in part, on conversations between the contractor's CFO and an alternate and supervisory CO. The alternate and supervisory CO supervised the primary CO and actively participated in administration of the contract. The alternate and supervisory CO did not testify at the hearing. (Finding 11)

The government, in its post-hearing brief, at 17 (proposed finding 51) and 46, characterized the CFO's testimony at the hearing concerning remarks by the alternate and supervisory CO as hearsay. Second, the government contends that, had it known of appellant's reliance on the alternate and supervisory CO's remarks, it would have obtained relevant information from her prior to the hearing and possibly called her as a

government witness (br. at 46). In support, the government attaches to its post-hearing brief pre-hearing discovery responses from appellant.

The testimony received by the Board is not hearsay. The testimony related statements by the alternate and supervisory CO acting within the scope of her contract administration duties. Therefore, the statements are admissions by a party-opponent as defined by Fed. R. Evid. 801(d)(2)(A), (C)-(D). Board Rule 20(a); *see Reese Industries*, ASBCA Nos. 25862 *et al.*, 83-1 BCA ¶ 16,245 at 80,742-43 (administrative CO comment on contractor's interpretation of contract admissible as party-opponent statement under Fed. R. Evid. 801(d)(2)).

Regarding Applied's written discovery responses, the documents explained, in pertinent part, the bases for appellant's understanding of mod P9. In so doing, Applied did not specifically refer to the conversations between the CFO and the alternate and supervisory CO. The responses named the CFO, along with Applied's CEO and EVP and explained that their understanding of the modification was based on mod P9's language "together with circumstances, including statements made in discussions leading up to the modification." (Finding 11; gov't br., ex. 1 at 11-12) Neither the circumstances, the statements, nor the participants in the discussions, other than the three Applied officials, were set out in the responses.

Appellant objects to the documents appended to the government's brief as an untimely offer of evidence and asks that we strike them pursuant to Board Rule 13(b). That rule, as applicable here, precludes receipt of evidence by the Board after completion of an oral hearing except in the Board's discretion.

The government appears to argue that it is unfair to consider the CFO's version of his understanding of the alternate and supervisory CO's comments absent an opportunity by the government to learn and present what the alternate and supervisory CO would have said. Implicit in that argument is the notion that the alternate and supervisory CO would testify differently from the conversation reported by Applied's CFO. To date, no affidavit or other form of evidence from the government offers the alternate CO's version of the conversation or the alternate CO's statement that no such conversation occurred.

In the offered interrogatories and responses, dated 1998, the government asked that appellant, among other things: "State <u>with specificity</u> the basis of [Applied's] understanding of [mod P9] . . ." (emphasis added). Appellant's response was not as specific as the government now wishes it had been; but, the government did not complain or seek an order to compel. If the contractor's discovery responses did not satisfy the government's requirements for specificity or were incomplete, the time to make that dissatisfaction known or to follow up with additional discovery techniques, such as depositions, has passed. Fed. R. Civ. P. 37; *Pandrol USA, LP v. Airboss Railway*

Products, Inc., 320 F.3d 1354, 1369 (Fed. Cir. 2003); *American Electronic Laboratories, Inc.*, ASBCA Nos. 17779, 18278, 78-1 BCA ¶ 12,907, *aff'd*, 222 Ct. Cl. 653, 650 F.2d 285 (1980) (table).

Neither were the discovery responses offered at the hearing in an attempt to attack the CFO's credibility or the weight that his testimony should be afforded. Thus, this situation is distinguishable from that found in *United States Lines*, ASBCA No. 20828, 77-1 BCA ¶ 12,261 at 59,034, 59,046 n.1, cited by the government, where the Board allowed the government to submit, with its post-hearing brief, excerpts from appellant's ship's logs to establish facts that were unclear based on testimony from the ship's master. The logs had previously been used at the hearing in an attempt to refresh the master's recollection and the Board concluded that no prejudice to appellant was shown.

Appellant's objection to the documents appended to the government's brief is sustained. We will not consider the documents on the merits of the appeal or other than as described above.

Quantum

a. Burden of Proof

As with any contractor claim, Applied bears the burden of proof for VECP savings. *See ICSD Corp. v. United States*, 934 F.2d 313, 316-17 (Fed. Cir. 1991) (burden of proof for collateral savings; earlier VE provision); *Rig Masters, Inc.*, ASBCA No. 52891, 03-2 BCA ¶ 32,294 at 159,793, *aff'd*, 96 Fed. Appx. 683 (Fed. Cir. 2004) (later VE provision); *Sentara Health System*, ASBCA No. 51540, 00-2 BCA ¶ 31,122 at 153,723, *recons. denied*, 01-1 BCA ¶ 31,198 (later VE provision). "Mere allegations [of VECP savings] without substantiated explanatory facts that support the statements or corroborative evidence are not sufficient to carry the necessary burden of proof." *Rig Masters*, *id.*

b. Savings Definitions

The VECP provision of the contract defines "Future contract savings [as] the product of the future unit cost reduction multiplied by the number of future contract units scheduled for delivery during the sharing period." "Future unit cost reduction" is the "instant unit cost reduction . . . ." "Instant unit cost reduction" is defined as "the amount of the decrease in unit cost of performance (without deducting any Contractor's development or implementation costs) resulting from using the VECP on this, the instant contract." (Finding 2)

