#### ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of	)	
Raytheon Company dba Raytheon Systems Company	) A	SBCA Nos. 50166, 50987
Under Contract Nos. DAAH01-88-C-0809 DAAH01-91-C-0483	)	
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#### OPINION BY ADMINISTRATIVE JUDGE FREEMAN

CPT Stephen P. Bell, Jr., JA

Trial Attorneys

Raytheon Company dba Raytheon Systems Company (Raytheon) appeals the partial denial of its claim for a price adjustment under the above-captioned contracts. The contracts were awarded to and performed by Hughes Missile Systems Company (HMSC). Raytheon is the successor in interest to HMSC. Pursuant to our orders of 28 August and 3 November 1997, we decide both entitlement and quantum. We sustain the appeals to the extent of a price increase of \$7,421,271 on Contract No. DAAH01-88-C-0809 (Contract 0809). We deny the appeals in all other respects.

#### FINDINGS OF FACT

## A. Solicitation and Award of Contract 0809

1. On 27 April 1988, the U.S. Army Missile Command (MICOM) issued a request for proposals (RFP) for development of a "second source" for production of AN/DAW-2 Chaparral missile guidance sections. The RFP specified a technical data package (TDP)

which had been developed for MICOM by Ford Aerospace Corporation (FAC). (R4, Vol. 65 at 018534, 018537)

- 2. When the second source RFP was issued, there was an outstanding directive by the Under Secretary of the Army that "a proof and validation of the TDP through sustained production at rate by the developer [FAC] be performed prior to the use of a full and open competition strategy." (R4, Vol. 3, tab 1 at 000527, Vol. 4, tab 1 at 000707). MICOM decided not to follow this directive and proceeded with the second source procurement on a competitive basis before a contract with FAC for sustained production at rate was performed, or even awarded. *See* Finding 12.
- 3. The second source RFP expressly directed offerors to pay "special attention" to a number of provisions including an "Executive Summary" (R4, Vol. 65, tab 1 at 018531). Paragraph 2 of the executive summary stated: "The [AN/DAW-2] guidance section is a build-to-print item with the producer being responsible under a preproduction and production evaluation provision for certain types of changes to the technical data packages" (R4, Vol. 65 at 018534).
- 4. HMSC's proposal manager understood the term "build-to-print" to mean "build [the item] in strict compliance with all the notes and dimensions and requirements that were on the drawing . . . and . . . that [the] product would work when it was put together properly" (tr. 6/15-16). This meaning of the term was substantially confirmed by both MICOM and other HMSC witnesses at the hearing (tr. 1/84-85, 3/85, 8/195-97, 9/186).
- 5. Although the executive summary of the RFP characterized the AN/DAW-2 as a build-to-print item, an internal MICOM memorandum dated one week before the RFP was issued, described the AN/DAW-2 TDP as "not fully mature." It further stated that some changes incorporated just prior to release of the TDP "have never been through the procurement process," and that circuit boards were "repackaged" after the preproduction build and were "subjected only to limited testing." (R4, Vol. 3, tab 1 at 00527)
- 6. The "Preproduction and Production Evaluation Requirements (PPE)" clause in the RFP was five pages long. The full text is set forth in Appendix 1 of this opinion and is a part of these findings. The PPE clause at paragraph a. generally required the contractor, at no change in contract price or schedule, to identify, report and correct as directed by the Government, both before and during production, all deficiencies in the TDP "necessary to permit quantity production." More specifically, the PPE clause at paragraph b.(2) defined 12 types of TDP deficiencies subject to "complete resolution" under its terms. (R4, Vol.1, tab 3 at 000099-000100)
- 7. The specified deficiencies included, among others, typographical errors, conflicts of technical data, deficiencies in "completeness, correctness and clarity of the TDP," deficiencies attributable to tolerance stackup and no-fit conditions, deficiencies

correctable as Class II ECPs, deficiencies associated with changes submitted by other contractors, deficiencies associated with vendor exceptions to parts procurements, deficiencies associated with parts or materials not readily available to meet contract quantity or schedule requirements, deficiencies associated with "currently impossible" manufacturing, test or inspection requirements, and deficiencies associated with "increasing the percent yield or rate of production to meet quantity and schedule requirements." (R4, Vol. 1, tab 3 at 000100)

