ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of --	)	
	)	
Lockheed Martin Tactical Defense Systems, Inc.	)	ASBCA No. 46797
	)	
Under Contract No. N00039-86-C-0452	)	

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OPINION BY ADMINISTRATIVE JUDGE JAMES

This appeal arises from the contracting officer's final decision which denied appellant's $4,430,419 claim in its entirety. We have jurisdiction of the appeal under the Contract Disputes Act of 1978, 41 U.S.C. § 607. The parties dispute whether the captioned contract, for 18 Air Traffic Control Subsystems (ATCS), required delivery of one or 18 Test Program Sets (TPS) for diagnostic testing of the ATCS. After a hearing, the parties submitted post-hearing and reply briefs. We decide entitlement only (tr. 1/11).

FINDINGS OF FACT

1. On 12 August 1985 the U.S. Navy Space and Naval Warfare Systems Command (SPAWAR) issued Request for Proposals (the RFP) No. N00039-85-R-0125(Q). The RFP prescribed ATCS technical requirements in a Statement of Work (SOW), as amended on 15 May 1985, and ATCS specification "ELEX-A-597," as amended on 12 July 1985. (R4, tab 1)

2. As last amended on 2 July 1986, the RFP sought proposals for the manufacture of 17 ATCS for the Marine Air Traffic Control and Landing System (MATCALS), and identified 16 contract line items (CLINs), of which CLIN 0001 was for an ATCS first

article ("Not Separately Priced" - "NSP"); CLIN 0002 was for 17 priced production ATCS units in five program years; and CLIN 0003 was for data (NSP). The RFP included no CLIN or sub-CLIN expressly designated TPS. (R4, tab 8) The ATCS units were contemplated for concurrent deployment in geographically dispersed areas with inherent fault isolation capabilities.

3. On or about 25 August 1985 appellant prepared an internal ATCS work breakdown structure (WBS) with non-recurring and recurring costs of "Peculiar Support Equipment" (PSE), which was "a subset of Test Measurement Diagnostic Equipment, or TMDE" (tr. 2/87). PSE included Special Purpose Test Equipment and Automatic Test Equipment (ATE). Recurring PSE included "[e]xtender boards, programming tapes, test equipment, adapter cables, special tools, etc." On or about 20 September 1985 appellant deleted recurring PSE costs from its internal ATCS WBS. (R4, tab 88 at 110, tab 201)

4. On 16 December 1985 appellant submitted technical, management, and cost proposals to SPAWAR for the ATCS in response to the RFP (stip. ¶¶ 4-5). Appellant's technical proposal stated:

> 4.2 Maintenance Concept: . . . All the [proposed] digital subassemblies are compatible with the AN/USM-465 [*i.e.*, ATE]. That is, the device that interfaces the PCB [printed circuit board] to ATE and the computer software (test program set) that tests the PCB are supplied as part of the ATCS.
>
> 4.5.5 Subassembly Class D Test Provisions
> 4.5.5.1 Digital Subassemblies . . . The [proposed] ATCS has 72 types of digital subassemblies and provides three devices to interface with the AN/USM-465. Software for the AN/USM-465 testing of digital subassemblies is provided with the ATCS. [Underscoring in original]

Appellant's cost proposal included no costs for CLIN 0001, the ATCS first article; the non-recurring PSE costs in WBS 0300 were not among the non-recurring ATCS costs in WBS 0100; and WBS 0100 and WBS 0300 costs were not designated for the first article (CLIN 0001). Appellant's technical and cost proposals did not limit or correlate the above-quoted statements to the first article ATCS, or propose to provide interface devices and computer software only for one ATCS. (R4, tab 9) Appellant's management proposal, ¶ 4.3.2, proposed to build four test assemblies for first article testing, stating:

> [S]ystem 3 will be used for the system maintainability demonstration. Upon completion [thereof], the system will be subjected to the first article performance demonstration.

(R4, tab 136 at 4-7 to 4-8) The management proposal did not mention the number of TPS units appellant proposed to produce and deliver.

5. On 14 April, 7 May, and 10 July 1986 appellant submitted a revised ATCS proposal and "best and final offers," all of which SPAWAR received and reviewed (stip. ¶¶ 6-9). These revised proposals did not modify the above-quoted statements in ¶¶ 4.2 or 4.5.5.1 of appellant's December 1985 technical proposal, limit proposed interface devices to the first article ATCS, or propose to provide interface devices and computer software for only one ATCS (R4, tabs 10-12).

6. SPAWAR amended the RFP to answer offerors' questions (R4, tab 13 at 78). SPAWAR's answer to Question 15 stated that the SOW, ¶ 3.7, regarding—

> Test Equipment, tools, etc. all interrelate to express the ATCS programs [sic] desire to maximize repair capabilities at the operational site. This would include the use of ATE located in a maintenance facility that will normally accompany the operational system on deployments that exceed 30 Days.

SPAWAR also answered that Class A through D testing at the operational site required –

> Isolation to the faulty LRU (lowest repairable unit or subassembly) using BIT/BITE [built-in-test/built-in-test-equipment]. In those cases where BIT/BITE cannot perform satisfactory isolation, the isolation will be achieved by use of GPETE [general purpose electronic test equipment], SPETE [special purpose electronic test equipment], and Special Test Fixtures and jigs [for Classes A through C testing].
>
> . . . .
>
> Isolate piecepart faults on digital LRU's using GPETE or ATE or maintenance panels or Special Test Fixtures and jigs . . . . Repair of other LRU's to piece part using GPETE, SPETE, or Special Test Fixtures and jigs for fault isolation; and required tools for removing and replacing fault [for Class D testing].

Question 17 and SPAWAR's answer thereto were:

> Question: Is the contractor responsible for the software development for the GENRAD 2225? If so, will the GENRAD 2225 be furnished as GFE equipment?"
>
> Answer: The contractor is responsible for providing the test program sets as defined in MIL-STD-2077 which include interface devices, software for the ATE, and instructions concerning the use of the ATE with the software. The AN/USM-465 (GENRAD 2225) will not be provided as GFE, but will be available to Marine technicians in the field.

(R4, tab 16)

7. On 23 July 1986 the Navy awarded contract No. N00039-86-C-0452 (the ATCS contract) to Sperry Corporation for 17 ATCS units at the level unit price of $2,453,173.50, over five program years. The ATCS contract schedule, § H8, provided that the contract was a "multi-year contract" with respect to CLINs 0002 and 0016, the production quantities of ATCS. The ATCS contract schedule further provided that $7,869,035 in non-recurring costs were included under CLINs 0001 and 0002, and—

> [I]n the event of a conflict between the documents hereby incorporated into the contract, the following order of precedence shall apply to resolve the conflict: (1) the contract schedule, (2) the Statement of Work as amended above, (3) . . . specification ELEX-A-597A as amended, and (4) the Contractor's proposal.

(Stip. ¶¶ 1, 10; R4, tab 13 at 8, 55)

8. In 1987 the ATCS contract was novated from Sperry to Unisys Corp. In 1991 Unisys changed its name to Paramax Systems Corp. Paramax later changed its name back to Unisys Corp., which was acquired by Loral Defense Systems - East in May 1995 (stip., ¶¶ 1-2; tr. 1/37-38). By 1 July 1996, Lockheed Martin Tactical Defense Systems, Inc., was the successor in interest to Loral Defense Systems - East. For clarity, this opinion refers to "appellant" instead of the corporate name used from time to time.

9. The relevant ATCS contract requirements were set forth in: (a) the SOW; (b) ATCS specification, ELEX-A-597A; (c) designated paragraphs of MIL-STD-2077; (d) offerors' pre-award questions and SPAWAR's answers; and (e) appellant's proposals (R4, tab 13 at 77-78).

10. SOW ¶ 1.1 did not address CLIN quantities and provided that "[s]pecific quantities of equipment to be procured are identified in other contract documents." SOW ¶ 3.2.2.2.3 required appellant to "analyze the information obtained during the maintainability demonstration," but included no further specific requirements for such demonstration. SOW ¶ 3.7.2 referred to TPS development in the plural, and required appellant "to develop Test Program ***Sets*** (TPS) for digital circuitry" and to—

> develop TPS for digital subassemblies in accordance with paragraphs 4.0, 5.1, 5.2, 2.3 [non-existent, probably meant 5.3], 5.4, 5.5, 5.7, 5.8, 5.9, 5.10.1, 5.10.2, Appendix A and Appendix B of MIL-STD-2077 and ELEX-A-597

and provided: "***Each*** TPS shall be developed in accordance with 3.7.2.1 through 3.7.2.4" (emphases added). The TPS was to include a Test Program (TP), TP instructions, Interface Devices, and Supplementary Data. ¶ 3.7.2.1 stated:

> The Test Program (TP) is a coded sequence of instructions which, when executed by the ATE, will accomplish the test and fault diagnostic objectives of the ***respective TPS***. [Emphasis added]

¶ 3.7.2.3 stated: "The contractor shall fabricate interface devices for all digital subassemblies in the ATCS." (R4, tab 14)

11. MIL-STD-2077, ¶¶ 5.1-5.9, prescribed performance requirements for the four TPS elements: the "test program," the "test program instructions," "supplementary data" and "interface device" (R4, tab 94 at 4-9).

12. The ATCS specification, ELEX-A-597, ¶ 3.6.3.1, required "test measurement and diagnostic equipment" (TMDE). TMDE was defined in ¶ 6.4.6:

> TMDE are all devices (electrical, electronic, mechanical, magnetic, chemical, and so forth), tools and interface equipment which are used to: test, observe, measure, monitor, modify, generate, calibrate, and control physical properties, movements, and other characteristics. This includes power sources, modifiers, scalers, jigs, templates, monitoring devices, waveguides, standards, and programming software required to test, measure and diagnose.

TMDE were required for four classes of diagnostic tests, A, B, C and D (¶ 3.6.3.1.1). Class A and B tests were to be accomplished by the use of BIT and BITE (¶3.6.3.1.1.a, b). Class C tests "shall be accomplished by use of BIT, BITE, and test jacks in conjunction with general purpose electronic test equipment (GPETE)" (¶ 3.6.3.1.1.c). Class D tests "may be accomplished by the use of test points in conjunction with automatic test equipment (ATE) or GPETE" (¶ 3.6.3.1.1.d). ¶ 3.6.3.1.3 stated that "Test points and test jacks shall be provided" and ¶ 3.6.3.4 required that: "test equipments which are not [GPETE listed in MIL-STD-1364], but are required for maintenance, shall be considered as special and shall be provided with the ATCS." (R4, tab 15; tr. 2/116-18)

13. ELEX-A-597 ¶ 3.6.3.6 required that "All contractor-provided electronic subassemblies in the ATCS . . . shall be organizationally repairable subassemblies," and ¶3.6.3.6.1 set forth specific, quantitative, "go/no go" criteria for conforming and non-conforming subassemblies (PCBs) tested with the test equipment specified in ¶ 3.6.3.7, *i.e.*, the TMDE/TPS (as appellant stated in its technical proposal (R4, tab 9 at 4-1 to 4-2)). ¶ 6.4.16 stated: "An organizational[ly] repairable subassembly is a subassembly which is designed so that Marine Corps technicians can locate failures and repair the subassembly in the ATCS or the AN/TSM-170 maintenance facility." Paragraph 3.6.3.7 stated that subassembly repair "may be achieved with the use of AN/USM-465 for digital subassemblies. If the AN/USM-465 is used, the requirements of 3.6.4 apply." Paragraph 3.6.4.1. provided that "The ATE test provisions for subassemblies shall not be accomplished through use of external GPETE (not part of the ATE system), SPETE, or a guided probe feature of the ATE system." ¶ 3.6.4.2 stated: "The associated interface device and the computer software for all subassemblies tested with the use of AN/USM-465 shall be provided with the ATCS." (R4, tab 15; tr. 2/124-30)

14. ELEX-A-597 included a "Maintainability and BIT demonstration" among the first article inspection requirements in ¶ 4.3, TABLE IV, which referred to ¶¶ 3.6 and 4.10, but whose "Quality conformance inspection (production)" column was not checked for "Maintainability and BIT demonstration." Paragraph 4.10 stated the "maintainability and BIT demonstration" performance requirements. ELEX-A-597A also provided:

> 4.10.4 Subassembly test and repair verification. ATE and procedures developed for subassembly checkout shall be used in manufacturing or production testing. The tests and demonstrations specified in 4.10.4.1 through 4.10.4.2 shall be conducted.
>
> 4.10.4.1 Demonstration of subassembly repair. A demonstration of fault diagnosis and subassembly repair using the AN/USM-465 or other test equipment shall be performed to verify conformance to 3.6.3.6 . . . .

> 4.10.4.2 TPS system performance testing. TPS shall be subjected to a system performance test to verify that the hardware and software represent the TPS as specified herein and that conformance to the TPS requirements (fault detection and isolation) has been achieved.

(R4, tab 15)

15. Contract § C11, "FIRST ARTICLE (GOVERNMENT TESTING) SPECIAL PROVISIONS (Applicable to Item 0001)," provided:

> The First Article shall conform in every respect with the requirements set forth for production equipment and shall be manufactured with tools, materials and methods which are the same as, or representative of, the equipment to be furnished under Items 0002AA-0002AE (herein called the production equipment).

(R4, tab 13)

16. After contract award, the total number of ATCS subsystems was increased to 18. The 18 ATCS were comprised of 17 production subsystems for the U. S. Marine Corps, including a first article subsystem that was refurbished and later delivered as a production subsystem, and one first article for the U. S. Air Force. (Stip. ¶ 3)

17. Mr. Joseph Perrotta, appellant's ATCS engineering manager, was responsible for preparing appellant's ATCS technical proposal (tr. 1/41). He interpreted the RFP and resulting contract terms to require delivery of only one set of TPS, chiefly due to the absence of proposed recurring costs for peculiar support equipment (tr. 1/66-68, 4/71) and mention of one "maintainability demonstration" in appellant's management proposal (tr. 4/115). Appellant first stated orally its interpretation of one TPS or "external TMDE" set to respondent during a post-award meeting in Great Neck, NY (tr. 2/58). No pre-award documentary evidence corroborates this interpretation, which deserves minimal probative value.