The savings to be determined are the contractor's actual cost reductions that resulted from application of the VECP to the unit procured under the instant contract before considering the contractor's development or implementation costs. Those instant contract savings, to calculate future savings, are to be applied to acquisition of essentially the same units under future contracts during the applicable sharing period. *See Bianchi*, 93-2 BCA at 128,409-10 (earlier VE provision); *Basic Construction Co.*, ASBCA Nos. 22088, 23394, 80-1 BCA ¶ 14,437 at 71,177 (construction VE provision).

c. Future Unit Cost Reduction

As defined above, future unit cost reduction is the instant unit cost reduction. The proven instant unit cost reduction here amounted to $2,979.01 (finding 18).

Applied's estimated savings per unit, $3,629.28, suffers from two problems. First, it includes profit, which is not a cost. *See Bianchi*, 93-2 BCA at 128,410 (earlier VE provision). Second, the full amount of the contractor's estimated cost saving is not supported by credible evidence. Instead, the record only supports the lesser amount found above. (Findings 10, 18, 23)

d. Future Contract Savings

Future contract savings are the product of the future unit cost reduction multiplied by the number of future contract units that are essentially the same and that are scheduled for delivery during the sharing period (finding 2).

(1) Essentially the Same

Whether, for the purposes of VECP recovery, items are essentially the same is a question of fact taking into consideration the units or items procured under the instant contract, the scope of the approved VECP, and the other items claimed to be essentially the same as those units procured under the instant contract. *See Bianchi*, 93-2 BCA at 128,407 (earlier VE provision).

In this case, the unit procured under the contract was the 36K BTU/HR horizontal AC as configured under the applicable mil spec. That same unit configuration, only, was the subject of the VECP. The VECP suggested substitution of certain commercially available parts for controlled source parts required by the mil spec and the contract. The VECP submittal identified specific component parts that could be deleted, replaced, modified, or reconfigured within the particular 36K BTU/HR horizontal AC unit and included a detailed estimate for VECP cost savings and ancillary expenses per unit. The VECP addressed no savings for any other AC unit. The contract modification that provisionally accepted the VECP addressed only the savings for the AC purchased under

the instant contract. The modification, by its own terms, was not applicable to concurrent contracts such as that for 36K BTU/HR vertical ACs. (Findings 1, 9-11)

Under a separate, concurrent contract, separate VECP savings were submitted for a different AC configuration under the same mil spec - a 36K BTU/HR vertical AC. Although there was similarity, the parts to be substituted, deleted, replaced, modified, or reconfigured differed from the 36K BTU/HR horizontal AC. The contract prices for pre-VECP units, the estimated VECP cost savings, and ancillary VECP cost savings per unit also differed. (Findings 1, 9, 13)

The mil spec that governed the AC under the instant contract covered a total of 23 unique configurations. Commonality exists among the various AC configurations (*e.g.*, all ACs include a compressor); however, a range of different capabilities, characteristics, and performance parameters is present among the 23 different configurations. Each of those configurations was susceptible of a VECP suggestion similar to those described above, that is, a knowledgeable person could develop a proposal for commercially available component parts that could be substituted, deleted, replaced, modified, or reconfigured, along with cost estimates to perform those changes for each configuration. (Findings 14, 24) However, no VECP submittal addressed the component parts to be substituted, deleted, replaced, modified, or reconfigured for the other 21 configurations. No cost savings estimates were provided.

We conclude that the different AC configurations are not essentially the same unit for purposes of costing a commercialization process, merely because all are addressed by a single mil spec or have certain aspects common to most if not all AC units. Each configuration differed, as explained above, and each would require separate analysis to determine the extent to which commercially available component parts could be employed as a cost-saving measure. The fact that two separate and different VECP suggestions were submitted for two 36K BTU/HR AC configurations, horizontal and vertical, supports our conclusion.

In its post-hearing brief, appellant contends that the intent of its VECP was to have it apply to all configurations under the applicable mil spec and/or "to the procuring activity's entire family of military specification air conditioners . . . ."[10] In stating the issues, Applied queries whether essentially the same unit means "that the contractor shares in future acquisition savings where the items acquired are essentially the same in that they are air conditioners subject to a military specification and are susceptible to application of the VECP?" (App. br. at 2, 13-14)

[10] The claim submitted by Applied seems to exclude savings on other contracts for ACs in the "family" (finding 19).