- 8. On 21 June 1988, HMSC submitted an initial proposal for the second source production contract in the total amount of \$76,177,436 (R4, Vol. 66, tab 1 at 018730-73). The proposed total price consisted of total estimated costs of \$69,252,215 plus profit at 10 percent of estimated cost (R4, tab 2491 at 5001901). The proposal indicated that a total of \$617,748 was included in the individual contract line item (CLIN) prices for compliance with the PPE clause (R4, Vol. 66, tab 1 at 018774). In the absence of evidence to the contrary, we find that amount to be a reasonable estimate of the cost of performing the specified PPE tasks on the specified TDP for what was expressly represented in the RFP executive summary to be a "build-to-print item."
- 9. While the initial proposals were being evaluated, an attempt by MICOM to have the TDP "validated" as suitable for production by a source other than the developer ended in complete failure. The independent contractor selected for this work was Raytheon (ten years before it acquired HMSC). Raytheon's 30 June 1988 final report on the validation effort stated that it could not endorse validation. One of the stated reasons for not endorsing validation was that "engineering changes developed for [validation effort] will require redesign of portions of the AN/DAW-2 to correct deficiency." (R4, tab 5036 at 503546)
- 10. On 2 September 1988, HMSC submitted its best and final offer (BAFO) for the second source contract. HMSC's estimate for the BAFO totaled \$59,438,379 for 1,171 units which included profit of \$5,329,667 (approximately 9.85 percent of cost) (R4, tab 2491 at 5002040). The price submitted for the BAFO, however, was \$51,758,509 (R4, Vol. 67 at 019179-201). The submitted price was the result of a \$7.6 million bottom line reduction in the BAFO estimate which was directed by HMSC senior management. This reduction had no cost estimating basis other than "senior management believed that [HMSC] could perform at lesser cost." (App. main br. at 54-55; tr. 1/265-66, 6/68-69)
- 11. In a letter to the MICOM Commanding General dated 7 September 1988, an FAC Vice President noted that there were more than 200 requests for engineering changes that had not been incorporated into the TDP, that a number of these requests "represent significant design changes," and that the TDP was still in an "immature status" (R4, tab 5110).

- 12. Notwithstanding (i) the directive of the Under Secretary of the Army (*see* Finding 2), (ii) the failure of the TDP validation effort (*see* Finding 9), and (iii) the advice of the TDP developer (*see* Finding 11), MICOM awarded the second source production contract to HMSC on 22 September 1988 (R4, Vol. 1, tab 3 at 000002). MICOM's motive in making the second source award at this time appears to have been that it "prevents loss of FY86 funds." (R4, Vol. 4, tab 1 at 000707-08). The sole source production contract for FAC, which was intended by the Under Secretary's directive to prove the TDP "at rate" before the competitive procurement of a second source, was not awarded until six months later (R4, tab 5124 at 02616-17).
- 13. Prior to submitting its BAFO and prior to the subsequent award, HMSC had no knowledge of the Under Secretary's directive, the state of the TDP indicated by the MICOM internal memo, the failed validation effort, or FAC's 7 September 1988 letter to MICOM. HMSC's proposal manager testified: "all of the data that we had . . . said that the results of this program were all good . . . the hardware was being built, the hardware was being delivered, it was being accepted, and the flight test program was being conducted and that the Army liked the results of the flight test program" (tr. 6/50-51).

## B. Performance and Termination of Contract 0809

- 14. At award, the second source production contract (Contract 0809) required production of 749 guidance sections. Exercise of options in December 1989 increased the total number to 1,171. The delivery schedule at award required delivery of 13 first article test (FAT) units by 31 May 1990 and delivery of all production units including the option units by 30 April 1992. (R4, Vol. 1, tab 3, Vol. 12, tab 5, Vol. 13, tab 4)
- 15. Between award and termination of Contract 0809, 379 engineering change proposals (ECP) were incorporated into the contract to correct deficiencies in the TDP. Thirty-four (34) of these ECPs were incorporated by bilateral modifications at a total price increase of \$6,765,674 and a total time extension to 29 October 1993. Three

hundred forty-five (345) of the ECPs which corrected deficiencies in the TDP were incorporated into the contract by bilateral modifications or unilateral engineering orders at no change in contract price or time. (Ex. G-10; tr. 8/94-95) The contract modifications incorporating these ECPs into the contract address only the cost and schedule impacts of implementing the ECPs. They do not address any other cost and schedule impacts of the underlying deficiencies in the TDP which made the ECPs necessary. (R4, Vols. 10-42)

- 16. In addition to the large number of ECPs required to correct specific deficiencies in the TDP, HMSC had very low yields in production that were in part a result of those deficiencies. "Yield" is the percentage of units put into production which successfully pass all tests when completed. The expected yield on a build-to-print missile guidance section is approximately 95 percent. (Tr. 1/140-42, 3/140-41, 158-63) In April 1993, HMSC and Loral (successor to FAC) reported yields on their AN/DAW-2 production contracts of 28 and 25 percent respectively (R4, tab 2298 at 5000556-57). The TDP deficiencies, however, were not the only cause of the low yield and increased costs experienced by HMSC. Also contributing to the low yield and increased costs were problems with quality control and manufacturing processes for which HMSC and its subcontractors were responsible and which were not TDP deficiencies (exs. G-2, -14 to -17, -31, A-38; tr. 1/160-61, 164-67, 2/207, 8/123-24, 135-43, 149-50, 11/183-84, 186, 190-94, 207-10, 269).
- 17. On 17 January 1995, the Government terminated Contract 0809 for convenience (R4, Vol. 69, tab 1 at 020209). A total of 576 guidance sections were accepted by the Government under the terminated contract (ex. G-8 at 1). The remaining 595 were in various stages of completion. HMSC's total costs of performance at termination were \$82,983,697 (ex. G-8 at 32). The contract price at termination was \$60,374,361 (ex. G-8 at 20, ex. G-30 at 2). HMSC's estimated cost at completion (EAC), if the contract had not been terminated, is \$95,228,300 (ex. G-8 at 33). The parties have settled HMSC's termination claim (ASBCA No. 51652) with the final amount payable contingent on the decision in the present appeals (ex. A-32).