18. Mr. Daniel Brosnahan, SPAWAR's program manager for the MATCALS, including the ATCS (tr. 4/6-7), supervised the development of the ATCS specification (tr. 4/7) which he interpreted to require the contractor to provide interface devices and computer software for each ATCS in CLIN 0002 (tr. 4/10-11). Mr. Stephen A. Burnley, a member of SPAWAR's "Technical Evaluation Board" which reviewed offerors' ATCS proposals (tr. 3/117), understood that the ATCS specification required a complete set of

interface devices for each radar set (*i.e.*, ATCS), and he perceived no understanding different from his own in any of the offerors' proposals that he reviewed (tr. 3/124-26). Respondent's post-award interpretation deserves no greater or lesser probative value than appellant's post-award interpretation.

19. The record contains no documentary evidence that before award of the ATCS contract: (a) appellant told respondent that appellant interpreted the ATCS contract to require delivery of one TPS or requested clarification of such requirement, or (b) respondent told appellant that respondent interpreted the ATCS contract to require delivery of a TPS with each of the 18 ATCS units.

20. On 4 December 1991 respondent terminated for the convenience of the Government 12 of the 18 TMDE sets, and directed appellant "to proceed with production of six sets of TMDE" (stip. ¶ 11). We find that the parties used the terms "TPS" and TMDE" interchangeably.

21. On 5 June 1992 appellant submitted to the contracting officer (CO) a "Request for Equitable Adjustment in Contract Price" of $4,430,419 to produce five TMDE units in addition to the single unit required for the maintainability demonstration, and to bring the original TMDE set up to deliverable standards. It also included a certificate as required by the Contract Disputes Act of 1978. (R4, tab 88 at 4; stip. ¶¶ 12-13; comp. & ans. ¶ 3, 91)

22. The CO's 2 September 1993 final decision denied appellant's Request for Equitable Adjustment in its entirety (stip. ¶ 14). Appellant timely appealed that final decision to the ASBCA on 12 November 1993 (stip. ¶ 15).

DECISION

Appellant contends that its technical, cost and management proposals reasonably interpreted the ATCS solicitation to require development and delivery of one TPS for a "one-time maintainability demonstration" since its proposed peculiar support equipment (PSE) cost was non-recurring and, therefore, was intended to develop the first article ATCS, not to deliver 17 ATCS units. (App. br. at 42-46) Respondent argues that the only reasonable interpretation of the solicitation and resulting contract was to require TPS/TMDE for each production ATCS delivered (Gov't br. at 47).[*]

[*] The dissent says that the Government witnesses' testimony (*see* finding 18) about how they interpreted and understood the pertinent contract and specification provisions was not "credible," but does not explain how the testimony of appellant's witnesses was any more credible or probative or less self-serving than respondent's evidence.

The ATCS Statement of Work required the contractor to develop "Test Program Sets" (plural), which included both hardware and software elements, and referred to TPS development both in the singular and in the plural (finding 10), leaving it unclear whether one or several TPS were to be delivered.

ATCS specification ELEX-A-597: (1) required TMDE (which the parties used interchangeably with TPS) (finding 20) to perform diagnostic testing by hardware and software, including BIT, BITE, test jacks, test points, GPETE, ATE, SPETE and guided probes (finding 12); (2) required the contractor to provide with the ATCS "the associated interface device and computer software" for diagnostic testing of electronic subassemblies (finding 13); and (3) referred to TPS only in ¶ 4.10.4.2, which did not state whether one or more TPS units were required, but which paragraph was one of the tests and demonstrations required for "manufacturing or production testing" (finding 14). Contract § C11 required the first article ATCS to conform "in every respect" with the production ATCS equipment (finding 15). Therefore, the first article's configuration, including whatever "interface device and computer software" comprising the TPS or TMDE had to correspond to the production ATCS' configuration, including TPS.

Appellant's contention that it interpreted the contract to require delivery of one TPS for a "one-time maintainability demonstration" because its cost proposal included no non-recurring PSE costs, is unreasonable on several bases. (1) The ATCS contract and specification documents do not limit the TPS to a "one-time maintainability demonstration," but require manufacturing or production testing of the TPS (finding 14). (2) Appellant's proposed non-recurring PSE cost was not coterminous with TPS or TMDE (finding 3), was not among the non-recurring ATCS costs, and was not designated for the first article ATCS, CLIN 0001 (finding 4). (3) The ATCS contract provided that $7,869,035 in non-recurring costs were included under CLINs 0001 and 0002 (finding 7), demonstrating that non-recurring costs did not exclusively pertain to the first article, CLIN 0001. (4) Appellant did not communicate its interpretation to respondent before

contract award (finding 19); its alleged "original intent" was not corroborated by any pre-award documentary evidence (finding 17); and the Government did not acquiesce in such interpretation. (5) Appellant's interpretation does not harmonize with the provisions of ELEX-A-597 and Contract § C11. Specifically, appellant's interpretation: (1) disregards the fact that both the SOW and specification ELEX-A-597A requirements to fabricate interface devices and to provide such devices with the ATCS (findings 12. 13) were not restricted or limited to the first article ATCS, but applied to all ATCS units; (2) ignores the ELEX-A-697A, ¶¶ 4.10.4 and 4.10.4.2, requirements for manufacturing or production testing, including the TPS system performance test (finding 14), not merely first article testing of TPS system performance; and (3) thwarts one of the principal purposes of the contract - for military personnel to deploy the 18 ATCS units concurrently in geographically dispersed area with inherent fault isolation capabilities including Class D Test provisions (findings 2, 6, 12)

Since the ATCS contract required the contractor to provide interface devices and computer software with the ATCS, the ATCS first article configuration to conform to the production ATCS configuration, and the contractor to perform system performance testing on the TPS in manufacturing or production testing, we conclude that the ATCS contract obliged the appellant to provide TPS/TMDE sets with each ATCS unit tendered for acceptance by the Government. *See SCM Corp. v. United States*, 675 F.2d 280, 284, 230 Ct. Cl. 199, 206 (1982) (contract language had a single clear meaning).

Furthermore, as demonstrated by our review of the pertinent contract provisions, any uncertainty about how many production units of TPS were required to be delivered was sufficiently patent to require appellant to seek clarification from the contracting officer before submitting its proposals. But appellant did not seek clarification. *See J. A. Jones Constr. Co. v. United States*, 395 F.2d 783, 789-90, 184 Ct. Cl. 1, 12-13 (1968). Moreover, even if the ambiguity were to be regarded as "latent" rather than "patent," appellant's interpretation that it was required to deliver only one TPS does not come within the zone of reasonableness. Therefore, the rule *contra proferentem* cannot resolve any ambiguity against the Government. The discussion of the legal precedents on

resolving ambiguities in the dissent is essentially accurate; however, those precedents do not result in use of the *contra proferentem* rule based on the facts of this appeal.

We deny the appeal.

Dated: 3 May 2000

DAVID W. JAMES, JR.
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

I concur

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

I dissent

MICHAEL T. PAUL
Administrative Judge
Acting Vice Chairman
Armed Services Board
of Contract Appeals

I concur

ROLLIN A. VAN BROEKHOVEN
Administrative Judge
Armed Services Board
of Contract Appeals

ALLAN F. ELMORE
Administrative Judge
Armed Services Board
of Contract Appeals

DISSENTING OPINION

I dissent. As presiding judge in this appeal, I cannot concur with majority's findings and legal analysis in this appeal. The decision does not reflect the terms of the contract as a whole, and is not in accord with the record in this appeal. As such, it is not supported by substantial evidence.

The majority holds that the requirements for TPSs with each and every ATCS delivered to the Government are clear and unambiguous, or if not clear, they are patently ambiguous, and if not patently ambiguous, they might be latently ambiguous, but that appellant's interpretation is outside the zone of reasonableness. In any event, the appeal is denied. As stated by the dissent in *SCM Corporation v. United States*, 230 Ct. Cl. 199, 209, 675 F.2d 280, 286 (1982), "[t]hings have really reached the point where the result-oriented jurist will attain the result he desires whatever the words say that are to be construed." The majority fails to explain how a contract can have a single clear meaning, and yet be subject to a patent ambiguity. These holdings violate the law of non-contradiction. In view of the brevity of the majority's findings and holdings, the majority does not disclose what it considered to be the zone of reasonableness, and how the majority determined its limits. In its rush to brevity, the majority fails to address the complexity of the appeal and its record, the nature of this complex, major systems procurement, the significance of this $4,430,419.00 claim, and the consequences of its decision on a related appeal arising out of the partial termination for convenience.

The parties have not presented for our consideration any contract provision or requirement in the SOW and ELEX-A-597A that specifically required appellant to deliver to the Government a specific number of multiple sets of TPS. Neither the majority nor I found any such express requirement in the contract. Indeed, the majority specifically finds that the RFP included no CLIN or sub-CLIN expressly designating TPS as a procurable line item. Therefore, if appellant was required to deliver a TPS with each and every ATCS delivered under the contract, that requirement must be found in the language of the SOW and ELEX-A-597A defining the ATCS, and not in an express requirement for the delivery of a specified quantity of TPSs.

In holding that the contract provided a single clear meaning regarding the quantity of TPSs to be delivered with the ATCS units, the majority appears to rely principally on the contract use of the plural in regard to TPS, such as "Test Program **Sets**," and the use of the term, "**Each** TPS shall be developed in accordance with . . ." in several paragraphs in the SOW (emphasis in the majority's opinion). The majority's selective quotations from several paragraphs in the SOW and ELEX-A-597A omit both context and related requirements that would normally be considered in the interpretation of the sections of the SOW and ELEX-A-597A. The majority also quotes selected portions of pre-proposal questions and answer that were contained in amendments to the RFP. The majority's

decision may be expressed in the following syllogism: All contracts in which clarity of contract requirements may be determined on the basis of some selected words, are clear and unambiguous. Selected phrases in several paragraphs of the SOW in the instant contract use the plural form of the word, "set" or modify the abbreviation, TPS, by "each." Therefore, the language of this contract is clear and unambiguous in requiring appellant to deliver TPSs with each and every ATCS delivered to the Government. Although the syllogism is logically correct, the major premise is nonsense. Therefore, the conclusion cannot be true.

Although not stated by the majority, I assume the Board still recognizes the principle that the basic object of contract interpretation is to determine the intent of the parties. *Restatement, Second, Contracts* § 201; *Alvin, Ltd. v. United States Postal Service*, 816 F.2d 1562, 1565 (Fed. Cir. 1987); *Firestone Tire & Rubber Co. v. United States*, 195 Ct. Cl. 21, 30, 444 F.2d 547, 551 (1971). The original intent of the parties must be gathered from the instrument as a whole from the perspective of a reasonably intelligent person acquainted with the contemporary circumstances. *Alvin, Ltd. v. United States Postal Service*, at 1565. *See also, General Electric Company*, ASBCA No. 24913, 83-1 BCA ¶ 16,130, where we held that the meaning that is relevant to determine the intent of the parties is that which was intended at the time the contract was made, not a subsequent intent of either party.

The clarity of the requirements, as identified by the majority, simply escaped the notice of the parties in the submission and evaluation of competitive proposals, the negotiation of the contract, the administration of the contract prior to the emergence of the present controversy, and the litigation of the dispute before the Board (e.g., R4, tabs 9, 10, 11, 12, 136; tr. 1/182, 190-99, 2/11-22, 31-36, 3/22-23, 116-18). Indeed, this clarity of the asserted requirement for TPSs with each and every ATCS unit delivered escaped the notice of other offerors that submitted technical, management, and price/cost proposals in response to the RFP (exs. G-1, A-9, A-10, A-12; tr. 2/65-76, 3/55-56, 62, 79-86, 4/70-84). Further, this interpretation simply does not account for the practice followed in major systems procurements in the Department of Defense as set forth below in the expert evidence concerning normal procurement practices.

In holding that the contract language had a single clear meaning requiring appellant to deliver a TPS with each and every ATCS unit delivered, the majority focuses its attention on selected quotations from the RFP and ELEX-A-597A, and fails to examine the contract as a whole to interpret the contract so that it gave reasonable meaning to all parts of the contract, rendering none of the contract language meaningless. Indeed, there was no effort to ascertain the intention of the parties. The rule, as stated in *SCM Corporation v. United States*, *supra*, at 284, 206, is that, "[i]n general, when a contract is clear and unambiguous evidence of prior negotiations and drafts is barred from consideration by the parol evidence rule." The Court concluded that the language of

Article VI was clear and that only Article VI concerned the accrual of royalties. The Court, nevertheless, proceeded to examine certain aspects of the history of the drafting of this article. Unlike the instant appeal, the Court in *SCM Corporation* addressed only the single provision of the contract to which there was a disputed interpretation. In the instant appeal, there was no specific provision in the contract Schedule, the SOW, the ELEX-A-597A, or elsewhere in the RFP, including proposal instructions, that specifically addressed the quantity of TPSs to be delivered with the contract, or indeed, whether or not the contract required delivery of any TPSs. Notwithstanding this, the majority ignored much of the contract and the record as it focuses on the selected quotations from various provisions in the SOW and ELEX-A-597A in the RFP.

