IRAN-UNITED STATES CLAIMS TRIBUNAL

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389-480

ORIGINAL DOCUMENTS IN SAFE

Case No. 389 Date of filing: 26/3/1997

** AWARD - Type of Award Award

- Date of Award 26 Mar 1997

193 pages in English ~~_____~~ pages in Farsi

** DECISION - Date of Decision _____

_____ pages in English _____ pages in Farsi

** CONCURRING OPINION of _____

- Date _____

_____ pages in English _____ pages in Farsi

** SEPARATE OPINION of _____

- Date _____

_____ pages in English _____ pages in Farsi

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IRAN-UNITED STATES CLAIMS TRIBUNAL

دیوان داوری دعاوی ایران - ایالات متحده

CASE NO. 389
CHAMBER TWO
AWARD NO. 579-389-2

WESTINGHOUSE ELECTRIC CORPORATION,
Claimant,

and

THE ISLAMIC REPUBLIC OF IRAN AIR FORCE,
Respondent.

FINAL AWARD

Appearances :

For the Claimant :

Mr. David E. McGiffert,
Mr. O. Thomas Johnson,
Mr. Dennis S. Cameron,
Mr. Bradford L. Smith,
Mr. Thomas A. Robertson,
Mr. James O. Hutchinson,
Attorneys,
Mr. Walter A. Bronson,
Witness,
Mr. James A. Cave,
Mr. James F. Coleman,
Mr. Richard Cormier,
Mr. Lon A. Curtis,
Mr. George Demougeot,
Mr. Paul J. Dimaggio,
Mr. James A. Friedel,
Mr. Stephen J. Kasper,
Mr. James G. Langenwalter,
Mr. Robert McFarland,
Mr. John W. McKeever,
Mr. Victor B. Stassi,
Mr. Martell Storer,
Representatives.

For the Respondent : Mr. Ali H. Nobari,
Agent of the Government of the
Islamic Republic of Iran,
Mr. Bijan Izadi,
Deputy Agent of the Government of
the Islamic Republic of Iran,
Mr. Seifollah Mohammadi,
Legal Adviser to the Agent,
Mr. N. Ebrahimi,
Mr. G. Jafarzadeh,
Assistants to the Agent,
Mr. A. Amirmoezi,
Mr. A. Shamloo,
Mr. M. Zaheraei,
Mr. M. Shahrokhinasab,
Mr. P. Darbandi,
Mr. B. Ahanfeshar,
Mr. M. H. Godarzi,
Mr. A. Imani,
Mr. M. Khairabadi,
Mr. H. Adabi,
Mr. M. Doolatzadeh,
Representatives of the Islamic
Republic of Iran Air Force,
Mr. A. Hashemi,
Representative of the National
Iranian Oil Company.

Also present : Ms. Lucy F. Reed,
Agent of the Government of the
United States of America,
Mr. D. Stephen Mathias,
Deputy Agent of the Government of
the United States of America.

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I. INTRODUCTION AND PROCEDURAL HISTORY

1. On 18 January 1982, the Claimant, WESTINGHOUSE ELECTRIC CORPORATION ("Westinghouse"), a United States corporation, filed a Statement of Claim against the Respondents, THE ISLAMIC REPUBLIC OF IRAN ("Iran"), THE NATIONAL DEFENSE INDUSTRIAL ORGANIZATION ("NDIO"), IRAN ELECTRONICS INDUSTRIES ("IEI"), BANK MELLI, THE ISLAMIC REPUBLIC OF IRAN AIR FORCE ("Air Force"), ARJ CORPORATION ("ARJ"), ELECTRO PARS LIMITED COMPANY ("EPLC"), IRAN NATIONAL AIRLINES CO. ("HOMA"), IRAN HELICOPTER SUPPORT AND RENEWAL COMPANY ("Iran Helicopter"), THE MINISTRY OF WATER AND POWER ("MWP"), THE KHUZESTAN WATER AND POWER AUTHORITY ("KWPA"), TAVANIR COMPANY ("Tavanir"), THE NATIONAL IRANIAN OIL COMPANY ("NIOC"), POLYACRIL IRAN CORPORATION ("Polyacril"), RAZI CHEMICAL COMPANY, also known as SHAHPUR CHEMICAL CO. LTD. ("Razi"), THE NAVY OF THE ISLAMIC REPUBLIC OF IRAN ("Navy"), and IRANIANS' BANK.

2. Between 30 December 1982 and 2 May 1983, the Respondents filed Statements of Defense, some including counterclaims.

3. On 10 May 1985, pursuant to settlement agreements between (1) Westinghouse, on the one side, and Iran, IEI, and NDIO, on the other, (2) Westinghouse, on the one side, and Bank Melli, Bank Tejarat (formerly Iranians' Bank), Bank Markazi, Iran Helicopter, the Navy, and Tavanir, on the other, and (3) Westinghouse, on the one side, and Polyacril and ARJ, on the other, the Tribunal issued a Partial Award on Agreed Terms (Award No. 177-389-2, 10 May 1985, reprinted in 8 Iran-U.S. C.T.R. 183), which terminated all claims and counterclaims involving IEI, NDIO, Bank Melli, ARJ, EPLC, Iran Helicopter, Tavanir, Polyacril, the Navy, and Bank Tejarat (formerly Iranians' Bank). Thus, these Respondents are no longer parties in this Case.

4. On 24 November 1986, pursuant to a settlement agreement between Westinghouse and Razi, the Tribunal issued a Partial Award on Agreed Terms (Award No. 270-389-2, 24 Nov. 1986), which

terminated all claims and counterclaims involving Razi. Thus, Razi is no longer a party in this Case.

5. On 25 November 1986, pursuant to Westinghouse's withdrawal of its claim against MWP and KWPA, the Tribunal issued an Order terminating the arbitral proceedings in this Case insofar as they related to the claim against MWP and KWPA and instructing the Tribunal's Registry to strike the names of MWP and KWPA from the Register. Thus, MWP and KWPA are no longer parties in this Case.

6. On 31 March 1987, after HOMA had informed it, and Westinghouse had confirmed, that all disputes between HOMA and Westinghouse had been settled, the Tribunal issued an Order terminating the arbitral proceedings in this Case insofar as they related to the claim against HOMA and instructing the Tribunal's Registry to strike the name of HOMA from the Register. Thus, HOMA is no longer a party in this Case.

7. At the final Hearing in this Case, Westinghouse declared that it did not intend to pursue its claim against NIOC. Consequently, the Tribunal, noting the absence of objection by NIOC, determines that the claim against NIOC is terminated.

8. Accordingly, subject of this Award are the claims and counterclaims involving the Air Force, all other claims and counterclaims having been settled by the above-mentioned Awards on Agreed Terms or withdrawn and, thus, terminated. Beginning with its submission of 21 December 1987, Westinghouse, in its pleadings, has consistently named as the Respondent in this remaining portion of the Case the Air Force only. Consequently, the Islamic Republic of Iran is no longer named as a Respondent in the Case, and the Air Force is the sole remaining Respondent in this Case.

9. The claims and almost all counterclaims in this Case arise out of a series of contracts entered into by Westinghouse

and the Air Force between 1971 and 1978 concerning an Integrated Electronics Depot, which Westinghouse had designed and assisted the Air Force in establishing for the repair and maintenance of various types of Air Force weapons and electronics systems.

10. Westinghouse presents four claims to the Tribunal. Westinghouse's first claim is based on contract IWPC-007 of 19 November 1974, and seeks U.S.$1,219,031 in payment of contractual services rendered. Westinghouse's second claim is based on contract IWPC-009, executed by the parties on 16 February 1975, and is for payment of a total of U.S.$1,026,130 in contractual services rendered and lost profits. The third claim arises out of contract IWPC-010, signed by Westinghouse and the Air Force on 1 March 1975, and seeks recovery of a total of U.S.$574,361 in unpaid invoices. The fourth claim, for payment of a total of U.S.$285,054 in services rendered and lost profits, is based on contract IWPC-035 of 5 February 1978.[1] Westinghouse seeks interest on all claimed amounts.

11. At the final Hearing in this Case, Westinghouse sought leave to amend its claims by adding to the relief sought a request for a declaration by the Tribunal that all bank guarantees and good performance bonds established in connection with the IED contracts be declared null and void.

12. The Air Force, for its part, asserts eighteen counterclaims against Westinghouse based on various contracts between the parties.[2] The Air Force's counterclaims are for reimbursement of excess payments allegedly made for contract performance, consequential damages, and specific performance. Three of these counterclaims are based on claims contracts IWPC-007, IWPC-010, and IWPC-035. Fourteen counterclaims, however, arise out of

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[1] The Award sometimes refers to contracts IWPC-007, IWPC-009, IWPC-010, and IWPC-035, collectively, as "the claims contracts."

[2] The Air Force presented its counterclaims in its Statement of Defense, filed on 29 April 1983.

contracts, or amendments to contracts, on which Westinghouse filed no claims. These contracts (hereinafter "counterclaim contracts") are as follows: contract IED-001-71 of 16 June 1971 and Amendments Nos. 3 through 9 to that contract, dated between 14 April and 30 June 1973; contracts IWPC-018, IWPC-019, and IWPC-020, all three dated 12 August 1975; contract IWPC-027 of 12 April 1976; and contracts for missile support IED-002-72 and IWPC-002 of 14 March 1972 and 11 May 1974, respectively. In addition, the Air Force counterclaims for unpaid taxes and social security contributions. According to its final pleadings, the Air Force seeks a total of U.S.$76,973,195 and 855,730,093 rials, plus interest, on its counterclaims.

13. In its Reply of 28 July 1983, Westinghouse raised jurisdictional objections to those Air Force counterclaims that were not based on the four claims contracts, arguing that they do not arise out of the same contracts, transactions, or occurrences as jurisdictionally required by Article II, paragraph 1, of the Claims Settlement Declaration. By Order of 15 February 1984, the Tribunal separated for early decision the question of its jurisdiction over the Air Force's counterclaims on contracts IWPC-018, IWPC-019, and IWPC-020 because the same claims based on those three contracts had been brought by the Air Force against Westinghouse in an Iranian court proceeding, and Westinghouse had responded by suit in a United States court seeking a declaratory judgment. Both national court proceedings were stayed pursuant to Orders of the Tribunal.

14. A Hearing on the Tribunal's jurisdiction over the Air Force's counterclaims on contracts IWPC-018, IWPC-019, and IWPC-020 was held on 19 November 1986. In a subsequent Interlocutory Award (Interlocutory Award No. ITL 67-389-2, 12 Feb. 1987, reprinted in 14 Iran-U.S. C.T.R. 104), the Tribunal determined that those counterclaims were within its jurisdiction as arising out of the same transaction as the claims.

15. In light of the Tribunal's determination in Interlocutory Award No. ITL 67-389-2, Westinghouse subsequently recognized the Tribunal's jurisdiction over the Air Force's counterclaims on contract IED-001-71, including Amendments Nos. 3 through 9 thereto, and contract IWPC-027. Westinghouse, however, maintained its jurisdictional objections to the Air Force's counterclaims on contracts IED-002-72 and IWPC-002 (hereinafter "the missile contracts") and the counterclaim for unpaid taxes and social security contributions.

16. With its defenses to the counterclaims, on 21 December 1987, Westinghouse brought nine counterclaims in reply to the Air Force's counterclaims. Westinghouse's counterclaims against the Air Force, which Westinghouse termed "counter-counterclaims," are each based on a contract, other than the four claims contracts, that was the subject of a counterclaim by the Air Force. The relief sought by Westinghouse under its counter-counterclaims totals U.S.$8,940,029, plus interest.

17. Accordingly, under its claims and counter-counterclaims, Westinghouse seeks a total of U.S.$12,044,605, plus interest.

18. Both parties seek costs in connection with the arbitration.

19. A final Hearing in this Case was held from 2 through 6 March 1992.

20. In a written Communication of 9 August 1994, the Tribunal informed the Parties that, in view of the passing of Mr. José María Ruda, Mr. Krzysztof Skubiszewski, Chairman of Chamber Two, would succeed late Mr. Ruda in all matters relating to this Case. The Tribunal further informed the Parties that the Chamber had determined, pursuant to Article 14 of the Tribunal Rules, that the Hearing already held in this Case need not be repeated.

II. FACTS AND CONTENTIONS[3]

A. THE CONTRACTS

21. Between 1971 and 1978, Westinghouse and the Air Force entered into a series of contracts to establish an Integrated Electronics Depot ("IED") for the Air Force in Iran. The IED was conceived by the parties as a single solution to the Air Force's various needs for sophisticated depot-level repair and maintenance service for electronic components used in the Air Force's aircraft and supporting ground equipment. One of the central concepts of the IED operation was the use of multi-purpose test and maintenance equipment. This meant that, rather than employing individual maintenance and test equipment procured from the manufacturers of the prime equipment,[4] the IED would use multi-purpose equipment, designed and manufactured by Westinghouse, that could maintain a variety of electronic systems, regardless of the original manufacturer. To the Air Force, the concept promised cost-efficiency and flexibility; to Westinghouse, it was a sizeable project generating considerable revenues over an extended period of time.

22. As originally conceived in Westinghouse's 12 April 1971 proposal to the Air Force, the IED was to be developed in three phases. During the first phase, known to the parties as Phase I, Westinghouse was to assess the existing capabilities of the Air Force and provide immediate maintenance support for the Air Force's most critical needs, which were to be identified by both parties. During the second phase, known as Phase II, Westing-

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[3] More detailed consideration of certain facts will be given, as appropriate, in connection with the merits of the claims and counterclaims, infra.

[4] The term "prime equipment" covers the Air Force's electronic or other type of equipment that was to be serviced by Westinghouse's maintenance equipment in the IED. The prime equipment was also to be used by Westinghouse for the manufacture of this maintenance equipment. The prime equipment was designed and built by a variety of manufacturers.

house was to undertake a study of the Air Force's remaining maintenance needs, which would be met over the longer term. The third phase, known as Phase III, was to be the implementation of the recommendations contained in the Phase II study. It also represented the first expansion of the IED, necessitated by the procurement of new weaponry and aircraft by the Air Force. In 1975, the parties agreed to the so-called Second General Expansion. From time to time, the parties agreed on other, more discrete expansions of the IED.

23. The parties signed the first and fundamental IED contract, IED-001-71, on 16 June 1971. The contract divided the IED project into three phases. As noted, in Phase I, Westinghouse was to establish immediate maintenance capability for the Air Force's most critical needs. In Phase II, it was to conduct a review of the Air Force's electronic equipment and assemble a maintenance plan to service it. The Air Force agreed to pay Westinghouse U.S.$8,095,645 for Phase I and U.S.$830,598 for Phase II. Pursuant to the contract's schedule of work, Westinghouse was to commence work on both Phases on 1 August 1971 and complete Phase I within thirty-two months and Phase II within eighteen. The purpose of Phase III was to implement the recommendations of Westinghouse's Phase II study; hence, its terms were negotiated only after the completion of that study.

24. On 14 March 1972, following a Westinghouse proposal of January 1972, Westinghouse and the Air Force executed missile contract IED-002-72. Under this agreement, Westinghouse was required to establish maintenance capability for two Air Force air-to-air missiles, the AIM-7E Sparrow and the AIM-9E Sidewinder. In return for these services, the Air Force agreed to pay Westinghouse U.S.$4,890,000. The parties amended this contract twice. On 9 October 1973, they expanded its scope to include maintenance support for a new Sidewinder missile, the AIM-9J, and, accordingly, increased the contract price to U.S.$5,173,671. On 19 March 1975, they signed a second amendment providing for

extended engineering services and increased the total contract price to U.S.$5,748,769.

25. Westinghouse submitted its Phase II study to the Air Force in April 1973. The study recommended the formation of several discrete work areas in the IED, called "shops," which would be equipped to handle, for example, radio, radar, or electromechanical equipment. Subsequently, between 14 April and 30 June 1973, the parties signed the seven Amendments to contract IED-001-71 for the purpose of implementing the recommendations contained in the Phase II study, thereby beginning Phase III of the IED project. The seven amendments are known to the parties as Amendments 3 through 9, and so they will be referred to in this Award.[5]

26. Under Amendment 3, Westinghouse undertook to expand the existing radar shop at a cost of U.S.$5,980,739. Under the terms of the amendment, Westinghouse was to design, manufacture, and deliver certain test equipment and technical manuals to the Air Force. Amendment 4 expanded the radio shop: for a price of U.S.$3,689,608, Westinghouse undertook to design, manufacture, and deliver specific test stations and other equipment, as well as technical manuals, to the Air Force. Amendment 5 called for the provision of training, engineering and supply support services, as well as a one-year stock of spare parts, to support the new radar and radio equipment covered by Amendments 3 and 4. The Air Force agreed to pay Westinghouse U.S.$1,949,733 for the services and U.S.$3,122,816 for the spare parts.

27. Amendment 6 was to provide, in conjunction with Amendments 7 and 8, comprehensive depot-level maintenance capability for the Air Force's electromechanical inventory -- primarily navigation and flight control equipment. Amendment 6, under which the Air Force agreed to pay Westinghouse U.S.$3,733,900, required Westinghouse to deliver several test

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[5] Prior Amendment 1 involved technical matters not related to the scope of work under the contract.

stations and technical manuals. Under Amendment 7, Westinghouse undertook to supply electromechanical shop major assemblies and subassembly hardware and technical manuals against payment of U.S.$4,315,900. Pursuant to Amendment 8, Westinghouse was to provide training, engineering and electromechanical shop support services, as well as spare parts to support the shop's operations for one year. The services portion of the Amendment 8 price was U.S.$3,400,900, and the spare parts portion was U.S.$2,495,155.

28. Finally, under Amendment 9, Westinghouse undertook to establish new mobile and specialized maintenance shops at the IED. The mobile shop would support mobile maintenance vans which could transport Air Force technicians and selected maintenance equipment to the sites of large Air Force stationary systems located throughout Iran. The specialized maintenance shop could then perform additional maintenance on components of these systems when the vans returned to the IED. Pursuant to the amendment, Westinghouse was required to design, manufacture, and deliver specified maintenance equipment and furnish engineering services to the Air Force against payment of U.S.$1,616,000. In addition, for U.S.$999,400, Westinghouse was to provide spare parts to stock the mobile and specialized maintenance shops for one year.

29. On 11 May 1974, Westinghouse and the Air Force entered into missile contract IWPC-002 to expand the missile facility to include depot-level maintenance capability for the Air Force's Maverick AGM-65A air-to-ground missile. The expansion of the missile facility was to be accomplished in two phases, termed Phase I and Phase II. The contract required Westinghouse to provide test and other equipment, technical manuals, training and engineering services to the Air Force. The Air Force, in return, was to pay U.S.$1,752,500 for Phase I and U.S.$6,685,038 for Phase II.

30. During the 1970s, the Air Force's electronic equipment inventory was continuously expanding and, as a result, from time

to time, the parties concluded discrete contracts to add repair and maintenance capability specific to systems the Air Force acquired after the execution of the Phase III amendments. On 19 November 1974, they signed claims contract IWPC-007, relating to the modification of test stations in the radar shop. These modifications were necessitated by the acquisition of a new radar system, the AN/APQ-120. On 16 February 1975, Westinghouse and the Air Force entered into claims contract IWPC-009 to establish repair capability in the IED for a radar-controlled anti-aircraft system called the "Super Fledermaus." On 1 March 1975, the parties executed claims contract IWPC-010 to provide maintenance capability in the radio shop for two newly-acquired radio systems, the AN/TPX-46 (V) Interrogator Set and the AN/TRC-145 Terminal Set.

31. By the mid-1970s, the number of the Air Force's new aircraft and their weapon and electronics systems in the process of acquisition warranted a second expansion of the IED. Thus, on 12 August 1975, Westinghouse and the Air Force signed contracts IWPC-018, IWPC-019, and IWPC-020 to implement the Second General Expansion of the IED. The first contract expanded the radar shop, the second expanded the electromechanical shop, and the third expanded the radio shop.

32. On 12 April 1976, the parties entered into contract IWPC-027 to provide additional engineering and maintenance support services for the IED.

33. On 5 February 1978, Westinghouse and the Air Force executed claims contract IWPC-035, concerning engineering assistance and support services to the radar shop and to depot personnel for certain ground and airborne radar systems, as well as for a computer system which had been supplied pursuant to a previous contract between the parties.

34. The claims and counterclaims contracts referred to in the foregoing paragraphs will be discussed in detail below, as

required, in connection with the merits of the related claim or counterclaim.

B. PERFORMANCE UNDER THE CONTRACTS

35. Between 1971 and 1978, work on the IED contracts progressed, although not without substantial delays, mainly attributable, according to Westinghouse, to the Air Force's failure to comply with its contractual obligation to cooperate with Westinghouse. Westinghouse contends, for example, that the Air Force failed to provide adequate work and storage facilities at the IED in a timely manner and that it did not fulfill its obligation to supply reliable power at the depot. Westinghouse asserts that the primary reason why performance fell behind, however, was the Air Force's extensive delays in furnishing Westinghouse with the prime equipment Westinghouse needed in order to design and manufacture its maintenance equipment.

36. The Air Force, for its part, denies any responsibility for the performance delays, which it ascribes to Westinghouse's inability to fulfill its contractual commitments. In particular, concerning the unavailability of the prime equipment, the Air Force maintains that this problem resulted from Westinghouse's failure to fulfill its preceding contractual obligation to identify the required prime equipment for the Air Force: the Air Force says it could not deliver any prime equipment before Westinghouse provided it with detailed specifications of the equipment it required. The Air Force also attributes the delays to Westinghouse's unfamiliarity with the integrated depot concept, which Westinghouse itself proposed, as well as to the inexperience of its personnel in carrying out the tasks assigned to them.

37. In 1976, the parties began holding regular status meetings for the purpose of reviewing Westinghouse's progress on contract IED-001-71 and its amendments and resolving problems.

At these meetings, the Air Force would raise questions regarding Westinghouse's performance of certain tasks. Westinghouse would then address these questions by reviewing the items and reporting back to the Air Force. After the Air Force evaluated Westinghouse's responses, either the Air Force agreed that performance of specific items was complete and satisfactory, with the matter being recorded in a memorandum as "closed-out," or the parties determined that further action was required in order satisfactorily to complete the task.

38. In late 1977 and early 1978, representatives of Westinghouse and the Air Force held a series of "project office" and "splinter" meetings for the purpose of conducting a technical review of the whole of contract IED-001-71 and its amendments and formulating recommendations for contract changes. The parties recorded these recommendations in a Memorandum for the Record dated 17 May 1978 and in an Amendment thereto dated 17 June 1978. The discussions and recommendations recorded in these instruments led to the parties executing a Letter of Agreement in July 1978 (the "1978 LOA").

39. The 1978 LOA incorporated by reference the 17 May 1978 Memorandum for the Record and the 17 June 1978 Amendment mentioned above. In the introductory paragraph, the 1978 LOA states:

> This LETTER OF AGREEMENT represents the final and complete understanding between the parties regarding the technical efforts required and defined by the Contract that are hereby deleted from this Contract IED 001-71 or transferred to other contracts. All efforts not specifically addressed herein are completed or will be completed in accordance with the terms of the Contract.