## C. Award and Performance of Contract 0483

- 18. On 22 May 1991, the parties entered into Contract No. DAAH01-91-C-0483 (Contract 0483) for 27 AN/DAW-2 guidance sections. These units, referred to by the Government as "spares," were to be built in accordance with the TDP and all approved changes thereto applicable to Contract 0809 "at the time of this spares award." (R4, Vol. 43, tab 1 at 012082-83) HMSC completed Contract 0483 with the shipment and acceptance of the 27 spares between July 1993 and February 1994 (R4, tab 2299 at 5000572, tab 2300 at 5000612; tr. 2/142-43).
- 19. The solicitation for Contract 0483 made no representation that the proposed spares contract was for a "build-to-print" item. The final price negotiation for the contract

was conducted on 26-29 April 1991 (R4, Vol. 46, tab 1 at 013163). At that time, HMSC was 11 months behind schedule in delivery of the FAT units under Contract 0809, and 314 changes had been incorporated into the TDP since the award. (Finding 14; ex. G-11 at 1-8) When it entered into the spares contract, HMSC was fully aware that the AN/DAW-2 was not a build-to-print item, and that Contract 0483 would be subject to the same problems as Contract 0809.

#### D. HMSC's Price Adjustment Claims

- 20. On 27 June 1995, HMSC submitted a certified claim for price adjustment on both the production and the spares contracts. The claim alleged four grounds of liability for amounts ranging from \$29,959,044 to \$95,846,558 (R4, Vol. 62, tab 1 at 017253-57). The claim included both incurred and estimate-to-complete (ETC) costs. On 5 September 1996, HMSC appealed the deemed denial of this claim. The appeal was docketed as ASBCA No. 50166.
- 21. On 21 October 1996, HMSC submitted a "protective" claim under both the production and spares contract alleging five grounds of liability for amounts ranging from \$35,823,318 to \$95,049,300. This claim included both incurred and ETC costs. (Ex. A-33) By final decision dated 27 August 1997, the contracting officer allowed \$13,577,360 on the "discrete events" ground of liability in the claim (ex. G-30). This amount included incurred costs of \$11,572,436, four percent profit on incurred costs for a total allowed cost and profit of \$12,035,333, and \$1,542,027 in interest. The allowed amount did not include any ETC costs. (R4, tab 2276; ex. G-8 at 34, exs. G-21, A-46 at 11)
- 22. By unilateral Modification No. P00214, effective 5 September 1997, the contracting officer's final decision was incorporated into the production contract (ex. G-30). HMSC appealed this decision. The appeal was docketed as ASBCA No. 50987 and consolidated with ASBCA No. 50166 for hearing and decision. (Board Order, dated 3 November 1997) In the proceedings on these appeals, the Government has not repudiated the contracting officer's allowance on the claim, and denies HMSC's entitlement only to "additional" compensation (Gov't main br. at 108).
- 23. In response to the Board's order of 3 November 1997 for a statement of amounts claimed by HMSC after the contracting officer's decision, HMSC filed a "restated" claim on 12 December 1997 with five alleged grounds of liability and four alternative claimed amounts (ex. G-3). This restated claim was "updated" as to amount in October 1998 (R4, tab 2493; ex. A-44). At hearing on 19 January 1999, HMSC withdrew one of the five claimed grounds ("illegal development contract") (tr. 1/18). The remaining alleged alternative grounds of liability and the final amounts claimed in its post-hearing briefs for each are: (i) impossibility of performance (\$27,071,690); (ii) incorrect statements and nondisclosures (\$27,071,690); (iii) mutual mistake (\$104,222,289); and (iv) "discrete events" (\$22,039,126). (App. main br. at 178, 192, 196, 198) The "discrete

events" amount is net of the \$12,035,333 allowed in the contracting officer's decision of 27 August 1997 for cost and profit on that claim (app. main br. at 106). Accordingly the present total amount of the discrete events claim is \$34,074,459.