Absent any express requirement that addresses the issue of whether or not appellant was required to deliver a TPS with each and every ATCS it delivered to the Government, we must interpret the contract as a whole, as both parties here argue. As described in *M. A. Mortenson Co. v. United States*, 29 Fed. CL. 82 (1993) at 96:

> Although interpretation of the words which are included in and/or omitted from a contract, in general, is a question of law, questions of fact can arise as part of the analysis. *Big Chief Drilling Co. v. United States,* 15 Cl. Ct. 295, 300 (1988); *D. & S. Universal Mining Co. v. United States*, 4 Cl. Ct. 94, 97 (1983). When interpreting the language of a contract, a court must give reasonable meaning to all parts of the contract and not render portions of the contract meaningless. *Fortec Constructors v. United States,* 760 F.2d 1288, 1292 (Fed. Cir. 1985); *United States v. Johnson Controls, Inc.,* 713 F.2d 1541, 1555 (Fed. Cir. 1983). Otherwise stated, in ascertaining the intentions of the parties, the contract should be construed in its entirety "so as to harmonize and give meaning to all of its provisions." *Thanet Corp. v. United States*, 219 Ct. Cl. 75, 82, 591 F.2d 629, 633 (1979); . . . The language of a contract, moreover, must be given the meaning that would be derived from the contract by a "reasonably intelligent person acquainted with the contemporaneous circumstances. *Hol-Gar Mfg. Corp. v. United States*, 169 Ct Cl. 384, 388, 351 F.2d 972, 975 (1965).

According to *M. A. Mortenson Co. v. United States, supra,* when there is disagreement between the parties concerning the meaning of the words of the contract, a two-step process is involved in interpreting the contract. First, the court must determine whether an ambiguity exists. If the ambiguity is immediately apparent, or patent, then appellant had a duty to seek clarification. *George E. Newsom v. United States*, 230 Ct.

Cl. 301, 303, 676 F.2d 647, 650 (1982). Although a potential contractor may have some duty to inquire about a discrepancy, omission, or conflict in provisions that is patent, it is not required to seek clarification of "any and all ambiguities, doubts, or possible differences in interpretation." *WPC Enters., Inc. v. United States*, 163 Ct. Cl. 1, 6, 323 F.2d 874, 877 (1963). If the ambiguity, however, is not patent, then it will be construed against the drafter of the contract, as long as the other party's interpretation is a reasonable one. Second, when a non-patent ambiguity exists, courts have allowed extrinsic evidence to be introduced in order to determine the intention of the parties at the time the contract was signed. However, the "unexpressed, subjective, unilateral intent of one party is insufficient to bind the other contracting party, especially when the latter reasonably believes otherwise." *Firestone Tire & Rubber Co. v. United States*, *supra*, at 30, 551 (1971). The conduct of the parties before the advent of the controversy may be relied upon to discover the parties' underlying intention. *Julius Goldman's Egg City v. United States*, 697 F.2d 1051, 1058 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 814 (1983).

The determination of whether an ambiguity is patent is made on a case by case basis because it is dependent upon an analysis of the specific facts of each contractual situation. *Interstate General Government Contractors, Inc. v. Stone*, 980 F.2d 1433 (Fed. Cir. 1992). Moreover,

> A contract term is unambiguous if there is only one reasonable interpretation. Although a disagreement as to the meaning of a contract term does not of itself render the term ambiguous, *Blake Construction Co. v. United States*, 597 F.2d 1357, 1359 n. 16, 220 Ct. Cl. 56 (1979), if more than one meaning is reasonably consistent with the contract language it can not be deemed unambiguous. *Edward R. Marden Corp. v. United States*, 803 F.2d 701, 705 (Fed. Cir. 1986)

C. Sanchez and Son, Incorporated v. United States, 6 F.3d 1539, 1544 (Fed. Cir. 1993).

A patent ambiguity may manifest itself as an "obvious omission, inconsistency, or discrepancy of significance." *Beacon Construction Company of Massachusetts v. United States*, 161 Ct. Cl. 1, 7, 314 F.2d. 501, 504 (1963). There, the discrepancy was patent and obvious, and the plaintiff's president testified that he had noticed the discrepancy prior to computing his bid. The evidence also established that the subcontractor, in estimating its bid, also was aware of the ambiguity, and sought to settle it by speaking to the architects who drafted the specifications. Notwithstanding, the Court stated that it "did not mean to rule that, under such contract provisions, the contractor must at his peril remove any possible ambiguity prior to bidding." In *Transco Contracting Company*, ASBCA No. 25315, 82-1 BCA ¶ 15,516, at 76,973, quoting *Blount Brothers Construction*

Co. v. United States, 171 Ct. Cl. 478, 496-97, 346 F.2d 962, 972-73 (1965), regarding the rule that potential contractor's duty to inquire, we said:

> [C]ontractors are businessmen, and in the business of bidding on Government contracts they are usually pressed for time and are consciously seeking to underbid a number of competitors. Consequently, they estimate only on those costs which they feel the contract terms will permit the Government to insist upon in the way of performance. They are obligated to bring to the Government's attention major discrepancies or errors which they detect in the specifications or drawings, or else fail to do so at their peril. But they are not expected to exercise clairvoyance in spotting hidden ambiguities in the bid documents, and they are protected if they innocently construe in their own favor an ambiguity equally susceptible to another construction.

We further stated that:

> It is the existence and type of discrepancy or omission, not necessarily the contractor's actual knowledge of it that imposes a duty to inquire. *J. A. Jones Construction Co. v. United States*, 184 Ct. Cl. 1, 395 F.2d 783 (1968). Therefore, in reviewing the pertinent Court of Claims decisions, it is apparent that the most critical factor in deciding cases regarding the duty to inquire is the degree of scrutiny reasonably required of a bidder in order to perceive the discrepancy between the contract provisions or omissions in the solicitation documents.

The Court of Appeals for the Federal Circuit, discussed *Beacon Construction Company*, *supra*, and the doctrine of patent ambiguity in *Triax Pacific, Inc. v. West*, 130 F.2d 1469, 1475 (Fed. Cir. 1997):

> The patent ambiguity doctrine is a court-made rule that is designed to ensure, to the greatest extent possible, that all parties **bidding** on a contract share a common understanding of the scope of the project. That objective is particularly important in government contracts, in which significant post-award modifications are limited by the government's obligation to use competitive **bidding** procedures and by the risk of prejudice to other contractors. . . . In addition, the

> duty to inquire prevents contractors from taking advantage of ambiguities in government contracts by adopting narrow interpretations in preparing their **bids** and then, after the award, seeking equitable adjustments to perform the additional work the government actually wants.
>
> While this court has invoked the patent ambiguity doctrine in appropriate cases, it has not given the doctrine broad application. **Because the doctrine has the effect of relieving the government from the consequences of its own poorly drafted contracts, the doctrine has been applied only to contract ambiguities that are judged so "patent and glaring" that it is unreasonable for a contractor not to discover and inquire about them.** *See Beacon Constr. Co.*, 314 F.2d at 504. More subtle ambiguities are deemed latent and are accorded an interpretation favorable to the contractor under the doctrine of *contra proferentum*. [Emphasis added]

The majority here has not provided any reasoned finding or legal rationale for holding that the uncertainty of the number of TPS units to be delivered was so patent and glaring that it was unreasonable for appellant, or any of the offerors, not to discover and inquire about them.

The interpretive challenge in this appeal arises out of the question of how the rules of interpretation, particularly with regard to the treatment of possible ambiguities and the rules of patent ambiguities, apply to negotiated procurements in which technical, management, and cost proposals are submitted in response to a solicitation, where the Government agency follows a formal source selection and evaluation procedure, conducts negotiations, and ultimately awards a contract which incorporates the proposals submitted in response to the solicitation. Although I have found no court or board decisions which specifically address this question, the Comptroller General addressed this issue in *PRC Information Sciences Company*, 56 Comp. Gen. 768 (B-188305), 77-2 CPD ¶ 11, opining that:

> [I]t is clear that contracts should not be awarded in negotiated procurements based upon ambiguous offers through the application of the *contra proferentem* rule of construction against the offeror. Discussions are supposed to be used to clarify ambiguous proposals. . . . We recognize that this rule of construction has been applied to the interpretation of contracts, [citing *inter alia*, *WPC Enterprises, Incorporated v.*

> *United States*, 323 F.2d 874 (Ct. Cl. 1963), and, in appropriate circumstances, to the interpretation of bids under formal advertised procurements (*e.g.*, where no other bidders are prejudiced). However, we are unaware of any decisions which apply this rule to proposals in negotiated procurements prior to award, where discussions are generally the rule. Unlike a bid under an IFB – which is an irrevocable offer for a reasonable amount of time once submitted . . . – a proposal in a negotiated procurement may be discussed and changed.

As in the instant appeal, in *PRC Information Sciences Company*, the RFP called for technical and firm-fixed price proposals, which were to be evaluated under a source selection evaluation plan. However, unlike the instant appeal, there were ambiguities in the pricing of one of the offeror's proposal. Notwithstanding this, following negotiations, the Government awarded the contract to that offeror, Rehab Computer, on the basis of the price proposal most advantageous to the Government. In the protest by PRC, the Government argued that it could choose the interpretation of the Rehab offer most advantageous to the Government based on the *contra proferentem* rule, resolving the ambiguities against the drafter, in this case Rehab, the successful offeror.

The contract's PRECEDENCE clause may resolve some problems of conflicts between certain parts of a contract. However, it cannot adequately resolve all the interpretive issues where the language in the RFP may be less than clear in defining what is deliverable as part of ATCS units and where there is no clear conflict between the language of RFP and the language in the proposals.

The Marine Air Traffic Control and Landing System (MATCALS) consisted of three major subsystems used by the U.S. Marine Corps to support aviation at expeditionary airfields (R4, tabs 14 and 15; ex. A-1; tr. 1/41-46). These included the all weather landing subsystem, the communication and control subsystem, and the AN/TPS-73 ATCS. In addition, MATCALS included landing towers, maintenance facilities, and other support equipment. All the MATCALS subsystems, except the AN/TPS-73 ATCS, were manufactured under other contracts by various contractors. The instant contract provided for the acquisition of only the AN/TPS-73 ATCS and, therefore, the dispute here involves only the ATCS. The landing towers, maintenance facilities, and other support equipment were not included as requirements under the instant contract.

The RFP contained "Solicitation Instructions and Conditions," that included instructions regarding the form and content of the proposals, including an Executive Summary, a Technical Proposal, a Management Proposal, and a Price Proposal (R4, tab 1). These instructions required offerors to set forth in sufficient detail to demonstrate

that the prospective offeror had a thorough understanding of the SOW and specifications, and how it proposed to comply with the SOW and specification, and to enable evaluators to make a thorough evaluation and sound determination as to whether the proposal met the requirements of the SOW, the Contract Data Requirements List (CDRL), and the ELEX-A-597-A. These instructions required prospective offerors to describe their approaches to meeting the maintainability requirements of paragraph 3.6 of ELEX-A-597A. Prospective offerors were required to specifically address, *inter alia*, the use of BIT, BITE, GPETE, SPETE (Special Purpose Electronic Test Equipment) and ATE to check system performance and locate failures.

The scope of the procurement was described in Statement of Work (SOW) paragraph 1. and 1.1 as follows (R4, tab 14):

> This Statement of Work describes contractor tasks to be performed in conjunction with the acquisition of the Air Traffic Control and Landing Subsystem (ATCS) of the Marine Air Traffic Control and Landing System (MATCALS). It encompasses tasks to ensure the quality, safety, and reliability of the equipments to be procured; the development of documentation to enable government support; and the provision of contractor services in the initial implementation and maintenance of the ATCS.
>
> 1.1 Acquisition objective
>
> The ATCS acquisition will consist of the procurement of production ATCSs. Specific quantities of equipment to be procured are identified in other contract documents.

There was no acquisition objective specified with respect to the logistics part of the system, including TMDE or PSE, or that suggested that production units of TMDE, PSE, or TPS were included as part of the production ATCSs. All that was indicated in this paragraph of the SOW was the acquisition of production units of the ATCS.

Paragraph 3.2 of the SOW was the title paragraph for "Systems engineering." (R4, tab 14) The requirements for systems engineering were stated hierarchically in the succeeding paragraphs under paragraph 3.2. There was nothing in paragraph 3.2.1 and its succeeding paragraphs that required appellant to design and deliver TPSs with the ATCS. Paragraph 3.2.2 of the SOW was the title paragraph for "System effectiveness." Paragraph 3.2.2.2 required only data submittals. Paragraph 3.2.2.2.2 required a maintainability prediction and paragraph 3.2.2.2.2.1 required the contractor to perform a maintainability analysis concurrently with the design effort for incorporation of the quantitative and qualitative maintainability requirements into the ATCS equipment

design. Citing paragraph 3.2.2.2.2 of the SOW, CDRL A000Q required appellant to submit a maintainability plan due within 90 days after award. Based on the data submittals, the Government would make a determination of special tools and test equipment (including special alignment jigs and fixtures) required for the maintenance of equipment (paragraph 3.2.2.2.2.1.c). Thus, appellant was required to submit data from which the Government would implement its maintenance concept, that is, determine its future needs for maintenance equipment (tr. 1/101). There was nothing in paragraph 3.2.2.2 that required appellant to design and/or deliver TPSs with its delivery of the ATCS.