Military specification air conditioner configurations or models appeared to extend, at that time, to military specifications other than the mil spec specified under the instant contract (finding 12). "Commercialized" parts and cost savings, if any, for other mil spec configurations or ACs specified under any other mil spec, were not proved.

Senior TROSCOM officials had embarked, pre-VECP, upon a quest to move away from mil specs, controlled source parts, and the problems that accompanied that acquisition policy. Such matters were discussed with Applied's CEO, resulting in the first steps to determine the feasibility of commercialization changes to mil spec ACs. However, if appellant's VECP intent was to show full-scale commercialization of all ACs assembled for military purposes, it never did so. Applied's subjective intent, based on an agreement at the policy level to attempt commercialization of mil spec ACs was neither communicated to the CO nor fleshed out in objective VECP submittals to that effect with detailed analyses of feasibility and resultant cost savings. The only VECPs submitted were specifically tailored to two particular configurations of mil spec ACs under the instant contract and another concurrent contract. Those two VECPs contained detailed information related only to those two ACs, respectively. (Findings 6-10, 13-14, 24)

The contractor's overbroad view of the scope of its VECP efforts leads it to assert, in relevant part, that "the Government realized the savings benefit of Applied's VECP . . . on TROSCOM's entire family of military air conditioners" and "the procuring activity . . . actually achieved savings in its procurements of all military-specification air conditioners" (app. br. at 2). This expansive view is simply not proved by objective cost data for savings that would have been realized by "commercialization" of each different AC configuration (findings 14, 24). On their face, the VECPs submitted by appellant did not encompass the breadth of scope suggested. Even if the VECP could be considered to apply to the entire family of ACs, a proposition not supported by the record, appellant could not obtain savings on the total number of the various configurations of ACs because the savings per unit for each configuration were not demonstrated. It is Applied's burden to prove those savings. *See Whittaker Corp.*, 81-1 BCA ¶ 15,055 at 74,479 (VECP claim not proved by "theoretical possibilities and conjecture;" earlier VE provision). The gross savings claimed by the contractor are speculative.

Appellant implies that the controlled source component requirement for the air conditioners was "what was changed by Applied's VECP" and in that respect, "all those air conditioners were the same." The contractor further avers that proof that the VECP was "applied" to all air conditioners and that all are essentially the same is the inclusion of the "Control Drawings" provision in "all of TROSCOM's post-VECP procurements of air conditioners." (App. br. at 16, 20-21) This implication also is not proved by VECP submissions showing the component parts that could be commercialized on the various AC configurations. The contractor seems to argue that its VECP suggested the concept of commercialization beyond the scope of the instant contract. Such a theory of recovery

on the basis of a concept has been rejected. *See Bianchi*, 31 F.3d at 1168 (earlier VE provision). The facts show that use of the "Control Drawings" provision in later AC procurements did not result from the VECP (findings 6-7, 16).[11]

In summary, this aspect of the decision can best be understood within the following construct: (a) At the policy level, the government was developing the notion of "commercialization" of a number of end items, not limited to ACs; (b) TROSCOM executives and Applied's CEO agreed that the feasibility of "commercialization" of ACs specified under the applicable mil spec could be demonstrated by appellant under the contracts for the 36K BTU/HR horizontal and/or vertical AC; (c) the contractor submitted a concrete VECP limited to the two configurations under the two contracts for 36K BTU/HR horizontal and vertical ACs; (d) that the government was developing a commercialization policy does not preclude application of that idea by Applied to particular end items. *See North American Rockwell Corp.*, ASBCA No. 14485, 71-1 BCA ¶ 8773 at 40,737-38 (earlier VE provision); however, as stated above, the concrete application of the idea and the attendant, proven cost savings were limited by appellant's VECP submittals.

On the other hand, the government's position that no future purchases of the identical AC specified under the contract were conducted, thereby eliminating any future cost savings, views the VECP too narrowly. As explained above in connection with the interpretation of mod P9, the CO's view is not legally supportable. She incorrectly

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[11] Judge Kienlen's concurring opinion, in discussing "*Control Drawings*," states that the opinion "concludes that the Control Drawing provision essentially adopts the commercial substitution concept of the VECP." His opinion goes on to say that the further statement in the opinion here "is not supported by substantial evidence." As the opinion here indicates, the opposite is concluded, *i.e.*, the Control Drawings provision was a precursor catalyst for commercialization. The Control Drawings provision did not adopt the "commercial substitution concept of the VECP" but predated the VECP. The provision was being developed as the government was independently progressing toward commercialization as an acquisition policy. The statements and conclusions in the main opinion are supported by the findings cited here. Those findings rely for support, in part, on the same testimony cited by the concurring opinion. The record also includes DOD-STD-100C, MILITARY STANDARD ENGINEERING DRAWING PRACTICES, dated 22 December 1978, wherein "Control drawing" is defined at ¶ 201.4 in terms that relate to "commercial market" items (app. supp. R4, tab 972 at 2). The contract, in EXHIBIT "A," STATEMENT OF WORK, DRAWINGS, ENGINEERING AND ASSOCIATED LISTS FOR LEVEL 3 DRAWINGS PREPARATION, makes reference to DOD-STD-100C and "control drawings" (R4, tab 3). Thus, record evidence related to control drawings predates the VECP.