In the same paragraph, it also reads:

> Approval of this technical agreement by the authorizing agencies for both parties will initiate contract and financial adjustments for final settlement. Westinghouse will provide the [Air Force] Project

> Office at the Integrated Electronic Depot with statements of work performed prior to this agreement where items are deleted for approval. The IED Project Office, Procurement and Production and Westinghouse will then meet for the purpose of closing out Contract IED 001-71. . . .

It is undisputed that the parties never began to negotiate the agreement relating to the financial adjustments for deleted items that was referred to in the text just quoted.

40. According to Westinghouse, in the 1978 LOA the parties resolved all disputes concerning contract IED-001-71 through a Westinghouse agreement to delete or transfer specified items at no extra cost to the Air Force and an Air Force agreement to accept, as performed, Westinghouse's other work. The Air Force disputes this interpretation of the agreement and contends, instead, that the 1978 LOA did not represent a final agreement to settle all disputes related to contract 001-71, but rather was "a commencement for the final settlement of the contract." The Air Force asserts that the 1978 LOA was merely a technical agreement which left all financial aspects of the contract to be resolved at a later stage. The question whether the 1978 LOA effectively closed out contract IED-001-71 and its amendments will be addressed below, in connection with the merits of the Air Force's counterclaims on that contract.

41. Westinghouse alleges that beginning in September 1978, as social unrest in Iran intensified, the Air Force began to fall behind on its contractual payments. Westinghouse goes on to say that as events unfolded, its concerns about nonpayment were overtaken by concerns for the safety of its personnel in Iran. In addition, Westinghouse asserts, revolutionary turmoil, including demonstrations, disruption of traffic to and from the IED, power outages, and the like, halted much of the work on the IED project. On 6 December 1978, Westinghouse wrote to the Air Force, advising it that it intended to withdraw its employees from Iran on 8 December 1978 for the Christmas holidays. In its letter, Westinghouse told the Air Force that "[t]hose employees

with continuing assignments in Iran will return to work in Iran by January 6, 1979" and expressed its hope that "the disruption of our services will be minimal." As planned, on 8 December 1978, Westinghouse withdrew its personnel from the country.

42. On 10 January 1979, Westinghouse advised the Air Force that, contrary to its original plans, it would not be returning in Iran in January 1979. Westinghouse wrote:

> Because conditions in Iran have not yet returned to normal, and in fact have deteriorated, Westinghouse has decided not to return their personnel at this time. . . .
>
> Contractually under the terms of the Force Majeure Article of our Agreements, we are exercising our right to stop work in Iran and are entitled to a day by day slippage in the delivery schedule. Furthermore, under the Payments Article of our Agreements, we are exercising our right to discontinue further effort in both Iran and our Hunt Valley Facility pending receipt of past payments due us.
>
> Naturally, we are reviewing this situation on a daily basis and as soon as conditions in Iran warrant, we shall return with a team to pursue completion of all outstanding matters on our contracts with your Procurement Department.
>
> We look forward again to working with the [Air Force] in the very near future.

43. In October 1979, the Air Force sent a team of officers to the United States to inquire about the status of the IED contracts and to discuss with Westinghouse the possibility of resuming work on those contracts. On 1 November 1979, Westinghouse wrote a letter to the Air Force, expressing its willingness to resume work on the contracts under certain conditions and enclosing a report on the status of the IED contracts. This report made clear that the resolution of the issue of Westinghouse's unpaid invoices was an essential condition for resumption of work. In pertinent part, Westinghouse's 1 November 1979 letter reads:

> Westinghouse is pleased that members of the I-Hawk/Westinghouse team contacted us to discuss matters of mutual interest. . . .
>
> Westinghouse is most anxious to re-establish relations with the Islamic Republic Air Force. We believe it is in the best interests of both parties to avoid the type of difficulties encountered in the past. Before resuming any contract efforts, both parties should come to an agreement quickly on those issues considered unresolved. . . .
>
> Westinghouse shares your desire to continue to utilize the Integrated Electronic Depot . . . . As a team, we can accomplish this goal. Please feel free to have members of your I-Hawk/Westinghouse team visit us at any time.

There is no evidence on record of any further correspondence between the parties concerning resumption of the IED project. Westinghouse contends that after the seizure of the United states Embassy in Tehran on 4 November 1979, its involvement in Iran effectively ended.

III. PROCEDURE

44. For the first time at the final Hearing, Westinghouse requested permission to amend its claims by adding to the relief sought a request for a declaration by the Tribunal that all bank guarantees and good performance bonds established in connection with the IED contracts are null and void. The proposed amendment thus adds a different kind of relief -- a declaratory relief -- to the original monetary relief sought and raises new factual and legal issues which had neither been raised nor discussed before. In the Tribunal's view, therefore, rather than making an amendment as foreseen by Article 20 of the Tribunal Rules, it appears that Westinghouse is in fact asserting a new claim after the deadline for filing of claims provided for in Article III, paragraph 4, of the Claims Settlement Declaration. In addition, due to the substantial delay with which Westinghouse made the amendment, the Air Force was not given a sufficient opportunity to respond to the factual and legal aspects of the amended claim.

In light of these circumstances, the Tribunal rejects the amendment as inadmissible. See Arthur Young & Company and Islamic Republic of Iran, et al., Award No. 338-484-1, para. 37 (1 Dec. 1987), reprinted in 17 Iran-U.S. C.T.R. 245, 253-54; Reliance Group, Incorporated and Oil Service Company of Iran, et al., Award No. 315-115-3, para. 4 (10 Sept. 1987), reprinted in 16 Iran-U.S. C.T.R. 257, 259; Petrolane, Inc., et al. and Islamic Republic of Iran, et al., Award No. 518-131-2, para. 59 (14 Aug. 1991), reprinted in 27 Iran-U.S. C.T.R. 64, 85.

IV. JURISDICTION

A. THE PARTIES

45. The evidence Westinghouse has provided in order to prove its United States nationality includes a certificate from the Secretary of the Commonwealth of Pennsylvania attesting to Westinghouse's incorporation in that state, material from proxy statements, and two statements sworn to by its Associate General Counsel and Assistant Secretary. The Air Force has not raised any serious objections to the United States nationality of Westinghouse. In view of all this, the Tribunal is satisfied that, at all relevant times, Westinghouse was a national of the United States as defined in Article VII, paragraph 1, of the Claims Settlement Declaration.

46. There is no dispute that the Air Force is included within the meaning of "Iran" as defined in Article VII, paragraph 3, of the Claims Settlement Declaration and thus is a proper respondent.

B. THE CLAIMS AND THE COUNTERCLAIMS

47. The Tribunal is satisfied that it has jurisdiction over the subject matter of Westinghouse's claims on contracts IWPC-

007, IWPC-009, IWPC-010, and IWPC-035 in that they all arise "out of debts, contracts . . . expropriations or other measures affecting property rights." Article II, paragraph 1, of the Claims Settlement Declaration. Moreover, the Tribunal finds that the claims were outstanding at the date of the Claims Settlement Declaration and were owned continuously by Westinghouse during the requisite period. Consequently, the Tribunal holds that it has jurisdiction over the claims.

48. There is no dispute that the Air Force's counterclaims on contracts IWPC-007, IWPC-010, and IWPC-035 arise "out of the same contract, transaction or occurrence" as the claims, as jurisdictionally required by Article II, paragraph 1, of the Claims Settlement Declaration. The Tribunal therefore finds that it has jurisdiction over these counterclaims.

49. The Tribunal has already determined in Interlocutory Award No. ITL 67-389-2 that the Air Force's counterclaims on Second General Expansion contracts IWPC-018, IWPC-019, and IWPC-020 fall within its jurisdiction, see supra, para. 14.

50. Westinghouse has acknowledged the Tribunal's jurisdiction over the Air Force's counterclaims on contract IED-001-71, including amendments 3 through 9 thereto, and contract IWPC-027. The Tribunal agrees that these counterclaims all "arise out of the same contract, transaction or occurrence" as the claims. Consequently, the Tribunal determines that it has jurisdiction over these counterclaims.

51. In light of the foregoing determinations, the only jurisdictional issues that remain to be decided in this Case are whether the Air Force's counterclaims on missile contracts IED-002-72 and IWPC-002 and its counterclaims for tax and social security contributions arise "out of the same contract, transaction or occurrence" as the claims, and whether the Tribunal may entertain Westinghouse's counterclaims to the Air Force's counterclaims on Amendments 5, 8, and 9, contracts IWPC-018,

IWPC-019, IWPC-020, and IWPC-027, and the two missile contracts IED-002-72, IWPC-002. These jurisdictional questions will be discussed infra, in the context of the relevant counterclaims.

V. THE MERITS

A. THE LEGAL STATUS OF THE IED CONTRACTS

1. Frustration of the IED Contracts

52. Westinghouse contends that force majeure conditions prevailing in late 1978 in Iran justified its suspending work on the IED project and evacuating its personnel from the country in December 1978 and that ongoing force majeure conditions excused it from returning its personnel to Iran in January 1979. It has not been asserted that either Westinghouse or the Air Force subsequently terminated any of the IED contracts pursuant to the termination provisions contained in the contracts.[6] It is undisputed, however, that work on the IED project did not resume after the December 1978 suspension of work. The question thus arises whether at some point after that date, this continued suspension of performance caused the IED contracts to come to an end.

53. At the Hearing, in response to a question by the President, Westinghouse argued that all IED contracts should be considered to have terminated by reason of frustration either on, or sometime after, 4 November 1979, when it became clear to Westinghouse that there was no realistic opportunity to send its employees back to Iran. The Air Force, for its part, while maintaining that Westinghouse breached the contracts, contended at the Hearing, in the alternative, that the IED contracts were frustrated on, or sometime after, 8 December 1978, when Westing-

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[6] As will be discussed in detail below, two contracts, IWPC-007 and IWPC-009, were terminated by the Air Force prior to Westinghouse's December 1978 pull-out.

house pulled its personnel out of Iran. It was after that date, the Air Force went on, that resumption of work on the IED project became impossible. The Tribunal has previously held that "[w]hile [it] has not considered itself bound by the parties' view as to whether a contract terminated . . . it has generally taken into account contemporaneous behavior in deciding that question." Collins Systems International, Inc. and Navy of the Islamic Republic of Iran, Award No. 526-431-2, para. 34 (20 Jan. 1992), reprinted in 28 Iran-U.S. C.T.R. 21, 32. (Citing Alan Craig and Ministry of Energy of Iran, et al., Award No. 71-346-3, at 19 (2 Sept. 1983), reprinted in 3 Iran-U.S. C.T.R. 280, 289; Itel International Corporation and Social Security Organization of Iran, et al., Award No. 479-476-2, para. 38 (23 May 1990), reprinted in 24 Iran-U.S. C.T.R. 272, 283; Kimberly-Clark Corporation and Bank Markazi Iran, et al., Award No. 46-57-2, at 15 (25 May 1983), reprinted in 2 Iran-U.S. C.T.R. 334, 341.) The Tribunal will examine the circumstances of this Case in light of this principle.

54. As an initial matter, the Tribunal finds that Westinghouse's suspension of work and the withdrawal of its personnel from Iran in December 1978 were excused by force majeure. This finding is supported by Tribunal precedent. See, e.g., Gould Marketing, Inc., et al. and Ministry of National Defense of Iran, Interlocutory Award No. ITL 24-49-2 (27 July 1983), reprinted in 3 Iran-U.S. C.T.R. 147, 152-53 (finding that by December 1978, strikes, riots, and other civil strife in the course of the Islamic Revolution had created classic force majeure conditions at least in Iran's major cities and that these conditions persisted as late as June 1979). See also International Technical Products Corporation, et al. and Islamic Republic of Iran, et al., Award No. 186-302-3 (19 Aug. 1985), reprinted in 9 Iran-U.S. C.T.R. 10, 23; General Dynamics Telephone Systems Center, Inc., et al. and Islamic Republic of Iran, et al., Award No. 192-285-2 (4 Oct. 1985), reprinted in 9 Iran-U.S. C.T.R. 153, 159-60; Jack Rankin and Islamic Republic of Iran, Award No. 326-10913-2, para. 30 (3 Nov. 1987), reprinted in 17 Iran-U.S. C.T.R.

135, 147; Development and Resources Corporation and Islamic Republic of Iran, Award No. 485-60-3, para. 63 (25 June 1990), reprinted in 25 Iran-U.S. C.T.R. 20, 36; Petrolane, Inc., supra, para. 48, 27 Iran-U.S. C.T.R. at 80; Unidyne Corporation and Islamic Republic of Iran, et al., Award No. 551-368-3, para. 84 (10 Nov. 1993).

55. In addition, it is clear that events in Iran beginning in December 1978 constituted force majeure within the meaning of the force majeure provisions included in the IED contracts, thereby entitling Westinghouse to an extension of time to complete its work. For example, Article VI of contract IWPC-001-71 defines force majeure as "any cause beyond Seller's reasonable control," and lists as examples "strikes, lockouts, factory shutdowns or alternations . . . wars, riots, delays or shortages in transportation." This provision goes on to state that "any delay resulting from any such cause shall extend delivery dates to the extent caused thereby."

56. The Tribunal now turns to the determination of the legal situation between the parties during the period December 1978 through 4 November 1979, when the United States Embassy in Tehran was seized. In so doing, the Tribunal takes into account the contemporaneous behavior of the parties as well as all other relevant circumstances.

57. On 6 December 1978, Westinghouse wrote to the Air Force notifying it that Westinghouse was withdrawing its personnel from Iran for the Christmas holidays and that those employees with continuing assignments would return to work in Iran on 6 January 1979, see supra, para. 41. In a subsequent 10 January 1979 letter to the Air Force, Westinghouse expressed "great regret" for its decision not to return its personnel to Iran at that time and stated that it was reviewing the situation in Iran on a daily basis and would return to complete its work as soon as the situation warranted. Westinghouse also made clear that it would discontinue all further efforts under the IED contracts "pending

receipt of past payments due us" and concluded that it looked forward to working with the Air Force "in the very near future," see supra, para. 42.

58. There is no evidence of further contacts between Westinghouse and the Air Force until October 1979, when representatives of both parties met at Westinghouse's Baltimore facility to discuss the possibility of resumption of work on the IED contracts. On 1 November 1979, Westinghouse wrote a follow-up letter to the Air Force, stating that it was most anxious to "re-establish relations" with the Air Force, provided the parties came to an agreement on all the issues that remained unresolved between them, see supra para. 43. Three days later, on 4 November 1979, the United States Embassy in Tehran was seized.

59. The parties' conduct during the period from the force majeure suspension of work of December 1978 up until at least 4 November 1979, as described in the foregoing paragraphs, convinces the Tribunal that they considered the IED contracts still in force, and they hoped that performance thereunder would resume as soon as conditions in Iran permitted. The Air Force was obviously eager to resume and complete the IED project, which was of considerable practical importance and had already caused it to incur substantial expenses. In this context, the Tribunal considers it particularly significant that the Air Force did not make use of its right, provided for in most of the IED contracts, to terminate a contract at any time for its own convenience. Westinghouse, for its part, was obviously interested in maintaining its business relationship with the Air Force, a valued customer.

60. After the seizure of the United States Embassy in Tehran on 4 November 1979, however, relations between Iran and the United States further deteriorated. In response to the seizure of the Embassy, on 14 November 1979, the President of the United States issued Executive Order 12170, blocking all Iranian governmental property and interests in such property within the

jurisdiction of the United States. On 15 November 1979, the Secretary of the Treasury of the United States issued Iranian Assets Control Regulations implementing Executive Order 12170.

61. The Tribunal has previously held that at least after 4 November 1979, those American companies that had remained in Iran were forced to leave their projects and evacuate their personnel. See Starrett Housing Corp., et al. and Islamic Republic of Iran, et al., Interlocutory Award No. ITL 32-24-1, at 53 (19 Dec. 1983), reprinted in 4 Iran-U.S. C.T.R. 12, 155. In the Tribunal's view, the situation in Iran after the seizure of the United States Embassy justified Westinghouse's continued suspension of performance. A suspension of performance, however, could not continue indefinitely without affecting the viability of the IED contracts. Unlike the December 1978 force majeure suspension, after 4 November 1979 the parties held no discussions concerning resumption of work on the IED project. By the end of 1979, both parties must have realized that conditions in Iran were unlikely to change in the foreseeable future so as to permit Westinghouse to return. By that time, there could have been no realistic hope that work on the IED project, a military project of great importance that would require export licenses, would soon resume. The Tribunal therefore concludes that by the end of December 1979 continued existence of force majeure conditions ripened into a termination of all IED contracts that had not previously been terminated. Performance had become essentially impossible.

2. Consequences of Frustration

62. The first legal consequence of the frustration of the IED contracts is that as of 31 December 1979, Westinghouse and the Air Force were excused from further performance under those contracts. They were discharged from their duty to perform contractual obligations not yet due. See International Schools Services, Inc. and National Iranian Copper Industries Co., Award

No. 194-111-1, at 14 (10 Oct. 1985), reprinted in 9 Iran-U.S. C.T.R. 187, 196-97.

63. In these circumstances, the Tribunal's task is to determine the rights and liabilities of the parties in light of the termination of the contracts. The governing rule for this determination is that "'the loss must lie were it falls,'" International Schools Services, Inc., supra, at 14, 9 Iran-U.S. C.T.R. 197, and the Tribunal's practice in these situations has been to allocate equitably any losses between the parties in proportion to the extent the contract was performed by the date of termination. In Gould Marketing, Inc., et al. and Ministry of National Defense of Iran, Award No. 136-49/50-2 (29 June 1984), reprinted in 6 Iran-U.S. C.T.R. 272, 274, the Tribunal held that

> the general principle applied to equitably allocate [the] consequences of frustration of contract is that amounts due under the contract are to be proportioned to the extent the contract was performed. If no payment has been made, the Party which has performed is entitled to receive payment to the extent of that performance. If payment has been made, the Party which received such payment is entitled to retain that amount of money proportionate to its performance and must return any money in excess of that amount.

See also International Schools Services, Inc., supra, id.; William J. Levitt and Islamic Republic of Iran, et al., Award No. 520-210-3, paras. 74-75 (29 Aug. 1991), reprinted in 27 Iran-U.S. C.T.R. 145, 167-68; Unidyne Corporation, supra, para. 99.

64. The Tribunal will apply the principles set forth in the foregoing paragraph in deciding the claims and counterclaims in this Case.[7] Accordingly, it will determine the extent to which Westinghouse performed its obligations under each IED contract

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[7] With the exception, of course, of those on contracts IWPC-007 and IWPC-009, which were terminated by the Air Force prior to Westinghouse's departure, see infra.

at issue until such performance was made impossible, and whether, based on such performance, Westinghouse is entitled to receive further payments or, on the contrary, must return to the Air Force part of the payments it received. In accordance with Tribunal practice in frustration cases, Westinghouse should not be reimbursed for any costs or fees incurred after the date the contracts came to an end, nor should it be compensated for lost profits. See International Schools Services, Inc., supra, at 15, 9 Iran-U.S. C.T.R. at 197; William J. Levitt, supra, para. 74, 27 Iran-U.S. C.T.R. at 168. Moreover, by finding that the IED contracts terminated by the end of December 1979, the Tribunal has necessarily rejected all of the Air Force's counterclaims for specific performance.

B. THE CLAIMS AND COUNTERCLAIMS ON CONTRACTS IWPC-007, IWPC-009, IWPC-010, AND IWPC-035

1. THE CLAIM AND COUNTERCLAIM ON CONTRACT IWPC-007

a. Facts and Contentions

65. On 19 November 1974, Westinghouse and the Air Force entered into contract IWPC-007 ("contract 007") relating to the modification of test stations to support certain alterations made to the Air Force's AN/APQ-120 airborne radar. The agreement incorporated by reference Westinghouse's 4 September 1974 proposal entitled "Modification of Depot Test Stations for Compat[i]bility With AN/APQ-120 Radar Systems Containing ECP-7195 and ECP-7151R1" ("Contract 007 Maintenance Plan"). Under the contract, Westinghouse agreed to provide two sets of services in the IED radar shop. First, under Engineering Change Proposal-7195 ("ECP-7195"), Westinghouse undertook to make specified reliability modifications to five test stations in the IED for U.S.$688,504. Second, under Engineering Change Proposal-7151R1 ("ECP-7151"), Westinghouse undertook to modify three IED test stations to support the Air Force's newly-acquired, Hazeltine-

manufactured "Multiple Sensor Display Group" indicators for airborne radar ("MSDG").[8] The Contract 007 Maintenance Plan provided that the MSDG would be "superseded by the Digital Scan Converter Indicator Group (DSC) with the delivery of DSC type F4E aircraft commencing in January 1977 and by the retrofit of all previous F4E aircraft to DSC." The Air Force agreed to pay U.S.$1,238,628 for ECP-7151. Consequently, the total contract 007 selling price, for ECP-7195 and ECP-7151 together, was U.S.$1,927,132. Both parties agree that the Air Force paid Westinghouse a total of U.S.$236,759 under the contract.

66. Pursuant to the contract's schedule of performance, Westinghouse was to complete its work within twenty-six months from the execution of the contract, thus by January 1977.

67. The Contract 007 Maintenance Plan required the Air Force to provide certain prime equipment to allow Westinghouse to make the modifications specified under ECP-7151. Among this prime equipment were two consoles, an "Aft Intra-Target Data Indicator" and an "Indicator Control," both MSDG-unit components.

68. Article VIII of contract 007, which regulated each party's right to terminate the contract, entitled the Air Force to do so at any time for its own convenience by giving written notice to Westinghouse. Pursuant to this provision, after receipt of the Air Force's notice of termination, Westinghouse was to stop work under the contract and submit a termination claim to the Air Force incorporating all of Westinghouse's claims. Article VIII specified that

> [t]he amount to which [Westinghouse] shall be entitled upon termination of this Agreement shall be the total price of this Agreement . . . reduced to an amount determined by the parties hereto as being a fair and reasonable amount for the effort performed prior to the date of termination and shall thereafter be

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[8] The Multiple Sensor Display Group indicators converted radar signals into a television display that could be viewed in an aircraft cockpit.

increased by a reasonable allowance for expenses and profit with respect to the termination effort.

69. Westinghouse contends that it completed all the reliability modifications required under ECP-7195 by mid-1976. The Air Force denies this and asserts, instead, that Westinghouse succeeded only in completing U.S.$13,760 worth of such modifications.

70. In August 1977, the Air Force terminated contract 007, see infra. Westinghouse asserts that prior to this termination, it had completed most, but not all, of the MSDG modifications under ECP-7151. Westinghouse goes on to say that its delays in completing its ECP-7151 work were due to the Air Force's own failure fully and promptly to comply with its contractual obligations to cooperate with Westinghouse. Specifically, Westinghouse alleges that its progress was hampered primarily by the Air Force's seven-month delay in providing an MSDG-unit, which Westinghouse needed in order to verify the necessary design changes in the test equipment. In addition, Westinghouse contends, the Air Force also delayed Westinghouse's performance by its failure to provide suitable work facilities with reliable power and temperature controls and proper base passes for Westinghouse personnel.

71. The Air Force contests the allegation that Westinghouse completed most of the MSDG modifications. The Air Force also denies any and all responsibility for Westinghouse's delays in performing the ECP-7151 portion of contract 007. In this context, the Air Force maintains that it timely furnished the contractually-required MSDG-unit to Westinghouse. The Air Force also asserts that it timely issued all necessary base passes to Westinghouse personnel and that Westinghouse failed to prove that the IED facilities lacked reliable power and temperature controls.