- 24. HMSC's claimed amount for impossibility, incorrect statements and nondisclosures is based on the difference between its revised EAC (\$95,437,117) and its estimate of "what it should have cost to perform the contract on a build-to-print basis" (\$55,583,367). Adjustments to this difference for profit at 15 percent (\$5,978,062), cost of money (COM) (\$249,835), and price adjustments previously made (\$19,009,957) result in the net claimed amount of \$27,071,690. (App. main br. at 132, 178; ex. A-44 at 2; R4, tab 2490 at S-1) HMSC's should-have-cost estimate is a re-estimate of the BAFO. The claim based on that re-estimate attributes all costs in the EAC, over and above the re-estimated BAFO, to the defective TDP. This "modified total cost claim" ignores the cost impact of the quality control and manufacturing process problems for which HMSC and its subcontractors were responsible and which were not caused by the defective TDP. See Finding 16.
- 25. HMSC's claimed amount for mutual mistake is based on an estimate of the price it would have proposed if it had known that the TDP contained design deficiencies that precluded production on a build-to-print basis and required substantial development work (app. main br. at 141). This "would-have-bid" estimate (\$104,222,289) was prepared specifically for the claim (tr. 4/11-15). This amount is less than the Government's presolicitation estimate (R4, Vol. 2, tab 1 at 000360). Nevertheless, what HMSC would have bid and what the Government would have accepted, if the build-to-print misrepresentation had not been made, remain highly speculative. This is especially so in light of HMSC's arbitrary cut in the final estimate for its BAFO. *See* Finding 10.
- 26. HMSC's claimed amount for "discrete events" is the incurred and ETC costs for activities and events that are specifically identified by HMSC as being caused by the deficiencies in the TDP. These specifically identified activities and events, as described in HMSC's 21 October 1996 claim and its 12 December 1997 "restated" claim, were: (i) rework/repair of failed units; (ii) increased manufacturing and design engineering; (iii) added functional test; (iv) added off-line test position; (v) Red River returns; (vi) increased warranty administration; and (vii) extended period of performance. (Exs. A-33, G-3)
- 27. The claimed discrete events costs do not duplicate any of the costs compensated in the ECPs. The costs compensated in the ECPs were the costs of implementing specific changes, and not the costs incurred in discovering that the TDP was deficient and required changes. (R4, Vol. 11, tab 4, Vol. 12, tabs 1, 3, Vol. 13, tab 5, Vol. 15, tab 2, Vol. 16, tab 8, Vol. 17, tab 4, Vol. 18, tab 2, Vol. 20, tab 5, Vol. 22, tab 3, Vol. 24, tab 1, Vol. 26, tab 9, Vol. 29, tab 1, Vol. 34, tab 9, Vol. 38, tab 1, Vol. 39, tab 6)

- 28. HMSC's discrete events claim, when initially submitted in October 1996, was in the amount of \$35,823,318. The December 1997 "restated" discrete events claim when added to the amount allowed in the contracting officer's decision of 27 August 1997, totaled \$31,363,170. In October 1998, while the restated claim was being audited, HMSC submitted an "updated" restatement which totaled \$34,091,113 (R4, tab 2493 at 5002867). This is substantially the amount claimed for discrete events in HMSC's posthearing brief. *See* Finding 23.
- 29. The Board's order of 3 November 1997 directed HMSC to "submit to respondent and the Board no later than 30 November 1997 a statement of the amounts (both incurred and 'to go'), that were not included in the contracting officer's final decision of 27 August 1997, and to which appellant considers itself entitled as a price adjustment." HMSC's 12 December 1997 "restated claim" was in compliance with that order and with the extension of time for submission granted on 2 December 1997. HMSC's October 1998 "updated" restatement of its claim, increasing the claimed amount by \$3 million, and coming in the midst of the on-going audit of the earlier submission, was untimely. It contained no information that could not have been developed and presented with the earlier submission. It will be given no further consideration in this appeal.
- 30. As corrected at hearing, the DCAA audit report on the discrete events portion of HMSC's 12 December 1997 restated claim questioned \$8,906,598 of the claimed \$27,310,400 in costs (ex. G-4 at 6, ex. A-46 at 7; tr. 10/64-68, 12/32-38). Our determinations on the questioned costs are in Findings 31-36 below.
- 31. Repair of Failed Items Material: The auditor questioned \$3,283,930 of the claimed \$6,792,056 in direct material cost for repair of items failing performance tests on account of deficiencies in the TDP. The questioned costs were based on the test failure information summary (TFIS) reports and were not supported by the 1811 material cost accounting reports (ex. G-4 at 7-8). The TFIS reports were engineering reports prepared at the time of a test failure. They were not part of the cost accounting system and did not record actual costs. The actual material cost for repair or replacement of failed items was recorded in the 1811 reports. (Tr. 4/204-05, 10/88, 94-95, 112-16, 120) We agree with the auditor that the incurred costs should be determined from, and the ETC costs projected from, the 1811 reports rather than the TFIS reports. Moreover, we note that the 611 refrigerated detector units (RDUs) in HMSC's December 1997 claimed ETC, include 417 RDUs which were part of HMSC's actual incurred rework costs which the auditor allowed to the extent supported by the 1811 reports (ex. A-33, Encl., Section III at 65, 69; ex. G-3 at 5002981-82, ex. G-4, Sch. A-1).
- 32. Repair of Failed Items Labor: The auditor questioned \$86,663 of the \$2,415,373 claimed direct labor cost for repair of items failing performance tests due to deficiencies in the TDP (ex. G-4 at 7). The questioned costs were the difference between HMSC's repair labor ETC based on the TFIS reports, and the auditor's repair labor ETC