The majority quotes selected portions of paragraph 3.7.2 of the SOW without regard to the context of those quotations and the full import of the entire text. Paragraph 3.7, "Test equipment," provided, with respect to test equipment, that:

> The contractor shall **identify** test equipment, tools and diagnostic procedures required to support the ATCS down to the piece part level at both organizational and depot levels of maintenance. ATE and non-ATE shall be considered. An effort shall be made to maximize the commonality of test equipment, especially GPETE and common tools, with that already used by other MATCALS subsystems. GPETE shall be identified in accordance with MIL-STD-1364F. ATE for digital circuitry will be the GENRAD 2225; no ATE shall be considered for analog circuits.
>
> 3.7.1 Test Requirements Document (TRD)
>
> The contractor shall **identify and analyze** measurement parameters, diagnostic techniques and instrumentation required to verify operation, align, and fault isolate down to the piece part level the components of the ATCS being procured. . . . ATE and non-ATE requirements shall be identified in separate sections of this document. For paragraph 5.6.2.3 [MIL-STD-1345B], Test equipment and tool test, the contractor shall **identify** the recommended model of test equipment.
>
> 3.7.2 Test Program Sets (TPS)
>
> The contractor shall use the TRD in conjunction with the proposed ATE to **develop** Test Program Sets (TPS) for digital circuitry. The contractor shall **identify** contract resources dedicated to this effort, identify major milestones,

and schedule reviews and tests as required herein. The contractor shall **develop a** TPS for digital subassemblies [changed from "TPS for each digital assembly" by Amendment No. 1, dated 10 February 1984, to the Statement of Work, R4, tab 14] in accordance with paragraphs 4.0, 5.1, 5.2, 2.3, 5.4, 5.5, 5.7, 5.8, 5.9, 5.10.1, 5.10.2, 5.10.2.2, Appendix A and Appendix B of MIL-STD-2077 and ELEX-A-597. The TPS shall be used in conjunction with the GENRAD 2225 to accomplish the test objective of paragraph 3.6.4 of ELEX-A-597. Each TPS shall be **developed** in accordance with 3.7.2.1 through 3.7.2.4.

3.7.2.1 Test Program

The Test Program (TP) is a coded sequence of instructions which, when executed by the ATE, will accomplish the test and fault diagnostic objectives of the respective TPS. Test programs shall be **developed** in accordance with the following requirements:

a. The contractor shall **develop** the detailed program design requirements for the TP in accordance with the TRD, MIL-STD-1345B and section 5.2 of DOD-STD- 1679A.

. . . .

3.7.2.3 Interface device

The contractor shall fabricate interface devices for all digital subassemblies in the ATCS in accordance with paragraph 3.6.5 of ELEX-A-597.

(Emphasis added; R4, tab 14)

Paragraph 3.7.1 did not require appellant to design or deliver any test equipment (tr. 1/110). The CDRL A018 was the Test Requirements Document (TRD) specified in paragraph 3.7.1 of the SOW. The Government waived the TRD requirement of paragraph 3.7.1 of the SOW and there is no evidence that appellant ever submitted the data as specified in CDRL A018 (tr. 1.109-10). The TPS, as reflected in paragraph 3.7 of the SOW consisted of three essential parts: a computer software procedure which ran the ATE to implement fault detection and fault localization; the interface device that

provided the interface between the assembly or subassembly under test and the ATE; and the test procedures, such as an operator's manual (tr. 1/111). The delivery of three copies of software was required under CDRL D005. The requirements of paragraph 3.7.2, including its subparagraphs, were dependent upon the Government's approval of the TRD required under paragraph 3.7.1 of the SOW and CDRL A018.

Appellant understood paragraph 3.7.2 of the SOW to require development of TPSs so that Class D test requirements could be demonstrated for organizationally repairable subassemblies, but that it did not require delivery of TPSs in the production quantities (tr. 1/114). This was based, in part, on the use of the active and passive voice of the verb, "develop," in paragraph 3.7.2; the fact that paragraph 1.1 of the SOW did not determine deliverable quantities; that paragraph 3.7, of which paragraph 3.7.2 was a part, required data to be used by the Government to identify equipment needed to support the Government's maintenance concept; and the "test objective" of paragraph 3.6.4 of ELEX-A-597A, as referenced in paragraph 3.7.2. The test objective of paragraph 3.6.4 of ELEX-A-597A was to use only the ATE, rather than supplementing it with GPETE and/or guided probes, to detect and fault isolate a particular printed circuit board (tr. 1/132-33). The Government's chief engineer for the program interpreted paragraph 3.7.2 of the SOW as requiring the contractor to identify test equipment, diagnostic procedures and tools, but that it did not require the contractor to deliver anything other than the TRD as required by CDRL item A018 (joint ex. 1/212-16). Test set hardware was not addressed under paragraph 3.3.2.4 of the SOW which dealt with formal software testing to ensure system integration for certification that the hardware and software representing the system met all contractual requirements (R4, tab 14; tr. 1/137). The RFP did not specify any tests for test set hardware, such as interface devices. As a result, appellant concluded that since there was the lack of specification and acceptance criteria, TPS was required only to support the one-time Class D maintainability demonstration, not for an on-line , or built-in capability (tr. 1/173).

According to paragraph 3.6.5 of ELEX-A-597A, the ATE interface device shall provide mechanical and electrical connection and signal conditioning between the ATE and the printed circuit board (PCB) subassemblies, with a minimum ratio of interface devices to PCBs of not less than ten PC cards to one interface device. Paragraph 3.6.5 of ELEX-A-597A did not reference paragraphs 3.7.1 and 3.7.2 of the SOW. Paragraph 3.7, and its respective subparagraphs did not contain any requirement for delivery of TPS.

Unrebutted expert testimony established that normally the logistics part of a system, including TMDE or PSE, would trail the Prime Mission Equipment (PME), and that a contractor would have to finalize the PME design before designing TMDE (tr. 1/16-18). Moreover, according to this expert testimony, which was based on experience in Defense major systems program acquisition, TMDE is normally procured after the

PME was developed, usually by options to the primary contract, or with follow-up contracts.

The SOW incorporated MIL-STD-2077, which contained the general requirements for the development, test documentation, configuration management, quality assurance and preparation for delivery of test programs (TP) and the related hardware and documentation to be used in conjunction with an appropriate ATE to test units under test (UUTs) (R4, tabs 14, 94). Although MIL-STD-2077(AS) defined and specified the general requirements for TPS and ID, there was no requirement specified for the delivery of TPS. When appellant prepared its proposal, it did not read MIL-STD-2077(AS) as incorporating TPS as part of the ATCS and as requiring delivery of multiple sets of external TMDE or PSE (tr. 1/131). Rather, it understood the purpose of the reference to MIL-STD-2077(AS) in paragraph 3.7.2 of the SOW to provide guidance, in conjunction with the approved TRD, for designing a TPS, particularly with respect to reducing the number of interface units by efficient interface adapters (tr. 1/136-37).

The specification, ELEX-A-597A, paragraph 1.1 stated that the scope of the specification was to cover the requirements for design and testing of the ATCS for the MATCALS. The MATCALS mission, according to paragraph 1.1, required extreme mobility, high reliability, and minimum limitations due to weather and ground clutter (R4. tab 15). Paragraph 3.2 described the ATCS as follows:

> ATCS description. The ATCS shall be composed of the equipment specified in a through d:
>
> a. Airport surveillance radar (ASR)
>
> b. Identification, friend or foe (IFF) beacon subsystem, hereinafter referred to as the beacon.
>
> c. Tracker unit
>
> d. Data interface unit (DIU)

(R4, tab 15) Paragraph 3.2 further provided that in the operation configuration, this equipment, except for the antenna group, shall be contained in a single shelter, identified in figure 11 of the specification as AN/TPS-73. The subparagraphs of paragraph 3.2 provided descriptions of subcomponents of the top level components. This specification description of the ATCS did not include any support elements. This was consistent with the Schedule, Section B, in which support type activities were included in option CLINs 0004 (training), 0005 (on-call field engineering services), 0009 (CLIN 0006 in the contract, test jigs and fixtures), and the option CLINs dealing with interim repair parts,

maintenance repair parts, and certain option data requirements. These logistical support elements, including test jigs and fixtures, were separately identified in Section B as option CLINs and were not defined as subelements of items a., b., c., and d. in the paragraph 3.2 description of what was included in the ATCS, and its subparagraphs defining what were included in items a., b., c., and d. As a result, potential competing offerors would not know how to include PSE/TMDE in their pricing/cost structures required by paragraph 5.0 of Section L of the RFP (R4, tab 135; tr. 3/19-20). Paragraph 3.4 of ELEX-A-597A specified the design requirements for the equipment identified as part of the ATCS in paragraph 3.2. There were no design parameters for external TMDE specified in paragraph 3.4.

Paragraphs 3.5 and 3.6 of ELEX-A-597A specified the reliability and maintainability requirements for the ATCS. Paragraph 3.5, provided, *inter alia*, that the lower test mean-time-between-failures (MTBF) of contractor-furnished equipment in the ATCS shall be 500 hours. The Government's maintenance concept was set forth in paragraph 3.6 of ELEX-A-597A, in pertinent part, as follows:

> 3.6 Maintainability. Maintainability shall be as specified in 3.6.1 through 3.6.7.
>
> 3.6.1 Quantitative maintainability requirements. The ATCS, including its built-in test equipment (BITE) (see 6.4.4), shall have a specified mean-corrective-maintenance-time . . . no greater than 40 minutes and a specified maximum-corrective-maintenance-time . . . at the 95th percentile point no greater than 1.5 hours, when corrective maintenance is accomplished at the organizational level (technician level) of maintenance by the replacement of lowest subassemblies (modules, printed circuit (PC) cards) and chassis-mounted components (including electronic, electrical, electromagnetic, and mechanical parts).
>
> 3.6.2 Maintenance concept The maintenance concept for the ATCS shall be as specified in a through c:
>
> a. Organizational maintenance: Organizational level maintenance will be performed by Marine Air Traffic Control Radar technicians (MOS 5953) assigned to the Marine Air Traffic Control Squadrons (MATCS). The technicians will make periodic inspections and perform preventive maintenance; that is, tune, adjust, and align systems and equipment, or all three, for proper operation. The

technicians will diagnose and isolate malfunction to the fault; remove and replace the faulty subassembly; and verify that the malfunction has been corrected.

1. Corrective maintenance performed on the ATCS shall consist of diagnosing and isolating a malfunction to the faulty lowest subassembly (module, PC card, or chassis-mounted component); remove and replace subassembly; and verify that the malfunction has been corrected.

2. Corrective maintenance of the faulty repairable subassemblies (modules, PC cards, power supplies) shall be accomplished on-site in a separate maintenance shelter. Corrective maintenance of faulty subassemblies shall consist of removal and replacement of the lowest replaceable piece part.

3. Miniature and microminiature repair specified in A and B shall be accomplished on-site in the AN/TSM-170M maintenance facility.

. . . .

b. Intermediate level maintenance. Intermediate level maintenance shall be provided for specified test equipment. Verification or calibration of test equipment shall be performed by designated Government activities.

. . . .

3.6.3 Maintenance design. . . .

3.6.3.1 Test measurement and diagnostic equipment (TMDE) (see 6.4.6). TMDE shall be as specified in 3.6.3.1.1 through 3.6.3.1.4.

3.6.3.1.1 Test provisions. Test provisions applicable to the ATCS shall be as specified in a though d.

a. Class A test provisions. [Verify that ATCS on-line equipment is operating properly]

b. Class B test provisions. [Fault-locate the equipment failure to the assembly level]

c. Class C test provisions. [Fault-locate the failure to the subassembly level]

d. Class D test provisions. Class D test provisions shall provide a means to fault-locate to electrical functional items (that is, integrated circuit filter, mixer, voltage controlled oscillator, and so forth), and to align the equipment, unit, assembly, or subassembly. Class D test provisions may be accomplished by the use of test points in conjunction with automatic test equipment (ATE) or GPETE and shall have the capability to isolate all the failures to the electrical functional items on a subassembly.

. . . .

3.6.3.7 Diagnostic test equipment. Conformance to the requirements of 3.6.3.6.1 and 3.6.3.6.2 may be achieved with the use of the AN/USM-465 for digital subassemblies.

. . . .

3.6.4 ATE. Off-line ATE provisions shall be specified in 3.6.4.1 and 3.6.4.2.

3.6.4.1 ATE test provision restrictions. The ATE test provisions for subassemblies shall not be accomplished through the use of external GPETE (not part of the ATE system), SPETE, or a guided probe feature of the ATE system.

3.6.4.2 Interface device and computer software. The associated interface device and computer software for all subassemblies tested with the use of the AN/USM-465 shall be provided with the ATCS. The AN/USM-465 shall be kept in the AN/TSM-170 maintenance facility.

3.6.5 ATE interface device. The interface device shall provide the mechanical and electrical connection and signal conditioning between the ATE and the PCB subassemblies or assemblies. As a minimum requirement, the ratio of interface

devices to PCBs shall be not less than 10 PC cards to one interface device.

(R4, tab 15) The majority finds that ELEX-A-597A, paragraph 3.6.3.1, required "test measurement and diagnostic equipment" (TMDE). Paragraph 3.6.3.1 is merely the title paragraph hierarchically under paragraph 3.6.3 identifying the maintenance design for the ATCS. There is nothing in paragraph 3.6.3, or its subparagraphs that identified TMDE as a component complement of the ATCS or that required appellant to deliver TMDE to the Government with each ATCS delivered.

As quoted above, paragraph 3.6.3 of ELEX-A-597A provided for the maintenance design of the ATCS. It did not purport to define the performance requirements of TMDE or how the quantitative maintainability requirements described in paragraph 3.6.1 would be met through the use of TMDE. Paragraph 3.6.3.1.1 described the test provisions in two categories. As reflected in paragraph 3.6.3.1 and its constituent subparagraphs, there were two types of TMDE (tr. 1/60-61, 151-55). The first type of TMDE was the built-in (BIT/BITE) TMDE for Classes A-C tests and was a part of the ATCS relating to the quantitative maintainability requirements of paragraph 3.6.1 for the ATCS. This was required for performing on-line diagnostics that were mission direct. The other, was the TMDE (PSE) for Class D tests, which was for performing off-line diagnostics in the AN/TSM-170 maintenance facility that were not mission direct. Classes A, B, and C test provisions were to be built into the ATCS and related directly to the quantitative maintainability requirements of paragraph 3.6.1 (see also, tr. 1/152-55). These tests were to be performed while the ATCS was operating. Class D test provisions were not built into the ATCS (tr. 1/154). They were not related to the ATCS quantitative maintainability requirements of paragraph 3.6.1. Rather, they were related to subassembly repair design goals of paragraph 3.6.3.6. Class D test provisions required the contractor to design the subassemblies or PCBs so that technicians would be able to detect faults and isolate to component levels on those subassemblies off-line from the PME in the AN/TSM-170 maintenance shelter (tr. 1/154, 168-69). Therefore, appellant understood the Class D requirements with respect to fault detection and isolation to be part of the criteria for designing new PCBs.