72. The Air Force further argues that Westinghouse's basic obligation was to provide the repair capability for the MSDG systems by the end of 1976, because from that date the MSDG systems were to be replaced by a new system called Digital Scan Converter Group ("DSCG"). The Air Force presented a letter from the United States Military Advisory Assistance Group ("MAAG") in Iran dated 24 August 1974, noting that the Air Force intended to begin replacing the MSDG with the DSCG systems in September 1976. The letter also advised that "[a]fter completion of this retrofit, there will be no need for depot MSDG capability." This advice was subsequently taken note of and incorporated in Westinghouse's contract proposal, as revised on 4 September 1974, which stated that "[t]he MSDG will be superseded by the Digital Scan Converter Indicator Group (DSC) with the delivery of DSC type F4E aircraft commencing in January 1977 and by the retrofit of all previous F4E aircraft to the DSC. This retrofit program will be completed in June 1977." Because Westinghouse failed to provide capability by the beginning of 1977, the Air Force argues, the MSDG portion of the contract became effectively redundant.

73. On 10 March 1977, the Air Force sent a letter to Westinghouse requesting it to use "all funds allocated for MSDG spare parts training and repair for DSCG support ONLY." It is undisputed that subsequently, on 24 August 1977, the Air Force sent a letter to Westinghouse terminating contract 007 and, the Air Force asserts, proposing to Westinghouse "a new contractual relationship for the adoption of certain modifications to the DSCG project." This letter, however, has not been introduced in evidence. The Air Force contends that it terminated the contract because of Westinghouse's breach in failing to complete work within the contractually-specified 26-month performance period.

74. By letter of 12 December 1977, Westinghouse advised the Air Force that it had terminated all efforts on the MSDG up to the level of adaptation to the DSCG, in accordance with the Air Force's 24 August 1977 letter, and that "[a] plan for the

development of the DSCG is near completion now and will be submitted separately in the near future." Westinghouse also identified the contractual tasks left incomplete at the date of termination and stated that "[a]ll other contractual requirements . . . have been satisfactorily completed." Westinghouse then proposed to reduce the contract price from U.S.$ 1,927,132 to U.S.$ 1,687,720 to take into account the work it had not performed, which it valued at U.S.$239,412, and asked the Air Force to review this proposal. Westinghouse concluded by stating that a "negotiation meeting should be scheduled as soon as possible to settle this matter" and that when the parties reached an agreement, "a contract amendment will be required." The Air Force replied in writing to Westinghouse on 23 January 1978, requesting it to verify the costs set forth in Westinghouse's 12 December 1977 letter and provide the Air Force "with any comments you feel may be beneficial in the settlement of this termination claim."

75. On 31 January 1978, Westinghouse submitted to the Air Force an "Interim Maintenance Support Plan for APQ-120 Digital Scan Converter Group." In the transmittal letter, Westinghouse, inter alia, wrote that it had developed this plan, which was intended to "form the basis for a contract," pursuant to a request made by Air Force personnel during a technical review of an initial Westinghouse proposal. It is undisputed that the parties have never concluded a contract for the provision of maintenance capability for the DSCG systems.

76. Westinghouse contends that in early 1978, the parties conducted negotiations to close out contract 007 and that in this connection, Westinghouse drafted a proposed termination agreement, dated 19 April 1978. This document, which is in evidence, is entitled "IIAF ECP7195/51 IWPC-007 MSDG CONTRACT TERMINATION SETTLEMENT" and identifies a number of incomplete contractual tasks. It provides that the Air Force will pay Westinghouse U.S.$1,331,519 for work performed prior to the date of termina-

tion. This figure is net of the total amount the Air Force previously paid Westinghouse under contract 007, U.S.$236,759.

77. At the Air Force's request, on 10 May 1978, Westinghouse submitted to the Air Force a partial breakdown of the contract 007 price. Westinghouse contends that continuing negotiations led to the parties finally agreeing on a close-out sum of U.S.$1,219,031. To prove this, Westinghouse proffered, inter alia, an internal telex dated 3 July 1978 sent by Westinghouse personnel in Iran to Westinghouse personnel in the United States, stating that on 2 July 1978 Westinghouse had received a verbal commitment from the Air Force "for the U.S.$ 1,219,031 . . . through General Naderi level" and that "to proceed further must have amendment and invoice."

78. Subsequently, by letter of 7 October 1978, Westinghouse submitted to the Air Force two copies of "Amendment No. 1 to Contract IWPC-007 for the termination of that contract" ("Amendment No. 1"), providing for an Air Force payment of U.S.$ 1,219,031 in favor of Westinghouse, and an invoice for that amount "for the balance due Westinghouse as a result of the termination of Contract IWPC-007." In the letter, Westinghouse wrote that it was submitting these documents to the Air Force "for processing" at the request of General Naderi, with whom Westinghouse representatives had met on 3 October 1978. Westinghouse requested the Air Force "to take the necessary steps to have . . . the amendment executed in two copies and prompt settlement made to Westinghouse for the termination invoice."

79. Westinghouse contends that thereafter, in early December 1978, General Shakib and other Air Force personnel reaffirmed the Air Force's commitment to pay the U.S.$1,219,031 provided for in Amendment No. 1. As proof, Westinghouse produced contemporaneous minutes of meetings held by the parties on 3 and 4 December 1978, prepared by a Westinghouse representative who was present. The 3 December 1978 minutes, which are referenced "MSDG IWPC-007," read:

Westinghouse explained to the [Air Force] representatives that they had entered into an agreement in 1974 relative to the modification of Depot Level Test Stations at the IED, and that per their request (Letter dated 1977 from Gen. Shakib) Westinghouse was asked to terminate all remaining work and submit to the [Air Force] a technical and cost package that reflected all work and hardware delivered prior to the termination date. We stated that negotiations between Westinghouse, the [Air Force] and Peace Log were held during the first eight months of this year (1978) and that a technical and cost settlement had been reached between all parties concerned.

Westinghouse therefore, had submitted an agreement reflecting this settlement to the [Air Force] on October 7, 1978, IWL-2707.

The [Air Force] responded by stating that we conduct a financial review concerning the following:

1. Total Contract Value
2. Dollar Payments vs Rial Payments
3. Total Payments made to Westinghouse
4. Payments to be made to Westinghouse after termination settlement.

After thorough research and financial comparisons by both parties, we all agreed that the ending balance per Amendment 1 was indeed correct. Mr. Kazemzadi [of the Air Force] then wanted to verify that all work excluded from the termination, had been performed. Since the [Air Force] representative for the IED was not there, we had to adjourn until the following afternoon.

The minutes of the 4 December 1978 meeting, in relevant part, state:

> We started the meeting by asking the [Air Force] if they had confirmed that all work excluded from the termination had been performed. They stated that all work had been accomplished at the IED; and this was also verified by Capt. Shahroki. We then asked if there were any problems that might prevent signing of the Amendment. They said that only approval from Headquarters was now needed and that Mr. Kazemzadi could do that tomorrow personally.

80. Westinghouse contends that on 6 December 1978, one of its employees in Iran, Mr. James Friedel, telephoned General Shakib at Air Force Headquarters to determine whether Headquarters had arranged for the payment to Westinghouse of the U.S.$1,219,031 provided for in Amendment No. 1. Westinghouse alleges that General Shakib told Mr. Friedel that all of the approvals and arrangements had been made and that the Air Force would pay Westinghouse through a letter of credit. Westinghouse produced the minutes allegedly made by Mr. Friedel during this telephone conversation. They read:

> Wednesday, December 6, 1978
>
> I telephoned General Shakib requesting status of MSDG. He stated that approval has been given from Headquarters and he will sign MSDG Amendment #1 and forward letter on to the bank for payment via Letter of Credit.

81. On 8 December 1978, Westinghouse evacuated its personnel from Iran, see supra, para. 41. There is no dispute that the parties have never executed Amendment No. 1.

82. Westinghouse resubmitted to the Air Force Amendment No. 1 and the related invoice for U.S.$1,219,031 as attachments to its 1 November 1979 follow-up letter concerning possible resumption of work on the IED project, see supra, para. 43. With respect to contract 007, the IED contracts status report accompanying the letter states:

> A partial termination had been requested by Iranian Air Force and the terms of this partial termination had been negotiated. Amendment Number 1, reflecting this negotiation, had been presented along with an invoice for $ 1,219,031. Copies of related documents are attached.

b. The Parties' Arguments

83. Westinghouse's claim on contract 007 is mainly predicated on the theory that Amendment No. 1, the 1978 termination agreement, was binding on the parties, even though it was never signed by them. The binding nature of Amendment No. 1 is evidenced, in Westinghouse's view, by the parties' behavior both during and after the negotiation of the termination agreement. Westinghouse contends that the parties conducted protracted negotiations that led to a precise and detailed agreement providing for a precise close-out figure, U.S.$1,219,031. Westinghouse goes on to say that after agreeing on this amount, both parties constantly referred to it as a negotiated amount that the Air Force would pay. Accordingly, under its claim on contract 007, Westinghouse seeks U.S.$1,219,031, the 1978 close-out amount, plus interest.

84. The Air Force denies liability on grounds that the parties have never concluded a termination agreement. The Air Force argues, in contrast, that by failing to complete work within the contractually-specified schedule of twenty-six months, thus by January 1977, Westinghouse breached contract 007. Accordingly, on its counterclaim, the Air Force seeks U.S.$222,999, the difference between the U.S.$236,759 it paid Westinghouse on contract 007 and U.S.$13,760, the total value, according to the Air Force, of Westinghouse's work under the contract.

c. The Tribunal's Decision

The Claim

85. There is no dispute that the Air Force terminated contract 007 in August 1977 in accordance with contract 007's Article VIII, see supra, para. 73. Concerning the consequences of contract termination, as noted, Article VIII provided that

upon termination Westinghouse would be entitled "to an amount determined by the parties . . . as being a fair and reasonable amount for the effort performed prior to the date of termination," see supra, para. 68. The Tribunal's task is to carry out the final accounting between the parties in accordance with this provision and, thus, determine this "fair and reasonable amount."

86. In reviewing all the evidence submitted to the Tribunal, it is clear that during the period December 1977 through October 1978, the parties conducted negotiations precisely to determine the "fair and reasonable amount" Westinghouse was entitled to pursuant to Article VIII, see supra, paras. 77-79. It is also clear to the Tribunal that the parties ultimately agreed that this fair and reasonable amount was U.S.$1,219,031.

87. The evidence shows that the close-out sum initially proposed by Westinghouse in December 1977, U.S.$1,687,720, see supra, para. 74, was negotiated downward by the Air Force to the U.S.$1,219,031 in question, an amount that the Tribunal assumes to have been satisfactory to both parties. The 3 July 1978 internal Westinghouse telex on record, see supra, para. 77, by itself not conclusive evidence of the existence of an agreement, nevertheless indicates that the Air Force's General Naderi accepted that amount in July 1978. Subsequently, at a meeting the parties held on 3 October 1978, General Naderi requested Westinghouse to submit to the Air Force a termination agreement and an invoice for U.S.$1,219,031. This fact is reflected in Westinghouse's 7 October 1978 letter transmitting those documents to the Air Force, see supra, para. 78. The evidence proffered by Westinghouse indicates that thereafter, at the meetings they held on 3 and 4 December 1978, representatives of Westinghouse and the Air Force conducted a financial and technical review of contract 007 and concluded that the settlement amount stated in Amendment No. 1, U.S.$1,219,031, was accurate and that Westinghouse had completed all work not included in the termination agreement, see supra, para. 79.

88. The Tribunal finds, on balance, that Amendment No. 1 is the best available evidence of the extent and value of the work Westinghouse performed prior to the termination of contract 007. Although it was never signed by the parties, Amendment No. 1 is the result of prolonged negotiations which also included technical and financial reviews of contract 007. The Tribunal holds, in the circumstances of this Case, that Amendment No. 1 represents reliable proof that when Westinghouse departed from Iran, both parties believed that the work Westinghouse had completed prior to the termination was worth U.S.$1,219,031 and that consequently the Air Force owed Westinghouse this amount. In light of this conclusion, it is immaterial whether unsigned Amendment No. 1 was binding, as such, on the parties; the Tribunal therefore need not decide this question.

89. Based on the foregoing, the Tribunal determines that Westinghouse is entitled to U.S.$1,219,031 for its claim on contract 007 and awards this sum to Westinghouse. Interest on this amount will run from 31 December 1978, the end of the month in which the parties agreed upon the amount owed. See supra, para. 79.

The Counterclaim

90. The Air Force's claim that it terminated contract 007 because of Westinghouse's breach in failing to complete its work within the contractually-specified twenty-six-month performance period is unconvincing. The Air Force has produced no evidence of any contemporaneous complaints on its part about the speed of Westinghouse's performance of contract 007 nor evidence that it then considered Westinghouse's performance delays a breach of contract. Moreover, neither the correspondence exchanged between the parties in 1977 and 1978 nor the minutes of the meetings the parties held on 3 and 4 December 1978 suggest that the Air Force treated the matter at the time as one of termination in response to a breach.

91. In this connection, the Tribunal considers it particularly significant that during the 1977-1978 close-out negotiations between the parties, the purpose of which, precisely, was to determine what one party owed the other, the Air Force had never demanded the refund it now claims. Further, there is no indication that at the time, the Air Force raised any breach of contract claim. On the contrary, the Air Force agreed that Westinghouse was entitled to U.S.$1,219,031 for work performed prior to the termination. The Tribunal considers these facts to be a clear indication that the Air Force was not at the time treating Westinghouse as in breach of contract 007 by reason of Westinghouse's failure to complete performance within the contractually-prescribed completion schedule. See Ford Aerospace & Communications Corporation and Islamic Republic of Iran, et al., Partial Award No. 289-93-1, para. 47 (29 Jan. 1987), reprinted in 14 Iran-U.S. C.T.R. 24, 36. The Tribunal finds the Air Force's contemporaneous conduct to be inconsistent with the position it took in this proceeding. For the foregoing reasons, the Tribunal rejects the Air Force's counterclaim.

2. THE CLAIM ON CONTRACT IWPC-009

a. Facts and Contentions

92. On 16 February 1975, Westinghouse and the Air Force executed contract IWPC-009 ("contract 009") to establish maintenance capability for the Air Force's "Super Fledermaus" anti-aircraft system ("Super Fledermaus"). The Super Fledermaus combined an anti-aircraft gun with electronic tracking equipment and a radar, and was produced under a joint venture agreement by Oerlikon Bührle Ltd. ("Oerlikon"), a Swiss company, and Contraves Italiana ("Contraves"), an Italian company.

93. Negotiations between the parties concerning a Super Fledermaus contract began in 1973, when the Air Force asked Westinghouse to develop a proposal for depot support of the

system. Westinghouse alleges that the parties understood from the outset that because the Air Force did not have all the technical information Westinghouse required in order to design and fabricate the maintenance equipment for the Super Fledermaus and Westinghouse could not obtain the missing data from its usual sources in the United States, the requisite technical information had to be procured directly from the manufacturers of the gun system, Oerlikon and Contraves. Westinghouse contends that at the time, the Air Force's General Naderi assured Westinghouse's operations manager at the IED, Mr. James Langenwalter, that the Air Force could obtain the necessary technical data from the two companies through existing contracts the Air Force had with them. Westinghouse also contends that Mr. Langenwalter offered to assist General Naderi in obtaining this data from Oerlikon and Contraves.

94. On 26 August 1974, Mr. Langenwalter sent a letter to the Air Force's Colonel J. Ashari, informing him about Westinghouse's progress in the development of the Super Fledermaus maintenance plan. In relevant part, this letter states:

> During the latter part of 1973, the [Air Force] requested that Westinghouse develop an "Integrated Electronic Depot" maintenance plan for the support of Contraves/Oerlik[o]n Radar System. Due to 'diplomatic' problems, the required technical documentation was not available to Westinghouse.
>
> . . . Through efforts of your staff, the diplomatic blockage has been greatly minimized and the release of selected technical documentation to Westinghouse was obtained. Westinghouse is now in the process of developing the requested maintenance plan.
>
> . . . Recent meetings with the local Contraves/Oerlik[o]n personnel has shown positive signs of joint cooperation in the overall program.

95. In September 1974, Westinghouse submitted to the Air Force its proposal for a Super Fledermaus contract, called

"Maintenance Plan for Depot Support of the Super Fledermaus Anti-aircraft System."

96. Westinghouse states that Oerlikon and Contraves personnel located in Iran initially expressed willingness to assist Westinghouse in obtaining the required technical information, but that subsequently Oerlikon and Contraves personnel in Switzerland and Italy, with whom Mr. Langenwalter met, were reluctant to release this information.

97. On 7 November 1974, Oerlikon wrote a letter to the Air Force concerning Oerlikon's possible cooperation with Westinghouse in the construction of a repair facility for the Super Fledermaus in the IED. Oerlikon's letter, which is referenced "Establishment of Oerlikon System Repair Depot," in pertinent part reads:

> According to your wish our Adviser in Tehran have had preliminary contacts with Westinghouse Company. From these and from a clarification given to Mr. B. von Stohrer, Managing Director of Contraves Italiana during his visit to I.I.A.F. Headquarters on October 9th, we understand that it is your intention that Westinghouse Company should not only build the repair facility but that future repair and maintenance work will be carried out under supervision of Westinghouse personnel.
>
> Whereas we are of course quite agreeable to collaborating with Westinghouse on the construction of the repair facility and whilst we have excellent relations with Westinghouse Company in general, we cannot agree, as a matter of principle, that technical details and know-how relating to our systems, such as dates for furnishing of new Test Consoles, become known to a third party. This would be in contrast to Article 13 of our contract.
>
> May we therefore suggest the following procedure for your consideration:
>
> - We understand and agree that the new Oerlikon-Contraves System Repair Depot be integrated in the new Central Depot Facilities and are agreeable to collaborating with Westinghouse as far as planning and construction is concerned. To agree on the kind of cooperation and the discussion of

> the MAINTENANCE PLAN FOR DEPOT SUPPORT, issued on September 15th, 1974 by Iran-Westinghouse Programs Center, a meeting with a Westinghouse representative in our Company is suggested.

98. On 20 November 1974, Mr. Langenwalter sent a letter to the now Brigadier General Ashari, responding, inter alia, to an Air Force inquiry whether all the technical information needed for the implementation of the Super Fledermaus project was available at that time. Mr. Langenwalter's response reads:

> Most of the technical information is available at this time, which will permit Westinghouse to commence with the design. However, several areas of concern do exist.
>
> (a) Two of the seven Gun Maintenance Manuals have not been delivered at this time.
>
> (b) Technical manuals covering the Special Oerlikon/Contraves Test Sets listed in Appendix B and C of the proposal which are already on order by the [Air Force] and which are to be incorporated in the Depot equipment are not available.
>
> (c) Detailed wiring information on Computer Drawers is lacking. As stated above, Westinghouse can begin the design effort immediately, and use interim measures to provide quick maintenance capability for the Depot. However, it is recommended that the [Air Force] initiate immediate action to obtain the required information in an expeditious manner.

99. By letter of 3 December 1974, the Air Force advised Oerlikon that it had designated Mr. James Langenwalter as its "authorized representative to conduct discussions intended to establish the Oerlikon repair depot as well as to obtain any technical data in connection there with." The Air Force requested Oerlikon "to render all possible assistance to Mr. Langenwalter" in this connection.

100. As noted, on 16 February 1975, the parties executed contract 009. The contract incorporated by reference Westinghouse's proposal entitled "Maintenance Plan for Depot Support of the Super Fledermaus Antiaircraft System," dated 15 September 1974 and revised on 22 October 1974 and 27 December 1974 ("Contract 009 Maintenance Plan"). Under the contract, Westinghouse agreed to design and manufacture equipment that the Air Force could use to test, service, and repair the Super Fledermaus. In addition, Westinghouse undertook to provide specified supporting services, including training for Air Force personnel, engineering services, and the preparation of recommended spare part lists, and to design a depot shop in which the maintenance equipment could be used. The total price of contract 009 was U.S.$2,401,441.

101. Although the contract expressed the total selling price in United States dollars, it provided that the Air Force would pay part of the total sum in rials. Pursuant to Article II, the Air Force was to pay Westinghouse U.S.$1,897,741 and 33,999,750 rials "[i]n consideration of the tasks to be performed by [Westinghouse]." The contract's payment schedule required the Air Force to pay the dollar portion in seven installments due on the second, fourth, seventh, tenth, thirteenth, fifteenth, and eighteenth month "after receipt of order," and the rial portion in five installments due on the seventh, tenth, thirteenth, fifteenth, and eighteenth month "after receipt of order."

102. The rial payments were to be made to Westinghouse in Iran upon presentation of Westinghouse's rial invoices. The dollar payments were to be made by drawing on a letter of credit, established in Westinghouse's favor, upon presentation of Westinghouse's dollar invoices. Thus, Article II obligated the Air Force "to establish an irrevocable Letter of Credit, to be confirmed by a United States Bank, which assures Dollar payments in accordance with Dollar payment schedule." Article II further provided that "[a]ll invoices submitted by [Westinghouse] for approval shall be certified by [Westinghouse] regarding the

percentage of completion of effort and/or percentage of work in process." Article II also entitled Westinghouse to cease all work under the contract in the event the Air Force failed to make a scheduled payment.

103. Pursuant to Article III of the contract, performance was to commence "upon receipt of a fully executed copy of the Agreement" and was to be completed within an eighteen-month period, thus by August 1976.

104. Table 4-1 of the maintenance plan, entitled "Summary of Responsibilities," required the Air Force to furnish Westinghouse with "Technical Data covering Super Fledermaus Systems, specified in Section 2.5.3." Section 2.5.3 of the maintenance plan, in turn, defined these technical data as "[t]wo complete sets of Super Fledermaus operation manuals, maintenance manuals, test equipment manuals, test specification schematics . . . required to design the new test equipment and to prepare the new technical manuals."

105. Contract 009's termination provision, Article XIII, was similar to that found in contract 007, see supra, para. 68. It stated that each party was entitled to terminate the contract by giving written notice to the other. While the Air Force had the right to do so at any time for its own convenience, Westinghouse's right was limited to situations of impossibility of performance "due to laws, orders, regulations, rulings or acts of the United States Government or agencies thereof." Pursuant to Article XIII, after receipt or issuance of a notice of termination, Westinghouse was to cease all work under the contract and submit a termination claim to the Air Force. Article XIII specified that

> [t]he amount to which [Westinghouse] shall be entitled upon termination of this Agreement shall be the total price of this Agreement . . . reduced to an amount determined by the parties hereto as being a fair and reasonable amount for the effort performed prior to the date of termination and shall thereafter be

> increased by a reasonable allowance for expenses and profit with respect to the termination effort.

106. Westinghouse contends that it commenced performance on contract 009 immediately upon execution of the agreement in February 1975 and continued its efforts until September 1976 when, it asserts, it suspended contractual performance due to the Air Force's failure to make payments on the contract. Westinghouse alleges that throughout this period, its performance was impeded by the Air Force's failure to fulfill a number of its contractual obligations to cooperate with Westinghouse. In this context, Westinghouse asserts that most importantly the Air Force failed to provide to Westinghouse all the Oerlikon/Contraves technical data specified in the Contract 009 Maintenance Plan, which Westinghouse required in order to design and manufacture the Super Fledermaus test equipment.

