ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of --	)	
	)	
Lockheed Martin Corporation d/b/a/Sanders	)	ASBCA Nos. 50566, 51351,
	)	51784
	)	
Under Contract No. N00019-86-G-0186	)	

APPEARANCE FOR THE APPELLANT: Norman J. Marsh, Jr., Esq.
Company Counsel
Nashua, NH

APPEARANCES FOR THE GOVERNMENT: Thomas B. Pender, Esq.
Chief Trial Attorney
William F. Manley, Esq.
Trial Attorney
Defense Contract Management Agency
Boston, MA
Debra E. Berg, Esq.
Trial Attorney
Defense Logistics Agency
E. Hartford, CT

OPINION BY ADMINISTRATIVE JUDGE COLDREN

Appeal ASBCA No. 50566 was taken from a final decision of the contracting officer asserting a Government claim for defective pricing in the amount of $162,893 plus interest in pricing an order for the design and delivery of interface adapters (IA) for existing test sets so that the test sets could be used to test five new circuit cards being retrofitted for the Navy AN/ALQ-126B Countermeasures System. The Government claims that the appellant proposed using 18 maintenance aid boards (MAB's) with its IA to test the operation of that adapter when it knew prior to agreement on price that 9 of these MAB's would not be needed to perform these tests.

After the appeal was filed and at the Government's insistence that collection actions would be taken unless appellant paid the claimed amounts before the litigation concluded, appellant paid the $162,893 plus interest claimed by the Government through offsets against other monies owed appellant. Appellant then filed a certified claim for the return of the $162,893 plus interest. The contracting officer issued a final decision

denying this claim. Appellant's appeal from that final decision was docketed as ASBCA No. 51351.

After discovery and investigation, the contracting officer increased his claim for defective pricing by ordering appellant to pay an additional $29,994 plus interest in a third final decision of the contracting officer claiming that appellant knew prior to agreement on price that a total of 14 or 5 more MAB's were not needed to test the IA. Appellant appealed this third decision and the appeal was docketed as ASBCA No. 51784. At the request of both parties, the Board consolidated the three appeals.

Two days of hearing were held. In addition, the record includes a video deposition of Donald E. Katz (Katz) who was unavailable for the hearing due to a family emergency. Only entitlement is before us.

FINDINGS OF FACT

A. Contract

1. On 1 December 1988, the Government issued Order YS16 to appellant under Basic Ordering Agreement (BOA) No. N00019-86-G-0186 (R4 ASBCA 50566, tabs 39, 39(a)). This order was for retrofit kits in support of the AN/USM-392B and AN/USM-458B test sets (R4 ASBCA 50566, tab 39). One item was to design Interface Adapter No. 3 (IA #3) so that the AN/USM-392B test set could be used to test five new EEPROM circuit cards being retrofitted into the AN/ALQ-126B and then to furnish 41 of the newly designed IA #3's to the Government.

2. The orders for the retrofit kits were placed under CLIN 0007 of the BOA which were listed as changes to the test equipment resulting from changes to the components of AN/ALQ-126B (R4, tabs 39, 39(a)). The definitization of the order was left for negotiations, which were concluded on 11 August 1989 (R4 ASBCA 50566, tabs 34, 39).

3. The AN/ALQ-126B is an electronic countermeasures set which is installed in Navy aircraft to overcome enemy radar (tr. 1/180). Five new EEPROM cards were designed and furnished by appellant for the AN/ALQ-126 (tr. 1/179-80; Katz at 7).

4. The AN/USM-458B test set was used to determine which part was defective in the entire 126B system (tr. 1/185; R4 ASBCA 51784, tab 6 at 12). The AN/USM-392 test set was then used to test the defective part (tr. 2/7-8; R4 ASBCA 51784, tab 6 at 12). It was used to test the cards for the AN/ALQ-126 prior to its being retrofitted with the five EEPROM cards (tr. 2/8). IA #3 was to be designed to attach to the top of the AN/USM-392 so that it could be used to test the five EEPROM cards (tr. 2/8, 14-15).

5. IA #3 was to be designed to have circuitry built into it so that it could test itself to determine if it was working, and, if not, determine where the fault in the test equipment was located (tr. 2/15). Two types of tests were to be provided. Self testing was used to perform a complete test of IA #3 to determine exactly which of its component had failed (tr. 1/87, 2/15-16; R4 ASBCA 51784, tab 4 at 73). Confidence testing was "quick and dirty" using a sub-set of the self test to determine if the IA #3 was operational (tr. 1/86-87, 233-34, 2/15; R4 ASBCA 51784, tab 4 at 73-74). It was not used to determine which component of IA #3 might have failed (*id*.).

6. IA #3 was to be a completely new design (tr. 1/194; Katz at 43-44). The components were to be chosen during contract performance (tr. 1/99, 194). Thus, appellant used various models of prior IA's in preparing its cost and pricing proposal even though none of the parts would be those of the model (tr. 1/105-06; Katz at 44-45, 50).

B. Bid Models - Prior Interface Adapters

7. Appellant designed and built three IA's prior to IA #3. The first was the "BDO" or "458" IA which was an IA for the AN/USM-392B test set so that this test set could test circuit cards used in the "458" test set (tr. 1/105, 2/31-32; Katz at 11).