There were no quantitative maintainability requirements for fault detection and repair of digital assemblies specified in paragraph 3.6.1. Rather, the faulty digital subassemblies were to be removed to the maintenance facility in accordance with the "maintenance concept" set forth in paragraph 3.6.2 for the entire MATCALS. Paragraph 3.6 did not include any requirements that related to repair of the defective subassembly. At the time appellant prepared its proposal, it understood the purpose of paragraph 3.6.2 to be informational to the contractor so that it would understand the Marine Corps' maintenance concept. According to appellant's understanding of paragraph 3.6.2 of ELEX-A-597A, this paragraph was not directly related to any delivery of hardware for the

ATCS. Thus, according to paragraph 3.6.2.a.2., the corrective maintenance activities of faulty repairable subassemblies were to be accomplished in a separate maintenance shelter and, since the maintenance shelter was not a part of the instant ATCS contract, the activity described in paragraph 3.6.2.a.2 was outside the scope of the contract, as defined in paragraph 1.1 of the SOW and paragraph 3.2 of ELEX-A-597A. Similarly, ELEX-A-597A, paragraphs 3.6.2.a.3 through 3.6.2.c., described maintenance activities that were not included within the scope of the instant ATCS contract (tr. 1/147-51). Appellant was never required to provide tools for the miniature and micro-miniature repair referenced in paragraph 3.6.2.3.

Paragraph 3.6.4, ELEX-A-597A, the ATE test provisions of paragraph 3.6.4 and its respective subparagraphs applied to off-line testing in the separate AN/TSM-170 maintenance facility. ELEX-A-597A did not contain any performance parameters, design requirements, acceptance tests, packing instructions or inspection procedures for the hardware identified in paragraph 3.6.4. Appellant interpreted paragraph 3.7.2 of the SOW and paragraph 3.6.4 of ELEX-A-597A as requiring the use of TPS and ATE (GENRAD 2225 or AN/USM-465) to accomplish the test objectives of paragraph 3.6.4 of ELEX-A-597A, without the use of external GPETE (not part of the ATE system), SPETE, or a guided probe (tr. 1/131-32). Appellant did not understand paragraph 3.6.4 to require delivery of multiple sets of external TMDE or PSE.

Paragraph 4.3 of ELEX-A-597A provided that one unit of the ATCS shall be required for first article inspection. This provision stated that the first article inspection shall consist of all the examination and testing necessary to determine compliance with the requirements of the specification and shall include the tests specified in Table IV, which was a part of this paragraph. Table IV listed every examination or test required to show compliance with ELEX-A-597A, correlating the particular test to the paragraph in ELEX-A-597A, in which the requirement was set forth, and to the test paragraph which identified the specific tests for first article inspection, and the tests required for the quality conformance inspection for the production quantities. The item, listed under examination or test, "Maintainability and BIT demonstration," identified requirement paragraph 3.6 and test paragraph 4.10 of ELEX-A-597A, specified first article inspection as applicable, but did not specify conformance inspection (production) as applicable. Paragraph 4.10 of ELEX-A-597A provided that:

> Maintainability and BIT demonstration. The contractor shall perform a combined maintainability and BIT and BITE demonstration at the technician level of maintenance. The demonstration shall be performed on the first article by personnel with experience equivalent to a LCPL, CPL, or SGT (Marine Air Traffic Control Unit Radar Technicians, MOS 5953).

The subparagraphs of paragraph 4.10 specified the criteria for acceptance or rejection, the environment in which the tests would be performed, and the selection of the technicians to perform the maintainability demonstration by the procuring activity. Paragraph 4.10.1 applied to the removal and replacement of faulty subassemblies, and therefore, applied only to classes A-C tests, and required demonstration that the quantitative maintenance requirements of paragraph 3.6.1 of ELEX-A-597A had been satisfied. As stated by the majority in finding 14, paragraph 4.10.4 required ATE and procedures developed for subassembly checkout to be used in the manufacturing or production testing, but there was nothing in the paragraph that required delivery and acceptance testing of TMDE. Paragraph 4.10.4.1 provided for a demonstration of fault diagnosis and subassembly repair using the AN/USM-465 or other test equipment to verify conformance to 3.6.3.6. This demonstration was to be performed either by a Government technician or in the presence of a Government witness in accordance with paragraphs 4.10.4.1.1 and 4.10.4.1.2. Paragraph 4.10.2 provided that "TPS shall be subjected to a system performance test to verify that the hardware and software represent the TPS as specified herein" and that conformance to the TPS requirements for fault detection and isolation had been achieved. No tests were defined. No specifications were identified. No pass/fail criteria were mentioned. No production standards were referenced. The only requirement, "specified herein," was to have at least 10 PC cards to one interface device as required by paragraph 3.6.5 of the specification, ELEX-A-597A. There was nothing in paragraph 4.10 and its subparagraphs that applied this inspection and testing to production ATCS units.

At the time appellant prepared its proposal, it understood the requirements of paragraph 4.10 of the specification, and its subparagraphs, together with Table IV, in the context of the RFP, to require only a one-time maintainability and BIT and BITE demonstration to establish that appellant had included in the design, capability to fault localize and isolate faults to an LRU (line replaceable unit) and to a part (tr. 1/171-73, 3/36). According to both the language in paragraph 4.10 and the listing of tests in Table IV, this demonstration was to be performed on the first article.

Paragraph 4.4.1 of this specification provided that quality conformance and production inspections would be performed on every ATCS offered for delivery to prove the workmanship and reveal omissions and errors of the production process, and would consist of the tests specified in Table IV. Table IV did not make this testing requirement applicable to the maintainability and BIT demonstration, examination, or test. There was nothing in this Table IV and in ELEX-A-597A that required inspection of production ATCS units to verify either the presence or workmanship of TPS (external PSE/TMDE) (tr. 1/161, 171).

The majority interprets the contract clause, FIRST ARTICLE (GOVERNMENT TESTING) SPECIAL PROVISIONS, as essentially nullifying Table IV and the requirements of paragraph 4.10 of ELEX-A-597A. According to the majority's understanding of this clause, "'whatever interface device and computer software' comprising TPS or TMDE had to correspond with each production ATCS configuration, including TPS." The clause simply does not say that. It merely states that the first article ATCS shall conform in every respect with the requirements set forth for production equipment (CLINs 0002AA-0002AE), and "shall be manufactured with tools, materials, and equipment which are the same as, or representatives [of those used in the manufacture of the production ATCS]." There is nothing in this clause that required the delivery of test equipment used for demonstrating ATCS maintainability, just as there was nothing in the clause that required the delivery of tools, material, and equipment used in the manufacture of either the first article or production ATCS.

Both prior to, and after the issuance of the RFP, potential offerors asked questions concerning the SOW and specifications, and were given answers to the questions. The questions and answers were set forth in the RFP and in amendments to the solicitation (R4, tabs 1-8, 16). There is no evidence in the record that any potential offeror asked the Government whether or not the contractor was required to provide external TMDE/TPSs with each production ATCS delivered. Question and answer 15 dealt with the MATCALS concept as outlined in SOW paragraphs 3.7 and 3.12, and ELEX-A-597A, specifically, as these provisions related to the fault isolation, and repair or replacement of faulty LRUs using GFE ATE GENRAD 2225, and GPETE, and depot repair (R4, tab 1). The answer stated that the specification paragraphs related to the technical manual, training, BIT/BITE, ATE, Test Equipment, tools, etc., all of which "interrelate to express the ATCS programs [sic] desire to maximize repair capabilities at the operational site," which would "include the use of ATE located in a maintenance facility that will normally accompany the operational system on deployments that exceed 30 Days."

Question 16 referenced paragraph 3.6.3.1.4 of ELEX-A-597A, and stated the questioner's interpretation of this paragraph that items of GFE GPETE required to perform equipment repair of subassemblies were to be contained within the maintenance facility shelter, and asked if those items required for fault isolation, specifically the GENRAD 2225, would be contained in the maintenance facility (R4, tab 1). The answer given by the Government to this question stated that the GENRAD 2225 (AN/USM-465) was not a GPETE item and that the AN/USM-465 with its test program sets would be located in the maintenance facility.

Question 17 dealt with paragraph 3.6.4 of ELEX-A-597A, and addressed the issue of whether the contractor was responsible for software development for the GENRAD 2225, and if so, whether the GENRAD 2225 was to be supplied as GFE (R4, tab 1). Although not responsive to this question, the Government answered that the contractor

was responsible for providing the test program set as defined in MIL-STD-2077, which included an interface device, software for the ATE, and instructions concerning the use of the ATE with the software. Neither paragraph 3.6.4, including its subparagraphs, of ELEX-A-597A, nor question and answer 17, required a contractor to deliver a TPS with each and every ATCS delivered. The Government further stated in its answer that the GENRAD 2225 or AN/USM-465 was not provided as GFE, but was to be available to Marine technicians in the field.

Appellant reviewed the questions and answers in preparation of its technical proposal (tr. 1/79-80). Appellant understood that question 15 and its answer related to the MATCALS maintenance concept, and that it was not relevant to how many sets of PSE were to be delivered under the contract. Appellant did not understand question and answer 16 as relevant to whether more than one set of PSE was to be delivered since there was no reference in the RFP to the quantity of PSE to be delivered. Rather, appellant understood this question and answer to be further explication of the maintenance concept.

With respect to question and answer 17, appellant did not believe that this was relevant to the number of PSE sets to be delivered. Contract Data Requirements List (CDRL) item D005 required the delivery of three sets of ATE Program Packages (R4, tab 13; tr. 1/81, 4/27-31). Appellant understood this question and answer to apply to the CDRL item, although appellant admitted on cross-examination that the answer went beyond software development and that the contractor was responsible for providing an interface device in addition to software (tr. 2/136-37). However, appellant did not understand this question and answer to apply to deliverable requirements under the contract, and specifically, to require delivery of more than one TPS.

The majority found that appellant prepared an internal ATCS work breakdown structure (WBS) which included recurring PSE costs (finding 3). To a limited extent, this is accurate. However, appellant prepared this internal "strawman" Engineering Job Analysis (EJA) prior to the Government's issuance of the RFP on 12 August 1985, in conjunction with its analysis of the anticipated requirements (R4, tab 88, ex. 4; tab 201; tr. 1/62-67). This pre-RFP EJA depicted Prime Mission Equipment (PME) (the AN/TPS-73 ATCS) consisting of two portions, one for non-recurring PME costs, and one for recurring costs for 17 units of PME. Upon its receipt of the RFP and based on its technical evaluation of the RFP requirements, the SOW, and ELEX-A-597A, appellant determined that there were no requirements other than to demonstrate that the subassemblies would meet the requirements for Class D maintainability. Accordingly, appellant deleted from the EJA "strawman," the recurring costs associated with the PSE, thereby indicating its interpretation that the RFP did not require multiple deliveries of PSE. This EJA was an internal document of appellant and was not presented to the Government at any time prior to this appeal.

Appellant's technical proposal identified the applicable paragraphs of Section L of the RFP, the paragraphs of the SOW and the paragraphs of the specification, ELEX-A-597A, so that there was a cross-reference between the requirements of the RFP and appellant's technical proposal detailing how those specific requirements would be met. Paragraph 3.1.2 of the proposal contained the equipment description for the ATCS. Figure 3.1, page 3-3, of the technical proposal depicted the ATCS equipment complement, with the ATCS shelter shown with all the required interfaces (R4, tab 9; tr. 1/177-80). It did not show any ATCS interface with the maintenance facility (tr. 1/182).

Section 4 of the Technical Proposal volume contained appellant's proposal for satisfying the maintainability requirements of the SOW and ELEX-A-597A. Paragraph 4.1 discussed maintainability proposal referencing paragraph 3.2.2.2 of the SOW and paragraphs 3.6.1 through 3.6.3.6.2 of ELEX-A-597A. Paragraph 4.1 stated that Class A, B, and C "test provisions of the production systems have been incorporated into the ATCS design and are instrumental in providing a system that exceeds the specified maintainability requirements." Paragraph 4.1 further stated that testability of previously developed or existing subassemblies were listed in Table 4-1 as Class D testing. Table 4-1 referenced paragraphs 3.6.3.6.3.1 and 3.6.1 of ELEX-A-597A for applicable Class D provisions and subassembly repair respectively and indicated that the proposed Class D maintainability design surpassed the quantitative maintainability requirements specified in the specifications. In contrast to the Class A, B, and C test provisions, which were a part of and incorporated into each production ATCS, paragraph 4.1 indicated that the Class D test provisions were not built into the production ATCS units, but were an off-line design. Moreover, as stated in paragraph 4.1, "all digital subassemblies are ATE compatible," which meant that they could be tested by the ATE, or the GENRAD 2225 (tr. 1/186-87).

Appellant's Proposal, Volume III, "Cost/Price" provided cost/price visibility through a Work Breakdown Structure (WBS) (R4, tab 9; tr. 1/191-94). First, there was a diagram in Figure 1.6-1 of the WBS setting forth the Level 2 sub-elements of the ATCS and Level 3 sub-elements that reported to Level 2. (*See also* R4, tab 9, at A-1.3-3) The PME and PSE were on the same level of this hierarchical structure. If PSE were to be contained in the PME hierarchy, it would have been contained below that particular line rather than on the same WBS level (tr. 1/197-200). According to Figure 1.6-1, appellant was providing non-recurring costs for PSE to demonstrate maintainability because it was only providing test equipment and test fixtures necessary to demonstrate maintainability. If appellant had proposed to supply PSE for all systems, it would have reflected this intent by including PSE below item 0150 of the WBS in Figure 1.6-1, which was PME.