107. In support of the latter contention, Westinghouse produced, inter alia, a letter dated 7 June 1975 from Mr. Langenwalter to the Air Force's Lieutenant General Fattahi, requesting the Air Force to expedite the delivery to Westinghouse of certain critical test equipment and technical data Westinghouse needed immediately. In relevant part, this letter states:

> Under the provisions of the Maintenance Plan for the Depot Support of the Super Fledermaus Anti-aircraft System, the [Air Force] is to provide Technical Data and Test Equipment to Westinghouse for design purposes and for use in depot operation.
>
> Although all items will eventually be required, certain key items are required immediately so as not to delay the design effort and the implementation of the new depot facility. Your assistance in expediting the delivery of the necessary items is required. Listed below are the critical items which are required now.

The letter goes on to identify, inter alia, the following critical items:

The major portion of the Maintenance information for the Gun and Gun Power Supply is required immediately including the complete Description and Functioning of the Gun System; electrical and hydraulic schematics and wiring diagrams; and maintenance procedures.

. . .

Technical Data for the following items of test equipment is required immediately to permit the design of the new depot test stations to proceed. The actual hardware should be delivered as soon as possible for incorporation in the new test stations. The technical data should include Description, Functioning, Operation, Maintenance, Schematics, Wiring Diagrams and Illustrated Parts Breakdown.

. . .

The Gun Maintenance Van has been in the Bandar Abbas/ Bushere port area for several months awaiting transport to Tehran. The Van contains eight Technical Manuals of unknown content which may be of critical importance in the Design Phase. Immediate action should be taken to retrieve those manuals from the Van for prompt shipment to the IED . . . .

108. The evidence indicates that the discussions between Westinghouse and Oerlikon/Contraves concerning a possible cooperation in the integration of the Super Fledermaus in the IED, which had begun in 1974, see supra, para. 97, continued after the execution of contract 009 in February 1975. The evidence also indicates, however, that these negotiations were less than fruitful. On 27 September 1975, Mr. Langenwalter wrote a letter to the Air Force's Brigadier General Tehranchi, advising him about the difficulties Westinghouse was encountering "in attempting to solicit the services of Oerlikon/Contraves to assist this company in its efforts" under contract 009.

109. In his letter to Brigadier General Tehranchi, Mr. Langenwalter, inter alia, described a meeting between Westinghouse and Oerlikon/Contraves held on 12 April 1975 in General Naderi's office and recounted how at that meeting General Naderi had said that since Westinghouse had been awarded a contract to integrate the Super Fledermaus into the IED, "the companies were

requested to solve their difficulties by negotiation." Mr. Langenwalter went on to report that at this meeting, Oerlikon/Contraves presented Westinghouse with the "essential conditions" they felt Westinghouse had to meet in order for them to enter into a subcontract with Westinghouse, and that the following day, Westinghouse presented Oerlikon/Contraves with its reply to these "essential conditions." Mr. Langenwalter did not specify what those "essential conditions" were and why Westinghouse was unable to meet them. These points have not been clarified by Westinghouse in these proceedings. Mr. Langenwalter then recited how, between 26 April 1975 and 21 May 1975, Westinghouse repeatedly telexed Oerlikon/Contraves requesting their cooperation and Oerlikon/Contraves, by telex of 26 May 1975, advised Westinghouse that negotiations could begin only after Oerlikon/Contraves had surveyed the work sites in Iran. After stating that Westinghouse had "heard nothing" from Oerlikon/Contraves since that date, Mr. Langenwalter concluded:

> Because of the lack of support from Oerlikon/Contraves, Westinghouse has initiated efforts on its own to integrate the system into the Depot. A Westinghouse survey team will tour the various sites within six to eight weeks to evaluate further the requirements that must be met. In addition, we have made initial contacts with a United States firm who is expert in anti-aircraft weapons to determine the possibility of their assistance, if required.
>
> At the present time, the only problems which Westinghouse is facing are the lack of special test equipment and technical data for both the test equipment and on the gun assemblies that are to be provided by the [Air Force]. It is our understanding that all of this data and equipment should have been delivered to the [Air Force] six (6) to eight (8) months ago.
>
> Westinghouse still would prefer to perform this effort with Oerlikon/Contraves; however, since they will not cooperate with us we have no other choice than providing the necessary services to integrate their system into the Depot without them. . . .

110. On 7 October 1975, Westinghouse's business manager in Iran, Mr. J.L. Tobin, wrote to General Naderi, informing him that

at a meeting held on 7 October 1975 at Westinghouse's Iran offices, Westinghouse and Oerlikon/Contraves agreed to cooperate in a prime-subcontractor relationship for the purpose of integrating the Super Fledermaus in the IED. Mr. Tobin pointed out to General Naderi, however, that this agreement was "contingent upon mutual negotiation between the parties of the terms and conditions and the price of the resulting subcontract."

111. However, it is undisputed that, despite this apparently promising break, Westinghouse and Oerlikon/Contraves were not able to agree on mutually acceptable terms and have never concluded a Super Fledermaus subcontract. Westinghouse has not explained the details of the differences between Oerlikon/Contraves and itself that led to the failure of these negotiations. The only indication in this regard to be found in the record is an entry in a contemporaneous chronological list of major contract correspondence between the parties, attached to Westinghouse's letter of 17 December 1977 submitting its termination claim to the Air Force, see infra, para. 114. According to this list, on 19 April 1976, Westinghouse sent a letter to the Air Force concerning an "Oerlikon/Contraves Proposal Offer," advising the Air Force "that Oerlikon/Contraves Proposal is not responsive to the [Air Force] request and will not satisfy the needs of the IED and the [Air Force]."

112. On 23 November 1975, Mr. Langenwalter wrote a letter to General Naderi, noting that although Westinghouse had received some of the Super Fledermaus test equipment and technical data it had previously requested from the Air Force, it still required certain "critical data," which he identified in a list attached to his letter. Mr. Langenwalter went on to request

> that the [Air Force] exercise the new "On-Call" Agreement between the [Air Force] and Oerlikon/Contraves to obtain this data in an expeditious manner. I believe that this Agreement was the outcome of your October 19, 1975 . . . meeting with Oerlikon/Contraves.

Westinghouse contends that despite Westinghouse's requests, the Air Force never provided Westinghouse with all the required Oerlikon/Contraves technical data. Westinghouse asserts that nevertheless, in 1975 and 1976, it was able to make progress in performing contract 009. The Air Force, for its part, denies that Westinghouse ever performed any work on the contract.

113. On 26 November 1975, 11 February 1976, and 4 May 1976, respectively, Westinghouse tendered to the Air Force three invoices for contractually-specified rial payments. On 21 January 1976, Mr. Langenwalter wrote to General Naderi complaining of the Air Force's failure to establish the letter of credit called for by contract 009. Mr. Langenwalter went on to state that "Westinghouse has not received any payments of any sort" and that "contract payments of $1,329,600.00 and 11,333,252 rials are overdue." It is undisputed that the Air Force never opened the contractually-required letter of credit for dollar payments under contract 009 and never made any rial payments to Westinghouse.

114. Westinghouse contends that, due to the Air Force's failure to make contractual payments, it ceased performance on contract 009 on 4 September 1976 and directed personnel assigned to the contract to assume responsibility for activities on other contracts. Westinghouse asserts that soon thereafter, it offered to the Air Force to reinstate the contract in exchange for overdue payments. Therefore, Westinghouse maintains, in January 1977, it submitted to the Air Force a proposal to restart work on contract 009. These contentions are supported to a significant extent by the contemporaneous chronological list of major contract correspondence between the parties, which Westinghouse attached to its letter of 17 December 1977 to the Air Force, see supra, para. 111, and infra, para. 121. The list records a Westinghouse letter dated 4 September 1976, "[i]nforming [the Air Force] that because of administrative problems, [Westinghouse] is transferring its Personnel assigned to the Fledermaus Depot to other contracts at the Electronics Depot," and a Westinghouse letter dated 30 January 1977, submitting, "as per the [Air

Force's] request, . . . a revised plan for Providing Depot Maintenance Support for the Fledermaus Antiaircraft System."

115. Westinghouse alleges that by the time it suspended work in September 1976, it had succeeded in performing several tasks under contract 009. Westinghouse maintains that it established an engineering staff for the contract, prepared a preliminary technical manual on Super Fledermaus supply procedures, identified required spare parts, and, by using a process known as "reverse engineering,"[9] developed maintenance procedures for a fire control unit subsystem. In addition, Westinghouse states, it trained Air Force personnel in the operation of the Super Fledermaus system, carried out site surveys, and repaired a defective Super Fledermaus.

116. On 11 June 1977, Air Force representatives advised Westinghouse that the Air Force was no longer interested in the Super Fledermaus contract. This fact is reflected in an internal Westinghouse memorandum dated 14 June 1977, authored by Mr. E.W. Yoder, Westinghouse's business manager in Iran, stating:

> During general contract review discussions with Col. Mehrabanzad, (DCS Materiel) of the [Air Force] on June 11th, both he and Col. Khatami, (Director, Materiel) stated the [Air Force] was no longer interested in Fledermaus. They do not desire to continue with any further effort. In fact they consider our contract terminated.
>
> It is, therefore, requested that a termination claim be prepared to close out this contract and adjust downward the booking value of the General Order. It is also requested that the RPI and proposal be cancelled. . . .

---

[9] Westinghouse asserts that "reverse engineering" involves the analysis of a given piece of prime equipment and the identification of its characteristics through trial and error experimentation.

117. By letter of 17 December 1977, Westinghouse submitted its contract 009 termination claim to the Air Force. Westinghouse's letter, in relevant part, reads:

> Pursuant to Article XIII of [contract 009], Westinghouse has exercised its right to cease work on the Super Fledermaus Antiaircraft System. . . .
>
> Article XIII also permits Westinghouse to submit to the [Air Force] a request for payment relating to the costs incurred by Westinghouse on this contract. . . .
>
> The amount sought by Westinghouse from the [Air Force] is $750,737.00.
>
> This amount represents the price for the following services rendered to the [Air Force].
>
> (1) The Fledermaus Depot Shop was operational from November 1975 to September 1976 during which time several gun and radar repairs were performed.
>
> (2) Mobile teams performed several site surveys requested by the [Air Force].
>
> (3) Both regular and out of scope training courses were initiated to increase the efficiency of [the Air Force] Depot personnel on Super Fledermaus Weapon Systems.
>
> (4) Considerable time and effort was expended by Westinghouse in attempting to reach an agreement with Oerlikon-Contraves.
>
> We regret to request the payment of $750,737.00 via Article XIII of the contract. However, the [Air Force] never established an irrevocable Letter of Credit as required by Article II Section B of the agreement. . . .
>
> Westinghouse has in storage, for the [Air Force], deliverable engineering material, and we shall await your shipping instructions with regard to it. . . .

118. There ensued an exchange of correspondence between the parties. On 22 February 1978, Westinghouse sent a letter to the Air Force, increasing its termination claim to U.S.$826,747 and enclosing certain documents to support this increase. According

to the breakdown of the termination amount Westinghouse attached to this letter, Westinghouse and its subcontractor, International Material and Construction Ltd., performed a total of 98 man-months of services on the Super Fledermaus project. The Air Force responded to Westinghouse's 17 December 1977 and 22 February 1978 letters by letter of 29 April 1978 as follows:

> SUBJECT: CONTRACT IWPC-009 SUPER FLEDERMAUS
> TERMINATION CLAIM
>
> . . .
>
> The claim as outlined by Westinghouse by the above referenced letters has been under study for consideration for several weeks. Several questions have evolved as a result of this study which require further clarification and/or substantiation from Westinghouse.
>
> Please provide any evidence which would indicate that Westinghouse received a written request to begin performance and any written approvals of this . . . performance by the [Air Force]. This request is for information additional to the Letter (1303-07-101 dated 1974, 3, 3) to Contraves Company by Colonel Ashari.
>
> The above information is required before a decision by Procurement can be made regarding your claim.

Westinghouse replied in writing to the Air Force on 23 May 1978, stating, inter alia, that "the written request to begin performance of this Agreement is in the signature of the actual Agreement by the [Air Force]."

119. An internal Westinghouse "IWPC COLLECTION PLAN FOR THE IED JULY 1978," which was submitted by the Air Force, describes the status of Westinghouse's monetary claims against the Air Force on various contracts as of that date. Concerning Westinghouse's contract 009 termination claim, this document reports:

IWPC-009 FLEDERMAUS - 826K

STATUS: There is a request at the IIAF-IED from IIAF Procurement for their position on Fledermaus in writing even though General Paulissian of IIAF-IED has agreed with the Westinghouse position verbally. IIAF personnel advised they were waiting the return of General Paulissian from vacation. General Paulissian is back and on July 22 Colonel Nosrati-Nia, Depot Commander, advised he would discuss with the General.

ACTION: Continue to expedite the customer for an acceptable settlement.

COMMENT: We feel the outcome of this contract is difficult to predict since a fair settlement requires somebody of authority in the customer's command to be favorable to Westinghouse in writing. We predict a token 20% settlement at this time.

120. Thus, as the collection plan indicates, in mid-1978, Westinghouse's contract 009 termination claim was the subject of internal discussions among Air Force officials. In addition, the evidence bears out that at the time, Air Force officers were making internal inquiries concerning the extent of Westinghouse's performance of contract 009. The Tribunal has before it an Air Force internal memorandum dated 5 September 1978, sent by the Logistical Support Center to the Logistical Commanding General (Procurement and Contract Management), responding to a 30 July 1978 memorandum from the latter and stating in relevant part:

Subject: Contract No. IWPC-009

1. Following contract signature, the [Oerlikon] Depot [B]ldg. 59, Doushan Tappeh, was created for this purpose and made available to Westinghouse Co. who sent a number (4-6) of their specialist staff for this purpose to the Electronics Base, the latter staff being employed at the [Oerlikon] branch for from 12 to 15 months.

2. The above-mentioned specialists carried out the following work during this period:

(a) [Setting up] recommended class for branch transport-planes (non-fighter aircraft)

(b) Repair work on several radar and artillery units belonging to the Air Training Command.

(c) Inspection of Base 3 (Mehrabad South) and Bandar Abbas base.

(d) Preparation of list of spare parts and tools required by the branch.

121. The Air Force Logistical Support Center's 5 September 1978 account of Westinghouse's performance of contract 009 is substantiated, to a significant extent, by several contemporaneous letters from Westinghouse to the Air Force: a letter dated 8 February 1976, indicating that Westinghouse had begun an out-of-scope, system level training of Air Force personnel on the Super Fledermaus on 10 January 1976; a letter dated 20 March 1976, referring to an Air Force request to Westinghouse to perform depot maintenance and overhaul of certain Super Fledermaus equipment and recommending that in this connection a site survey be conducted by Westinghouse personnel; a letter dated 10 April 1976, transmitting a trip report prepared by a Westinghouse engineer who had accompanied Air Force personnel to the Super Fledermaus site at Bandar Abbas on 5 April 1976; a letter dated 3 May 1976, reporting the site survey a team of Westinghouse engineers conducted at the Air Force's Mehrabad base from 24 through 28 April 1976; a letter dated 3 May 1976, enclosing a program chart showing that nine Westinghouse engineers had been assigned to the Super Fledermaus project and stating that the out-of-scope system level training of Air Force personnel had been requested by the Air Force's Project Officer; a letter dated 25 January 1977, notifying the Air Force that in accordance with the Air Force's request, Westinghouse had refurbished and rendered suitable for training an Oerlikon Weapon System. In addition, the list of correspondence attached to Westinghouse's 17 December 1977 letter to the Air Force, see supra, para. 114, records a 23 November 1975 Westinghouse letter to the Air Force concerning an Oerlikon Gun System "rec[e]ived at the Fledermaus

Shop" from Abadan and on which "inspection and repair actions had been initiated."

122. On 29 October 1978, Brigadier General Shakib, the Deputy Commander of the Air Force's Logistics Command, sent a letter to Westinghouse, rejecting Westinghouse's termination claim on contract 009 as follows:

> The [Air Force] hereby rejects your claim for $826,747 for work performed by Westinghouse on the SuperFledermaus Contract. As a letter of Credit was never opened a contract was never consum[m]ated. Therefore, any work that Westinghouse performed was done so at its own risk.

There is no evidence on record of any further correspondence between the parties concerning contract 009 until 1 November 1979, when Westinghouse sent to the Air Force a follow-up letter concerning possible resumption of work on the IED project, see supra, para. 43. Regarding contract 009, the IED contracts status report accompanying the letter notes that "Westinghouse had presented documentation proving that considerable efforts had been performed in compliance with the signed contract and requested payment of $826,747."

b. The Parties' Arguments

123. The premise for Westinghouse's claim on contract 009 is the argument that the Air Force breached the contract. Westinghouse contends that the Air Force did so in three ways: first, it failed to comply with its obligation to provide Westinghouse with all the contractually-specified Oerlikon/Contraves technical data; second, it failed to open a letter of credit as called for by the contract; and third, it failed to make any of the contractual payments. Accordingly, Westinghouse seeks a total of U.S.$1,026,130, plus interest. This sum encompasses U.S.$750,737 in costs allegedly incurred and profits allegedly earned on contract 009 prior to the termination of all

work and U.S.$275,393 in alleged lost profits on contractual services not yet rendered by that time.

124. The Air Force rejects Westinghouse's allegations of breach and denies any liability for this claim on various grounds. First, as it did at the time, the Air Force contests the existence of a valid contract between the parties on the ground that, because no letter of credit was ever established, the contract was never consummated. In this connection, the Air Force denies that it had any obligation to establish that letter of credit. Relying on Article II of the contract, it argues that such an obligation would have been triggered only by an Air Force "order" to Westinghouse to commence performance of contract 009. The Air Force goes on to say that because Westinghouse never began unspecified preliminary work on the contract, the Air Force never issued that "order," and, thus, no obligation on its part to establish a letter of credit ever arose. In any event, the Air Force goes on, Westinghouse never tendered to it any dollar invoices, so there was no need for the Air Force to open a letter of credit.

125. Second, the Air Force contends that Westinghouse did not perform its obligations under the contract. At the Hearing, the Air Force maintained that when Westinghouse departed from Iran in December 1978, it had "in no way whatsoever dealt with any part of this contract or discharged any part of it." Moreover, it alleged that the training services Westinghouse performed were not required by the contract, and thus were out-of-scope, and it denied that Westinghouse's engineers carried out any proper site surveys.

126. In addition, the Air Force asserts in its written pleadings that the engineers Westinghouse assigned to the training of the Air Force's personnel were unqualified and limited in number. The Air Force also denies that Westinghouse ever completed any repairs on the Super Fledermaus and alleges,

instead, that Westinghouse personnel only succeeded in further damaging an already defective system.

127. Third, the Air Force rejects Westinghouse's contention that it failed timely to provide Westinghouse with the contractually-required Oerlikon/Contraves technical data. It asserts, in contrast, that all the data Westinghouse needed, including the necessary Super Fledermaus technical manuals, had been available at the IED since 1973. The Air Force goes on to say that these data were in fact kept at the Super Fledermaus facility in the building at Doshan Tappeh airbase in Tehran, and Westinghouse had access to them at all times; the Air Force denies that it ever assumed an obligation to supply Westinghouse with any additional Oerlikon/Contraves technical information.

128. The Air Force alleges that rather than the technical information needed for the performance of contract 009, Westinghouse, in reality, wished to obtain Oerlikon and Contraves trade secrets and technical know-how, which, of course, these companies would not release. In this connection, the Air Force seems to contend that any reverse engineering Westinghouse performed was aimed solely at gaining Oerlikon and Contraves technical know-how.

129. The Air Force also appears to contend that it signed contract 009 in the mistaken belief that Oerlikon and Contraves had agreed to deliver to Westinghouse all the contractually-required technical data.

130. The Air Force asserts no counterclaims on contract 009.

c. The Tribunal's Decision

131. It has been contested by the Air Force that contract 009 was a valid and enforceable contract. The Tribunal thus first must determine whether contract 009 was binding on the

parties. There is no dispute that the agreement was properly executed on 16 February 1975 by a representative of Westinghouse and a representative of the Air Force. The Air Force argues, however, that because it did not establish the letter of credit called for by the agreement, contract 009 was not consummated and never became effective. The Air Force maintains that its obligation to establish that letter of credit never arose because it never issued the "order" to Westinghouse to commence performance. The Air Force bases this contention on Article II.A of contract 009, which established the contract's payment schedule. Pursuant to this provision, the installments that the Air Force was required to pay became due on designated months "after receipt of order," see supra, para. 101. The Tribunal finds the Air Force's argument to be unpersuasive.

132. According to Article III of the contract, performance thereunder was to commence "upon receipt of a fully executed copy of the Agreement," see supra, para. 103. Hence, it is clear to the Tribunal that the word "order" found in Article II means nothing other than "executed agreement." That this is the correct meaning of the word is also confirmed by the language of Westinghouse's 14 June 1977 internal memorandum, by which Westinghouse's Mr. Yoder requested that a termination claim be prepared to close out contract 009 and the booking value of the "General Order" be adjusted downward, see supra, para. 116. Consequently, the Tribunal rejects the Air Force's "order" argument and determines that contract 009 became effective on 16 February 1975, the date it was signed.

133. Moreover, nowhere in contract 009 is it stated that the opening of the letter of credit was a condition for the validity of the agreement once it had been signed by the parties. Article II, rather, established the Air Force's unconditional obligation "to establish an irrevocable Letter of Credit, to be confirmed by a United States Bank, which assures Dollar payments in accordance with Dollar payment schedule . . . ." The Air Force may not invoke its own failure to comply with its letter of

credit obligation as a ground warranting a finding of ab initio invalidity of contract 009. The Air Force's argument to this effect is therefore dismissed.

134. In view of the foregoing, the Tribunal determines that contract 009 was a valid and enforceable agreement binding on both parties.

135. Westinghouse contends that in September 1976, it ceased all work on contract 009 because of the Air Force's breach in failing to make payments on the contract. Accordingly, Westinghouse now presents to the Tribunal a claim of breach of contract, which includes among the heads of damages a claim for lost profits on services Westinghouse had not rendered at the time of its departure from Iran. For the reasons set forth below, Westinghouse is not convincing before the Tribunal in its claim of breach of contract.

136. On 14 June 1977, Mr. Erwin Yoder, Westinghouse's business manager in Iran, wrote to Westinghouse personnel at the IED, advising them that at an 11 June 1977 meeting with Westinghouse representatives, Air Force officials had announced that they considered contract 009 "terminated." In his memorandum, Mr. Yoder requested that accordingly, "a termination claim" be prepared to close out the agreement, see supra, para. 116. Thereafter, by letter of 17 December 1977, Westinghouse submitted a termination claim to the Air Force in accordance with Article XIII of the agreement. In its letter, Westinghouse made clear that it was seeking from the Air Force "payment relating to the costs incurred by Westinghouse on this contract" in the amount of U.S.$750,737, see supra, para. 117. Westinghouse did not seek any lost profits on services not rendered; nor did it suggest that its claim was for breach of the contract rather than termination or that the termination was a response to an Air Force breach. Later correspondence from Westinghouse likewise omits any reference to lost profits or other remedies for breach

and consistently refers to Westinghouse's claim as one for termination of contract 009 by the Air Force.