declined to allow recovery for future savings on 36K BTU/HR horizontal ACs that were purchased under an updated mil spec and included the enhanced MPI technology. The record does not support the conclusion that these later units were not essentially the same. The evidence shows that changes were made in the later 36K BTU/HR horizontal ACs; however, the significance, if any, of those changes was not shown and no cost data was presented that would indicate a material difference between the earlier and later models. (Findings 11-12, 16, 18)

We have concluded that later procured 36K BTU/HR horizontal ACs were essentially the same units. Our conclusion is supported by the facts, as explained above, and is in keeping with the liberal construction to be applied to an acceptable VECP in order to further the purpose of the contract provision. *See Airmotive Engineering Corp. v. United States*, 210 Ct. Cl. 7, 14, 535 F.2d 8, 12 (1976) (earlier VE provision); *The Vemo Co.*, 88-3 BCA ¶ 20,977 at 105,997-98 (construction VE provision).

(2) Sharing Period

The VECP was unconditionally accepted on 15 October 1990. Pursuant to Applied's VECP and as specified in the contract, the sharing period commenced on that date. The last scheduled delivery date of an AC affected by the VECP under the contract's delivery schedule that was in effect at the time the VECP was accepted was 31 December 1990. The three-year sharing period was thus established as 15 October 1990 through 14 October 1993. (Findings 2, 10-11, 15) *See LTV Aerospace & Defense Co.*, ASBCA No. 31772, 87-2 BCA ¶ 19,872 at 100,498 (earlier VE provision).

(3) Lump Sum Future Contract Savings

As of 15 October 1990 the parties were in a position to employ the lump sum method of calculating future contract savings as had been agreed in mod P9. There is no dispute that the parties earlier agreed, as allowed by the VECP contract provision, to price future contract savings in a single lump sum rather than payments over time as future contracts were awarded. However, as explained above, the CO's basis at the time of mod P9 for determining the number of future contract units is faulty. Even though information may have existed that could have been used to determine the number of 36K BTU/HR horizontal ACs with the MPI configuration that were to be purchased, the CO did not gather that data and the government presented no such information for the record in the appeal. (Findings 2, 11-12, 15-16)

Concerning the evidence presented by appellant in support of a lump sum calculation, some of it is outdated and unconvincing. The so-called TROSCOM wish list or shopping list was prepared more than six years before unconditional acceptance of the VECP. Applied came into possession of the document sometime in 1989 or 1990;

however, the document was formulated in 1984. Such documents are estimates, with inherent inaccuracies that are magnified as one projects farther into the future. Accordingly, these types of projections are updated each year based on operational requirements and budgetary priorities. The briefing chart of unknown origin presented by Applied is more current, likely having been promulgated in 1989. However, it is incomplete for our purposes in that projected requirements are not segregated by time period. Therefore, no correlation with the requisite sharing period is possible. No explanatory evidence accompanied the documents into the record. No explanation was provided for not obtaining a current version of the projection. The person or persons providing the documents did not testify. Finally, the information on the documents is contradictory to an extent. Models with differing capacity ratings are shown on the briefing chart but do not appear on the wish list. The totals presented by the two documents cannot be reconciled. (Findings 7, 12, 15)

These documents are little more than bare assertions. Unsubstantiated, unexplained, questionable documents, prepared and provided by sources that were not presented in the hearing for examination, are insufficient to prove the quantum of savings occasioned by the VECP. *See e.g., De Narde Construction Co.*, ASBCA No. 50288, 00-2 BCA ¶ 30,929 at 152,678 (agreement with contractor's position by an unidentified government representative on an undisclosed date was insufficient to support agreement by the parties that contract work was to be accomplished in a certain manner).[12] Accordingly, the parties never agreed on the prerequisites for calculating a lump sum allowance for future contract savings. However, as explained below, there is a valid basis in the record for calculating savings on a lump sum basis.

Where liability is clear and a fair and reasonable determination of quantum is possible, it would be legal error to deny the claim entirely. *S.W. Electronics & Manufacturing Corp. v. United States*, 228 Ct. Cl. 333, 350-51, 655 F.2d 1078, 1088 (1981); *Santa Fe Engineers, Inc.*, ASBCA No. 36682, 96-2 BCA ¶ 28,281 at 141,198.