8. The "BDO" IA was physically and mechanically very similar to what appellant contemplated the design to be for the IA #3 (tr. 2/32). It was built to be delivered and used by the Navy in the field (*id*.). It was the only prior IA built by appellant which had a single motherboard (tr. 1/111-112, 192-93, 2/31-32). It had four self-test MAB's and 14 confidence test MAB's (R4 ASBCA 51784, tab 7; tr. 1/196, 2/33). Confidence testing was not built into the motherboard of "BDO." The four self-test MAB's were each unique parts: 3056716, 3057172, 3056726, and 3056731 (R4 ASBCA 51784, tab 7). The 14 confidence test MAB's were various quantities of five unique parts: five 3056745's, five 3056755's, two 3056760's, one 3056740, and one 3056790 *(id.)*. Thus, the "BDO" IA had nine unique MAB's out of the 18 boards with four unique for self-testing and five for confidence testing.

9. Confidence test MAB's contained only jumper wires which performed switching among circuits with no other circuitry (Katz at 26-27). Self test MAB's had electrical circuitry including integrated circuits, diodes, capacitors, and resistors (*id*.).

10. The "SKM" IA was the next interface adapter designed and built by appellant (tr. 2/26, 31). It was used to interface with the AN/USM-458B test set so that its cards could be tested with that test set (tr. 2/23-24). The "SKM" IA had two mother boards and 10 MAB's for self and confidence testing (tr. 1/110-11, 2/23-24, 26, 28-29). It also was designed to be used in the field as was the "BDO" IA (tr. /1/187). It would have been a

close model for the design of IA #3 (tr. 1/188, 192). However, it differed significantly because it had two rather than a single motherboard (tr. 1/192).

11. The third and last IA designed and built before IA #3 was IA #9 which was an adapter to the AN/USM-392B test set so that the same five replacement EEPROM cards for the 126B could be tested on the factory floor (tr. 1/78, 2/9, 13, 19, 56). It was completed and placed into operation six months before the effort for IA #3 commenced (tr. 1/78, 178, 228). Mike Frechette designed IA #9 as well as IA #3 under the supervision of engineering design manager, Fred Pauling (tr. 1/176, 178, 180, 2/7-10, 21-22, 25; R4 ASBCA 51784, tab 4 at 25). Its design included a significant engineering advancement in that confidence testing circuit paths and electronic switching components were built into the IA motherboard without the need for any confidence test MAB's (tr. 1/227, 244, 2/16; Katz at 29-30, 39; R4 ASBCA 51784, tab 3 at 41). However, self testing was performed with two MAB's (tr. 2/13, 16-17, 64-65).

12. The electrical circuitry for the confidence and self testing contained in IA #9 was substantially similar and a significant base for the IA #3 design but differed somewhat from that subsequently designed for IA #3 (tr. 1/185-86, 2/9, 29; R4 ASBCA 51784, tab 3 at 41, 58, 62-63). Appellant tested the EEPROM cards in the same way as IA #3 by using the same electronic components to switch them on and off (tr. 1/185-86, 199-200, 2/66-67; R4 ASBCA-51784, tab 3 at 41-42). It prepared and possessed electrical schematics showing this (tr. 1/227-28, 214, 2/53, 56; R4 ASBCA 50566, tab 12(g)).

13. IA #9 was physically and mechanically very different from IA #3 because it was a factory rather than a field test apparatus (tr. 1/100-02, 187, 2/9). It resembled a breadboard with hand electrical wiring and no printed circuits (tr. 1/186-87, 228, 2/9-12, 30, 53-55). Being one of a kind, it was not designed to endure weather and physical abuse or to be produced in quantity for delivery outside appellant (tr. 1/113, 186-87, 199, 2/10-11, 22, 29-30). Testing performed with IA #9 was much more complicated than would be expected for a deliverable to the Navy (*id*.).

C. Appellant's Cost and Pricing Proposal

14. Appellant's project manager, Steven Higgins, was the manager for the preparation of appellant's cost and pricing proposal (tr. 1/73-74; R4 ASBCA 51784, tab 6 at 11). Its engineering design manager, Fred Pauling, was responsible for the budget and the design as well as for the preparation of the design portion of the cost and pricing proposal (tr. 1/75-77, 176-77; R4 ASBCA 51784, tab 4 at 16, 31).

15. Appellant's project manager Higgins in preparing appellant's proposal suggested to appellant's engineering design manager Pauling that appellant's cost and pricing proposal use the IA #9 as a model in pricing the IA #3 since IA #9 was being used to test the same five retrofitted EEPROM cards that IA #3 was being designed to test (tr.

1/79-81; R4 ASBCA 51784, tab 4 at 49-51). He was unaware of the engineering advance which appellant had made in IA #9 by designing circuitry into the interface adapter itself to perform the confidence testing to eliminate the use of external MAB's for this function (tr. 1/83-85, 97-98, 101-02, 104). Pauling responded to Higgins that IA #9 was not at all similar physically and mechanically (tr. 1/81-82, 191-92; R4 ASBCA 51784, tab 6 at 50-51). Higgins then recommended the use of the "BDO" IA as the model in pricing the proposal (tr. 1/81-82; R4 ASBCA 51784, tab 6 at 51-52, 77-78). Pauling agreed that the "BDO" IA would be a good model (R4 ASBCA 51784, tab 6 at 52).

16. Pauling admitted that he knew that the electrical circuitry advances in IA #9 would be carried forward into IA #3, testified that IA #9 was similar to a breadboard for IA #3, admitted that IA #9 gave appellant confidence that it could design and build the confidence testing internally into IA #3, and that the "BDO" IA had way too many MAB' s (tr. 1/185, 228-30, 235; R4 ASBCA 51784, tab 4 at 42, 86). He was of the opinion that "BDO" was so close in every other way that the small cost of the MAB's was of little consequence (tr. 1/192-93, 229-30; R4 ASBCA 51784, tab 4 at 47-49, 80-82).