137. Based on the evidence before it, the Tribunal concludes that in early June 1977, contract 009 was terminated verbally by Air Force officials and Westinghouse acquiesced in this verbal termination. In the Tribunal's view, by this conduct, the parties effectively waived the contractual requirement of a written notice of termination, see supra, para. 105. Moreover, the Tribunal finds that Westinghouse's present breach of contract argument and related lost profits claim, both raised for the first time in this proceeding, are inconsistent with Westinghouse's conduct at the time the alleged breach occurred, when it elected to regard the contract as terminated by the Air Force. Hence, in the circumstances of this Case, the Tribunal holds that Westinghouse, in effect, waived any right now to raise a claim against the Air Force for breach of contract 009. See Oil Field of Texas, Inc. and Islamic Republic of Iran, et al., Award No. 258-43-1, para. 35 (8 Oct. 1986), reprinted in 12 Iran-U.S. C.T.R. 308, 317; General Dynamics Telephone Systems Center, Inc., supra, at 6-12, 9 Iran-U.S. C.T.R. 157-60.

138. In light of the foregoing conclusions, the Tribunal determines that Westinghouse is entitled to "a fair and reasonable amount for the effort performed prior to the date of termination," pursuant to contract 009's termination provision, Article XIII, see supra, para. 105. This "fair and reasonable amount" obviously does not include any lost profits on work Westinghouse did not perform under the contract. Consequently, Westinghouse's claim for these amounts is dismissed.

139. In reaching this conclusion, the Tribunal also rejects a number of the Air Force's defenses. To begin with, the Air Force contends that Westinghouse performed virtually none of its obligations under contract 009. However, this contention is contradicted by the evidence, which shows that Westinghouse accomplished several contractual tasks. Evidence of particular

relevance on this point is the written account of Westinghouse's performance of the contract that the Air Force's Logistical Support Center sent to the Air Force's Logistical Commanding General on 5 September 1978, see supra, para. 120. According to this contemporaneous Air Force-generated memorandum, between four and six Westinghouse specialists worked at the Super Fledermaus facility in Iran for about twelve to fifteen months. During this period, the memorandum recites, Westinghouse succeeded in setting up an Oerlikon orientation course for Air Force technicians, repairing several of the Air Force's Aviation Training Command's radar and artillery units, inspecting Air Force air bases at Mehrabad and Bandar Abbas, and preparing lists of required spare parts and tools. Significantly, the Air Force's 5 September 1978 account of Westinghouse's performance is corroborated by numerous contemporaneous letters from Westinghouse to the Air Force, reporting on work Westinghouse had done under the contract or referring to Air Force requests that Westinghouse carry out certain tasks, see supra, para. 121.

140. The Air Force also appears to contend that because the system-level training of its personnel on the Super Fledermaus furnished by Westinghouse was not required by the Contract 009 Maintenance Plan, it cannot be remunerated. The Air Force does not deny that it actively participated in Westinghouse's performance of these services by providing personnel for training. In addition, the record contains a 3 May 1978 letter from Westinghouse to the Air Force indicating that the Air Force itself requested Westinghouse to furnish such training, see supra, para. 121. As a result, the Tribunal concludes that these services were in fact authorized by the Air Force and therefore must be considered in determining the amount Westinghouse is entitled to under Article XIII for work performed on the contract. See Chas T. Main International, Inc. and Khuzestan Water and Power Authority, et al., Interlocutory Award No. ITL 23-120-2, at 16-17 (27 Jul. 1983), reprinted in 3 Iran-U.S. C.T.R. 156, 163-64.

141. The Air Force further complains that the personnel Westinghouse assigned to the Super Fledermaus project were generally incompetent. In this context, the Air Force asserts that Westinghouse's engineers further damaged an already defective Super Fledermaus. The Air Force submitted no evidence suggesting any dissatisfaction with the qualifications of Westinghouse's engineers or other personnel. Equally, the Air Force submitted no contemporaneous evidence that during the course of the contract it complained about the quality of Westinghouse's services or that a failure on Westinghouse's part was at the origin of certain defects presented by a Super Fledermaus system. The Tribunal finds that the Air Force's failure to complain to Westinghouse about the quality of Westinghouse's services contemporaneously as the alleged problems arose or thereafter, during the close-out negotiations between the parties, undermines the credibility of its complaints in this proceeding. Consequently, the Tribunal dismisses the Air Force's allegations of defective performance. See Austin Company and Machine Sazi Arak, et al., Award No. 257-295-2, paras. 31-32 (30 Sept. 1986), reprinted in 12 Iran-U.S. C.T.R. 288, 294-95; Richard D. Harza, et al. and Islamic Republic of Iran, et al., Award No. 232-97-2, para. 99 (2 May 1986), reprinted in 11 Iran-U.S. C.T.R. 76, 114; Gould Marketing, Inc., supra, at 9, 6 Iran-U.S. C.T.R. at 277; Trustees of Columbia University in the City of New York and Islamic Republic of Iran, Award No. 222-10517-1, para. 30 (16 Apr. 1986), reprinted in 10 Iran-U.S. C.T.R. 319, 325.

142. Finally, the Air Force seems to contend that it signed contract 009 in the mistaken belief that Oerlikon and Contraves had agreed or would agree to provide Westinghouse with all the necessary Super Fledermaus technical data or that those companies had agreed to enter into a subcontract with Westinghouse for the integration of the Super Fledermaus in the IED. The Tribunal finds that the record does not support the Air Force's contention. The evidence bears out that even before contract 009 was executed, the Air Force was aware that Oerlikon and Contraves

were reluctant to release any technical information to Westinghouse. In its letter to the Air Force of 7 November 1974, some three months before the signing of contract 009, while expressing its readiness to cooperate with Westinghouse in the "planning and construction" of a Super Fledermaus repair facility in the IED, Oerlikon made clear that it could not agree that "technical details and know-how relating to our systems . . . become known to a third party," see supra, para. 97. Nothing in the file suggests that any action before the signing of contract 009, in particular the Air Force's December 1974 appointment of Westinghouse's Mr. Langenwalter as its representative for the purpose of conducting discussions with Oerlikon and Contraves "intended to establish the Oerlikon repair depot as well as to obtain any technical data in connection there with," see supra, para. 99, caused those two companies to change their position.

143. Moreover, contract 009 unequivocally placed on the Air Force the obligation to provide Westinghouse with certain Oerlikon/Contraves technical data necessary for the design and manufacture of Westinghouse's Super Fledermaus test equipment and the preparation of new technical manuals, see supra, para. 104. In the Tribunal's view, the fact that the Air Force expressly assumed this obligation undermines the Air Force's contention in this proceeding that when it signed the agreement, it believed that Oerlikon and Contraves had agreed to release this information directly to Westinghouse. This conclusion is also supported by the Air Force's contemporaneous conduct after the execution of the contract in February 1975. When Westinghouse requested it to obtain Oerlikon/Contraves technical information, the Air Force never responded by denying any such obligation or stating that Westinghouse itself was obligated to get it directly from Oerlikon and Contraves. Nor is there any evidence that the Air Force ever objected in any way to these requests.

144. Further, there is no evidence that after it became clear that Westinghouse and Oerlikon/Contraves would not enter into a Super Fledermaus subcontract, see supra, para. 111, the

Air Force ever protested to Westinghouse about this failure. In particular, after Westinghouse submitted to it its termination claim on 17 December 1977, the Air Force never took the position that contract 009 was somehow invalid because Westinghouse and Oerlikon/Contraves failed to reach an agreement. There is also evidence that the Air Force's General Paulissian agreed with Westinghouse's position verbally. For all the foregoing reasons, the Tribunal rejects the Air Force's apparent contention that it signed contract 009 based on the mistaken belief that Oerlikon and Contraves had agreed to cooperate with Westinghouse.

145. The Tribunal has determined that Westinghouse is entitled under Article XIII of the contract to a "fair and reasonable amount for the effort performed prior to the date of termination." The Tribunal finds that this fair and reasonable amount must include Westinghouse's accrued direct costs, its indirect general and administrative expenses, and the profits it earned on the services it performed on contract 009. As noted, Westinghouse is not entitled to any lost profits on the unperformed part of the contract. Further, because the Air Force did not make any contractual payments, no reduction in the amount the Tribunal will determine as being the entitlement of Westinghouse is warranted.

146. Westinghouse contends that it is owed a total of U.S.$750,737 in costs incurred and profits earned on the contract. This sum encompasses U.S.$503,715 in direct costs, U.S.$121,899 in general and administrative expenses, and U.S.$125,123 in profits on work Westinghouse performed prior to contract termination. In support, Westinghouse produced an affidavit by its comptroller, Mr. Robert McFarland, and a series of contemporaneous, Westinghouse-generated, computerized cost data banks. In his affidavit, Mr. McFarland stated that Westinghouse's accountants recorded in such data banks all of the company's direct costs on each of its contracts with the Air Force as of the time the costs were incurred. Mr. McFarland went on to explain that the data bank could be used to produce a

summary of all of Westinghouse's direct costs on a given contract -- a so-called "Contract Cost Report No. 1," as he further explained in his testimony at the Hearing -- that listed the cost subtotals for each category of expenses (for example, labor, materials, engineering travel, etc.) as well as the total direct costs incurred on the contract.

147. Concerning Westinghouse's indirect general and administrative ("G&A") costs, Mr. McFarland asserted that Westinghouse uniformly attributed a G&A rate of 24.27 percent[10] to all of its international contracts, including those with the Air Force. Mr. McFarland indicated that this rate was established in May 1973 by Westinghouse's Electronics Systems Support Division. Finally, regarding Westinghouse's profit rate, Mr. McFarland stated that when Westinghouse developed proposals for contracts with direct international customers such as the Air Force, it incorporated a profit margin of at least 20 percent, which, according to him, Westinghouse consistently attained.

148. The Air Force rejects all of Westinghouse's calculations. In particular, relying on a report by the London offices of Touche Ross & Co. Chartered Accountants ("Touche Ross"), issued on 6 July 1992, the Air Force asserts that the G&A and profit rates indicated by Mr. McFarland are inflated. Concerning the G&A rate, Touche Ross states that "[t]he fact that the figure was calculated in 1973 does not prevent this from being a perfectly acceptable method of overhead recovery. What is important is that the basis for the calculation of this figure should be periodically reviewed in order to assess the extent to which the rate applied continues to be appropriate or not." Touche Ross goes on to say that it is unclear to what extent this process was formally carried out by Westinghouse.

149. With respect to Westinghouse's profit margin, Touche Ross is of the opinion that the rate used by Westinghouse in its

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[10] In calculating the amount it seeks in G&A costs, U.S.$121,899, Westinghouse used a G&A rate of 24.2 percent.

claims against the Air Force, 20 percent, is overstated, and that a more correct profit rate is in the region of 5.5 percent, which Touche Ross maintains is the "true profit rate" attained by Westinghouse on its contracts with the Air Force (excluding the spare part portions of Amendments Nos. 5, 8, and 9). Touche Ross explains that "[i]n order to determine the true profit rate achieved, we have determined the profit rate which should be applied to all work, whether performed or not, such that it equals the average profit rate." It appears from a chart appended to Touche Ross's report that Touche Ross recalculated Westinghouse's effective profit percentage on contract 009 at 19.7 percent.

150. There is no serious dispute and, in the circumstances of this Case, particularly in light of the explanations and supporting contemporaneous evidence provided, the Tribunal is satisfied that the contemporaneous computerized cost data banks produced by Westinghouse reflect the direct costs Westinghouse incurred on contract 009. The Tribunal has before it the "Contract Cost Report No. 1" for contract 009, dated 31 december 1977, the computerized summary of all of Westinghouse's direct costs, stating that Westinghouse's uncleared costs on the contract amount to U.S.$503,715. Based on this evidence and in the absence of any countervailing evidence from the Air Force, the Tribunal determines that Westinghouse expended a total of U.S.$503,715 in direct costs in performing contract 009. This sum must be included in the amount Westinghouse is entitled to pursuant to Article XIII of the contract.

151. As noted, Westinghouse is also entitled to recover its G&A costs related to contract 009. The Tribunal finds no reason not to accept the G&A rate of 24.2 percent used by Westinghouse and supported by Mr. McFarland's affidavit testimony. The Tribunal is mindful of the explanation offered by Touche Ross, pursuant to which the basis for the calculation of the G&A rate should be periodically reviewed to assess whether the rate applied continues to be appropriate. Westinghouse contends that

this rate was reviewed annually. In addition, there is no indication in the record suggesting that a periodical review of the G&A rate was not carried out, or that Westinghouse's May 1973 rate was not appropriate in 1975, when contract 009 was executed, or 1977, when the agreement was terminated. In short, the Tribunal accepts 24.2 percent as the appropriate rate to be applied in determining Westinghouse's contract 009 G&A costs. Based on direct costs of U.S.$503,715, see foregoing paragraph, Westinghouse's G&A costs amount to U.S.$121,899. This sum must also be included in the amount Westinghouse is entitled to pursuant to Article XIII.

152. In addition, Westinghouse is entitled to the profits it earned on work performed on contract 009. Westinghouse seeks a 20 percent profit on the performed services. The affidavit of Westinghouse's comptroller, Mr. McFarland, supports this claim. The Tribunal is not persuaded by Touche Ross's approach pursuant to which Westinghouse's profits should be determined on the basis of a "true" profit rate of 5.5 percent, based on an average of the alleged effective profit Westinghouse achieved on each IED contract (excluding the spare part components of Amendments Nos. 5, 8, and 9). In so finding, the Tribunal also takes into account that according to Touche Ross's own calculations, Westinghouse's effective profit margin on contract 009 was 19.7 percent. In these circumstances, the Tribunal concludes that the profit margin claimed by Westinghouse, 20 percent, is reasonable. Based on a total of U.S.$625,614, see supra, paras. 150 and 151, Westinghouse's profits on performed services total U.S.$125,123. This sum, too, must be considered in calculating the amount Westinghouse is owed by the Air Force pursuant to Article XIII.

153. In light of the foregoing, the Tribunal determines that Westinghouse is entitled to a total of U.S.$750,737 pursuant to Article XIII of contract 009. Consequently, the Tribunal awards Westinghouse this sum for its claim on contract 009. Interest on this amount will run from 29 October 1978, the date on which

the Air Force rejected Westinghouse's termination claim. See supra, para. 122.

3. THE CLAIM AND COUNTERCLAIMS ON CONTRACT IWPC-010

The Claim

a. Facts and Contentions

154. On 1 March 1975, Westinghouse and the Air Force signed contract IWPC-010 ("contract 010") to establish maintenance capability for two sets of recently-acquired airborne radio equipment: the Hazeltine-manufactured AN/TPX-46 ("TPX-46") Interrogator Set and the Raytheon-manufactured AN/TRC-145 ("TRC-145") Radio Terminal Set. These sets operated together to allow ground radio installations to transmit a pulse and identify whether aircraft were friendly or unfriendly. The contract incorporated by reference Westinghouse's proposal of August 1974, as revised in January 1975, entitled "Maintenance Plan for the AN/TRC-145 Radio Terminal Set and the AN/TPX-46(V) Interrogator Set" ("Contract 010 Maintenance Plan"). Under the terms of the contract, Westinghouse agreed to deliver test equipment, technical publications, engineering services, training, and spare parts. The Air Force agreed to pay Westinghouse a total of U.S.$3,463,506, divided into a dollar portion of U.S.$2,597,630 and a rial portion of 58,446,630 rials in consideration of the tasks to be performed.

155. Pursuant to the contract's payment schedule, the Air Force was obligated to make nine dollar and nine rial installment payments on designated months after award of the contract to Westinghouse. The dollar payments were to be made against a letter of credit confirmed by a United States bank. The contract stated that "the Letter of Credit [was] for payment for the progress of [Westinghouse]." The rial payments were to be made

to Westinghouse in Iran upon presentation of Westinghouse's rial invoices.

156. The contract's schedule of performance required Westinghouse to complete its work within a twenty-four-month period, commencing "upon receipt by [Westinghouse] of approval of the United States Department of State, Office of Munitions Control."

157. The Contract 010 Maintenance Plan obligated the Air Force to provide Westinghouse with specified prime equipment that Westinghouse needed in order to design the TPX-46 and TRC-145 facilities, develop technical documentation, and validate and verify the training of Air Force personnel.

158. Westinghouse contends that the Department of State's Office of Munitions Control approved contract 010 on 23 April 1975. Westinghouse alleges that it began performance the following month but encountered substantial delays because the Air Force failed to provide the contractually-specified prime equipment on a timely basis. Westinghouse goes on to say that after the Air Force completed the delivery of this prime equipment in early 1978, Westinghouse made steady progress and by the time it departed from Iran in December 1978, it had completed all work on contract 010 except for four man-months of engineering services worth U.S.$31,744.

159. Westinghouse alleges that the Air Force made all of the dollar payments required by the contract but made only two rial installment payments totalling 17,534,000 rials. Westinghouse contends that the Air Force ignored the seven invoices Westinghouse tendered to it between 8 October 1975 and 14 January 1977 for the seven remaining rial installments, leaving a balance due of 40,912,630 rials on the contract. According to Westinghouse, this sum equals U.S.$606,105 when converted at the exchange rate of 67.5 rials/U.S.$1, the rate allegedly prevailing at the time the contract was negotiated.

b. The Parties' Arguments

160. Westinghouse argues that by failing to make all the contractually-required rial payments, the Air Force breached contract 010. Westinghouse contends that its own failure to provide four man-months of engineering services was excused by the onset of force majeure conditions in December 1978 and by the Air Force's prior breach of contract. Westinghouse asserts that it should be compensated for the services it rendered on contract 010 prior to the December 1978 suspension of work. The value of these services, Westinghouse claims, is equal to U.S.$606,105, the dollar equivalent of the unpaid rial installments, less U.S.$31,744, the credit due to the Air Force for the four unperformed man-months of engineering services. Consequently, Westinghouse seeks U.S.$574,361, plus interest, on this claim.

161. The Air Force denies any liability for this claim and contests the extent of contractual performance alleged by Westinghouse. According to the Air Force, when Westinghouse withdrew its personnel from Iran in December 1978, there still remained, not four, but fourteen man-months of engineering services to be performed. In addition, the Air Force contends that the delivery of technical manuals, spare parts, adapters, and other materials required by the contract was incomplete. The Air Force also denies that it delayed in providing Westinghouse with the prime equipment delineated in the Contract 010 Maintenance Plan. The Air Force counterclaims for the return of all the monies it asserts to have paid Westinghouse under the contract, U.S.$2,597,630 and 56,996,630 rials, plus interest. The Air Force also counterclaims for an unspecified amount in damages for Westinghouse's alleged breach of contract by failing to complete its work within the twenty-four-month contractual performance schedule.

c. The Tribunal's Decision

The Claim

162. The Tribunal has determined that the continued existence of force majeure conditions had by the end of December 1979 ripened into a termination of contract 010 by reason of frustration, see supra, para. 61. In accordance with its practice in frustration cases, the Tribunal must now ascertain the extent to which Westinghouse performed its obligations under contract 010 until its departure from Iran in December 1978 and whether, based on such performance, Westinghouse is entitled to receive further payments or, on the contrary, must return to the Air Force part of the payments it received, see supra, para. 64.

163. As evidence of its performance of contract 010, Westinghouse produced, inter alia, a letter dated 19 September 1978 from Mr. Erwin Yoder, Westinghouse's business manager in Iran, to the Air Force's General Shakib (hereinafter also referred to as "the Yoder Letter"). Mr. Yoder wrote to General Shakib in an attempt to expedite the Air Force's payment of four outstanding rial invoices. The letter indicates that at the time, the Air Force was withholding payment of these invoices apparently because Air Force personnel at the IED felt that they were not in a position to ascertain the percentage of the spare parts delivered by Westinghouse under the contract. Concerning the extent of Westinghouse's performance of contract 010 to that point, Mr. Yoder reported the following to General Shakib:

> At the end of August the following items remain undelivered or in question:
>
> | Item | Approximate Value |
> |---|---|
> | Eight man-months of Engineering Service[s] | $ 63,000 (U.S.) |
> | Two Adapters | 12,000 |
> | *Final Technical Publications | 3,000 |

Contingency for dispute over TPX-46 percentage of one year spares	9,000
Approx. value of undelivered and questioned items	$ 87,000 (U.S.)

*Note: Preliminary Publications have been delivered and the finals will be delivered the end of October 1978.

After noting that Westinghouse had, by then, completed 96.7 percent of the contract, Mr. Yoder requested payment of U.S.$389,749. He concluded by stating: "The [Air Force] is requested to please give prompt and fair attention to this request. We have been trying, without success, since March 1978 to collect on these invoices. We look forward to immediate satisfaction of this request."

164. The Air Force never responded to Mr. Yoder's 19 September 1978 letter. The Tribunal has repeatedly held that in the absence of contemporaneous objections, invoices or payment documents presented during the course of the contract are presumed to be correct. See, e.g., Collins Systems International, Inc., supra, para. 57, 28 Iran-U.S. C.T.R. at 39; Houston Contracting Co. and National Iranian Oil Co., et al., Award No. 378-173-3, para. 73 (22 Jul. 1988), reprinted in 20 Iran-U.S. C.T.R. 3, 24-25. Accordingly, in the circumstances of this Case, particularly, in the absence of countervailing evidence, the Tribunal holds that the Yoder Letter reflects the extent of Westinghouse's performance of contract 010 as of the end of August 1978. The Tribunal will thus rely on the Yoder Letter as a well-founded starting point for the determination of the extent to which Westinghouse performed its obligations until December 1978.

165. First, with respect to contract payments, there is no dispute that the Air Force made all the contractually-required dollar installment payments, totalling U.S.$2,597,630. However, the parties seem to disagree about the Air Force's total rial

payments. Because the Air Force counterclaims, inter alia, for the return of 56,996,630 rials, the Tribunal infers that the Air Force is asserting, in effect, that this is the total rial amount received by Westinghouse. As noted, Westinghouse contends that the Air Force paid only the first two contractually-required rial installments, totalling 17,534,000 rials.

166. The Yoder Letter requested payment of four outstanding rial invoices and indicated that Westinghouse still had to present three rial invoices to the Air Force. Thus, at the end of September 1978, seven out of the contractually-specified nine rial installment payments were outstanding. Other contemporaneous evidence on record shows that those seven installments remained unpaid when Westinghouse left Iran in December 1978. On 1 November 1979, Westinghouse sent a follow-up letter to the Air Force concerning possible resumption of work on the IED project, together with an IED contracts status report, see supra, para. 43. Regarding contract 010, the status report states that "[s]even invoices totaling 40,912,630 rials or $606,105 equivalent U.S. Dollars had been presented but not paid. These were the final schedule payments due in accordance with the contract." The Air Force has never disputed these assessments, nor has it ever responded to them. It is also beyond dispute that the Air Force made no payments to Westinghouse on contract 010 after November 1979.

167. In light of the foregoing, the Tribunal holds that Westinghouse has received U.S.$2,597,630 and 17,534,000 rials and, thus, that 40,912,630 rials remain unpaid on contract 010. The Tribunal will now evaluate the extent to which Westinghouse performed its obligations with regard to the items contested by the Air Force, and it will ascertain the further payment to which Westinghouse is entitled or the restitution it must make.