> The ascertainment of . . . an equitable adjustment, is not an exact science, and where responsibility for damage is clear, it

[12] Judge Kienlen's concurring opinion, in discussing "*Charts*," indicates that the opinion here "denigrates the authenticity" of the documents described at finding 12, sub-findings b. and c. of the main opinion. In addressing those documents here, the opinion states that the evidence is "outdated and unconvincing," that there are "inherent inaccuracies," that the briefing charts are in certain respects "incomplete," and that the documents are "Unsubstantiated, unexplained, and questionable." However, the opinion does not label the documents as unauthentic. The documents were, among other things, inaccurate because they were not current.

> is not essential that the amount thereof be ascertainable with absolute exactness or mathematical precision: "It is enough if the evidence adduced is sufficient to enable a court or jury to make a fair and reasonable approximation."

Electronic & Missile Facilities, Inc. v. United States, 189 Ct. Cl. 237, 257, 416 F.2d 1345, 1358 (1969), quoting *Specialty Assembling & Packing Co. v. United States*, 174 Ct. Cl. 153, 184, 355 F.2d 554, 572 (1966); *Tayag Brothers Enterprises, Inc.*, ASBCA No. 42097, 94-3 BCA ¶ 26,962 at 134,255, *aff'd on reconsideration*, 95-1 BCA ¶ 27,599. We are further guided by the liberal construction to be afforded an acceptable VECP. *See Airmotive Engineering*, 210 Ct. Cl. at 14, 535 F.2d at 12 (earlier VE provision); *Vemo*, 88-3 BCA at 105,997-98 (construction VE provision). On the other hand, we must balance those considerations with the contractor's obligation to prove the amount of recovery with sufficient certainty so that determination of the amount for which the government is liable is more than mere speculation. *Willems Industries, Inc.*, 155 Ct. Cl. 360, 376, 295 F.2d 822, 831 (1961), *cert. denied*, 370 U.S. 903 (1962); *Custom Blending & Packaging, Inc.*, ASBCA No. 49819, 00-2 BCA ¶ 31,083 at 153,480.

Appellant's speculative presentation related to VECP savings does not provide a proven basis for making a lump sum calculation of future contract savings based on a forecast of the number of units that would have been delivered during the sharing period (findings 19-20, 23). However, the record does support an estimate of the number of future units to be scheduled for delivery during the sharing period. The best evidence of future contract savings based on "the number of future contract units scheduled for delivery during the sharing period" is information that can be gleaned from the government's 1990 solicitation and the resulting contract for 36K BTU/HR horizontal ACs and the instant contract. The CO, but for her incorrect legal interpretation concerning "essentially the same unit," would have made an estimate on or about 15 October 1990 of the units to be delivered during the sharing period. Placing ourselves in the position of the CO at that time, we conclude that the CO should have estimated 672 future units of 36K BTU/HR horizontal ACs to be delivered during the sharing period. *See Sayco*, 89-1 BCA at 107,500-01. (Findings 2, 12, 15-17)

(4) Calculation of Lump Sum Future Contract Savings Share

The future unit cost reduction ($2,979.01) multiplied by the number of future contract units that should have been estimated as scheduled for delivery during the sharing period (672) equals $2,001,894.72 ($2,979.01 x 672). Applied is entitled to 50% of those savings, that is, $1,000,947.36. (Findings 2, 17-18)

Applied's contentions that it is entitled to either $19,000,000, as explained and rounded off at the hearing, or one half of one half of $81,000,000 (*i.e.*, $20,250,000) is

too speculative to be credited and fails for lack of proof. The $19,000,000 calculation in the claim lacks evidentiary support necessary to prove the number of future contract units that were essentially the same and to which the VECP applied. There is a lack of any evidence proving the amount of savings per unit for 21 of 23 different configurations under the mil spec which governed the instant contract or any ACs specified under any other mil spec. The $20,250,000 formulation of the claim is an unsubstantiated assertion supported by no proof of connection with the approved VECP and no explanation of how the $81,000,000 starting point was derived. (Findings 11, 14, 16-20, 23-24)

SUMMARY

Applied is hereby awarded $1,000,947.36 for its share of lump sum future savings occasioned by the approved VECP under the instant contract. Interest under § 12 of the Contract Disputes Act of 1978, as amended (41 U.S.C. § 611), is due from 2 February 1995 until paid (findings 2, 19). In all other respects, the appeal is denied.