17. Pauling never informed Higgins of the advance in technology described in finding 16 carried from IA #9 to IA #3 (tr. 1/83-85, 101-02). Higgins testified that had he known of appellant's engineering advance reducing the number of MAB's he still would have used "BDO" as the model but reduced the number of MAB's in appellant's cost and pricing proposal if engineering was comfortable doing so (tr. 1/89, 95-99). Pauling testified that the "BDO" model could have been adjusted to reflect the actual material for IA #3 but admitted that appellant had not done so (tr. 1/199).

18. On 21 March 1989, appellant submitted its cost and pricing proposal in the amount of $5,566,902 for Order YS16 to the Government (R4 ASBCA 50566, tab 38 at 2-2). Page 4-97 is entitled "Interface Adapter Design" and provides for the design of the IA #3 adapter as follows:

> To design an interface adapter (I/A) that will interconnect the five newly designed AN/ALQ-126B CCAs to the USM-392B Test set and will allow the EEPROMS of these CCAs to be programmed on board by transferring memory from a gold CCA. *Also, design maintenance aids as required for I/A self-test.*

(Emphasis added) It further states that this task is for all engineering design efforts except for PC layout (Katz at 64). It does not state that any MAB's for confidence testing are to be designed. Page 4-98 states that the design labor is similar to the effort to design the

"SKM" interface adapter except that its complexity was stated to be 65% of the "SKM" design effort (tr. 1/184, 2/23-26, 70; Katz at 50, 64). See finding 10.

19. Page 4-95 of appellant's cost and pricing proposal is entitled "PC Layout: OTPS USM-392B, ALQ-126B SRA" and provides for the effort to convert the engineering designs described in finding 18 for the IA and the required MAB's from drawings to printed wiring master patterns for use in fabricating printed wiring boards (R4 ASBCA 50566, tab 38; tr. 1/188). Paragraph 3.0 states that the MAB's include ones for confidence testing (R4 ASBCA 50566, tab 38 at 4-95). Paragraph 5.0 on page 4-96 states:

> Along with the one interface adapter (I/A), an estimated four (4) associated maintenance aids are required. With the G2 redesign of the I/A bubble memory CCA, there are a total of five (5) unique, two to four layer boards to be design[ed] in printed wiring for this task.
>
> Under task SKM, two (2) I/As and ten (10) unique, two to four layer maintenance aids were designed in printed wiring. Therefore; it is estimated that the effort required for printed circuit design under task EPWCBB will be one half (1/2) the actuals from task SKMCCA.

20. The Government engineer Katz denied that the language of Paragraph 5.0 quoted in finding 19 informed the Government that the new IA #3 would only have four MAB's because many of the 18 MAB's listed in appellant's proposal based upon the "BDO" IA were the same part number and there were only four unique part numbers (Katz at 17-26, 63-64). However, both the proposal material section discussed *infra* and the parts breakdown drawing for the "BDO" IA listed four unique part numbers for self-testing and five for confidence testing (finding 8). Thus, it appears that the printed circuit design portion of appellant's cost and pricing proposal would be consistent with the elimination of confidence testing MAB's except that paragraph 3.0 at page 4-95 implies otherwise (findings 18, 19; tr. 1/189, 196-97, 229, 2/30; R4 ASBCA 51784, tab 4 at 89). However, appellant's proposal does not specifically state this nor that confidence testing is incorporated into the IA motherboard itself.

21. The material portion of appellant's cost and pricing proposal was based on a one to one listing of parts in the "BDO" IA including 18 MAB's for pricing purposes even though appellant knew that none of the parts would be the same as "BDO" after IA #3 was designed (R4 ASBCA 50566, tab 38 at 3-1; R4 ASBCA 51784, tab 4 at 16; tr. 1/85, 95, 105-07, 190-91, 194, 230, 244-45; Katz at 22-23, 47, 50). In addition, the "BDO" IA used by appellant in its proposal for one to one estimating did not include any materials such as additional circuit paths and electronic switches for inclusion of the confidence testing function into the IA motherboard (tr. 1/219; finding 26) Appellant's part

breakdown schematics for the "BDO" IA were provided by appellant to the Government engineer Katz to evaluate appellant's proposal prior to negotiations and determine the description for the part numbers listed in the proposal (R4 ASBCA 51784, tab 7; Katz at ex.1, Katz at 23-24, 47-49). Page 3-7 of the proposal lists four MAB's which are for self test circuit card parts 3056716, 3057172, 3056726, and 3056731 (R4 ASBCA 50566, tab 38; R4 ASBCA 51784, tab 7; Katz at ex.1; Katz at 23-26). Page 3-15 is entitled "3056736G1 Harness Assy" and lists nine MAB's which are confidence test assembly circuit card parts 3056740, two 3056755's, four 3056745's, 3056760, and 3056790 (*id*.). Page 3-23 is entitled "3056751G1 Harness Assy" and lists five MAB's which are confidence test assembly circuit card parts 3056760, three 3056755's, and 3056745 (*id*.). Thus, appellant's proposal lists four unique self test MAB's and 14 confidence test MAB's with five unique part numbers. The unit price for each MAB multiplied by a quantity of 42 was a part of the total of $64,836 proposed for maintenance aids parts (*id*.).

D. Government Review of Appellant's Proposal

22. The Government engineer Katz performed a technical review of appellant' s proposal on behalf of the contracting officer (tr. 1/33; Katz at 7-10). At his request, appellant furnished a level breakdown drawing for the "BDO" IA (Katz, ex. 1) as well as the "BDO" tiered assembly standards (Katz, ex. 2) (Katz at 11-14). Engineering representatives of appellant told Katz that the IA #3 was bid as a one to one model similar to the "BDO" IA (Katz at 11, 14). The level assembly for the "BDO" listed the part numbers and descriptions for the "BDO" (Katz, ex. 1; Katz at 23-25). Katz confirmed that the part numbers in the proposal matched the part numbers on the level assembly but noted that the proposal erroneously described some of the parts as circuit cards or boards when they were not described as cards or boards on the level assembly drawing (Katz at 15, 24-26, 47-49; tr. 1/91).