(1) Engineering Services

168. The Contract 010 Maintenance Plan required Westinghouse to provide thirty-six man-months of engineering services. Westinghouse asserts that by December 1978, it had succeeded in providing all but four man-months of such services. In support, Westinghouse produced, inter alia, twenty-four acceptance documents, dated between 12 December 1977 and 15 October 1978, accounting for thirty-two man-months of services. The acceptance documents reference contract "IED 010," identify the contractual items they acknowledge completion of as "Engineering Assistance" on the AN/TRC-145 or AN/TPX-46 programs or both, and they are all signed by Air Force representatives.

169. The Air Force, in contrast, contends that Westinghouse did not perform more than twenty-two man-months of engineering services, as shown, it alleges, by the very same acceptance documents relied on by Westinghouse. According to the Air Force, twelve of these acceptance forms, accounting for approximately ten man-months of engineering services in total, relate to contracts other than contract 010 because, in a column entitled "Remarks," they refer either to the "APQ" or the "Ground" radar. The Air Force concludes that the services covered by these twelve acceptance documents were rendered by Westinghouse outside the scope of contract 010 and, thus, cannot be credited against this agreement.

170. It is clear to the Tribunal that the twenty-four acceptance documents in the record, on their face, acknowledge the performance of engineering services under contract 010. All of them reference this agreement and describe the contractual item being certified complete as engineering assistance relating either to the TRC-145 or the TPX-46 or both. In view of this, the Air Force was required to prove its contention in these proceedings that the twelve acceptance documents containing the additional reference to "APQ" or "Ground" radars do not cover

services performed by Westinghouse under contract 010. This the Air Force has not done.

171. In light of the foregoing, the Tribunal determines that the acceptance documents in evidence establish that Westinghouse provided thirty-two out of the thirty-six man-months of engineering services called for by contract 010. Hence, the Air Force is entitled to a credit for four man-months of unperformed services.

172. Mr. Robert McFarland, Westinghouse's comptroller, estimates the value of each man-month of engineering service at U.S.$7,936. Accordingly, Westinghouse offers to repay the Air Force U.S.$31,744 for the four unperformed man-months of services. The Air Force has not contested Mr. McFarland's labor rate estimate, which is also consistent with the Yoder Letter's contemporaneous estimate of U.S.$7,875 per man-month.[11] Consequently, based on the evidence before it, the Tribunal finds that each man-month of engineering service under contract 010 is worth U.S.$7,936. The Tribunal, therefore, credits the Air Force U.S.$31,744 for four man-months of unfinished services.

(2) Technical Manuals

173. Section 3.4.1 of the Contract 010 Maintenance Plan obligated Westinghouse to provide the Air Force with an unspecified number of technical manuals that would enable the Air Force's personnel to operate the new test equipment supplied by Westinghouse. The Air Force contends that Westinghouse failed to complete the delivery of these manuals. To prove this contention, the Air Force points to the Yoder Letter, which acknowledges that as of the end of August 1978, final technical manuals worth U.S.$3,000 remained undelivered. A footnote in the letter states that "Preliminary Publications have been delivered

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[11] U.S.$63,000 for eight man-months, see supra, para. 163.

and the finals will be delivered the end of October 1978." See supra, para. 163.

174. Westinghouse contends that it delivered eighty-four technical manuals to the Air Force, thereby fully satisfying its contractual obligations. As proof, Westinghouse produced, inter alia, an internal Westinghouse memorandum dated 13 November 1978 from Mr. Donald McCready, Project Director for Westinghouse's IED Radio Shop Activities in the United States, to Mr. R. Brimer, a Westinghouse employee at the Iran-Westinghouse Program Center in Tehran, stating:

> Enclosed are the last two final manuals for the TPX-46 program. They are:
>
> 1. W-IRAN-12-346-2 Adapter 010D335
> 2. W-IRAN-12-346-13 Adapter 010D311
>
> The two manuals will be shipped to Iran this week. They will be addressed to you at the office.

Westinghouse also produced a Westinghouse shipment notice dated 16 November 1978, listing the two above-mentioned manuals and indicating that they were to be shipped to Mr. Brimer at Westinghouse's offices in Tehran. In his affidavit, Mr. McCready confirmed that in November 1978, he sent these two manuals to Iran and that with this shipment, Westinghouse finished all work relating to the technical manuals called for by contract 010.

175. Mr. McCready's 13 November 1978 letter convinces the Tribunal that upon delivery to the Air Force of the two technical manuals identified therein, Westinghouse would have completed its technical manual delivery obligations under contract 010. However, the Tribunal finds, on balance, that the evidence presented by Westinghouse is not adequate to prove that those two manuals were actually delivered to the Air Force. In the Tribunal's view, this evidence, at the most, could demonstrate that in November 1978, the manuals were shipped to Westinghouse's offices in Tehran. This, however, falls short of establishing that the manuals were in fact received by the Air Force.

176. The Yoder Letter states that as of the end of August 1978, U.S.$3,000 worth of final technical manuals remained undelivered. Westinghouse has not sustained its burden of proving that it subsequently delivered these manuals. The Tribunal, therefore, determines that the Air Force is entitled to receive a credit of U.S.$3,000 for this unfinished work.

(3) Delivery of Spare Parts

177. Pursuant to Section 1.3.5 of the Contract 010 Maintenance Plan, Westinghouse was to deliver to the Air Force a one year supply of spare parts to support the new test equipment for the TPX-46 and the TRC-145. The Air Force contends that Westinghouse failed fully to perform this obligation. In support, the Air Force primarily relies on Mr. Yoder's 19 September 1978 letter to Brigadier General Shakib, which indicates that at the time, the Air Force was questioning whether Westinghouse had delivered all the spares required by the contract. In relevant part, the letter reads:

> The payment of [four contract 010] invoices is not forthcoming because IED personnel apparently feel they cannot state the percentage of spares delivered. . . . However, the spares were delivered to the [Air Force] in accordance with the last sentence of Contract paragraph 1.3.5.

The letter goes on to suggest that the dispute over whether Westinghouse had completed the delivery of spare parts should be set aside, inter alia, because:

> The equipment (and materials) for the AN/TRC-145 Radio Terminal Set maintenance capability has been in operation for more than one year without any spares being required, therefore more than a one year supply of spare parts has obviously been provided for half of the supplied equipment. . . .
>
> [By July 1979] the equipment and materials for the AN/TPX-46 IFF(V) Interrogator Set will have operated one year so the one year of spare parts for the "TPX-46" will, in effect, have been satisfied at that time. Again, the value here is extremely small, a fraction

> of one percent of the contract value. The question by IED personnel, which has apparently prevented the payment of invoices, is what percentage has been delivered and not whether a spares delivery has occurred.

The Yoder Letter then lists U.S.$9,000 worth of spare parts for the TPX-46 as an item "in question," see supra, para. 163.

178. Westinghouse denies the Air Force's nonperformance allegations and contends that it shipped to the Air Force all of the contractually-required spare parts. To prove that it fully satisfied its obligations, Westinghouse provided two shipping lists, one dated 11 August 1977, the other 7 April 1978, which it asserts are evidence that all spare parts were delivered. As a comparison checklist, Westinghouse also produced a Westinghouse-generated "Program Material List" of spare parts for the TRC-145 and the TPX-46, dated 28 February 1978, which it claims identifies the spare parts necessary to operate both those systems for one year.

179. The Tribunal is satisfied on the basis of the Yoder Letter that Westinghouse completed the delivery of a one-year supply of spare parts for the TRC-145. The Air Force has produced no evidence to refute this letter. As the letter explains, the fact that by that time the test equipment supporting the system had been operative for more than one year without any spares being required necessarily means to the Tribunal that a one year supply of spare parts had been delivered. However, the same rationale cannot apply in deciding whether the delivery of spare parts for the TPX-46 test equipment was complete, because, as acknowledged in the 19 September 1978 Yoder Letter, this equipment had been in operation only for a few months at that date. In order to clarify this question, the Tribunal must examine the other relevant evidence on record, namely, the 11 August 1977 and 7 April 1978 shipping lists and the 28 February 1978 "Program Material List" of spare parts proffered by Westinghouse. A comparison of the shipping lists against the "Program Material List" reveals that not all the items on the latter

appear on the former. Therefore, the Tribunal finds that these documents do not represent conclusive proof that all the contractually-required spares, which Westinghouse contends were listed on the "Program Material List," had been delivered to the Air Force.

180. After reviewing the evidence as a whole, the Tribunal concludes that Westinghouse has not proven that it delivered all the spare parts required under contract 010. The Tribunal sets the value of the undelivered spares at U.S.$9,000, the value that the Yoder Letter placed on the TPX-46 spares it listed as questioned, and holds, accordingly, that Westinghouse is indebted to the Air Force in this amount.

(4) Delivery of Adapters

181. Section 2.5.3 of the Contract 010 Maintenance Plan obligated Westinghouse to deliver to the Air Force approximately eighty adapters for the TRC-145 and TPX-46 maintenance equipment. The Air Force claims that Westinghouse did not fully perform this obligation. As proof, the Air Force cites the Yoder Letter, which states that as of the end of August 1978, two adapters worth U.S.$12,000 remained undelivered, see supra, para. 163.

182. Westinghouse, in contrast, contends that it supplied the Air Force with all the adapters called for by the maintenance plan. As evidence of performance, Westinghouse offered a series of acceptance documents for the delivery of equipment and adapters under contract 010, dated between 4 December 1977 and 5 July 1978, and several shipping notices, dated between 10 February and 26 August 1977. In addition, at the Hearing, Westinghouse argued that Mr. McCready's 13 November 1978 letter to Mr. Brimer, supra, para. 174, demonstrates that the two adapters alluded to in the Yoder Letter were delivered to the Air Force during the fall of 1978. Mr. McCready, Westinghouse noted, wrote that the last two final manuals for the TPX-46 program, "W-IRAN-12-346-2 . . . Adapter 010D335" and "W-IRAN-12-346-13 . .

. Adapter 010D311 . . . will be shipped to Iran this week." Westinghouse argues that the delivery of those two final manuals necessarily means that the adapters had been delivered, too, because the manuals could not otherwise have been prepared.

183. None of the acceptance documents and shipping notices on record are dated after July 1978. Hence, they are not evidence adequate to prove that the two unidentified adapters that the Yoder Letter acknowledges remained undelivered as of the end of August 1978 were subsequently delivered to the Air Force. The Tribunal finds that Mr. McCready's 13 November 1978 letter does not prove any post-August 1978 delivery of adapters, either. Evidence on record shows that both of the adapters referred to by Mr. McCready in his letter had been provided to the Air Force prior to the end of August 1978: adapter no. 010D311 is listed in a shipping notice dated 26 August 1977 and adapter no. 010D335 is identified in an acceptance document executed by Westinghouse and Air Force representatives on 14 June 1978.

184. Based on the foregoing, the Tribunal concludes that Westinghouse has failed to prove that it delivered all the adapters required by the contract. Accordingly, the Air Force is entitled to a credit equal to the value placed by the Yoder Letter on this unperformed task, U.S.$12,000.

(5) Delivery of Illustrated Parts Breakdowns Data

185. The Air Force contends that Westinghouse failed to provide the Illustrated Parts Breakdowns ("IPB's") Data cited in Section 3.4.1.3 of the Contract 010 Maintenance Plan, which states:

> The existing IPB's on the AN/TRC-145 and AN/TPX-46 assemblies are assumed by Westinghouse to accurately reflect the assembly configurations. If as the program progresses, it is determined that the IPB's do not apply, separate action will be considered at that time.

186. The maintenance plan thus indicates that Westinghouse, was not required to provide any IPB's data. Consequently, the Tribunal rejects the Air Force's claim related to these data.

(6) Emergency Maintenance and Repair Work

187. The Air Force alleges that Westinghouse did not perform the emergency maintenance and repair work provided for in Section 2.4.3 of the Contract 010 Maintenance Plan, which reads:

> With appropriate [Air Force] authorization, where a critical tactical situation exists, unscheduled maintenance of systems may be performed in accordance with special direction and scheduling by the IED Maintenance Control, and the equipment may be returned to the site through [the Air Force] supply channels.

188. The Air Force has produced no evidence that any "critical tactical situation" ever arose which would have required Westinghouse to perform emergency maintenance services. The Tribunal therefore rejects this Air Force claim.

(7) Provision of a TRC-145 Mobile System Test Facility

189. The Air Force contends that Westinghouse failed to deliver a Mobile System Test Facility for the TRC-145, as required by Figure 4-2, item A7, and Section 2.2.2.1 of the Contract 010 Maintenance Plan. Westinghouse denies the Air Force's contention and alleges, instead, that it fully performed this task. In support, it relies on contract 010 acceptance documents dated 4 December 1977 and 5 July 1978 for the delivery of a "Mobile Test Facility . . . Milestone Item No. 7." The Air force has not contested this evidence. The Tribunal, therefore, holds that the acceptance documents in the record establish the delivery of the TRC-145 Mobile System Test Facility. The Air Force's contrary contention is dismissed.

(8) Summary

190. Based on the foregoing, the Tribunal concludes that Westinghouse performed all of its obligations under contract 010 except for four man-months of engineering services valued at U.S.$31,744, delivery of technical manuals worth U.S.$3,000, delivery of two adapters valued at U.S.$12,000, and delivery of spare parts worth U.S.$9,000. Consequently, the total value of Westinghouse's unfinished work under contract 010 is U.S.$55,744.

191. The Tribunal has determined that seven installments totalling 40,912,630 rials remained unpaid on contract 010. See supra, para. 167. Westinghouse argues that for the purpose of calculating its damages on the contract, this rial amount should be converted into dollars at the rate of 67.5 rials/U.S.$1, the exchange rate prevailing at the time the contract was negotiated. At the Hearing, Westinghouse conceded that the parties did not establish a fixed conversion rate for the contract, but rather they assumed the risk of exchange rate fluctuations between the time of the execution of the contract and the time when under the contractual provisions the rial payments became due. Nevertheless, Westinghouse argued, as a matter of convenience and because the bottom line figure would not be affected significantly, rather than determining for each unpaid rial installment the rate in effect at the time that installment became due, the Tribunal should apply the rate that the parties used for the contract, 67.5 rials/U.S.$1.

192. In past awards, when determining the correct date for the conversion into United States dollars of rial amounts found payable, "[t]he test applied by the Tribunal . . . has been to select the date on which the obligation became due, and to apply the rate of exchange applicable on that date in making the conversion, provided it is satisfied that the Claimant would, in the normal course of events, have repatriated the funds if they had been received on the due date." Blount Brothers Corp. and Islamic Republic of Iran, et al., Award No. 215-52-1, at 31 (6

Mar. 1986), reprinted in 10 Iran-U.S. C.T.R. 56, 78. See also Aeronutronic Overseas Services, Inc. and Islamic Republic of Iran, et al., Award No. 238-158-1, para. 26 (20 Jun. 1986), reprinted in 11 Iran-U.S. C.T.R. 223, 230; Petrolane, Inc., supra, para. 147, 27 Iran-U.S. C.T.R. at 115; Morrison-Knudsen Pacific Limited and Ministry of Roads and Transportation, et al., Award No. 143-127-3, at 35-36 (13 Jul. 1984), reprinted in 7 Iran-U.S. C.T.R. 54, 73; CBS Incorporated and Islamic Republic of Iran, Award No. 486-197-2, para. 42 (28 Jun. 1990), reprinted in 25 Iran-U.S. C.T.R. 131, 145 (Payable Dutch guilder amount converted into dollars at the average exchange rate during period when relevant invoices issued).

193. In the present Case, there is nothing to suggest that Westinghouse would not have repatriated the contractual rial payments received from the Air Force. Considering all relevant circumstances of this Case, the Tribunal deems it fair and reasonable to convert the amount of the unpaid rial installments into dollars at the exchange rate in effect in December 1979, when contract 010 terminated. The rate of exchange prevailing during all of 1979 was 70.475 rials/U.S.$1. See Petrolane, Inc., supra, para. 147, 27 Iran-U.S. C.T.R. at 115. When converted at this rate, 40,912,630 rials is equal to U.S.$580,527.

194. In conclusion, the Tribunal holds that for its claim on contract 010, Westinghouse is entitled to the dollar equivalent of the outstanding contractual rial installments, U.S.$580,527, less the credit Westinghouse owes the Air Force for unfinished work, U.S.$55,744. Consequently, the Tribunal awards Westinghouse U.S.$524,783. Interest on this amount shall run from 31 December 1979, the date the Tribunal has determined that the contract terminated.

The Counterclaims

195. By finding, on the basis of Westinghouse's performance of contract 010, that Westinghouse is entitled to receive further payments from the Air Force, the Tribunal has necessarily dismissed the Air Force's counterclaim for the return of all the monies it paid Westinghouse under contract 010.

196. The Air Force also claims unspecified damages for Westinghouse's alleged breach of contract by failing to complete performance within the twenty-four-month performance schedule established by the contract. The Air Force presented no proof that it suffered any damages as a result of delays in the performance of contract 010, nor that any such delays rendered Westinghouse's performance worthless or diminished its value in any way. The Tribunal also notes Article V of the contract which limited Westinghouse's liability. For all these reasons, the Tribunal dismisses the Air Force's counterclaim for consequential damages.

4. THE CLAIM AND COUNTERCLAIMS ON CONTRACT IWPC-035

a. Facts and Contentions

197. On 5 February 1978, Westinghouse and the Air Force concluded contract IWPC-035 ("contract 035") for the provision of engineering and support services for the Air Force's U.S.-type ground radars, British-type ground radars, airborne radars, and computer system used in the radar shop at the IED. Westinghouse agreed to furnish four specialists in the four areas, each to provide twelve man-months of engineering services, for a total of forty-eight man-months. Pursuant to the contract's schedule of performance, Westinghouse was to complete all work within fifteen months of the effective date of the contract, which was the date that the Air Force would open a letter of credit acceptable to Westinghouse.

198. The contract also included, in Article IV.A, an "estimated schedule" for the performance of the specific services of each specialist. According to this schedule, the three radar specialists were to commence work one month after the effective date of the contract, while the computer specialist was to begin work four months after that date; each specialist would then work for twelve consecutive man-months. The contract required Westinghouse to "make every effort to comply" with this estimated schedule, but gave it the "sole option to revise" the schedule "based on the availability of personnel." Westinghouse, however, remained obligated to complete all forty-eight man-months of services within the fifteen-month performance period.

199. Article III.A required Westinghouse to submit a monthly certificate of service to the Air Force, indicating the number of workdays completed that month. Article IV.C provided that the services furnished by Westinghouse "shall be deemed to have been cumulatively accepted by [the Air Force] as they are provided by [Westinghouse] unless written notice of rejection for non-conformance with the Statement of Work is received within ten (10) days from the date of such non-conformity."

200. In consideration for Westinghouse's services under the contract, the Air Force agreed to pay a total price of U.S.$558,730 in twelve equal monthly installments, to begin on the month following the effective date of the contract. Pursuant to Article XVI, the total contract price was subject to a 5.5 percent withholding for Iranian taxes, to be deducted from each of the Air Force's monthly installment payments.

201. The payments were to be made to Westinghouse by drawing on an irrevocable letter of credit, established in Westinghouse's favor, upon presentation of Westinghouse's invoices. Article VII.A required the Air Force to open this letter of credit no later than sixty days after execution of the contract "in a form satisfactory to [Westinghouse] and confirmed by a U.S. bank acceptable to [Westinghouse]."

202. Article VII.C obligated the Air Force to make additional payments to Westinghouse, upon submission of an invoice, for expenses associated with temporary duty assignments ("TDY services") of Westinghouse personnel to areas other than Tehran. The Air Force agreed to pay a fixed price of U.S.$99 for each day of TDY service or the actual costs incurred, whichever was higher.

203. Contract 035 also included a force majeure provision, Article XII, which provided, in pertinent part:

> [Westinghouse] shall not be liable for loss or damage due to delay in performance resulting from any cause beyond [Westinghouse's] reasonable control . . . or inability to obtain labor from [Westinghouse's] usual sources. Any delay resulting from any such causes shall extend the delivery dates to the extent caused thereby . . . .

204. On 9 March 1978, Bank Markazi Iran ("Bank Markazi") advised the New York agency of Bank Melli Iran ("Bank Melli New York") that it had opened, at the request of the Air Force, an irrevocable letter of credit for U.S.$558,730 in favor of Westinghouse in connection with contract 035. By letter of 11 April 1978, Bank Melli New York forwarded to Westinghouse the letter of credit issued by Bank Markazi.

205. On 23 April 1978, the Air Force wrote a letter to Westinghouse, complaining that Westinghouse had not yet commenced performance of contract 035. According to the Air Force, work should have begun on 9 March 1978, when Bank Markazi opened the letter of credit, thereby making that date the effective date of the contract. Westinghouse responded by letter of 2 May 1978, stating that it had properly started work on 12 April 1978, after it had been advised by Bank Melli New York that Bank Markazi had opened the letter of credit. Westinghouse also noted that the letter of credit presented certain discrepancies and requested the Air Force to correct them and to "[e]xtend the validity date

of the Letter of Credit to May 30, 1979 to allow time for collection based on a start date of April 12, 1978 . . . ."

206. Westinghouse went on to advise the Air Force that two of the three radar specialists, Messrs. James Coleman and Phil MacNamee, had begun working on 12 April 1978, and that the third specialist, Mr. George Sobeck had been assigned, at the request of the IED, to another project in the radar shop and would start his work on contract 035 upon completion of this assignment.

207. By letter of 13 May 1978, the Air Force informed Westinghouse that it would extend the validity of the letter of credit to "30 days beyond the completion of contract period until 12 May 1979."

208. Monthly time certificates in evidence, all signed off by an Air Force representative, indicate that Messrs. Coleman and MacNamee began work on contract 035 on 12 April 1978 and that Mr. Sobeck began work on the contract on 27 May 1978. Westinghouse contends that all three radar specialists provided full-time services on the contract until 6 December 1978, the last day Westinghouse worked at the IED before leaving Iran.

209. A computer specialist, Mr. Charles Shaw, began working on contract 035 on 24 May 1978. Mr. Shaw suddenly left Iran at the end of May 1978 without prior notice either to Westinghouse or the Air Force. Westinghouse informed the Air Force of Mr. Shaw's departure by letter of 10 June 1978, noting that its "inability to obtain labor due to circumstances beyond [its] reasonable control . . . may result in a delivery date extension," in accordance with Article XII, contract 035's force majeure provision. Westinghouse estimated that it could take six months to replace Mr. Shaw. The Air Force replied to Westinghouse by letter of 13 June 1978, rejecting Westinghouse's force majeure position and stating that while it could understand a reasonable delay caused by Mr. Shaw's departure, a delay of "six months is extremely excessive." Westinghouse asserts that it

actively sought to recruit a replacement for Mr. Shaw but encountered difficulties in doing so mainly due to increasing press coverage of the unrest in Iran. Westinghouse contends that as a result, in November 1978 the Air Force agreed that Mr. Shaw could be replaced by a technician with broader skills who would begin working in early 1979. Westinghouse alleges that when it departed from Iran in December 1978, it was in the process of obtaining this replacement. The Air Force denies that it reached any agreement with Westinghouse in November 1978 concerning a replacement for the computer specialist, and there is no contemporaneous evidence indicating that any such agreement was ever concluded.