Dated: 2 November 2004

STEVEN L. REED
Administrative Judge
Armed Services Board
of Contract Appeals

I concur in result but disagree with part
of the discussion (see separate opinion)

RONALD A. KIENLEN
Administrative Judge
Armed Services Board
of Contract Appeals

(Signatures continued)

I concur in result and with the separate opinion of Judge Thomas

MARK N. STEMPLER
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

I concur in result and concur in the discussion in part (see separate opinion)

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

OPINION BY ADMINISTRATIVE JUDGE KIENLEN
CONCURRING IN RESULT BUT DISAGREEING
WITH PART OF THE DISCUSSION

I concur in the result, but write separately because I disagree with much of what is said in the discussion of this case. In general, I would find that the parties intended for the VECP to be applied to the entire family of air conditioners. The appellant was awarded a TROSCOM plaque for his contribution to the commercialization process, and the government reportedly forecasted over $3 million in VECP savings (R4, tab 102); nevertheless, I would find that the appellant proved the cost savings only for the 36K horizontal units. I concur with the main opinion to the extent that the appellant is entitled to an award of $1,000,947.36, plus interest under Section 12 of the Contract Disputes Act of 1978, as amended, from 2 February 1995 until paid.

Much, if not most, of the discussion in the main opinion concerning the parties' intent and the issue of whether the entire family of air conditioners is essentially the same is dicta, because the credible evidence of savings relates only to the 36K horizontal air conditioner. I discuss these issues because in my view the main opinion misstates the facts and the law applicable thereto; but, I discuss them in summary fashion because they are dicta.

Essentially the Same

In discussing the issue of which units are essentially the same for purposes of the VECP, the main opinion asserts that there are "23 unique configurations" within the family of air conditioners covered by Military Specification A-52767. The configurations are certainly different, but the conclusion that they are all "unique" – that is, not essentially the same – is not supported by substantial evidence in the record. The main opinion has given no weight to – did not even discuss - the uncontroverted testimony that all of these units were essentially the same. They were composed of the same basic components, with differences being related generally to size, capacity, or shape. (Tr. 74-78, 92-93, 98-105, 321-23; 330-31)

Family of Air Conditioners

Moreover, the main opinion gives no weight to testimony that the government intended the VECP to apply to the entire family of air conditioners – even though that testimony too was uncontroverted. The main opinion describes the appellant's intent to have the commercialization process apply to the entire family of air conditioners as "subjective intent." On the contrary, the appellant's intent was very objective and was

shared by the government principals in this case – the deputy commander, Col. Mills, and the director of procurement, Mr. Mabrey.

Although Ms. Jones signed the VECP modification (Modification No. P00009), she was not the decision maker. The decision makers were Col. Mills, who was speaking for the Commanding General, and Mr. Mabrey, who was a contracting officer. Mr. Mabrey was Ms. Jones' second level supervisor. Both Col. Mills and Mr. Mabrey envisioned the VECP as the commercialization of the component parts of all the air conditioners within the family of air conditioners covered by MIL-A-52767. (AR4, tabs 4, 85 at 1-2; tr. 20-21, 56, 60, 113, 115-17, 321-26, 329)

In this connection, it is relevant to point out that paragraph (b) of the VECP clause defines "unit" to mean "the item or task to which the Contracting Officer and the Contractor agree the VECP applies." Because Col. Mills and Mr. Mabrey and Mr. Klinger all agreed that the commercialization VECP applied to the entire family of air conditioners, each of those units was within the meaning of "unit" as defined by the VECP clause.

Commercialization – not Substitution

The testimony of the principals for the appellant and the government was that the VECP was the "commercialization of component parts" in the air conditioners. (In the late 1980's the concept of commercial component parts was not as accepted as it may be today.) The delineation of specific commercial components for the 36K unit was meant by the principals to be an example of the available commercial components that could be substituted for the source controlled component parts. The delineation of specific commercial parts was not meant to be simply the substitution of a set of specific commercial parts. Instead, it was meant to demonstrate that there was a wide range of commercial parts that could be substituted. That this was the intent and effect of the VECP was acknowledged by the government engineers at Fort Belvoir who opposed the VECP precisely because the intent of the VECP was unlimited commercialization of the components.

> This VECP allowed Applied to make an unlimited amount of changes to incorporate commercial components; Applied's design was beyond Belvoir's control. Belvoir and AMSTR-MERN recommended disapproval of the VECP, but the Configuration Control Board approved it.

(AR4, tab 959)

Thus, we see that the delineation of the specific parts was meant, not to limit the intent of the VECP, but to demonstrate the feasibility of the VECP by building a unit that could be tested, and to demonstrate the amount of savings that could be achieved by adopting the VECP. (Tr. 122-23) The main opinion gives no weight to – does not even discuss - this evidence and erroneously concludes that the purpose of the VECP was the substitution of specific commercial parts for the source controlled parts; instead of what it was, the substitution of any equivalent commercial part.

Bianchi Misapplied

The main opinion also contends that the concept of commercialization extending beyond the scope of the instant contract is a concept rejected by *M. Bianchi of California v. Perry*, 31 F.3d 1163 (Fed. Cir. 1994). That case does not stand for such a proposition. *Bianchi* does not address the concept of commercialization. Moreover, the object of a VECP is to apply the VECP beyond the scope of the instant contract so that the contractor can share in future savings. That is part of the benefit offered the contractor for its effort in putting together and submitting a VECP. The main opinion confuses the issue of whether a VECP can be a concept with the issue of the scope of items that are essentially the same.