23. The Government engineer Katz, resident auditor Marlyn Walker, and price analyst Joseph Plaza prepared reports dated 25 April 1989, 10 May 1989, and 15 May 1989 analyzing appellant's cost and pricing proposal for the administrative contracting officer prior to negotiations (R4 ASBCA 50566, tabs 36, 36(a), 36 (b), 37). None of these reviewers had any comments concerning appellant's proposal that the IA #3 would use 18 MAB's for self testing and confidence testing or any other comments on the number of MAB's (*id*.; tr. 1/33-35; Katz at 14-15, 27-28).

E. Negotiations & Design of IA #3

24. Negotiations on price commenced in June of 1989. The parties did not discuss confidence testing, self testing, or the number of MAB's during negotiations or at anytime prior to agreement on price (tr. 1/33). No representative of appellant either orally or in writing prior to price agreement described to Government representatives that six months earlier it had built IA #9 to test the EEPROM cards on the AN/USM-392B test set in

appellant's factory by performing the confidence testing for IA #9 internally without the need for any confidence testing MAB's nor did the Government engineer or contracting officer know this (tr. 1/31; Katz at 39-40). None of the Government representatives knew prior to agreement on price that appellant's completed schematic design of the motherboard for IA #3 included moving confidence testing to that motherboard from the use of MAB's (Katz at 38-39).

25. The contracting officer, who was present at the negotiations (tr. 1/26, 32), testified that he would have attempted to reduce the contract price had he known that 14 confidence testing MAB's had been eliminated (tr. 1/35-38, 52, 56). Government engineer Katz testified that he would have recommended to the contracting officer that the costs of all confidence testing MAB's be eliminated from the contract price had he known this (Katz at 39-40). We find this testimony persuasive.

26. Appellant planned from the beginning of contract performance to design IA #3 with the confidence testing to be performed internally in its motherboard without the need for any external, confidence testing MAB's as had been done with IA #9 (tr. 1/53, 201, 219-20, 225-26, 238, 244, 2/19, 35, 39, 57-59, 65-66; R4 ASBCA 50566, tab 12(a) at 1; R4 ASBCA 51784, tab 3 at 43, 57). Elimination of MAB's was a significant benefit to the Government because MAB's are easily damaged and are not reliable (tr. 1/98, 197-98; Katz at 39).

27. Appellant's design engineer Frechette completed the schematic design of the IA but had not started the design of the MAB's prior to agreement on price. The completed design had the confidence testing designed internally into the IA. (Tr. 1/235, R4 ASBCA 51784, tab 3 at 108). The IA #3 motherboard was designed to have more self test circuit paths and electronic switches which were the major reasons for the elimination of confidence testing MAB's (tr. 1/219, 235-36, 2/36, 68; Katz at 29). This building of the confidence testing into the IA obviously added costs to the designing and building of the IA itself (R4 ASBCA 51784, tab 6 at 75). Both appellant's lead designer Frechette and engineering design manager Pauling admitted that even though the IA had not yet been built nor had the MAB's been designed they were fairly sure confidence testing would be built into the motherboard resulting in no confidence testing MAB's (tr. 1/240, 2/68).

28. Frechette's schematic design was submitted to appellant's Design Review Board which met and approved that design on 27 July 1989 so that printed circuit boards layout reflecting Frechette's design could commence (R4 51784, tab 11; R4 ASBCA 51784, tab 3 at 81, 110-11). One of the documents furnished to the Design Review Board was an appellant prepared level assembly drawing for the IA #3 motherboard which included self testing but not confidence testing MAB' s (R4 ASBCA 50566, tab 10(i); tr. 2/39-40; Katz at 35-36, 41, 52).

29. The level assembly drawing presented to the appellant's Design Review Board was not furnished to Government negotiators prior to price agreement nor did appellant in anyway advise the Government that its design schematic drawing moved confidence testing from 14 confidence testing MAB's to the IA #3 motherboard (tr. 1/29, 31, 37, 51-53; Katz at 41). This schematic drawing was the engineering design of the IA #3 motherboard (tr. 1/123, 242, 2/37-38).

30. On 21 August 1989, appellant furnished the contracting officer with a certificate of current cost or pricing data that certified that the cost or pricing data that appellant had furnished by 11 August 1989 was accurate, complete, and current (R4 ASBCA 50566, tab 33). The final negotiated price was $4,842,449 (R4 ASBCA 50566, tab 39).

31. Appellant's design engineer Frechette did not commence the design of the MAB's until September 6, 1989 which was after agreement on price (R4 ASBCA 50566, tab 40 at 4; tr. 2/36-37, 42, 49-50). He designed two self testing MAB's (R4 ASBCA 50566, tab 12(b); tr. 1/218, 240, 2/18-19, 41-42, 44-46; R4 ASBCA 51784, tab 3 at 97-101). Thus, IA #3 as designed and built had two rather than 18 self and confidence testing MAB's (tr. 2/18-19).

F. Post Performance Audit

32. By a memorandum dated 22 May 1991, the Government auditor determined that significant under runs in manufacturing and engineering labor hours had occurred during performance and requested technical assistance to determine the cause of these under runs (R4 ASBCA 50566, tab 29; tr. 1/127; Katz at 28). The auditor repeated his request by a memorandum dated 10 June 1991 stating that he desired a comparison of the prior technical evaluation with actuals (R4 ASBCA 50566, tab 28).