Appellant's WBS analyzed the ATCS as either PME or PSE shown as level 2 items. The PSE referred to TMDE that was not mission direct and was shown in

appellant's WBS as not part of PME (R4, tab 9, at A-1.3-3). The Government never requested appellant's clarification of the term, PSE (tr. 2/32).

Appellant's WBS divided the costs into non-recurring costs for the development of the first article ($14 million for WBS item 0100) and recurring costs for the 17 deliverable units ($44 million for WBS item 0150). The WBS item 0300 showed the non-recurring cost for the development of the first article PSE, and no recurring costs for PSE. WBS item 0302 on level 4, automatic test equipment, reflected the non-recurring cost for the design and development to demonstrate maintainability (tr. 1/196). The same information was repeated twice in appellant's Cost/Price proposal (R4, tab 9, at 25, 28, 30).

Appellant's WBS, Item 0150, "PME RECURRING (QTY 17)" included the components, which according to appellant's WBS, reported to Item 0001, PRIME MISSION EQUIPMENT (PME) (R4, tab 9, table 1-1, at 20-21). As set forth in this WBS, Item 0150 did not include any PSE, TMDE, TPS, or other off-site, off-line test equipment with each of the 17 ATCS units delivered to the Government.

Appellant's Management Proposal of 12 August 1985 referenced paragraph 3.7 of the SOW and discussed appellant's approach to ATCS maintainability, in pertinent part, as follows (R4, tab 136, at 3-13):

> 3.8.2.5 Test Equipment: Support and test equipment requirements will be identified during the design review process and integrated with the associated ILS tasks (PMS, technical manuals, etc.).

Paragraph 4.1.1 of appellant's Management Proposal, referencing paragraph 3.1 of the SOW, set forth the functions of its ATCS program master plan, divided into a set of four hierarchical groups as illustrated in Figure 4-1 of appellant's proposal. One such group was the test plans that would encompass all anticipated test activity from lowest level subsystem to final system test and evaluation. Included in the test plans group was "maintainability demo plan" required in CDRL Item A00T. Figure 4-2(a) was a diagram of the WBS for the ATCS and was identical to Figure 1.6-1 submitted as part of appellant's Cost/Price Proposal. As in Figure 1.6-1 of the Cost/Price Proposal, Figure 4-2(a) of the Management Proposal depicted non-recurring PME for all systems and recurring PME for 17 ATCS units, both of which were identified under PME at Level 2. In both Figure 1.6-1 and Figure 4-2(a), PSE was separated at Level 2 from PME, with no recurring costs indicated for PSE. Figure 4-2(b) was the WBS for the Air Force option quantities. No PSE was indicated in Figure 4-2(b) for the Air Force requirements (tr. 2/7-10). Under the CLIN structure of the RFP, appellant was not guaranteed any orders for production units for the Air Force.

Paragraph 4.3.2 of appellant's Management Proposal referenced the first article test program required by ELEX-A-597A, and stated that appellant would achieve this by building four complete sets of assemblies for the test program. Three of these were to be integrated into complete systems so the required first article inspections could be divided among the three systems, with the fourth set to provide assets for the subassembly maintainability demonstration.

The emphasis of appellant's approach to satisfying the system maintainability requirements of the SOW and ELEX-A-597A, was to demonstrate its understanding of the Government's maintenance concept, through the incorporation into the ATCS design Class A, B, and C test provisions. Additionally, appellant reflected in its proposal that it would develop digital subassemblies in the ATCS, which had been and would be factory tested on the GENRAD prior to their installation in an assembly; that appellant would provide three devices to interface with the AN/USM-465 and the software for AN/USM-465 testing of digital subassemblies in accordance with the CDRL. As reflected in the WBS, the cost breakdown, and the management plan for satisfying the maintainability requirements and first article test, appellant proposed to demonstrate satisfaction of the maintainability requirements during the maintainability demonstration through the provision of PSE for demonstration purposes only. This was a non-recurring cost. There was nothing in appellant's technical, cost/price, and management proposals to indicate that appellant proposed providing PSE/TMDE with each production ATCS unit to be delivered to the Government.

Read together, appellant's Technical, Cost/Price, and Management volumes of its 12 August 1985 proposal indicated the following (tr. 1/190-99, 3/22-23): First, appellant proposed to use the GENRAD 2225 (or AN/USM-465) to demonstrate compliance with the maintainability demonstration requirements. Second, appellant would provide TPSs to support the maintainability demonstration. Third, appellant did not propose to deliver PSE (including TPSs) as part of its delivery of the PME (ATCS). These elements of appellant's Technical, Cost/Price, and Management Proposals all support the testimony of appellant's witnesses concerning appellant's pre-award interpretation of the SOW and ELEX-A-597A provisions that dealt with the Government's maintainability concept and TMDE.

Following the receipt of the proposals from offerors, including appellant's proposal of 12 August 1985, the Government submitted written questions to each of the offerors, including appellant. Appellant responded to the Government's questions in its Revised Proposal of 14 April 1996 (R4, tab 10; tr. 2/11-12, 15-16). None of the Government's questions about appellant's proposal addressed, either directly or indirectly, the number of external TMDE sets to be delivered (R4, tab 10; tr. 2/16-18). However, in one question, the Government asked appellant to describe in detail the test

equipment that would be required to carry out the MATCALS maintenance mission with respect to the ATCS, and to describe in detail the information that would be supplied that would enable the MATCALS organization to isolate failures when BIT/BITE failed to perform its intended function. Appellant responded stating that an examination of the test equipment to support the corrective maintenance tasks to the ATCS's lowest subassembly in both the ATCS shelter and the AN/TSM-170M maintenance shelter revealed that GPETE identified in the MATCALS allowance list (Attachment 1 to Amendment 0001 of the RFP) and the AN/USM-465 were adequate for the ATCS.

Appellant's revised proposal presented a single shelter design instead of the dual shelter approach taken in its initial proposal. This change was reflected in Figure 3-1R of the revised proposal (R4, tab 10, Bates page 15). Like Figure 3-1 in the initial Technical Proposal (R4, tab 9, Bates page 4), Figure 3-1R in the revised Technical Proposal depicted all the ATCS interfaces and listed all equipment to be provided in the ATCS shelter. It did not, however, depict any externally located PSE. The revised Technical Proposal did not change the way appellant proposed to approach compliance with the Class D test provisions for demonstrating organizationally repairable subassemblies and did not change anything previously proposed that could be construed to indicate that appellant proposed to deliver recurring PSE (tr. 2/20-22). These revised proposals confirm appellant's pre-award interpretation as to whether or not TPS was a deliverable complement with each ATCS.

Appellant's revised Cost/Price Proposal, Best and Final Offor (BAFO), and Revised BAFO contained a WBS in the same form as submitted in its initial Cost/Price Proposal (R4, tabs 9, 10, 11, 12). Following the Government's receipt of the revised Cost/Price Proposal, the Government once again submitted questions to all the offerors, including appellant. In its BAFO, appellant responded to the Government's questions. The Government did not pose any questions or requests for clarification about the number of external TMDE sets to be delivered based on its evaluation of appellant's revised proposal (R4, tab 11; tr. 2/31-32). The revised Cost/Price Proposal and two BAFOs did not show any recurring costs for PSE (tr. 2/33-36). The revised Cost/Price Proposal and two BAFOs did not reflect any change with respect to appellant's pre-award interpretation of the contract and whether or not the TPS was a deliverable component of each ATCS, and as such, supported appellant's testimony concerning its interpretation of the contract requirements.

SPAWAR had a source selection plan for the RFP with a contract acquisition review panel (CARP) (tr. 4/18-25). The technical evaluation panel was responsible for reviewing the technical and management proposals, and the contracting officer and cost analyst were responsible for evaluating the cost proposals. The technical evaluation panel prepared questions regarding matters that required clarification or more information, and submitted these to the offerors for response. The technical evaluation panel did not

raise any questions relating to Class D testing during its evaluation of the proposals the Government received in response to the RFP (tr. 3/116-18). The CARP did not analyze the cost proposals since the contract award was based on price competition. There was no evidence presented that anyone in the Government, prior to award of the contract, read or analyzed appellant's Cost/Price proposal, either as it was originally submitted, or revised in the revised proposal and the two BAFOs.

In addition to appellant's proposal, two offerors, ITT-Gilfillan, and Gould/3 DBM, proposed in their technical proposals to use the GENRAD 2225 (AN/USM-465) to meet the Class D maintainability demonstration, but did not propose to deliver external TMDE (PSE) with each ATCS delivered to the Government (exs. A-9, A-10; A-12, and G-1, tr. 2/65-76, 3/69-70). There were no descriptions of external TMDE, or statements that could be construed as stating that they proposed to deliver external TMDE or TPSs with each and every ATCS to be delivered to the Government. Gould/3 DBM's proposal regarding paragraphs 3.6.3 and 3.6.4 and their respective subparagraphs, provided that "[a]ll digital subassemblies will be tested and repaired using the AN/USM-465 tester located in the maintenance shelter." Both ITT-Gilfillan and Gould/3 DBM cost proposals and BAFOs did not contain any recurring costs for PSE for the 17 ATCS units to be delivered (tr. 3/33-56, 62, 81-83). Had they intended to deliver multiple sets of TMDE, their normal practice would be to include the costs as both recurring and nonrecurring costs. There was no persuasive evidence that either of these two offerors proposed to deliver PSE with each and every ATCS delivered to the Government.

The technical evaluation panel reviewed appellant's proposal (tr. 3/126-29). There is no evidence that the technical evaluation panel or the CARP understood appellant's proposal as including delivery of a TPS with each ATCS unit to be delivered.

The Government awarded the subject multiyear contract to appellant on 23 July 1986 for 18 AN/TPS-73 units, which included the first article test unit and one option unit for the Air Force, at the firm, fixed price of $43,694,622 (R4, tab 13; joint ex. 2). The contract, Section C. Description/Specifications/Work Statement, incorporated the following documents as part of the contract: The SOW as amended by amendment 1 dated 15 May 1985 and amendment 2 dated 17 March 1986; the specification ELEX-A-597A; the questions submitted by all potential offerors during the solicitation phase of the procurement and the Government answers responding thereto, extracted from solicitation amendments 0001 through 0006; appellant's Technical, Management, and Cost/Price proposals submitted 16 December 1985; appellant's Revised Technical, Management, and Cost/Price proposal submitted 14 April 1986; appellant's BAFO submitted on 7 May 1986; and appellant's revised BAFO submitted 14 July 1986.

The contract SOW provided in paragraph 3.1 the requirement that the contractor develop and maintain an integrated management control system in-house capability which would provide the framework for defining contract work, assigning work responsibility, summarizing planned versus actual accomplishments and schedule achievements (R4, tab 14). Paragraph 3.1.2 provided for quarterly meetings to be conducted by the contractor to review and evaluate with Government representatives the complete contract status. Paragraph 3.1.3 provided for technical reviews to be conducted in accordance with MIL-STD-1521A to assess engineering and production effort. Under paragraph 3.1.3.1, a Preliminary Design Review (PDR) was required in accordance with MIL-STD-1521A, at which time, the contractor was required to "emphasize how the proposed system will meet the probability of detection, transportability, reliability, maintainability, safety, and human factors requirements of ELEX-A-597." This paragraph further required the contractor to discuss the interface requirements with the GFE. Paragraph 3.1.3.2 set forth the requirement for the Critical Design Review (CDR), which was also to be conducted in accordance with MIL-STD-1521A, and which also required the contractor to emphasize the same topics emphasized in the PDR.

The contract SOW incorporated MIL-STD-1521A, Technical Reviews and Audits for Systems, Equipments, and Computer Programs (R4, tabs 14, 98). Paragraph 30.1, MIL-STD-1521A, defined the PDR as a "formal technical review of the basic design approach for a CI [configuration item] or for a functionally related group of Configuration Items (CIs)." (R4, tab 98, Appendix C) MIL-STD-1521A provided further in paragraph 30.6 that the contractor was required at the PDR to identify the quantitative maintainability requirements, and in paragraph 30.19.1, to demonstrate and present evidence that the manufacturing engineering would be integrated into the design process and to identify producibility and manufacturing concerns.

The requirements for the CDR were detailed in Appendix D of MIL-STD-1521A. Paragraph 40.1 provided that the CDR shall be conducted on each CI prior to fabrication/production design release to insure that the detail design solutions, satisfy the performance requirements established by the Part I development specification. "The results of a successful CDR shall be the establishment of the design baseline for detailed fabrication/production planning."

On 21 October 1986, appellant submitted its Maintainability Program Plan, as required by CDRL A000Q (R4, tab 91). As set forth in section 4, a combined maintainability and BIT/BITE demonstration test was to be conducted on the first article system. Paragraph 4.6, SUBASSEMBLY TEST AND REPAIR VERIFICATION provided that:

> ATE and procedures developed for subassembly checkout will be used in manufacturing or production testing.

> A demonstration of fault diagnosis and subassembly repair using the AN/USM-465 or other test equipment will be performed to verify conformance to subassembly repair requirement of ELEX-A-597 Paragraph 3.6.3.6. This demonstration will be conducted utilizing the subassemblies determined faulty during organization level maintainability demonstration.

Pursuant to the contract, CDRL A004, appellant submitted its Configuration Management Plan to the Government. The Government approved appellant's Configuration Management Plan on 27 January 1987 (R4, tab 88, ex. 13; tr. 2/47).