Control Drawings

The main opinion concludes that the Control Drawing provision essentially adopts the commercial substitution concept of the VECP. After reaching this conclusion, with which I agree, the main opinion then asserts, "The facts show that *use of* the 'Control Drawings' provision in later procurements *did not result from the VECP*." (Emphasis added) This statement is not supported by substantial evidence.

Contrary to the assertion in the main opinion, there is no evidence that the control drawing clause *would* have been used but for the impetus and validity given to it by the appellant's commercialization concept VECP. The only evidence in the record, by Col. Mills and Mr. Mabrey, is to the effect that the VECP was the impetus for using the control drawing clause, permitting the substitution of commercial components. (Tr. 212, 323, 334, 339)

Moreover, the conclusion added in the footnote of the main opinion that "the Control Drawing provision was a *precursor catalyst* for commercialization" introduces a novel and useless concept with no legal significance. The fact that the government was previously working on the concept of commercialization, or that commercialization is not a proprietary concept, does not remove it from coverage under the VECP clause. We said long ago that:

> We have previously held that a VECP may be based on a known Government-owned property right which was not exercised prior to receipt of a VECP based thereon. *North American Rockwell Corporation*, ASBCA No. 14485, 71-1 BCA ¶ 8773. We now hold that a VECP may be based on a Government idea previously conceived but not affirmatively implemented prior to receipt of a VECP based thereon. As between a contractor and the Government, originality of thought is not, but primacy of positive action is, a *sine qua non* of a valid VECP.

Xerox Corporation, ASBCA No. 16374, 73-1 BCA ¶ 9784 at 45,703, *aff'd on recon.*, 73-1 BCA ¶ 9881. *See also Thompson Aircraft Tire Corporation*, ASBCA No. 14432, 71-2 BCA ¶ 8981, wherein we approved the concept of cutting a deeper tread in retreads for aircraft tires as a VECP. Moreover, we have recently found that the use of a particular stitch in an article of clothing, even though that stitch was already in use in different but similar applications, constituted a VECP. *M. Bianchi of California*, ASBCA No. 36518, 93-2 BCA ¶ 25,801 at 128,400. It is an uncontroverted fact that this Control Drawing clause was not affirmatively used prior to the submission of the VECP by Applied and the signing of Modification No. P00009.

Charts

The main opinion finds that the charts projecting future procurements of air conditioners are not reliable estimates of procurements during the sharing period. I agree they are not the best evidence, because they are not the most current. However, the main opinion erroneously denigrates the authenticity and quality of those charts.

The main opinion does not like the source of the charts; does not like the explanation given by Col. Mills and Mr. Mabrey as to the meaning of the charts; objects that the authors of the charts were not called to testify; objects that there was no back up documentation substantiating the information on the charts; and, repeats some of these objections in different words in order to stress that the charts are not favored documents.

The reader could get the impression that there was something objectionable about these documents. There was nothing objectionable about the wish list chart or the briefing charts. (AR4, tab 967) These documents were filed as a pretrial supplement to the Rule 4 file by letter dated 19 September and received by the Board on 24 September 2001. On 28 September 2001 the government gave written notice that it had no objection to the supplement to the Rule 4 file. (Admin. File) The hearing was held over a month later on 5-6 November 2001.

The government never objected to the admission of those charts, never challenged their authenticity, and never introduced witnesses to challenge their accuracy. These were government documents. There is nothing wrong with these documents. The government doesn't even argue that they are not accurate. The government merely points out, using the testimony of Col. Mills and Mr. Mabrey, that the documents are not current.

If these documents had been substantiated, explained, and the authors called to testify, we would know no more than we now know. None of the supporting evidence that the main opinion calls for would add anything of value to the charts. The main opinion cites *De Narde Construction Co*., ASBCA No. 50288, 00-2 BCA ¶ 30,929 at 152,678 in support of its position. That case addresses the weight to be given to the allegation that an unidentified witness made a certain statement. It is inapposite to the instant case that involves identified government documents.

Sharing Period

The VECP Clause provided for a three-year sharing period. Because the VECP was unconditionally accepted on 15 October 1990, the three-year sharing period ran from that date until 14 October 1993.

The Number of Future Units

I agree that the best evidence of future contract procurements of the 36K air conditioners, for purposes of the lump sum savings, is Solicitation No. DAAK01-90-R-0089, and the resulting contract (AR4, tab 971).

Col. Mills testified that he could not understand how Ms. Jones could have used zero future procurements in Modification P00009, because TROSCOM was planning on buying more of those air conditioners (tr. 40). In fact, on 30 August 1990 Ms. Jones awarded a new contract for the 36K air conditioners and issued the first delivery order (ASR4, tab 140; SR4, tab 89). The contracting officer had an obligation to make a good faith estimate on or about 15 October 1990. *Sayco*, ASBCA No. 36,534, 89-1 BCA ¶ 21,319. If she had made a good faith estimate of the units to be delivered at that time, she could not ignore the government's planned procurements contained in the new 1990 contract for 36K horizontal air conditioners.