based on the recorded repair labor for equivalent units completed at the time of termination (ex. G-4 at 9, ex. G-28 at I-9). The actual incurred cost records are a more reliable basis for the ETC costs than the TFIS reports for the reasons stated in Finding 31 (ex. G-20; tr. 10/163-65).

- 33. Repair of Failed Items "Should Have Cost" (SHC) Material: The auditor questioned \$894,886 of claimed material costs that were based solely on a modified total cost calculation (ex. G-4 at 7, 9-10, ex. G-28 at I-13; tr. 10/124-27). HMSC has failed to show either the impracticability of proving the material costs of the TDP deficiencies directly from the rework accounts, or the reasonableness of the adjusted bid on which the SHC material claim item is based, or its lack of responsibility for the claimed costs over and above the \$3,508,126 which it has otherwise proven were incurred or ETC direct material costs of the TDP deficiencies. *See* Finding 31.
- 34. Repair of Failed Units Other Questioned Costs: The remaining questioned costs for repair of failed units are indirect cost allocations to the questioned direct costs discussed in Findings 31-32 above. The auditor did not question the indirect cost rates (ex. G-4 at 8).
- 35. Manufacturing and Design Engineering: As corrected at hearing, the auditor questioned \$3,293,676 of \$8,825,538 in claimed manufacturing and design engineering costs. Part of the questioned costs were based on a total cost calculation from the BAFO. The remainder were engineering and administration (E&A) functional support costs in three accounts which were indirect cost accounts allocated to touch labor, and for which there were no supporting time cards or other records identifying the persons and specific hours charged to the accounts. (Ex. G-4 at 10-13, 16-17, exs. G-21, A-46; tr. 10/128-32, 135-37, 140, 12/32-38) We find the questioned direct and allocable indirect costs of manufacturing and design engineering not proven as costs of the TDP deficiencies.
- 36. Time Extension Impact: The auditor questioned the entire amount of this claim because it was a total cost calculation that did not take into account the \$7.6 million bottom-line management reduction in the estimate for the BAFO, and duplicated ETC costs allowed for repair of failed units (ex. G-4 at 13). We agree with the auditor and find the claimed time extension impact cost not proven.
- 37. The auditor did not question HMSC's claimed costs for added test operation 90, construction of an additional test position, Red River returns or warranty administration (ex. G-4 at 6). HMSC's total proven incurred and ETC costs of the defective AN/DAW-2 TDP are \$18,403,802. These are the costs claimed in its 12 December 1997 restated "discrete events" claim less the audit-questioned costs as corrected at hearing (ex. A-46 at 7, ex. G-4 at 6). *See* Findings 31-36.

- 38. In its October 1996 claim, HMSC allocated the claimed costs between the production and spares contracts on the basis of the total units contracted under each contract. The Government has not suggested a different allocation method. Accordingly, we find \$17,989,716 (97.75 percent) of the proven cost of the TDP deficiencies allocable to the production contract (ex. A-33, Encl. at III-1).
- 39. HMSC claims 15 percent profit on all costs based on a weighted guidelines analysis (app. main br. at 141; R4, tab 2490B). HMSC's initial proposal for the contract included profit at 10 percent. Its final estimate for the BAFO (before the management bottom line reduction) included profit at 9.8 percent. As a result of that reduction, the submitted BAFO price was \$2,350,203 below HMSC's own final estimated cost. *See* Finding 10. However, on the 34 ECPs which corrected TDP deficiencies and for which the parties negotiated price adjustments, the aggregate negotiated profit rate was 11.7 percent (ex. G-10 at 1, 2, 9 and citations at Finding 27). Similarly, the negotiated profit rate for the spares contract was 12.2 percent of estimated total cost (including cost of money) (R4, Vol. 46, tab 1 at 013140). On this evidence, we find 12 percent a reasonable profit in an equitable adjustment for the incurred and ETC costs of the defective TDP.