33. The Government engineer Katz in a report dated 29 August 1991 determined that the significant under run was caused by appellant's use of the "BDO" IA with 18 MAB's as a similar model for preparing its cost and pricing proposal for IA #3 when appellant had already designed, built, and was using IA #9 with only two MAB's to test the same EEPROM circuit cards on its factory floor (R4 ASBCA 50566, tab 25; Katz at 28-31). The report recommended recovering the costs for the elimination of 16 MAB's (*id.*).

34. On 26 September 1991, the DCAA auditor, Government engineer Katz, and administrative contracting officer Perrier met with appellant's contract administrator and program manager (R4 ASBCA 50566, tab 24). They furnished appellant's representatives with a copy of the Government engineer's report described in finding 33 and a letter from the DCAA auditor dated 25 September 1991 to appellant's project manager Botan stating that the Government would be seeking approximately $294,000 for furnishing defective cost and pricing data by not disclosing that IA #9 only used two MAB's for testing the

same EEPROM circuit cards (*id.*; R4 ASBCA 50566, tab 22(a)). The price reduction principally was based upon eliminating 16 of the 18 MAB's proposed.

35. By a letter dated 30 October 1991, appellant responded to the Government engineer Katz's as well as the DCAA auditor reports concerning defective cost and pricing data by contending that the IA #9 as a factory IA was so different from a field IA that IA #9 was not used at all in the design of IA #3 (R4 ASBCA 50566, tabs 20(c), 23). It argued that since IA #9 was not used in the design of IA #3 that IA #9 did not constitute cost and pricing data that appellant was required to disclose to the contracting officer (*id.*).

36. The Government engineer in a report dated 3 January 1992 recognized that IA #3 was substantially different from IA #9 but opined that the fact that appellant was able to successfully build confidence testing into IA #9 itself and reduce the MAB's made it much more likely that appellant would be able to design and build IA #3 with much fewer MAB's (R4 ASBCA 50566, tabs 20(g), 21; Katz 32-34, 36-38). He took the position that this reduced the complexity of the design effort and should have been disclosed to the Government (*id.*). He recommended that the number of MAB's be reduced from 18 to 9 due to 50% less complexity over the one to one proposed by appellant in its proposal. (*id.*).

37. By an audit report dated 13 March 1992, DCAA asserted defective pricing in the amount of $162,893 plus interest against appellant for failing to reveal that it had been able to design IA #9 with only two MAB's six months prior to agreement on price reducing the complexity 50% (R4 ASBCA 50566, tab 20). It did so by reducing the MAB's from 18 to 9 but failed to take into the account the increase in the complexity of the motherboard design and manufacture by building confidence testing into that motherboard (*id.*; tr. 1/128). The Government furnished appellant with a copy of this DCAA audit report by a letter dated 20 April 1992 (R4 ASBCA 50566, tab 19).

38. By a letter dated 27 May 1992, appellant argued that the 13 March 1992 audit report failed to take into account that the IA #3 design was not complete as of the date of price agreement nor had the design of the MAB's commenced (R4 ASBCA 50566, tab 18). The letter pointed out that changes to IA #3 were required after price agreement, that IA #9 was substantially different from IA #3, and that the number of MAB's had not been determined. It further pointed out that only 2,041 hours of 8,343 hours proposed for design of IA #3 had been incurred at price agreement and that 8,132 hours were finally incurred which was 97% of those proposed.

39. By a letter dated 28 April 1993, the contracting officer sent the 13 March 1992 audit report to appellant stating that pursuant to the report appellant owed $162,893 plus $40,932 in interest to the date of the letter and requested that appellant advise whether it concurred with the audit report (R4 ASBCA 50566, tab 14). He further advised appellant in a letter dated 1 July 1993 that the DCAA auditor, Government engineer, and contracting office had reviewed appellant's 27 May 1992 letter and had determined that appellant's

letter did not alter the Government position as stated in the audit report (R4 ASBCA 50566, tab 13).

40. By a letter dated 22 April 1994 to a Government investigator, appellant's counsel argued that appellant had advised the Government that IA #3 would be based on the functional design of IA #9 but that the construction would be different (R4 ASBCA 50566, tab 12). He further stated:

> 1) the engineering design portion of Sanders' proposal for this effort disclosed that five maintenance aid circuit boards would be required, whereas the material portion of the proposal identifying eighteen maintenance aid boards was based on a prior USM 458 ["BDO"] interface adaptor [sic] project which was considered the closest material manufacturing comparison to the proposed IA3 adaptor [sic], 2) the material construction of the prior IA9 adapter for a factory test equipment end-use was substantially different than the material construction of the proposed IA3 for fielded end-use and was not a valid basis for the material portion of the IA3 proposal . . . .

(*Id.*) Appellant's design engineer Frechette's engineering note book was attached to this letter. It contained notes listing items to prepare for a design review meeting concerning the IA #3 which included maintenance aids as well as both confidence and self testing.

41. The Government investigator replied by a letter dated 28 June 1994 noting the maintenance aids, confidence, and self testing were listed in appellant's engineer Frechette's notebook and requested that appellant indicate what discussions took place at the design review meeting for IA #3 concerning these issues (R4 ASBCA 50566, tab 11).

42. By a letter dated 15 July 1994, appellant's counsel replied that the design review meeting to approve the completed hardware design of IA #3 prior to printed circuit board of design took place on 27 July 1989 (R4 ASBCA 50566, tab 10). Attached to this letter was a preliminary level assembly drawing breakdown of IA #3 (R4 ASBCA 50566, tab 10(i)). This breakdown did not list any confidence testing but did list self testing (*id.*). Appellant's counsel pointed out that the number of circuit cards for self testing was not listed because self testing had not yet been designed (R4 ASBCA 50566, tab 10).