210. By letter of 30 July 1978, Westinghouse submitted to the Air Force invoice no. HB1081 for U.S.$44,000, billing the Air Force for eighty man-days of services allegedly performed under contract 035 in April and May 1978. The Air Force paid this invoice sometime after September 1978, not through the letter of credit, but rather by special check through Bank Markazi.

211. On 10 October 1978, Westinghouse tendered to the Air Force invoice no. HB1085 for U.S.$44,000 covering eighty man-days of services allegedly rendered in June and July 1978, along with invoice no. CB70804 in the amount of U.S.$2,079 for expenses related to twenty-one man-days of TDY services allegedly performed by Mr. MacNamee in April and June 1978. On 21 October 1978, Westinghouse submitted to the Air Force invoice no. HB1093 billing the Air Force U.S.$44,000 for eighty man-days allegedly worked in July and August 1978. Westinghouse contends that on 14 November 1978, it submitted a fourth invoice to the Air Force, no. HB1101, for U.S.$44,000 relating to eighty man-days of services allegedly accrued in September and early October 1978. However, Westinghouse's Mr. James Friedel, who was in Iran from October 1977 until December 1978 on special assignment to obtain overdue payments from the Air Force, states in his affidavit that additional services provided by Westinghouse on contract 035 between September and December 1978 were not invoiced because of

the onset of force majeure in Iran. It is undisputed that the Air Force never paid any of the above-mentioned invoices.

b. The Parties' Arguments

212. Westinghouse argues that by failing to pay the invoices that Westinghouse submitted to it, the Air Force breached contract 035. Westinghouse asserts that its own failure to complete the services required by the contract was excused by the onset of force majeure in December 1978 and by the Air Force's prior breach in failing to pay Westinghouse's invoices.

213. Westinghouse alleges that prior to its departure from Iran, it provided 502.9 man-days of engineering services, equal to a 52.4 percent completion of the contract, and 106 days of TDY services. Accordingly, Westinghouse now seeks damages for breach of contract in the amount of U.S.$232,672 for engineering services allegedly completed[12] and U.S.$10,494 for expenses incurred in relation to TDY services allegedly performed, based on the contractually-established rate of U.S.$99 per day of TDY service. In addition, Westinghouse seeks U.S.$41,888 in alleged lost profits on contractual services not yet rendered at the time it left Iran. Consequently, the total relief sought by Westinghouse with its claim on contract 035 is U.S.$285,054, plus interest.

214. The Air Force contests Westinghouse's allegations of breach and argues, instead, that its suspension of contractual payments was justified by Westinghouse's own manifold breaches of contract 035. First, the Air Force contends that Westinghouse breached the contract by delaying the beginning of performance until 12 April 1978, thirty-two days after the effective date of

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[12] The sum of U.S.$232,672 is the difference between U.S.$276,672, equal to 52.4 percent of the total contract price net of the 5.5 percent tax withholding, see supra, para. 200, and U.S.$44,000, the amount that the Air Force paid on the contract.

the contract. Second, the Air Force alleges that Westinghouse breached the contract by not adhering to the estimated performance schedule laid out in Article IV.A of the contract, see supra, para. 198.

215. Third, the Air Force argues that Westinghouse breached the contract by failing to provide the contractually-required computer specialist. In this connection, the Air Force maintains that because the computer services were the heart of contract 035 and, therefore, the work of the three radar specialists hinged on the performance of those services, the lack of a computer specialist rendered worthless any work that might have been done by the radar specialists. Finally, the Air Force asserts that Westinghouse has neither proven that it provided any useful services in accordance with the contract nor that it properly performed any TDY services. Consequently, the Air Force counterclaims for the return of U.S.$46,561, the sum it claims to have paid on the contract, plus interest. The Air Force also seeks an unspecified amount in damages for Westinghouse's alleged breaches.

c. The Tribunal's Decision

The Claim

216. The Tribunal has determined that contract 035 terminated by reason of frustration as of the end of December 1979, see supra, para. 61. In these circumstances, the Tribunal's task is to determine the extent to which Westinghouse performed its obligations under contract 035 until performance thereunder became impossible and whether, based on such performance, Westinghouse is entitled to further payments or, on the contrary, must return to the Air Force part of the payments it received, see supra, para. 64. In accordance with Tribunal practice in frustration cases, Westinghouse should not be compensated for lost profits on services not yet rendered when contract 035

terminated, id. Consequently, Westinghouse's claim for these amounts is dismissed.

(1) Engineering Services

217. Under the terms of contract 035, Westinghouse's four specialists were to provide a total of 48 man-months, or 960 man-days, of engineering services. Westinghouse contends that prior to its departure from Iran, its three radar specialists succeeded in completing 502.9 man-days of services.[13] Upon analysis, the Tribunal finds that the evidence presented by Westinghouse is adequate to prove performance of 252.5 man-days of services between April and August 1978. This evidence is discussed below.

(a) Period 12 April through May 1978

218. Westinghouse produced contemporaneous contract 035 monthly time certificates for April and May 1978, both signed off by Air Force representatives, indicating the number of man-days of services completed by Westinghouse during those months. Westinghouse had submitted these records to the Air Force on 30 July 1978, as support for invoice no. HB1081, see supra, para. 210. The Tribunal finds that these documents, which were prepared during the course of business and were certified by the Air Force, represent evidence adequate to establish performance of engineering services under contract 035. The time certificate for April 1978 establishes that between 12 and 30 April 1978, Messrs. Coleman and MacNamee worked, in total, 31 man-days. The time certificate also indicates that Mr. MacNamee's work included 5 weekend working days (3 Thursdays and 2 Fridays), thereby

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[13] Westinghouse does not make a claim for the two days allegedly worked in May 1978 by Mr. Charles Shaw, the computer specialist.

entitling Westinghouse to an additional credit for overtime.[14] The Tribunal sets this credit for overtime at 3.5 man-days, as estimated by Mr. McFarland in his affidavit.

219. The time certificate for May 1978 establishes that between 1 and 31 May 1978, Messrs. Coleman, MacNamee, and Sobeck, worked, in total, 46 man-days.

220. Based on the foregoing evidence, the Tribunal concludes that during the period 12 April through 31 May 1978, Westinghouse's specialists performed a total of 80.5 man-days of engineering services on contract 035.

(b) Period June through July 1978

221. Westinghouse's 10 October 1978 letter to the Air Force tendering invoices nos. HB1085 and CB70804 (see supra, para. 211) reports that Westinghouse's radar specialists worked 58 man-days in June 1978 and 75.4 man-days in July 1978, for a total of 133.4 man-days.

222. There is no evidence that the Air Force ever objected contemporaneously either to the number of man-days claimed by Westinghouse in its 10 October 1978 letter or to Westinghouse's invoice billing it for that work. On the basis of this record and in accordance with its practice in circumstances such as these, the Tribunal presumes the content of Westinghouse's letter to be correct, see supra, para. 164. Consequently, the Tribunal finds that during the period June through July 1978, Westinghouse's radar specialists performed a total of 133.4 man-days of services on contract 035.

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[14] Pursuant to Article III.E of the contract, each overtime hour worked on a Thursday equals twenty percent of a workday, and each overtime hour worked on a Friday equals twenty-five percent of a workday. Article II.E provides that the workday equivalent of these overtime hours "shall count as credited service, and shall be deducted from the total services to be provided by [Westinghouse]."

(c) August 1978

223. By letter of 21 October 1978, Westinghouse presented to the Air Force invoice HB1093 for U.S.$44,000, see supra, para. 211. This letter relates that in August 1978, Mr. MacNamee worked 3 man-days, Mr. Sobeck 26.6 man-days, and Mr. Coleman worked 9 man-days.

224. The Air Force did not object contemporaneously to Westinghouse's 21 October 1978 letter, the content of which, therefore, the Tribunal presumes to be correct. Accordingly, the Tribunal concludes that in August 1978, Westinghouse's engineers provided a total of 38.6 man-days of services on contract 035.

(d) Period September through December 1978

225. To prove its contention that between September and December 1978, its three radar engineers provided a total of 250.4 man-days of services, Westinghouse produced "Summaries of Site Visits and Overtime," listing days worked by Messrs. Sobeck and MacNamee at other sites in Iran, Westinghouse internal payroll sheets for Messrs. Coleman and Sobeck, recording days worked by these engineers on the contract, and cost data bank records for contract 035. For the reasons set forth below, the Tribunal finds this evidence to be insufficient to establish performance of the man-days claimed by Westinghouse.

226. First, although the summaries of site visits and overtime are signed by Air Force officials, they lack any identification with contract 035; there is no evidence that the assignments they cover were done for that contract; and there is evidence that at least one of the engineers in question divided his time among several contracts in that period. Second, concerning the internal payroll sheets recording days worked, it appears that these records were filled out by Westinghouse's engineers themselves; in addition, as internal documents, they were certified, not by an Air Force representative, but by a

Westinghouse supervisor. Finally, the record, as it stands, does not enable the Tribunal to extrapolate the man-days worked on contract 035 during the period in question from the computerized cost data bank records.

227. In light of the foregoing, the Tribunal dismisses for want of proof Westinghouse's claim for 250.4 man-days allegedly worked by its radar engineers between September and December 1978.

(e) Allegations of Defective Performance

228. The Air Force asserts in its pleadings before the Tribunal that the services performed by Westinghouse's specialists were unsatisfactory. But at the time of performance, the Air Force did not reject for nonconformance any of those services within the ten-day notice period provided for in Article IV.C of the contract, see supra, para. 199. Indeed, the Air Force never complained about the quality of Westinghouse's services prior to these proceedings. The Tribunal finds that this conduct undermines the credibility of the Air Force's present complaints and warrants the conclusion that the Air Force accepted the engineering services as they were rendered by Westinghouse's specialists. Hence, the Air Force's allegations of defective performance are dismissed. See also supra, para. 141.

(f) Conclusion

229. In view of the foregoing considerations, the Tribunal concludes that Westinghouse is entitled to receive a credit for 252.5 man-days of engineering services provided on contract 035 between April and August 1978.

(2) TDY Services

230. Westinghouse contends that its engineers performed 106 days of TDY work prior to Westinghouse's departure from Iran. In support, Westinghouse relies on its 10 October 1978 letter to the Air Force, together with its attachments, see supra, para. 211, as well as on "Summaries of Site Visits and Overtime," listing days worked by Messrs. Sobeck and MacNamee at other sites in Iran between September and December 1978, and internal Westinghouse "Employee Expense Reports," recording expenses incurred by Mr. Sobeck in relation to emergency assistance rendered to the Air Force at bases at Jask and Bandar Abbas in July and August 1978.

231. By its letter of 10 October 1978, Westinghouse forwarded to the Air Force, inter alia, invoice no. CB70804 billing the Air Force U.S.$2,079 for 21 days of TDY services completed by Mr. MacNamee in April and June 1978. To support this invoice, Westinghouse also enclosed monthly time certificates for April and June 1978, both of which are in evidence. These certificates are signed by the Air Force "Supervisor certifying work" and the Air Force's "Chief of Maintenance," and they indicate that in April and June 1978, Mr. MacNamee performed a total of 21 days of TDY services. The Tribunal finds that these records represent reliable contemporaneous proof that Westinghouse completed 21 man-days of TDY services and that this work was approved by the Air Force.

232. The Tribunal does not find, however, that Westinghouse's "Employee Expense Reports" and "Summaries of Site Visits and Overtime" are sufficient to show performance of an additional 86 days of TDY services between July and December 1978. These records lack any identification with contract 035, and, thus, they do not prove that the assignments they cover were done for that contract. Accordingly, the Tribunal rejects for lack of proof Westinghouse's claim to the extent it relates to 86 days

of TDY services allegedly performed between July and December 1978.

233. Based on the foregoing, the Tribunal determines that Westinghouse has proven performance of a total of 21 days of TDY services on contract 035, for which it is entitled to a credit.

(3) Summary and Award

234. The Tribunal has concluded that Westinghouse completed 252.5 out of the 960 man-days of engineering services required by contract 035. This performance corresponds to a 26.3 percent completion of the contract. Accordingly, calculated on a pro rata basis as a percentage of the total contract price (net of the contractually-specified 5.5 percent withholding for Iranian tax), U.S.$528,000, Westinghouse's 252.5 man-days of engineering services are worth U.S.$138,864. The Air Force paid U.S.$44,000 on the contract. Hence, the Air Force still owes Westinghouse U.S.$94,864 in engineering services completed, which amount the Tribunal awards Westinghouse. The Tribunal has further determined that Westinghouse is entitled to an additional credit for 21 man-days of TDY services performed. Based on the contractually-established rate of U.S.$99 per day of TDY service, these 21 man-days of services are worth U.S.$2,079, which sum the Tribunal also awards Westinghouse.

235. Consequently, the Tribunal awards Westinghouse a total of U.S.$96,943 for its claim on contract 035. Interest on this amount shall run from 31 December 1979, the date the Tribunal found that the contract terminated.

The Counterclaims

(1) Damages for Breach of Contract

236. The Air Force counterclaims against Westinghouse for multiple alleged breaches of contract 035. First, the Air Force contends that Westinghouse breached the contract by delaying the start of the performance until 12 April 1978, allegedly thirty-two days after the effective date of the contract. The Tribunal finds that by not objecting, at the time, to Westinghouse's view that 12 April 1978 was the effective date of the contract, but agreeing, instead, to extend the validity of the letter of credit until 12 May 1979, see supra, para. 207, the Air Force de facto acknowledged 12 April 1978 as contract 035's effective date. Hence, the Tribunal determines that Westinghouse properly began work on 12 April 1978. The Air Force's claim, therefore, is rejected.

237. Second, the Air Force asserts that by initially providing two instead of three radar specialists, Westinghouse breached the estimated performance schedule laid out in Article IV.A of the contract. Pursuant to that provision, the three radar specialists were to begin working one month after the effective date of the contract, see supra, para. 198. The evidence shows that Messrs. Coleman and MacNamee started work on contract 035 on 12 April 1978 and that the third specialist, Mr. Sobeck, started on 27 May 1978, see supra, para. 208. A letter dated 2 May 1978 from Westinghouse to the Air Force explains that the reason for Mr. Sobeck's late start was a request by the IED that he be assigned to another project in the radar shop, see supra, para. 206. Against this background and given that Article IV.B of the contract gave Westinghouse the "sole option" to revise the performance schedule as long as it completed performance within the fifteen-month contract period, see supra, para. 198, the Air Force's present allegation of breach is unconvincing. Consequently, the Tribunal dismisses the Air Force's claim.

238. Third, the Air Force alleges that Westinghouse breached the contract by failing to replace Mr. Charles Shaw, the computer specialist who hurriedly left Iran in May 1978. Westinghouse denies any liability for this claim and argues, as it did at the time, that its failure to find a replacement for Mr. Shaw was excused by contract 035's force majeure provision, Article XII. Westinghouse points out that this clause excludes any liability on its part for losses "due to delay in performance resulting from any cause beyond [Westinghouse's] reasonable control or due to . . . inability to obtain labor from [Westinghouse's] usual sources," see supra, para. 203. Westinghouse argues that Mr. Shaw's sudden departure and Westinghouse's subsequent inability to recruit a technician to come to Iran constituted events falling squarely within the meaning of this force majeure language.

239. The Tribunal is not persuaded by Westinghouse's force majeure argument. Force majeure is a cause of impossibility of contractual performance which is outside the control of a party or all parties to a contract and could not be avoided by exercise of due care. In the Tribunal's view, however, turnover of personnel -- even unexpected turnover -- was within the "reasonable control" of Westinghouse, in the sense that turnover should have been anticipated and contingencies planned. The Tribunal finds, therefore, that by failing to replace Mr. Shaw within a reasonable period of time, Westinghouse breached contract 035.

240. But the Air Force has offered no proof of what damages, if any, it sustained as a consequence of the lack of a computer specialist, and the Tribunal has no alternative means of ascertaining any such damage. In particular, the Air Force has not proven that without the services of this specialist, the work performed by the three radar engineers was valueless or worth less. Rather, that the contract itself scheduled three months of work by the three radar specialists before the computer specialist would start, see supra, para. 198, supports the conclusion that the benefits derived from the work of the first

three did not depend on the work of the computer specialist. Accordingly, the Tribunal denies the Air Force's claim for want of proof of damages.

(2) Return of the Contractual Payment

241. The Air Force also counterclaims for the return of the amount it paid on Westinghouse's invoice no. HB1081. The Air Force contends that Westinghouse did not perform any useful work that would justify this payment. The Air Force goes on to say that the payment of the invoice was not for services performed, but rather was a good faith gesture on its part, to encourage Westinghouse's performance. In the Air Force's view, this is supported by the fact that the invoice was paid not through the letter of credit established in connection with the contract, but from the Air Force's revolving credit.

242. By finding that the services covered by invoice HB1081 were in fact rendered by Westinghouse and accepted by the Air Force, see supra, paras. 220 and 228, the Tribunal has necessarily dismissed the Air Force's counterclaim for the return of the only payment it made on contract 035.

C. THE AIR FORCE'S COUNTERCLAIMS AND WESTINGHOUSE'S COUNTER-COUNTERCLAIMS ON CONTRACTS OTHER THAN THE CLAIMS CONTRACTS

1. COUNTERCLAIM CONTRACTS

243. This section of the Award addresses the issues arising out of those contracts between the parties on which Westinghouse made no claim when it filed its Statement of Claim and on which the Air Force subsequently asserted counterclaims. These counterclaim contracts are: IED-001-71, IWPC-018, IWPC-019, IWPC-

020, IWPC-027, IED-002-72, and IWPC-002. As noted, supra, para. 15, following the issuance of the Interlocutory Award in this Case, No. ITL 67-389-2 (12 Feb. 1987), reprinted in 14 Iran-U.S. C.T.R. 104, which held that the Air Force's counterclaims based on contracts IWPC-018, IWPC-019, and IWPC-020 were within the Tribunal's jurisdiction, Westinghouse acknowledged that, in view of the Interlocutory Award, the Tribunal would also have jurisdiction over the Air Force's counterclaims on contract IED-001-71, including its Amendments 3 through 9, and contract IWPC-027. Westinghouse has continued to assert that the Tribunal lacks jurisdiction over the Air Force's counterclaims based on missile contracts IED-002-72 and IWPC-002. The Tribunal will address this jurisdictional question below when those contracts are reached. With its defenses to the counterclaims, Westinghouse asserted nine counterclaims in reply to the Air Force's counterclaims. Westinghouse's counterclaims, which it termed "counter-counterclaims," arise out of contracts that were the subject of counterclaims by the Air Force. The Air Force contests the Tribunal's jurisdiction over these counter-counterclaims. The Tribunal will address this question below as part of its consideration of contract IED-001-71.

2. CONTRACT IED-001-71

a. Facts and Contentions

244. This contract, which was concluded on 16 June 1971, was the first and fundamental contract leading to the establishment of the IED. As noted earlier in this Award, the agreement divided the work into three phases. In Phase I, Westinghouse was to satisfy the Air Force's immediate requirements by establishing maintenance capability for 11 airborne electronics systems associated with the F-4 aircraft and 26 related ground systems. In this phase, Westinghouse was also to provide the Air Force with 659 man-months of engineering services and 61 man-months of training services. Performance was to be completed within 32

months from 1 August 1971. The Air Force agreed to pay, and did pay, U.S.$8,095,645 for Phase I. In Phase II, Westinghouse was required to review the electronic equipment in the Air Force's inventory and develop a maintenance plan to service that equipment. Westinghouse was to complete performance of Phase II within eighteen months from 1 August 1971. The Air Force agreed to pay, and did pay, U.S.$830,598 for Phase II. The purpose of Phase III was to implement the recommendations of the Phase II study.

245. Westinghouse submitted its Phase II study to the Air Force in April 1973. The study recommended the formation of several discrete work areas in the IED, called "shops," which would be equipped to handle, for example, radio, radar, or electromechanical equipment. The conclusions of the study were incorporated into contract IED-001-71 in the form of amendments, numbered three through nine. These amendments were signed between 14 April and 30 June 1973.

246. Under Amendment 3, which implemented the Phase II recommendations concerning the radar shop, Westinghouse agreed to provide depot level maintenance capability for 25 radar systems at a cost of U.S.$5,980,739. Specifically, Amendment 3 required Westinghouse to design, manufacture, and deliver test stations, mobile benches, adapters, and dollies, and provide technical manuals to the Air Force. The Air Force paid the amendment price.

247. Amendment 4, which implemented the Phase II recommendations concerning the radio shop, called for the establishment of depot level maintenance capability for 76 radio systems. For U.S.$3,689,608, Westinghouse undertook to design, manufacture, and deliver test stations and mobile benches, as well as adapters, and provide technical manuals. The Air Force paid the amendment price.

248. Amendment 6 implemented the Phase II recommendations concerning the electromechanical shop. Westinghouse agreed to provide depot level maintenance capability for a variety of electromechanical systems and sub-systems at a price of U.S.$3,733,900. Specifically, the amendment required Westinghouse to deliver test stations, other hardware, and technical manuals. The Air Force paid the amendment price.

249. Amendment 7 further implemented the Phase II recommendations concerning the electromechanical shop. Westinghouse undertook to supply certain major assemblies and subassembly hardware and technical manuals against payment of U.S.$4,315,900, which the Air Force paid.

250. Amendment 5 called for the provision of services and spare parts to support the new radar and radio equipment covered by Amendments 3 and 4. Specifically, the amendment called for the provision of 149 weeks (27 classes) of training for a maximum of 102 Air Force technicians, 100 man-months of engineering services, 48 man-months of supply support services, and approximately a one-year supply of spare parts for the depot repair of 76 radio systems and 16 radar systems. The Air Force agreed to pay, and did pay, U.S.$1,949,733 for the services. The Air Force agreed to pay U.S.$3,122,816 for the spare parts. Payment of the spares price was to be made through an irrevocable letter of credit, which the Air Force established in that amount and which could be drawn down on upon presentation of invoices and certifications of delivery made from time to time. The total amounts paid for spare parts and the parties' claims related to spare parts are discussed infra, at paras. 309-24, for all three amendments involving spares, i.e., Amendments 5, 8, and 9.

251. Pursuant to Amendment 8, Westinghouse was to provide services and spare parts to support electromechanical equipment covered by Amendments 6 and 7. Specifically, Westinghouse was to provide 50 man-months of engineering services, 10 man-months of spare parts specialist services, 75 weeks (14 classes) of

training for a maximum of 56 Air Force technicians, and approximately a one-year stock level of spare parts. The services portion of the Amendment 8 price was U.S.$3,400,900. Most, if not all of it, was paid; there is a dispute as to U.S.$127,895 which is addressed below. The spare parts portion of the amendment price was U.S.$2,495,155. To secure payment of this amount, the Air Force established a letter of credit, as it did with Amendment 5.

252. Under Amendment 9, Westinghouse and the Air Force agreed to establish new mobile and specialized maintenance shops at the IED. The mobile shop would support mobile maintenance vans which could transport Air Force technicians and selected maintenance equipment to the sites of large Air Force stationary systems located throughout Iran. The specialized maintenance shop could then perform special maintenance at the IED on components of these systems brought in, on the vans, from the field. The amendment required Westinghouse to design, manufacture, and deliver specified maintenance equipment and furnish engineering services and training. The amendment also required Westinghouse to provide spare parts to stock the mobile and specialized maintenance shops for approximately one year. The price for the mobile shop and maintenance shop work, which was paid by the Air Force, was U.S.$1,616,000. The price for the spare parts was U.S.$999,400. As it did under Amendments 5 and 8, the Air Force established a letter a credit to secure payment of the spares price.