#### **DECISION**

The Government admits that the AN/DAW-2 TDP "contained deficiencies as it was released with the Government's solicitation . . . and also as released when the Government awarded [Contract 0809] to Appellant in September of 1988." The Government further admits that the TDP deficiencies "resulted in engineering changes that were necessary for the [guidance section] to function," and that "some of these changes carried with them cost and/or scheduling impacts to [HMSC]." (Gov't main br. at 57) Furthermore, the Government does not contest either the entitlement or amount allowed in the contracting officer's decision of 27 August 1997. The Government does contend, however, that HMSC is entitled to no additional compensation.

We agree with the Government that HMSC is entitled to no additional compensation for alleged impossibility or commercial impracticability of performance. HMSC delivered, and the Government accepted, 576 of the 1,171 units due under the production contract. The remaining units were in process when the contract was terminated, and there is no substantial evidence that HMSC would not have completed the contract in the absence of the termination. HMSC's estimate at completion indicates a cost overrun of \$34,853,939 on a contract price at termination of \$60,374,361. This 57 percent overrun is substantial, but does not by itself constitute commercial impracticability. *See Gulf and Western Industries, Inc.*, ASBCA No. 21090, 87-2 BCA ¶ 19,881 at 100,575 (contract with claimed 70 percent cost overrun not commercially impracticable). In one of the two principal cases cited by HMSC in support of its claim of commercial impracticability, the estimated cost at completion was an overrun of 148 percent of the contract price. *Whittaker Corp., Power Sources Division*, ASBCA Nos. 14191 *et al.*, 79-1 BCA ¶ 13,805

at 67,678. The second of the cited cases was a case of both absolute impossibility and commercial impracticability for which there was no estimated cost at completion. *Foster Wheeler Corp. v. United States*, 513 F.2d 588, 593-98 (Ct. Cl. 1975).

While there was neither impossibility nor commercial impracticability in HMSC's AN/DAW-2 contracts, there was misrepresentation and failure to disclose superior knowledge on the part of the Government when it expressly represented in the executive summary of the RFP for the production contract that the AN/DAW-2 guidance section was "a build-to-print item." See Finding 3. The AN/DAW-2 guidance section as specified in the TDP was not in fact a build-to-print item. The TDP contained numerous deficiencies such that guidance sections could not be built in accordance therewith on the required mass production basis to meet consistently the specified performance requirements. See Findings 15, 16. Moreover, at the time the production contract was solicited and awarded, the Government had superior knowledge that was available only to it and the development contractor, and not to HMSC, that the TDP was not ready for mass production on a build-toprint basis. See Findings 5, 9, 11-13, and Hercules, Inc. v. United States, 24 F.3d 188, 196 (Fed. Cir. 1994), aff'd on other grounds, 516 U.S. 417 (1996) ("a claim under the doctrine of superior knowledge is tenable where the government fails to provide a contractor with vital knowledge in the government's possession which bears upon the costs of the contractor's performance under the contract at issue").

The misrepresentation of the state of the TDP also misrepresented the scope of the risk in the PPE provision of the production contract. HMSC's initial proposal monetized that risk at \$617,748, and we have found that this amount was reasonable given the representation that the AN/DAW-2 guidance section was a build-to-print item. *See* Finding 8. The Government's contention that the bilateral modifications incorporating the ECPs into the contract preclude any claim for other impacts of the underlying deficiencies in the TDP is without merit. The terms of those modifications do not support the contention. *See* Finding 15. Nor is it supported by the contracting officer's unilateral modification allowing \$13.5 million on the claim, which the Government has not repudiated in these appeals. *See* Finding 22.

For the Government's misrepresentation of the condition of the TDP and for its failure to disclose its superior knowledge with respect to that condition, HMSC is entitled to an additional equitable price adjustment on the production contract for the incurred and ETC costs of the defective TDP computed as follows:

- (a) Total proven incurred and ETC cost of the defective TDP allocable to the production contract (Findings 37 & 38)...... \$17,989,716

(c) Profit @ 12 percent on (a)-(b) (Finding 39)	2,084,636
(d) Less cost and profit for the defective TDP allowed in Modification No. P00214 (Finding 21)	12,035,333
(e) Net additional adjustment	\$7,421,271

In the alternative to its misrepresentation and superior knowledge claim, HMSC claims reformation of the contract price to what it "would have bid" (\$104,222,289) for "a contract involving development during production." The asserted basis for reformation is "mutual mistake." (App. main br. at 196) The facts of the case, however, bespeak misrepresentation and not mutual mistake. The Government knew the true condition of the TDP and misrepresented it as one for a build-to-print item. *See* Findings 3-7, 9, 11-12. Moreover, while a court (or this board) "may" grant reformation for misrepresentation, we decline to do so in this case. *See* RESTATEMENT (SECOND) OF CONTRACTS § 166 cmt. a. (1981); *Defense Systems Company, Inc.*, ASBCA No. 50918 (decision on reconsideration, 30 October 2000). What HMSC would have bid, and what the Government would have accepted, if the build-to-print misrepresentation had not been made, remain highly speculative. *See* Finding 25.