43. The Government engineer Katz in memorandum dated 29 July 1994 revised his recommendation as to the scope of defective pricing from eliminating nine to eliminating all but two MAB's (R4 ASBCA 50566, tab 8). He opined that the preliminary breakdown level presented at the design review of IA #3 prior to agreement on price confirmed that appellant had eliminated all MAB's but those for self testing which appeared only to have

two MAB's (*id.*). His opinion failed to take into account the highly probable increase in costs due to the movement of confidence testing from the MAB's to the IA motherboard.

44. By a letter dated 17 July 1996, the contracting officer advised appellant the defective pricing Government claim reflected in the DCAA audit report dated 13 March 1992 had to be resolved within 30 days or he would issue a final decision asserting a Government claim for $162,893 plus interest which as of the date of the letter had risen to $79,326 (R4 ASBCA 50566, tab 7).

45. By a letter dated 14 August 1996, appellant's contract administrator advised the administrative contracting officer that it disputed any finding of defective pricing because the prediction of the number of MAB's before appellant designed IA #3 and the MAB' s was a matter of judgment not fact (R4 ASBCA 50566, tab 6). The letter pointed out that the Government engineer proposed a reduction from 18 to 2 MAB's based upon the completed design without indicating any factual data that indicated that the completed design would have two MAB's (*id.*). It further pointed out that the design was only 35.9% complete at the time of price agreement (*id.*).

46. By a final decision dated 15 November 1996, the contracting officer asserted a claim for the submission of defective cost and pricing data in the amount of $162,893 plus interest which at the time of the decision had risen to $84,180 (R4 ASBCA 50566, tab 4). The decision was based on the DCAA audit report dated 13 March 1992 which claimed that appellant's having built IA #9 prior to IA #3 had reduced the complexity of designing the MAB's by 50% reducing the MAB's from 18 to 9 (findings 36, 37).

47. By a letter dated 12 February 1997, appellant filed a timely appeal to this Board from the final decision of contracting officer (R4 ASBCA 50566, tab 1).

G. Appellant's Claim for Refund - ASBCA No. 51351

48. By a letter dated 3 April 1997, the Government demanded that appellant pay the amount demanded by the contracting officer in the decision dated 15 November 1996 but stated that it would accept payment of the debt in installments over a period not to exceed three years (app. supp. R4, tab 122). The letter threatened that if appellant did not pay: (a) the Government would enter appellant's name on a list of contractors indebted to the Government so that appellant would receive no payments owed by the Government until this debt was paid; (b) report appellant to a commercial credit reporting bureau; (c) forward the debt to the U.S. Treasury for offset; and (d) either hire a professional collection service or have the Justice Department commence collection litigation.

49. By a letter dated 23 April 1997, appellant wrote the Government requesting deferment of the collection of the amounts sought in the final decision of the contracting

officer in light appellant's filing an appeal of this decision (app. supp. R4, tab 120). It sought deferment until the appeal was decided.

50. The Government denied appellant's deferment of collection request in a letter dated 10 June 1997 (app. supp. R4, tab 119). The letter threatened to take the actions indicated in finding 48 unless appellant paid the debt within 15 days either through offset or direct payment.

51. By a letter dated 2 July 1997, appellant requested reconsideration of the Government's denial of its request for deferment arguing that the hearing in the appeal had been scheduled for January (app. supp. R4, tab 117). The Government refused reconsideration in a letter dated 18 July 1997 but offered to accept installment payments (app. supp. R4, tab 116). The Comptroller of the Defense Logistics Agency reaffirmed the denial in a letter dated 10 September 1997 (app. supp. R4, tab 113).

52. By a letter dated 30 September 1997, the Government advised appellant that it was commencing with debt collection in light of the denial of deferral but indicated that it would accept payment in installments (app. supp. R4, tab 111).

53. By a letter dated 9 December 1997, the Government acknowledged payment by offset of the debt plus interest in the amount of $261,180.65 (app. supp. R4, tab 105).

54. By a letter dated 16 January 1998, appellant advised Government counsel that the payment by offset was made after coercion and under protest (app. supp. R4, tab 104). The letter pointed out that the appeal was pending and no intent was shown not to prosecute the appeal. Thus, appellant argued appellant clearly had no intent to settle the appeal.

55. By a letter dated 30 January 1998, appellant filed a claim with the contracting officer seeking a refund of the monies it had paid the Government for its defective pricing claim and requested a final decision (app. supp. R4, tab 103).

56. The contracting officer by a final decision dated 9 February 1998 denied appellant's claim (app. supp. R4, tab 102). Appellant filed a timely appeal, which was docketed with this Board as ASBCA No. 51351 (app. supp. R4, tab 101).

H. Additional Defective Pricing - ASBCA No. 51784

57. By a memorandum dated 3 September 1998, the Government engineer Katz revised his position recommending that the inclusion of any costs of confidence testing MAB's in appellant's cost and pricing proposal constituted defective pricing (R4 ASBCA 51784, tab 2 at enclosure 3; tr. 1/129). The memorandum recommended the deletion of the five remaining confidence testing MAB's which the Government engineer in his defective pricing analysis had recommended for ASBCA No. 50566 (*id*.). Thus, the MAB's had been

reduced from 18 proposed to four after the elimination of the 14 confidence testing MAB' s (tr. 1/129). The memorandum failed to take into account any increased costs to include the confidence testing function into the IA #3 motherboard.*

58. In an audit report dated 24 September 1998, DCAA recommended additional defective pricing in the amount of $29,994 plus interest for the elimination of the five remaining confidence testing MAB's (R4 ASBCA 51784, tab 2 at enclosure 1). No mention was made concerning the probable increased costs for including the confidence testing feature into the IA #3 motherboard.