Appellant prepared a "straw man" or "family tree" as a baseline allocation document in which the functional requirements were allocated and which defined the PME complement (R4, tab 88, ex. 15; tr. 2/47-53). The system family tree, defined by drawing number, identified all configuration items and listed the items to be delivered with the ATCS in a hierarchical listing (R4, tab 88, ex. 15; tr. 2/47-49). It began with a top level drawing for the ATCS subsystem. The second tier drawings then showed the shelter and all shelter interfaces, such as the air conditioner, the jack pallet, the diesel engineer generator, and the cables. Sheets 1 through 18 showed what was included in each ATCS and corresponded to Item 0150 in appellant's WBS that was incorporated into the contract. There was nothing in sheets 1 through 18 that showed TMDE (PSE) to support Class D tests as an integral part of the ATCS and to be delivered with each ATCS (R4, tab 88, ex. 15; tr. 2/53-54). Appellant's family tree tracked, not only the complement of the PME that was being built, but also, on sheets T-1 and T-2, any test fixtures that were required for demonstrations or for alignments.

Appellant submitted the family tree quarterly to the Government with the Configuration Status Report, and used it for exchanging information between SPAWAR and appellant (R4, tab 88, ex. 15; *e.g.*, R4, tab 99; tr. 2/48-49, 54-58). The family tree of drawings was consistent with appellant's technical and cost proposals. From the date of its first submittal on 20 January 1987, through the end of the project, the systems family tree showed the TPS as supporting the maintainability demonstration as distinct from being an integral part of the deliverable ATCS. Throughout the submission and review process of the system family tree, Government personnel made comments which resulted in revisions to family tree drawings, as noted, on sheet 1 of the family tree (see also supp. R4, tab 217). None of these comments, however, raised any questions concerning what TPS would be delivered with the ATCS.

The PDR was held on 1-5 December 1986 at Great Neck, New York (R4, tab 88, ex. 14; supp. R4, tab 225; ex. G-2; tr. 2/57-60, 3/139-42). The minutes for the PDR and CDRs were prepared by appellant and submitted to the Government as contract

deliverables. Prior to the PDR, there had been no identification of special test equipment, and at the meeting, appellant's approach to satisfying the maintenance requirements included standard support equipment. There was no issue of the quantity of TMDE for Class D tests addressed at the PDR because there was no need to do so since the PDR dealt only with the preliminary design and appellant intended to supply only one set for the maintainability demonstration (tr. 4/95). Appellant provided its approach to the maintenance requirements for Classes A, B, and C. as including BIT/BITE, test points, and GPETE. Class D maintenance included ATE, GPETE, and test points, but appellant did not identify any Special Test Equipment (STE) for Class D maintenance. This was consistent with appellant's proposal which was incorporated in the contract (tr. 3/141). Government representative did not object to, or raise any issues concerning STE and whether there were any deliverable TPSs with the ATCS.

The CDRs were held on 24-25 March 1987 in St. Paul, Minnesota, on 27-30 April 1987 in Great Neck, New York, on 14-20 May 1987 in Selania, Italy, on 27-29 May 1987 in St. Paul, Minnesota, and on 23-25 June 1987 in Great Neck, New York (supp. R4, tabs 211-13, 225-231; ex. G-2; tr. 3/138-53). There were no discussions during these CDR meetings of 24-25 March 1987, 27-30 April 1987, and 14-20 May 1987 concerning the quantity of test sets for Class D maintenance to be delivered with the production ATCS units. Although there were discussions concerning fault detection and fault localization at the CDRs, if Class D TMDE had been required as a deliverable, appellant would have had to submit designs for TMDE for approval under the CDR (tr. 4/96). Since appellant did not understand the contract to require delivery of Class D TMDE, it did not submit such designs for approval.

The minutes submitted by appellant for the CDRs did not contain any discussion concerning the delivery of multiple sets of TPSs for Class D maintenance to be delivered with the production ATCS units (R4, tabs 211-13 225-231; ex. G-2). There were several questions during the CDRs regarding what ATE interface would be supplied, whether appellant would provide additional GENRAD equipment to expand pin capacity beyond the AN/USM-465 design, whether or not ATE expansion adapters would be delivered, and what ATE interface would be supplied (supp. R4, tab 212; tr. 3/148-52). Appellant responded that it would not supply any of these items since they were not deliverables under the contract, except that it would provide one set of interconnect cable and personality boards and interface device when these were no longer needed at St. Paul, Minnesota for development checkout or trouble shooting. The Government did not raise any concerns about these responses when it reviewed the minutes of this CDR. According to the minutes of the final CDR held on 23-25 June 1987 in Great Neck, there was no further discussion of TPS (supp R4, tabs 213, 229-230).

The record is unclear just when the issue of multiple sets of TPS arose. As a result of the March 1988 meeting, the SPAWAR program manager for the MATCALS

requested the ATC project officer and the ATC radar engineer to research the specifications and requirements and respond in writing to him concerning the question whether the TMDE was required only for the maintainability demonstration, or was a deliverable with each ATCS (tr. 4/32-33). In an internal Government Memorandum for Record, dated 16 June 1988, prior to first article testing, the Government's ATC project officer informed the AN/TPS-73 program manager of his concern regarding the deliverable quantity of ATE TPSs, in which he opined that the ATE TPSs were an integral part of each AN/TPS-73 organizational maintenance test capability (supp. R4, tab 218). Nevertheless, there were meetings between the Government and appellant, including one in June 1988, during which it became clear to the Government that appellant intended to provide only the ATC TPS required for the first article maintainability demonstration (tr. 3/175. 4/32-33).

On 24 March 1989, the Government informed appellant it was withholding approval of appellant's Maintainability Demonstration Report of 14 November 1988 pending completion of first article testing (R4, tab 79). The Government raised some issues regarding the Class A, B, and C testing, not relevant to this appeal, and informed appellant that the Class D maintainability demonstration was acceptable. However, the Government stated that the number of test fixtures used by appellant for the demonstration was not satisfactory and would not receive first article acceptance.

Over the next two years, the parties exchanged correspondence asserting the essentially similar positions they had previously asserted with regard to the number of TPSs to be delivered with the ATCS deliveries (R4, tabs 80-85). In its correspondence, appellant not only restated its position with respect to its interpretation of the contract SOW and specifications, it informed the contracting officer that the Government had reason to know from the beginning of the procurement process that appellant always interpreted the contract as not requiring the delivery of 18 TPS, and that this position was clear from appellant's proposals. Appellant further stated in its letter of 15 August 1989 to the contracting officer that it could not comply with the contracting officer's direction until the Government had approved both the design of the TPS and Fault Detection/Fault Isolation performance level of the TPS (R4, tab 84). At this time, there were no specification provisions for Class D test fixtures, no criteria for acceptance, no provisions for inspection of TPS, no design presentations at the PDR and CDRs, and no basis for production of TPSs.

Contract Section E provided for inspection and acceptance of CLIN 0001 (first article ATCS) "by the cognizant DCAS [Defense Contract Administrative Services] at the Contractor's plant." (R4, tab 13) By Material Inspection and Receiving Report (DD 250), dated 22 October 1990, the Government's Defense Plant Representative Office (DPRO) in Great Neck, New York, accepted CLIN 0001, first article (R4, tab 107). The DD 250 did not reference any deficiencies or defects in ATE TPSs. The maintainability

demonstration was conducted at the first article test with the ATE (AN/USM-465) with TPS (ex. G-2; tr. 3/153-54, 4/86-87). However, the full Class D TMDE was not inspected at first article and was not suitable for delivery. The Government had already accepted the Class D maintainability demonstration in March 1989, although it informed appellant that the number of test fixtures was in dispute and would not receive first article acceptance (R4, tab 79).

On 4 December 1991, the contracting officer wrote appellant, admitting that the Government had not given approval for a TPS design (R4, tab 85). As a result of Government's prior direction to appellant to deliver 18 TPSs and appellant's expressed concerns in its 15 August 1989 letter to the contracting officer, the contracting officer further stated that it understood appellant design constraints and accepted the fact that use of additional test fixtures would be required. The contracting officer stated that upon satisfactory demonstration of the TPSs, the Government would approve the use of additional test fixtures and modify ELEX-A-597A to permit this.

The contracting officer issued a Notice of Partial Termination for Convenience on 4 December 1991, terminating "12 sets of the 18 sets of required Test Measurement and Diagnostic Equipment (TMDE) for the AN/TPS-73 radar, as required within the Naval Electronic Systems Command Contract specification" for the ATCS (tab 86). In this notice of termination, the contracting officer directed appellant to proceed with the production of six sets of TMDE only, and informed appellant that there would be forthcoming a contract modification implementing this change in the required TMDE quantity. At the time that the Government partially terminated the contract for convenience, it had not approved any design for the fabrication and production of external TMDE (TPS) (tr. 2/60-62). Rather, after exchanges of correspondence, the Government gave appellant approval to proceed with production of the external TMDE that appellant had demonstrated during the maintainability demonstration and which met "good commercial practice" standards.

By bilateral Contract Modification P00047, the parties settled a number of outstanding issues between them regarding deliveries, first article acceptance, changes in deliveries schedules and CDRLs, and changes to ELEX-A-597A (R4, tab 63). This modification included a release of claims, but provided that "[t]he Peculiar Support Equipment (PSE) deliverable quantity issue shall be excluded from this settlement." Outstanding issues relating to the Government's termination for convenience assessment in the amount of $6,723,360 against appellant are the subject of a separate appeal (ASBCA No. 49609).

The question concerning the disputed quantities of TPSs to be delivered first arose approximately 20 months after the Government awarded the contract to appellant, and after the 1-5 December 1986 PDR, and the CDRs held on 24-25 March 1987, 27-30 April

1987, 14-20 May 1987, and 23-25 June 1987. Therefore, the controversy concerning the TPS quantities occurred after the PDR, during which appellant was required to emphasize how the proposed system would meet, *inter alia*, the reliability and maintainability requirements of ELEX-A-597A, and after CDRs in which the design baseline for detailed fabrication/production for each CI was established.

Appellant simply contends that appellant's cost/price and management proposals are unambiguous in establishing that no recurring costs for PSE were included in the appellant's proposal, and that since these proposals, together with their revisions, were incorporated into the contract, they were as binding as any other contract terms, citing *Industrial Data Link Corporation*, ASBCA No. 31570, 91-1 BCA ¶ 23,382. In *Industrial Data Link Corporation*, the appellant had detailed in its 262 page technical proposal what equipment would be furnished and how that equipment would be installed. The Board held that this technical proposal was clearly a part of the contract. While the Board recognized that parties to a contract can agree to performance different from that required under the contract, which included the contractor's technical proposal, under the doctrines of either accord and satisfaction or substituted contract, it was unable to find any evidence that the parties agreed to a substituted contract or an accord and satisfaction as asserted by the contractor. The contractor was required to perform the work in accordance with its technical proposal.

Although the parties agree that the contract incorporated appellant's Technical, Management, Cost/Price proposals, as well as their respective revisions, appellant cites *United States Steel Corporation*, ASBCA No. 29111, 85-1 BCA ¶ 17,761, for the proposition that incorporation by reference makes the referenced document an integral part of the contract. Therefore, according to appellant, when read as a whole, the contract did not require delivery of multiple sets of PSE. As a result, the Government's requirement that appellant deliver multiple sets of PSE constituted a change to the contract for which appellant was entitled to an equitable adjustment.

Based on my review of the RFP, specifically the Schedule, the SOW, and ELEX-A-597, I am unable to find any specific provision that required appellant to deliver multiple TPSs with its delivery of the ATCS. Moreover, although the SOW and ELEX-A-597A addressed the Government's maintenance concept for the MATCALS, and the maintainability requirements for the ATCS, I found nothing that specifically incorporated TPSs into the description of, and/or component compliment of the ATCS. The contract language simply did not have a clear single meaning requiring appellant to provide TPS/TMDE sets with each and every ATCS to be delivered to the Government.

Whether or not an ambiguity is patent "is not a simple yes-no proposition, but involves placing the contractual language at a point along a spectrum: Is it so glaring as to raise s duty to inquire." *George E. Newsom v. United States*, *supra*, at 304, 650. Unlike,

the facts in *George E. Newsom v. United States*, where "two parts of the contract said very different things," and it was "impossible from the words of the contract to determine what was really meant," this was not the case in the instant appeal. In *George E. Newsom v. United States*, the contractor acknowledged that the contract was not internally consistent. Its interpretation explained the reasons for the inconsistency, but did not eliminate it, unlike the facts in *Mountain Home Contractors v. United States*, 192 Ct. Cl. 16, 23, 425 F.2d 1260, 1264 (1970), in which the contract was susceptible of an interpretation which did not leave significant ambiguities or internal contradictions.

The facts in the instant appeal are closer to those in *Mountain Home Contractors v. United States*, than to those in *George E. Newsom v. United States*. In *Beacon Construction Company of Massachusetts v. United States*, *supra*, cited by the Court in *George E. Newsom*, the Court of Claims articulated the duty to inquire rule in patent ambiguities as an exception to the *contra proferentem* rule, that the contractor's president knew that a discrepancy existed prior to computing his bid. Here, there is no evidence that appellant knew that there was a possible discrepancy or omission prior to preparing its Technical, Management, and Cost/Price Proposals. Indeed, to the extent that obvious and glaring discrepancies, omissions, or conflicts in provisions may have existed in the RFP, we might have expected the Government during the evaluation process of the proposals in the course of the operation of the sources selection plan, to discover that at least three offerors omitted including a description of TPS/TMDE proposed and recurring costs for TPS/TMDE for the full quantity of production ATCS units in their respective proposals. Such has not been the case here. I simply cannot find that there were obvious and glaring discrepancies, omissions, or conflicts in the contract documents that defied interpretations which eliminated the deficiencies, omissions, or conflicts. To the extent that there may have been some ambiguities concerning the number of TPSs to be delivered with the ATCS units as a result of the use of the plural form of "set" and the use of the word, "each" in connection with TPS, or the questions and answers in the amendments to the RFP, they were not apparent or patent, particularly in light of the relative cost of the TPS as compared with the unit price of each ATCS, which was the principal acquisition objective and described in paragraph 3.2 of ELEX-A-597A.