The appeals are sustained for a net increase of \$7,421,271 in the Contract 0809 price, over and above the increase allowed in Modification No. P00214. Interest pursuant to 41 U.S.C. § 611 will run on the incurred cost component of the allowed amount, as determined by the auditor, from the date the contracting officer received HMSC's 27 June 1995 claim. The equitable price adjustment allowed herein will be applied to determine the final payment, if any, due in accordance with the parties' settlement of the termination claim under Contract 0809. No adjustment is due on the spares contract. HMSC was aware of the true state of the TDP when the spares contract was bid and awarded, and no build-to-print representation was made by the Government at that time.

Dated: 8 January 2001

MONROE E. FREEMAN, JR. Administrative Judge Armed Services Board of Contract Appeals I <u>concur</u> I <u>concur</u>

MARK N. STEMPLER Administrative Judge Acting Chairman Armed Services Board of Contract Appeals EUNICE W. THOMAS Administrative Judge Vice Chairman Armed Services Board of Contract Appeals

#### APPENDIX 1

## (U) PREPRODUCTION and PRODUCTION EVALUATION REQUIREMENTS (PPE)

- a. Introduction. The technical data for CLINS 0001, 0004, 0005, 0006, 0007, 0009, 0010, 0011, 0012, 0014, 0015, 0017 and 0018 has been prepared and checked in accordance with accepted engineering practices. However, some of the documentation does not contain the latest technical information now available to industry and may now be inadequate for purchase or manufacture of some components. On the basis of previous experience, it is reasonable to assume that such data may contain deficiencies which would make it impossible, from an actual or practical standpoint, to produce, fabricate, or assemble the contract items in the quantities specified in exact accordance with all of such technical data. This preproduction evaluation clause is intended to (i) identify the problem of possible technical data deficiencies, (ii) provide for the contractors responsibility to review the technical data package to identify and determine corrections of these deficiencies necessary to permit quantity production; (iii) require reporting of such deficiencies and corrections to the Government; and (iv) to provide that the identification of such deficiencies and the necessary correction thereof shall not be cause under this contract for any price increase or revision in the delivery schedule. This clause is not intended to place upon the contractor any design responsibility under this contract except as provided herein.
- b. SCOPE. The PPE clause provides for review and change of technical data and hardware under configuration control, necessary to produce acceptable hardware for the CLIN quantities and schedules specified in this contract. Each ECP NOR submitted shall be assumed to be required by PPE and supplied at no cost unless the contractor indicates within the ECP "need for changes" block for each NOR why that particular NOR is not

required by PPE. NORs shall no be submitted which are not completely applicable to PPE unless the contractor takes necessary actions to separately identify the costs such that additional charges for the PPE portions are not incurred by the Government. Prior to, or in conjunction with process planning, tool design, development of inspection plans and procedures, and throughout the production and inspection phases of the contract, the contractor shall perform a detailed evaluation of all technical data associated with this contract. Such evaluation shall include, but not be limited to, analysis, identification, and recommended correction of any deficiencies in such data which the contractor considers necessary to assure that:

- (1) The contract items, including all components, assemblies and parts thereof, can be produced, fabricated, assembled, and operated in complete accordance with the requirements of this contract and such technical data, corrected as required by this clause, without resort to any deviations, waivers, or changes therefrom.
  - (2) The PPE clause shall provide for complete resolution of deficiencies which:
- (a) may have been overlooked during the development program and including typographical errors, and including those associates with conflicts of technical data within the TDP, and including completeness, correctness and clarity of the TDP.
  - (b) are attributable to tolerance stackup and no-fit dimension conditions.
  - (c) are correctable as class II (as defined in DOD-STD 480) ECPs.
- (d) are associated with changes submitted by other source contractors which are required by PPE as defined herein.
- (e) are associated with parts procurements which result in vendor exceptions. Changes for acceptable exceptions shall be provided for by this PPE clause.
- (f) are associated with parts or materials not readily available to meet contract quantity or schedule requirements which were not identified on the date of contract award.
- (g) are associated with currently impossible manufacturing (including test or inspection) requirements and/or processes.
- (h) are associated with manufacturing processes such that degradation of hardware is incurred.
- (i) are associated with test and inspection requirements (except for reliability testing or environmental conditions specifically for reliability testing) which results in degradation of hardware.

- (j) are associated in addition of necessary test or inspection requirements.
- (k) are associated with test or inspection requirement changes.
- (l) are associated with increasing the percent yield or rate of production to meet quantity and schedule requirements specified within this contract.