59. By a final decision dated 24 September 1998, the contracting officer asserted defective pricing in the amount of $29,994 plus $20,350 interest as of the date of the decision (R4 ASBCA 51784, tab 2). The decision asserted that the design of the motherboard for IA #3 was completed prior to the date of price agreement, that that design included the confidence testing feature in the motherboard, and that appellant knew at that time that no confidence testing MAB's were likely (*id.*). It failed to take into account the probable increased costs for including the confidence testing in the IA #3 motherboard.

60. By a letter dated 30 September 1998, appellant appealed the final decision of the contracting officer to this Board (R4 ASBCA 51784, tab 1).

DECISION

I. Waiver and Estoppel

The Government contends that appellant has waived or is equitably estopped from seeking a refund of monies it paid the Government by set-off to satisfy a Government claim for defective pricing. The Government alleges that appellant made the payment without protest or notice that appellant was contesting the defective pricing claim. We hold that the Government was on notice that appellant was contesting the Government's claim and reject this Government affirmative defense.

Appellant appealed the final decision of the contracting officer asserting the defective pricing claim to this Board (finding 47). It requested deferment of collection of monies to pay that claim both before and after its appeal was taken until the appeal was decided by this Board (findings 49, 51). The Government denied the deferment request

* It also appears that this Katz memorandum failed to consider the statement in appellant's proposal that appellant reduced the number of MAB's by 25% in calculating defective pricing for the costs for new engineering drawings as well as release and control under configuration management (R4, ASBCA 50566, tab 38 at 4-16, 4-9; Katz at 54-57, 60, 62).

and threatened appellant with various collection actions unless immediate payment was made either in cash or by promissory note with installment payments (findings 50-52).

Appellant paid the Government's claim by permitting offset against other contract payments (finding 53).

We are forced to reject the Government's estoppel and waiver arguments. The surrounding circumstances including the fact that the final decision asserting the claim had been appealed to this Board and appellant had made numerous protests about being forced to pay the claim before the appeal was concluded make it impossible for us to conclude that appellant admitted liability in making the payment. Thus, we reject the Government' s contention that appellant admitted liability.

II. The Merits

The Government contends that appellant violated the Truth in Negotiation Act (TINA) by failing to provide accurate, complete, and current cost and pricing data which would have placed the contracting officer on an equal footing with appellant in negotiating these material and labor costs. In the relevant period, TINA required any contractor to furnish cost and pricing data for any negotiated contract or contract modification exceeding $100,000 with certain exceptions not relevant to this appeal. 10 U.S.C. § 2306a (1987). It further required that such contracts or modifications contain a contract provision requiring the adjustment of the contract price to "exclude any significant amount by which it may be determined . . . that such price was increased because the contractor . . . submitted defective cost or pricing data." 10 U.S.C. § 2306a(d) (1987). It defined defective cost or pricing data as cost and pricing data that is "inaccurate, incomplete, or noncurrent." (*Id.*)

TINA defined cost and pricing data as follows:

> [T]he term "cost or pricing data" means all facts that, as of the date of agreement on the price of a contract (or the price of a contract modification), a prudent buyer or seller would reasonably expect to affect price negotiations significantly. Such term does not include information that is judgmental, but does include the factual information from which a judgment was derived.

10 U.S.C. § 2306a(g) (1987). Factual as distinguished from judgmental information is information which is verifiable and is not a projection or estimate of future costs. FAR 15.801.

The purpose of TINA is to establish a level field for price negotiations by requiring a prospective contractor to furnish factual cost or pricing data significant to the price

negotiations known to it so that the contracting officer will have the same knowledge during negotiations. *M-R-S Manufacturing Company v. United States*, 203 Ct. Cl. 551, 563-64, 492 F.2d 835, 842 (1974). TINA requires the submission of cost or pricing data which is significant to prudent buyers and sellers. *Rosemount, Inc.*, ASBCA No. 37520, 95-2 BCA ¶ 27,770 at 138,455.

The Court made it clear in *M-R-S Manufacturing* that a prospective contractor must make the significance of the data known to the contracting officer if it does not physically deliver that data to the contracting officer but instead makes all of its records available. 203 Ct. Cl. at 564-65, 492 F.2d at 843. Thus, TINA requires the equalizing of cost or pricing data knowledge and does not require the creation of new cost or pricing data, a new analysis of furnished data, or the re-organization of furnished data. *Rosemount, Inc.*, *supra*.

In *McDonnell Douglas Helicopter Systems*, ASBCA Nos. 50447 *et al*., 00-2 BCA ¶ 31,082 at 153,465, we set forth the burden of proof for defective pricing appeals:

> In defective pricing cases the Government bears the burden of proof on three elements--1) that the information in dispute is "cost or pricing data" under the Truth in Negotiations Act, 10 U.S.C.A. § 2306a; 2) that cost or pricing data was not meaningfully disclosed; and 3) that it relied to its detriment on the inaccurate, noncurrent or incomplete data presented by the contractor. As to the third element, once nondisclosure is established a rebuttable presumption arises that a contract price increase was a natural and probable consequence of that nondisclosure. *Sylvania Electric Products UCTS, Inc. v. United States*, 479 F.2d 1342 (Ct. Cl. 1973). However, "[t]he ultimate burden of showing the causal connection between the incomplete or inaccurate data and an overstated contract price remains with the Government." *Grumman Aerospace Corporation*, ASBCA No. 27476, 86-3 BCA ¶ 19,091 at 96,494.