In addition to its reading of the RFP, the SOW, and ELEX-A-597A, appellant included in its interpretation the CLIN structure of the contract, its Technical, Management, and Cost/Price proposals, as amended, and the incorporation of those proposals in the contract. Appellant contends that from the outset, it understood that the RFP was for a subsystem that would function a part of a larger MATCALS, and that the ATCS subsystem contractor did not have system-wide responsibility, although the RFP did contain information about the operation and philosophy of the system, including the maintenance concept for maintaining the system, that might be useful to the subsystem contractor. In interpreting the requirements of the RFP, appellant began with the CLINs to determine what hardware was deliverable, and read through the ELEX-A-597A

specification to determine the specification requirements for the design of the ATCS. Its technical proposal and its revision, contained subsystems diagrams showing every functional part of a deliverable ATCS subsystem. None of these diagrams showed any PSE. Appellant's management proposal showed a diagramatic representation of the WBS, which indicated that PSE was not included within PME (ATCS), and that it was a one-time, non-recurring cost. Appellant's WBS, which was also contained in its Cost/Price proposal, listed the contents of a PME unit and did not include any PSE. Moreover, the WBS repeatedly depicted PSE as a one-time, non-recurring cost. Appellant's cost/price proposal and management proposal for the U.S. Air Force option CLIN unit indicated no PSE at all, either as a recurring or non-recurring cost. I would find appellant's contentions regarding its understanding of the RFP, SOW, ELEX-A-597A, and the contract are supported by the record. I would also find that appellant did not propose in its Technical, Management, and Cost/Price proposals, either in their original or revised submissions, including the two BAFOs, to deliver a TPS with each and every ATCS to be delivered under the contract.

There were no specific quantities specified in the CLINs for deliverable TPSs. Accordingly, if appellant was required to deliver a TPS with each and every ATCS delivered under the contract, that requirement must be found in the language of the SOW and ELEX-A-597A, which defined the ATCS, and not in an express requirement for the delivery of a specified quantity of TPSs.

The Government finds the requirement for delivery of a TPS with each and every ATCS in paragraphs 3.7, 3.7.2, and 3.7.2.3 of the SOW and paragraph 3.6.4.2 and paragraph 3.6.5 of ELEX-A-597A. It is clear from the text of these paragraphs in the SOW and ELEX-A-597A that they do not specify any quantities of TPSs to be delivered as deliverable separately identified quantities on this contract. The majority's finding 18 is not supported by substantial evidence. As presiding judge, I did not believe that the testimony the majority attributed to Mr. Brosnahan and Mr. Burnley, with regard to the Government's pre-dispute interpretation, was credible. Unlike the consistency between appellant's interpretation and its proposals, as well as its submissions for the PDR and CDRs, Mr. Brosnaham's testimony was not supported by the record relating to the specifications or SOW, the proposals submitted by the offerors, or by his review of the pre-award record and participation as chairman of the contract acquisition review panel (CARP). Indeed, although he testified that the issue of the quantity of deliverable sets of TMDE did not come up until the spring of 1988, and that the general rule is that general purpose electronic test equipment is bought separately by the Government and provided to the technicians, he testified that at the time he headed the CARP, he did not think that PSE was the interface device for the AN/USN-465 (tr. 4/32-36, 58-60). Mr. Burnley's testimony indicated only his subjective intent that a test set would be required with each radar and was confusing with respect to what he understood to be the proposals submitted by the offerors (tr. 3/121-26). As member of the technical evaluation panel of the CARP,

he did not recall any questions relating to Class D testing, and specifically about appellant's proposal concerning the key maintainability features of the proposed ATCS and the compatibility of the digital subassemblies to the ATE (tr. 3/116-18, 126-38). His testimony about the family tree was confusing (tr. 3/165-73). Moreover, the testimony of Mr. Brosnaham and Mr. Burnley regarding their interpretations of the contract requirements was inconsistent with the testimony of the Government's chief engineer for the program regarding paragraph 3.7.2 of the SOW (joint ex. 1/212-16).

Paragraph 3.7 of the SOW required appellant only to identify test equipment, tools, and diagnostic procedures to support the ATCS down to the piece part level at both organizational and depot levels of maintenance. There was nothing in the language of paragraph 3.7 to require delivery of TPSs, either as a separate requirement or as a component of the ATCS complement. Paragraph 3.7.2 of the SOW required appellant only to develop TPS based on the approved TRD required by paragraph 3.7.1 of the SOW, which required analysis and identification of recommended test equipment. However, the Government waived paragraph 3.7.1 requirements and appellant never prepared or submitted a TRD. Within the hierarchical structure of paragraph 3.7, appellant's obligations, if any, and which were dependent upon paragraph 3.7.1, extended primarily to the identification of the test equipment and diagnostic procedures necessary to support the ATCS, whether at organizational or depot levels, and not to delivering TPSs as part of the ATCS logistical support complement.

The ATE was stored in the separate maintenance facility. Class D test provisions were to be accomplished by the use of test points with the ATE to fault/locate PCB assembly and subassembly digital failures organizationally off-line in the AN/TSM-170 maintenance facility. Therefore, appellant understood the Class D test provisions to require the contractor to design the subassemblies or PCBs so that technicians would be able to detect and isolate faults to component levels on those subassemblies.

With respect to question 17 and the Government's answer thereto in the RFP, the Government points to the full text of the answer which, according to the Government, "clearly and unequivocally informed the potential offerors that the contractor was responsible for providing test program sets . . . including an interface device for the ATE." While there is some merit to the Government's contention in this regard, the Government's answer to question 17 went beyond the question posed. Question 17 addressed paragraph 3.6.4 of ELEX-A-597A and whether the contractor was responsible for software development for the GENRAD 2225, and if so, whether the GENRAD 2225 was to be supplied as GFE. Although appellant admitted that the answer stated that the contractor was required to provide an interface device in addition to software, appellant understood the answer to apply to CDRL item D005, which required the delivery of three sets of ATE Program Packages and that it did not apply to any deliverable requirement of TPS with each ATCS delivered.

Appellant interpreted paragraphs 3.7 and 3.7.2 of the SOW and paragraph 3.7.4 of ELEX-A-597A, as simply requiring information relating to the test objectives of ELEX-A-597A, paragraph 3.6.4, as stated in paragraph 3.7.2 of the SOW, namely to support the maintainability demonstration, but not to require the delivery of hardware. The Government's chief engineer agreed that paragraph 3.7 and its respective subparagraphs of the SOW required only information and did not require delivery of anything identified in those paragraphs. Since paragraph 3.7.2 of the SOW mandated ATE, which under paragraph 3.7 was identified as the GENRAD 2225, the practical effect of this was to require appellant to design the ATCS so that it would be compatible with the GENRAD, namely, that the test objectives of Class D testing would be satisfied through the use of the GENRAD 2225, or the AN/USM-465.

Appellant supports its interpretation of paragraph 3.7 of the SOW and its respective subparagraphs, and paragraph 3.6, and its subparagraphs, of ELEX-A-597A, by reference to both paragraph 4.10 of ELEX-A-597A, regarding the Maintainability and BIT demonstration, which was to be performed on the first article by personnel with experience equivalent to Marine Air Traffic Control Unit Radar technicians of certain specified ranks, and Table IV, paragraph 4.3 of ELEX-A-597A. Paragraph 4.10 and its subparagraphs specified the criteria for acceptance or rejection of the ATCS, the environment in which tests would be performed, and the selection of technicians to perform the maintainability demonstration by the procuring activity. No tests were specified for TPSs. No specifications were identified. There were no pass/fail criteria specified for the TPSs. There were no production standards referenced. Table IV listed every examination or test required to show compliance with ELEX-A-597A. The item, listed under examination or test, "Maintainability and BIT demonstration," identified the requirements of paragraph 3.6 of ELEX-A-597A, and test paragraph 4.10 of ELEX-A-597A, identifying first article inspection as applicable. This item identification on Table IV did not specify conformance inspection for production TPS items as applicable. There was nothing in paragraph 4.10 and its subparagraphs, and Table IV that applied this inspection and testing to production TPS units.

There was nothing in the RFP, including the SOW and ELEX-A-597A, that required appellant to deliver a specific number of TPSs as separate contract deliverables, nor was there requirement in the SOW and ELEX-A-597A that unambiguously made the TPS a component element of the deliverable ATCS complement. This conclusion is supported by the conduct of the Government's technical evaluation panel and CARP during the evaluation of the proposals submitted by the offerors. The technical evaluation panel did not raise any questions relating to Class D testing during the evaluation of the proposals. Moreover, although the record with regard to other offerors' proposals is incomplete, the evidence supports the conclusion that neither ITT-Gilfillan nor Gould/3 DBM included proposals for delivering multiple sets of TPSs as part of their proposed deliveries of ATCS units. The evidence establishes that ITT-Gilfillan and Gould/3 DBM

employed a proposal strategy consistent with that of appellant and consistent with appellant's interpretation of the SOW and ELEX-A-597A.

As pointed out above, appellant complied with the contract requirements for the submissions of the Maintainability Program Plan, the Configuration Management Plan, and the quarterly Configuration Management Status Accounting Reports, all of which were approved by the Government. Appellant consistently represented the TPSs as supporting the maintainability demonstration as distinct from being an integral part of the deliverable ATCS in all of the submittals, which was consistent with appellant's technical and cost proposals The Government never questioned appellant's approach to satisfying the Class D maintainability requirements and maintainability demonstration with the TPS and the absence of any representation by appellant that the TPS would be included as an integral component part of the deliverable ATCS complement.

Throughout the PDR and CDR process, there was no issue concerning the quantity of TMDE for Class D test provisions addressed by the parties. The Government did not raise any questions concerning quantities of test sets for Class D maintenance during either the PDR or the CDRs. If Class D TMDE had been required as a deliverable, appellant would have had to submit designs for TMDE for approval under the CDR process. Appellant did not do so.

It is clear from the foregoing, that prior to June 1988, the conduct of the parties during the PDR and CDRs, and in the various meetings regarding the design and production of the ATCS tended to support appellant's interpretation of the SOW and ELEX-A-597A. From the submission of its proposals in response to the RFP, the design of the system, and its presentations during the PDR and CDRs, appellant was consistent in its interpretation of the RFP, the contract Schedule, the SOW, ELEX-A-597A., and the CDRLs as requiring only a design and production of the ATCS as would meet the maintainability and Class D test provision requirements of the contract, and as requiring only the identification of test equipment, tools, and diagnostic procedures to the support the ATCS down to piece part level at both organizational and depot levels of maintenance. The Government's conduct in evaluation of appellant's Technical, Management, and Cost/Price proposals, and during the PDR and CDRs belie its post-controversy interpretation that the SOW and ELEX-A-597A require a set of TPS with each and every ATCS to be delivered to the Government. Except for the subjective opinion of the ATC project officer, expressed in his memorandum of 16 June 1988, that the ATE TPSs were an integral part of each AN/TPS-73 organizational maintenance capability, there was no evidence of any previously expressed understanding of the SOW and ELEX-A-597A as requiring delivery of ATC TPSs with each and every AN/TPS-73 to be delivered by appellant. As stated in *J. A. Maurer, Inc. v. United States*, 202 Ct. Cl. 813, 824, 485 F.2d 588, 594 (1973): "A party cannot, after a controversy has arisen, arbitrarily abandon the contract interpretations it acted upon to the other's knowledge

when their relations were harmonious." *See also*, *Blinderman Construction Company v. United States*, 695 F.2d 522, 558 (Fed. Cir. 1982) ("the parties' contemporaneous construction of an agreement, before it has become the subject of a dispute, is entitled to great weight in its interpretation")

In light of the foregoing, I would hold that the contract was not ambiguous with respect to whether or not appellant was required to deliver TPSs with each and every ATCS to be delivered by appellant. There simply was nothing in either the CLINs, the SOW, the ELEX-A-597A, or appellant's proposals that could reasonably be construed as requiring this. To the extent that the language of the Government's answer to question 17 might be construed to suggest that appellant was required to deliver more than one TPS, this might raise a possible ambiguity as to the number of TPSs to be delivered in the context of the contract as a whole where there is no such requirement in the CLINs, the SOW, ELEX-A-597A, and where there was nothing in the proposals, including revised proposals, submitted by appellant, which proposals were incorporated in the contract. I do not agree that it necessarily created an ambiguity in the contract as a whole. However, to the extent that the answer to question 17 could be construed as conflicting with the SOW and ELEX-A-597A and creating a possible ambiguity in the RFP, prior to the award of this negotiated contract, I would hold that is was a subtle ambiguity deemed latent, and accorded an interpretation favorable to appellant under the doctrine of *contra proferentem*.

The majority holds that appellant's interpretation of the contract does not come within the zone of reasonableness. The record does not support this holding, and I disagree with the rationale expressed by the majority in support of its holding in this regard. As set forth above, appellant's interpretation was based on the contract as a whole, not simply on some selected sentences from the SOW and ELEX-A-597A. It was consistent with the interpretations of other offerors, as reflected in their proposals, and was consistent with the parties' contemporaneous construction of the contract before it became the subject of the dispute. Appellant's interpretation eliminated significant ambiguities or internal inconsistencies, if any. Rather than assuming that the Government made an error in its SOW and ELEX-A-597A, for which it was responsible, appellant reasoned that the Government had set out exactly what it wanted. This interpretation is within the zone of reasonableness as set out in *WPC Enters, Inc. v. United States, supra*. *Mountain Home Contractors v. United States, supra*, at 23, 1264.

Accordingly, I would sustain the appeal.

ROLLIN A. VAN BROEKHOVEN
Administrative Judge
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 46797, Appeal of Lockheed Martin Tactical Defense Systems, Inc., rendered in conformance with the Board's Charter.

Dated:

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