## c. Contractor's Obligation

- (1) The provisions of this Special Provision for PPE shall apply to all technical data supplied as a part of any change issued under this contract; provided however, that any additional PPE effort required by reason of a Government-issued change shall entitle the contractor to an equitable adjustment for which the amount shall be included in the settlement of the change order for the Government-issued change.
  - (2) Distinction between a PPE Change and a Government-issued Change.
- (a) An approved PPE change will be incorporated into the documentation and hardware under this contract pursuant to the PPE clause of the contract and shall not constitute a change entitling the contractor to an equitable adjustment. PEE changes are defined in paragraph b, above.
- (b) A Government-issued change shall be one the Government determines to be necessary and which is outside the scope of this PPE clause as set forth in paragraph b, above. Government-issued changes shall be incorporated into the contract pursuant to the "changes" article of the contract and the contractor shall be entitled to an equitable adjustment.
- (3) Technical data concerning GFE is excluded from the contractor's responsibility.

#### d. Submission Requirements.

(1) Deficiencies disclosed as specified in paragraph b. above shall be prepared IAW DI-E-1102. Recommendations by the contractor for change shall be submitted on DD Form 1693 (short form) Engineering Change Proposal (ECP) in accordance with DOD-STD-481 with DD Form 1695 Notice of revision (NOR) attached IAW DOD-STD-480. The change shall be clearly and explicitly stated, with particular emphasis on need for change (Block 15), in order to permit expeditious evaluation by the Government. The necessity for the change will be firmly established. The change will include marked prints of drawings, sketches, calculations, and all other pertinent data sufficient to serve as a basis for revision of technical data by the Government. The Government will provide for

generation of an ECP per DOD-STD-480 using data submitted above. This longer form ECP shall be used as a basis for acceptance inspection upon approval and incorporation into the contract.

- (2) Requests shall not knowingly be submitted as PPE changes which will adversely affect performance, reliability, operability, safety and/or maintenance.
- (3) In the event of incompatibility between a "common" or standard part and mating part, preference shall be given to correcting the incompatibility by changing the mating part rather than the common or standard part.
- (4) The Government reserves the right to direct an alternate correction in lieu of a valid contractor-proposed correction when such action is in the interest of interchangeability with material in service or in stock, or for other vital logistical considerations. Such Government-desired changes will be subject to equitable adjustment under the "changes" article, with the provision that the adjustment of cost and/or delivery shall be limited to the difference, if any, between the contractor's originally proposed correction and the Government-directed correction.
- (5) Subcontracting of PPE. In the event that any component having its own Technical Data Package and its own detail Military Specification or Purchase Description should be subcontracted in its entirety, the special provisions Relative to Production Evaluation, Supplies and Services, will be made a part of the subcontract, or the Contracting Officer shall be immediately advised that such an item has been sub-contracted without the PPE clause with full assumption by the prime contractor for Preproduction Evaluation Responsibility for the sub-contracted item.
  - e. Approval Requirements Rejections.
- (1) The Government reserves the right to reject any PPE change by providing written notice to the contractor within thirty (30) workdays after receipt by AMCPM-CF-C.
- (2) Approval of a PPE change shall be by written notice from the PCO by letter, teletype, or other form of reply designated therein as an Engineering Order. Reply shall be within thirty (30) workdays after receipt of the change.
- (3) Upon Government approval of a PPE change, the contractor's obligation relating to such PPE proposal shall be discharged to the extent that the deficiency is corrected in the hardware. If the incorporation of such approved PPE change does not correct the deficiency, the contractor shall yet remain responsible for resubmitting and accepting any further change to the technical data without increase in contract price or extension in delivery schedule and incorporate such PPE change into contract items.

f. The Government reserves the right to convey information to the contractor for his use in PPE changes. Any such information so conveyed shall not entitle the contractor to any price or delivery schedule adjustment or damages pursuant to any clause of this contract or otherwise.

## g. PPE Disputes.

Failure of the parties to agree upon any determination of the necessity for, or the designation of, a change to be made under this provision shall be a dispute concerning a question of fact within the meaning of the "Dispute" clause of the contract.

## h. Rights and Remedies.

The rights and remedies of the Government provided in this provision are in addition to and do not limit any rights afforded to the Government by any other clause of this contract.

#### i. Production Methods and Processes.

Changes to the technical data package shall not be submitted under this clause which are recommended solely to permit performance in accordance with a contractor's or subcontractor's production methods of processes.

## j. Rights in Technical Data.

Any and all data submitted by the contractor as required in paragraph d hereof for which the contractor is obligated pursuant to paragraph c hereof, shall be provided to the Government with unlimited rights in accordance with the Rights in Technical Data Clause of this contract.

# k. Payment for PPE.

Payment of the PPE effort under all line items shall be made by the Government upon acceptance of the hardware under the line item on a unit pro-rata basis.

I certify that the foregoing is a true copy of Services Board of Contract Appeals in ASBCA No Company dba Raytheon Systems Company, render Charter.	os. 50166, 50987, Appeals of Raytheon
Dated:	
	EDWARD S. ADAMKEWICZ Recorder, Armed Services Board of Contract Appeals