The Government contends that appellant overstated its labor and material costs to design and deliver IA #3 by including 14 confidence testing MAB's in its proposal when it reasonably knew that this feature would be built into the IA #3 motherboard. It claims that appellant knew this because it had built factory tester IA #9 with this feature built into the tester and had completed the electrical schematic of IA #3 prior to price agreement. It further argues that appellant's failure to disclose these facts caused an overstatement of appellant's costs by including these 14 confidence testing MAB's when it knew that they would not be needed.

Appellant argues in response that IA #9 is not at all similar to IA #3 and that facts relating to IA #9 are not relevant to the negotiations between the parties to price the design and delivery of IA #3. It is true that IA #9 is not physically or mechanically similar to IA #3 because IA #9 was a factory tester not designed or built to endure weather or physical abuse in the field like IA #3 (findings 13, 15). However, appellant's argument ignores the fact that IA #9 was designed and built six months prior to IA #3 to test the very same EEPROM cards that IA #3 was to be designed to test (finding 11). IA #9 used the same components to switch on and off these EEPROM cards and the electrical circuitry for the confidence and self testing was substantially similar to and a base for IA #3 (finding 12). Appellant' s engineering design manager admitted that IA #9 was like a electrical breadboard for IA #3 (finding 16). Thus, IA #9 was highly significant to the negotiations for IA #3.

Appellant made a significant engineering advance in IA #9 by including electronic switching components and circuitry on IA #9 itself to do the confidence testing without using any confidence testing MAB's (finding 11). This feature was a benefit to the Government because MAB's were easily broken and made IA's less reliable (finding 26). These electronic switches and additional circuitry also added costs to making the IA (finding 27).

Appellant planned from the beginning of contract performance of designing IA #3 to add this significant engineering advance from IA #9 to the IA #3 motherboard (findings 16, 26). It accomplished this by completing the schematic design of IA #3 motherboard with confidence testing circuitry and electronic switching components added prior to agreement on price (finding 27).

Appellant argues that it could not have been sure that no confidence testing MAB' s would be needed at the time of price agreement even though the IA #3 motherboard had been designed on paper since none of the confidence or self testing MAB's had been designed nor had IA #3 been built (findings 27-29, 31). This argument ignores the fact that appellant successfully built the confidence testing feature into the tester itself in IA #9 six months prior to the start of the contract to design IA #3 (findings 11, 12). Moreover, both appellant's lead design engineer and engineering design chief admitted they were confident that this engineering advance would work in IA #3 prior to price agreement (finding 27).

We conclude that the previously designed and built engineering advance of including the confidence testing in the tester motherboard and eliminating confidence testing MAB' s was factual data significant to the price negotiations. Section 2306a(g) of Title 10, quoted above, defines such facts as cost and pricing data which must be disclosed.

We reject appellant's argument that it had provided all data which it possessed and need not create new data. Electrical schematic diagrams existed for both IA #9 as well as the level breakout for IA #3 (findings 12, 27-29). Even if these diagrams were not in

existence, the fact that this engineering advance had been made and was being incorporated into IA #3 had to be disclosed under TINA to the Government.

Appellant contends that it disclosed in its cost and pricing proposal that its design goal was to reduce the number of MAB's to five unique MAB's with one being bubble memory (finding 19). The Government engineer Katz pointed out that many of appellant's proposed MAB's used multiple part numbers and this was not a clear disclosure that confidence testing MAB's were being eliminated (finding 20).

Appellant's proposal did include four unique self testing MAB's and 14 confidence testing MAB's using five unique part numbers (finding 21). The elimination of all but four unique part numbers could have been accomplished if all confidence testing MAB's were eliminated but paragraph 3.0 at 4-95 of appellant's proposal implies otherwise (finding 20). More importantly, no mention was made of moving the confidence testing to the IA #3 motherboard which was the essential fact not disclosed.

We hold that appellant violated TINA by failing to disclose to the Government the appellant's engineering advance of moving confidence testing to the tester motherboard without the need for any confidence testing MAB's prior to agreement on price (findings 24, 29). The record does not establish that any representative of the Government knew of this advance prior to price agreement (finding 24).

We turn now to determine whether the Government relied to its detriment on the defective data disclosed to it. The Government engineer testified that he would have recommended the elimination of the cost of these MAB's and the contracting officer present at negotiations further testified that contract price would have been reduced by these costs had they known of IA #9 and the completed schematic design without the confidence testing MAB's (finding 24). More importantly, appellant's project manager who managed its cost and proposal preparation admitted that he would have reduced the number of confidence testing MAB's had he known and its engineering design manager admitted that the proposal could have been so adjusted but that he thought at the time of proposal preparation that the MAB's costs were of little consequence (findings 16, 17). Thus, we hold the requisite detrimental reliance is present in this record.

CONCLUSION

The appeals are denied. Appellant has violated TINA because the engineering advance in moving confidence testing from MAB's to the tester motherboard is cost and pricing data, this engineering advance was not meaningfully disclosed to the Government, and the Government detrimentally relied on the disclosed data and would have adjusted the price had it known of the advance. The appeals are remanded to the parties for the determination of the price adjustment resulting from the TINA violation in accordance with this opinion.

Dated: 2 July 2002

JOHN I. COLDREN, III
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

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

I concur

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 Nos. 50566, 51351, 51784, Appeals of Lockheed Martin Corporation d/b/a Sanders, rendered in conformance with the Board's Charter.

Dated:

EDWARD S. ADAMKEWICZ
Recorder, Armed Services
Board of Contract Appeals