Under the delivery order signed by Ms. Jones, deliveries for the first 422 units were scheduled for 13 August 1992 through 16 April 1993. The first delivery was for 22 units. Thereafter each delivery was for 50 units, to be delivered monthly. The time between each delivery was between 30 and 33 days – actually, every 30 days unless the

30th day fell on a non-work day or Lincoln's birthday – in which case the delivery was due on the next work day.

Ordering period two called for 350 units. Although that delivery order is not in the record, the contracting officer should have estimated that the option quantity would have been exercised with deliveries to follow monthly in the same pattern as established by the first delivery order and followed in the instant contract. That is, delivery order two would have followed on delivery order one, beginning with 50 units on Monday, 17 May 1993 (the first work day following 30 days after the last delivery on Friday, 16 April 1993). There would have been four more monthly deliveries through 14 October 1993 – the end of the sharing period, for a total of 250 units from delivery order two.

The total number of 36K horizontal air conditioning units that should have been estimated for delivery during the sharing period of 15 October 1990 through 14 October 1993 is 672. This is the number of units found by the main opinion.

Essentially the Same Quandary

This case illustrates, but does not require that we decide, the quandary that arises where items are essentially the same for purposes of the VECP, but have different levels of savings.

In *Bianchi*, we had a situation where essentially the same item came in different sizes. The VECP was the packing of ten or more pantsuit coats into a box instead of the required five coats. The court distinguished pantsuit coats from other items that could be shipped in boxes. It did not distinguish between the different sizes of the pantsuit coats. The issue there was only entitlement. There was no evidence that there was any difference in the savings based on the differences in the various sizes of pantsuit coats.

The court held that while the VECP could be applied to other items that could be packed into boxes, the item that was to be essentially the same was the pantsuit coats, not the packing boxes. In the instant case too, the VECP of substituting commercial components could be applied to other items besides air conditioners. Nevertheless, the contract item was air conditioners, not every item for which commercial components could be substituted. Thus, only air conditioners can be essentially the same.

With respect to quantum, the appellant had the burden to prove the savings that would be achieved with respect to the air conditioners that were essentially the same. There was sufficient evidence in the record of other contracts for different size air conditioners that were to be delivered during the sharing period – evidence not discussed by the main opinion (ASR4, tab 971). We do not however have sufficient evidence that the savings to be achieved by substituting commercial components in these different size

air conditioners would be the same – or essentially the same – as the savings for the 36K horizontal air conditioner. On the contrary, the evidence suggests that the savings would vary significantly. We do not have sufficient evidence in the record to determine the level of savings for each of those other air conditioners. Under such circumstances it would be speculative for us to determine the amount of savings to be achieved for the other sizes of air conditioners.

Whether the savings on the various sizes of air conditioners need to be essentially the same, in order for the items to be essentially the same, was not an issue argued or even raised by the parties. The VECP clause recognizes that adjustments in unit savings can be made where they are known:

> "Future unit cost reduction," as used in this clause, means the instant unit cost reduction adjusted as the Contracting Officer considers necessary for projected learning or changes in quantity during the sharing period. It is calculated at the time the VECP is accepted and applies either (1) throughout the sharing period, unless the Contracting Officer decides that recalculation is necessary because conditions are significantly different from those previously anticipated or (2) to the calculation of a lump-sum payment, which cannot later be revised.

(See the definitions in paragraph (b) of the clause at FAR 52.248-1.) I conclude that this is an issue we need not decide in the instant case, because the dispute is resolved on the basis of a lack of proof on the quantum issue with respect to the other sizes of air conditioners.

RONALD A. KIENLEN
Administrative Judge
Armed Services Board
of Contract Appeals

OPINION BY ADMINISTRATIVE JUDGE THOMAS, IN WHICH ADMINISTRATIVE JUDGE STEMPLER CONCURS, CONCURRING IN RESULT AND CONCURRING IN THE DISCUSSION IN PART

I concur in result. I also concur in the opinion except that I do not join in the discussion of whether air conditioners other than the 36K BTU/HR horizontal air conditioners are essentially similar, including the discussion of the Control Drawings provision, since there has been a complete failure of proof as to quantum with respect to those air conditioners. I also do not join in the discussion of the documents referred to in findings 12b and c, which might be useful in another context, since the evidence relating to the 1990 solicitation is entitled to more weight in any event.

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 50593, Appeal of Applied Companies, rendered in conformance with the Board's Charter.

Dated:

CATHERINE A. STANTON
Recorder, Armed Services
Board of Contract Appeals