253. As noted earlier in this Award, work proceeded under contract IED-001-71 until December 1978 with frequent delays in performance. Occasionally, the parties would agree on changes in the systems to be covered by the contract. Beginning in 1976, the parties devised a system of frequent, periodic meetings to review progress under the contract and problems encountered in completing it. This process culminated in the conclusion, in July 1978, of a Letter of Agreement, the "1978 LOA," see supra, paras. 38-40, the purpose of which was to permit the close-out

of contract IED-001-71. The 1978 LOA also transferred any remaining major tasks to the Second General Expansion contracts.

254. The 1978 LOA stated that it represented "the final and complete understanding between the parties regarding the technical efforts required and defined by the Contract" that were either "deleted from [the] Contract . . . or transferred to other contracts." The parties' agreement on these technical issues was intended to make possible the negotiation of those "contract and financial adjustments" necessary to settle the contract finally. See supra, para. 39. As noted, however, the parties did not begin these final negotiations prior to Westinghouse's departure from Iran in early December 1978. Consequently, contract IED-001-71 was never terminated by agreement. Thus, like all IED contracts -- with the exception of contracts IWPC-007 and IWPC-009, which were both terminated by the Air Force prior to Westinghouse's departure -- by the end of December 1979, contract IED-001-71 terminated by reason of frustration or impossibility of performance. See supra, para. 61.

255. It should be noted that the 1978 LOA stated two exceptions to its coverage of all technical questions. First, it provided: "All efforts not specifically addressed herein are completed or will be completed in accordance with the terms of the Contract." Consequently, performance that was in progress in July 1978 and that was expected by the parties to be concluded in the near future was not mentioned. As a result, the Tribunal will have to consider the extent to which such performance was not concluded prior to the termination of the contract. Second, the 1978 LOA stated that "the issues concerning Phase III delivered and yet to be delivered spares shall be resolved by a separate LETTER OF AGREEMENT." This also was never concluded.

256. With respect to spares, which were covered by Amendments 5, 8, and 9, the evidence indicates that, of the total price of U.S.$6,617,371, the Air Force paid for delivered spares priced at U.S.$2,632,542. Westinghouse alleges that additional

spares priced at U.S.$1,444,743 were delivered but not paid for, and it seeks, as part of its counter-counterclaims, that amount, plus U.S.$586,174 in alleged lost profits on the remainder of the spare parts arrangement under these three amendments. The Air Force counterclaims in the amount of U.S.$2,153,976 for alleged overcharges by Westinghouse and for incomplete performance.

257. According to the Air Force's final pleadings, and aside from spare parts, the Air Force's counterclaims on contract IED-001-71 total U.S.$35,277,582. They may be summarized as follows:

(1) Counterclaims for consequential damages totalling U.S.$10,668,291, mainly for damages allegedly caused by delays in performance by Westinghouse (hereinafter "delay claims").

(2) Counterclaims totalling U.S.$1,451,421 for reimbursement of amounts paid for equipment allegedly deficient or not provided (hereinafter "test equipment claims").

(3) Counterclaims totalling U.S.$1,477,803 for reimbursement of the payment made for the Phase II survey and for damages allegedly caused by errors in the Phase II study (hereinafter "Phase II claims").

(4) Counterclaims for alleged incomplete performance totalling U.S.$21,680,067. U.S.$5,946,672 of this total relates to items included in the 1978 LOA, and U.S.$15,733,395 relates to items not included in the 1978 LOA.

258. Westinghouse asserts a counter-counterclaim on Amendment 8, claiming that it was not paid for U.S.$127,895 worth of services rendered and invoiced. This counter-counterclaim will be addressed below as part of the consideration of the non-LOA items. The remaining counter-counterclaims by Westinghouse

that relate to this contract are solely those for spare parts, see supra, paras. 250-52.

b. Merits

259. Contract IED-001-71, like the other contracts at issue in this Case that were not terminated prior to the departure of Westinghouse personnel from Iran under force majeure conditions in December 1978, terminated by the end of December 1979 by reason of frustration or impossibility of performance. See supra, para. 61. Nevertheless, before determining the allocation of compensation between the parties on the basis of frustration, see supra, paras. 62-64, the Tribunal will address the parties' claims that are based on allegations of breach of contract.

(1) Delay Claims

260. There were clearly many delays in the performance of contract IED-001-71. The Air Force contends that Westinghouse was responsible for these delays, that they caused damages to the Air Force, and that Westinghouse consequently owes compensation to the Air Force. Westinghouse denies any responsibility for the delays, asserting, instead, that most of the delays were caused by events beyond its control, primarily by the Air Force's extensive delays in furnishing Westinghouse with the prime equipment Westinghouse needed in order to design and manufacture its maintenance equipment. The term "prime equipment," as used by the parties, means radio, radar, or electromechanical equipment in the Air Force's inventory that was to be supported by Westinghouse's maintenance equipment in the IED. See supra, note 4.

261. There is no doubt that there were substantial delays in the furnishing of prime equipment and that Westinghouse frequently complained about this. There is also no doubt that

the Air Force was contractually responsible for providing Westinghouse with the necessary prime equipment, without which Westinghouse could not design, manufacture, and test its maintenance equipment. The Air Force argues that at least some of its delays resulted from errors by Westinghouse in identifying the prime equipment in the Air Force's inventory. Westinghouse counters that its personnel were often not given proper access to the aircraft and other Air Force equipment by Air Force airbase commanders, a fact which made more difficult, and often impeded, the accurate identification of the prime equipment. Westinghouse also argues that, in any event, when it concluded the contract, the Air Force must be held to have had knowledge of the equipment in its own inventory; thus, the Air Force is responsible for any mistakes in the identification of this equipment.

262. The evidence indicates that both parties adjusted to the delays by extending performance schedules or devising alternative ways to obtain the necessary prime equipment. Neither party treated the delays, either in Westinghouse's performance or in the Air Force's prime equipment deliveries, as breaches of contract justifying cessation of performance. Westinghouse continued to perform, although it did complain to the Air Force that continued delays in the provision of prime equipment would negatively affect the contract schedule. The Air Force, for its part, did not withhold any scheduled payments, though the contract entitled it to do so "[i]f Seller is more that 30 days delinquent in meeting any of the scheduled completion dates."

263. After reviewing the evidence before it, the Tribunal concludes that the Air Force has failed to prove that the delays in the performance of contract IED-001-71 were solely attributable to Westinghouse. In the Tribunal's view, rather, the evidence suggests that both parties were responsible to some extent for these delays. In any event, in view of its findings,

infra, the Tribunal need not determine the precise balance of responsibility for the delays.

264. Article V of contract IED-001-71 provides as follows:

> [Westinghouse], its suppliers and subcontractors shall not be responsible to [the Air Force] or any third party in contract, tort, or otherwise for loss or damage sustained as a result of the furnishing of the items and services hereunder, including the loss of use of any Electronics Equipment, or any other indirect, incidental or consequential loss or damage whatsoever. In any event, the liability of [Westinghouse] whether in contract, tort, under any warranty, or otherwise, shall, except as expressly provided herein, be limited to those remedies specified under the warranties set forth hereinafter.

Moreover, Article VII of the contract provides as follows:

> [Westinghouse] warrants that the items to be delivered and the services to be furnished under this Agreement shall, at the time of their delivery or furnishing, be in conformance with the requirements of this Agreement and be free from defects in material and/or workmanship. [The Air Force] shall furnish notice in writing to [Westinghouse] of any such alleged defect or nonconformity within sixty (60) days of the delivery of such items or the furnishing of such services. Whenever [Westinghouse] determines that the items or services were in fact defective in material and/or workmanship or nonconforming at the time of their delivery or furnishing and that the required notice was given within the period provided above, [Westinghouse] if requested by [the Air Force], will either:
>
> (i) Correct such defect or nonconformity whenever [Westinghouse's] Technical personnel are still present at [the Air Force's] facilities designated herein; or
> (ii) Provide such information to [the Air Force] as may reasonabl[y] correct the defect or nonconformity.
>
> THE FOREGOING WARRANT IS LIMITED TO THE EXPRESS TERMS CONTAINED IN THIS AGREEMENT.

Thus, these two contract clauses exclude Westinghouse's liability for any consequential damages.

265. The Tribunal has generally enforced contractual clauses limiting or excluding a party's liability or limiting a party's contractual remedies for breach. Itel International Corporation and Social Security Organization of Iran, et al., Award No. 479-476-2, para. 53 (23 May 1990), reprinted in 24 Iran-U.S. C.T.R. 272, 288; American Bell International, Inc. and Islamic Republic of Iran, Interlocutory Award No. ITL 41-48-3, at 29-30 (11 Jun. 1984), reprinted in 6 Iran-U.S. C.T.R. 74, 90. In American Bell International, Inc., supra, the Tribunal also observed that "under principles of law acknowledged in many legal systems, limitation-of-liability clauses in general will not be given effect for a specific default when that default arose through an intentional wrong or gross negligence on the part of the one invoking the limitation." Id. It has not been argued and there is no evidence in this Case that any of the consequential damages allegedly suffered by the Air Force, including those allegedly incurred as a consequence of performance delays, were caused by intentional wrong or gross negligence on Westinghouse's part.

266. The Tribunal finds that nothing prevents it from enforcing the consequential damages exclusion established by Article V and Article VII of the contract. In particular, nothing in the contract, or elsewhere, suggests that this exclusion is unreasonable or unconscionable. It should also be noted that the Air Force failed to prove either the existence or the extent of any losses allegedly caused by delays in Westinghouse's performance or of any other consequential damages. For all these reasons, the Tribunal dismisses the Air Force's delay claims.

(2) Test Equipment Claims

267. This category of counterclaim differs from the incomplete performance category in that it relates, primarily, to alleged deficiencies or nonconformities in equipment delivered

by Westinghouse. To a limited extent, it also includes claims for equipment or services that allegedly were not delivered.

268. For example, a contract provision would specify a three-bay test station console and an estimated 100 adapters to provide test and repair capability for a radar system. If Westinghouse in fact delivered a two-bay console and 46 adapters, the Air Force would include this as one of the alleged defective or incomplete equipment claims. Westinghouse would respond that, in designing the test equipment, it discovered that all the necessary components could be housed in a two-bay console and that only 46 adapters were in fact required to test and repair the radar system.

269. Westinghouse argues that Article VII of the contract, quoted supra, para. 264, precludes most of the Air Force's claims for allegedly defective test equipment, because in most cases the Air Force failed to notify Westinghouse in writing of any defects within Article VII's sixty-day notice period. Westinghouse goes on to say that, in any event, Article VII limited Westinghouse's obligations to those of either correcting a defect or providing information to the Air Force so that it could do so itself. The Air Force denies that Article VII bars its claims. It contends that Article VII's sixty-day time limit began to run only once Westinghouse had provided full maintenance capability for the systems to be maintained by the equipment in question, not upon the delivery of each piece of equipment, as Westinghouse argues, and not upon incomplete delivery. Because its claims relate to systems for which no full maintenance capability was ever provided, the Air Force concludes, the sixty-day notice period never began to run.

270. The Tribunal cannot accept in full either party's arguments. The evidence shows that the parties did not, in practice, exclude complaints raised outside the sixty-day period. This practice is illustrated by the periodic status meetings the parties began holding in 1976, see supra, paras. 38-40. Westing-

house was unable to show a single example of an Air Force complaint it refused to deal with because it had not been submitted within sixty days. On the other hand, to interpret Article VII, as the Air Force does, to mean that it required the Air Force to give notice of defects or nonconformities only after full maintenance capability, including all equipment, technical manuals, and training, had been delivered, cannot be justified under either the clear meaning of the text -- "the delivery of such items or the furnishing of such services" -- or the evident purpose of the article. (Emphasis added.) Indeed, the Air Force's interpretation would render Article VII a nullity, for "full maintenance capability" implies no defects.

271. Accordingly, the Tribunal holds that, given the practice of the parties, counterclaims based on the furnishing of allegedly defective or incomplete test equipment are not barred if they were not raised by the Air Force within sixty days of the delivery of that equipment. However, failure by the Air Force, prior to the commencement of the present proceedings, to raise these claims, as well as claims for test equipment and services allegedly not delivered, undermines the credibility of the Air Force's claims and places a high burden of proof on the Air Force. See Austin Company and Machine Sazi Arak, et al., Award No. 257-295-2, paras. 31-32 (30 Sept. 1986), reprinted in 12 Iran-U.S. C.T.R. 288, 294-95; Richard D. Harza, et al. and Islamic Republic of Iran, et al., Award No. 232-97-2, para. 99 (2 May 1986), reprinted in 11 Iran-U.S. C.T.R. 76, 114; Trustees of Columbia University in the City of New York and Islamic Republic of Iran, Award No. 222-10517-1, para. 30 (16 Apr. 1986), reprinted in 10 Iran-U.S. C.T.R. 319, 325. See also Aeronutronic Overseas Services, Inc. and Islamic Republic of Iran, et al., Award No. 238-158-1, para. 22 (20 June 1986), reprinted in 11 Iran-U.S. C.T.R. 223, 229; John Carl Warneke and Associates and Bank Mellat, Award No. 72-124-3 (2 Sept. 1983), reprinted in 3 Iran-U.S. C.T.R. 256, 261; supra, paras. 141 and 271.

272. After reviewing all the evidence, the Tribunal concludes that the Air Force has failed to satisfy its burden of proof with respect to all of its test equipment claims except for a portion of the claim on Amendment 4 relating to the SA-1 console in the radio shop. In connection with the latter, the Tribunal has before it an acceptance document, dated 1 October 1978, for the verification of a preliminary "Handbook of Service Instructions" (hereinafter "HOSI") for the modified SA-1 console. This document, which was produced by the Air Force, indicates that as late as 1 October 1978, roughly two months before the evacuation of Westinghouse's personnel from Iran on 8 December 1978, the Air Force had in its possession only verified copies of the preliminary HOSI for the SA-1 console. This means that Westinghouse still had to produce and deliver to the Air Force the final HOSI for the system. There is no evidence that subsequently, during the period between October and December 1978, Westinghouse accomplished this task, and the Tribunal finds that it was unlikely to have been accomplished during this short period. Consequently, the Tribunal concludes that the Air Force is entitled to a credit for this incomplete work. The Tribunal will determine the amount of reimbursement owed by Westinghouse for the production and delivery of the final HOSI for the SA-1 console infra, when it reaches the Air Force's counterclaims for items the parties did not include in the 1978 LOA.[15]

273. In sum, the Tribunal dismisses all of the Air Force's test equipment counterclaims, with the exception of a portion of the Air Force's counterclaim on Amendment 4 relating to the SA-1 console, see supra, para. 272, and infra, para. 308.

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[15] None of the items that are the subject of the Air Force's test equipment counterclaims had been included by the parties in the 1978 LOA.

(3) Phase II Claims

274. As noted, Westinghouse completed the Phase II study and submitted it to the Air Force in April 1973. See supra, paras. 27 and 245. In May 1973, the Air Force requested the deletion of six radio systems from the radio shop statement of work and the addition of other systems. Westinghouse agreed to these changes. Between April and June 1973, the parties executed Amendments 3 through 9, thereby incorporating the conclusions and recommendations of the Phase II study into contract IED-001-71. The Air Force paid the full price of the study, U.S.$830,598.

275. The Air Force now seeks refund of its total payment on the study on the ground that it was defective and improperly done. In particular, the Air Force maintains that the study recommended maintenance support for systems that did not exist in the Air Force's inventory. The Air Force also seeks damages for losses it asserts resulted from this allegedly defective performance.

276. As noted in the discussion of the delay claims, consequential damages are precluded by the provisions of Articles V and VII of the contract. See supra, para. 266. Thus, the Air Force's claim for damages here must also be dismissed. As to the claim for refund of the price of the Phase II study, there is no evidence that the Air Force, prior to these proceedings, ever complained that the Phase II study was defective or improperly done. Clearly, therefore, the Air Force must be deemed to have reviewed and accepted the study at the time. In view of this acceptance, the incorporation of the study into Phase III of the contract, and the passage of many years before this claim was raised, the Air Force now faces a high burden of proof on this claim, as on the preceding one. See supra, para. 271. The Tribunal finds that the Air Force has been unable to satisfy this burden. While the Air Force alleges that a number of systems covered by the study's recommendations were not in the inventory of the Air Force, it has not proven either that they were not in

its inventory or were not expected to be in its inventory when the study was done or that Westinghouse was negligent in performing the study. Consequently, the Tribunal rejects the Air Force's Phase II counterclaims, in part because of the consequential damages exclusion contained in Articles V and VII of the contract and in part for want of proof.

(4) Incomplete Performance Claims

277. The Air Force's incomplete performance counterclaims are for reimbursement of amounts attributable to work Westinghouse allegedly left unperformed at the time it left Iran. The Tribunal will consider these counterclaims item by item. The Tribunal's practice in determining the rights and liabilities of parties to a contract in light of the frustration of that contract has been to allocate equitably any losses between the parties in proportion to the extent the contract was performed by the date of termination. As noted supra, para. 63, in Gould Marketing, Inc., et al. and Ministry of National Defense of Iran, Award No. 136-49/50-2 (29 June 1984), reprinted in 6 Iran-U.S. C.T.R. 272, 274, the Tribunal held that

> the general principle applied to equitably allocate [the] consequences of frustration of contract is that amounts due under the contract are to be proportioned to the extent the contract was performed. If no payment has been made, the Party which has performed is entitled to receive payment to the extent of that performance. If payment has been made, the Party which received such payment is entitled to retain that amount of money proportionate to its performance and must return any money in excess of that amount.

See also International Schools Services, Inc. and National Iranian Copper Industries Co., Award No. 194-111-1, at 14 (10 Oct. 1985), reprinted in 9 Iran-U.S. C.T.R. 187, 196-97; William J. Levitt and Islamic Republic of Iran, et al., Award No. 520-210-3, paras. 74-74 (29 Aug. 1991), reprinted in 27 Iran-U.S. C.T.R. 145, 167-68; Unidyne Corporation and Islamic Republic of

Iran, et al., Award No. 551-368-3, para. 99 (10 Nov. 1993). Within the parameters set forth infra, at para. 322, the Tribunal will apply this general principle in this Case.

278. With respect to the Air Force's performance, the parties agree that the Air Force paid in full all prices stated in the contract except for U.S.$127,895 for services allegedly rendered by Westinghouse under Amendment 8 and for amounts related to spare parts allegedly delivered. Consequently, aside from these two questions, the Air Force is entitled to a credit to the extent of the contract value of Westinghouse's incomplete performance. The Tribunal must determine what that is.

279. As noted, Westinghouse brought counter-counterclaims based on contracts, other than the four claims contracts, that were the subject of counterclaims by the Air Force. See supra, para. 243. The Tribunal decides infra, at para. 322, the question whether Westinghouse can receive a positive award on those contracts.

(a) Labor Rate for Engineering and Training Services

280. In valuing incomplete performance by Westinghouse, the Tribunal must determine both the remaining type and the extent of the work left unperformed and, where training and engineering services are involved, the appropriate dollar labor rate to apply to those services. Unfortunately, except with respect to contract IWPC-027, which is discussed infra, no clear labor rate can be determined for any of the counterclaim contracts over which the Tribunal has jurisdiction. Labor rates, however, can be determined for a number of the claims contracts. Upon consideration of all relevant evidence, the Tribunal finds that the appropriate labor rate to apply to unperformed training and engineering services in Iran for all of the counterclaim contracts except IWPC-027 is U.S.$7,800 per man-month, and that the appropriate labor rate to apply to unperformed engineering

services in the United States for those contracts is U.S.$4,800 per man-month.[16]

(b) Incomplete Performance Referred to in the 1978 LOA

281. The 1978 LOA noted all technical issues requiring changes in the contract, including deletions of contractual items, transfers of remaining work to other contracts, or statements of actions to be taken by Westinghouse to complete its contractual requirements. As noted supra, para. 255, issues relating to spare parts were excluded from the 1978 LOA and were to be negotiated separately, as was the financial settlement of the contract. The 1978 LOA also stated: "All efforts not specifically addressed herein are completed or will be completed in accordance with the terms of the Contract." It is clear from the evidence in this Case that performance continued under the contract on some remaining tasks throughout the fall of 1978. Consequently, the fact that a contractual task is not mentioned in the 1978 LOA is not conclusive proof that the task was completed by the time Westinghouse left Iran in December 1978. The Tribunal, therefore, will consider in the next section the Air Force's assertions of incomplete performance not referred to in the 1978 LOA. The present section is limited to items of performance referred to in the 1978 LOA.

1) The A24G Central Air Data Computer

282. The 1978 LOA states that "[t]o complete the contractual requirements of the A24G" Westinghouse will provide subsystem test capability for three specified gear box assemblies and certain engineering services and training at no additional cost to the Air Force. It seems clear that the parties agreed that

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[16] Clearly, the costs in the United States would be significantly lower than the costs of providing engineers in Iran.

no other work remained to be done on the A24G. The only evidence as to the value of the effort required by Westinghouse to complete this performance is contained in an affidavit by a Westinghouse engineer, who estimated 2.25 man-months of engineering services. At the labor rate determined supra, para. 280, the Air Force should be credited with U.S.$17,750 for the A24G.

2) The GPX-9B Radar

283. The 1978 LOA deleted all requirements for integrated test capability and associated support for this radar system. A 17 May 1978 "Memorandum for the Record," a formal record of technical recommendations made at status meetings between the parties, suggests that maintenance capability existed for this system in 1978 adequate to meet normal requirements and that the Air Force planned to replace it with another system. Westinghouse's Deputy Manager of the IED acknowledged in his affidavit that Westinghouse had delivered preliminary technical manuals for the GPX-9B but that it had not performed the final verification of those manuals before it left Iran. He estimated that it would have taken Westinghouse 265 man-hours to complete this work. Consequently, Westinghouse owes the Air Force U.S.$12,919 for the GPX-9B radar.[17]

3) The RSR-61 and TPS-43 Radars

284. The 1978 LOA deleted all requirements for integrated test capability and associated support for the TPS-43 radar system and the facility support to be provided by Westinghouse for the TPS-43 and RSR-61 fixed radar stations. Westinghouse maintains that its contractual responsibilities were limited to making a detailed recommendation on the proper method of integration of previously purchased test equipment for the two

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[17] 160 man-hours, 20 man-days, or 4 man-weeks equal one man-month.

radar systems, which it had done, and thereafter to being ready to furnish advice on this integration. Westinghouse's Deputy Manager of the IED estimated that the maximum time that would have been needed to provide that advice would be 300 man-hours. The Tribunal agrees that Westinghouse's obligations with respect to these systems were quite limited, and, in the absence of any other evidence, it accepts the 300 man-hour estimate. Consequently, the Air Force should be credited with U.S.$14,625.

4) The ARN-12, ARN-18, and ARN-84V Radio Systems

285. The ARN-12 and the ARN-18 were among the approximately 76 radio systems Westinghouse was to support pursuant to Amendment 4. In May 1973, the parties agreed to delete these two systems and replace them with the ARN-84V. The 1978 LOA deleted all requirements "for an ARN-84V-9, ARN-84V, ARN-12 and ARN-18 at no cost to [the Air Force]."

286. The evidence shows that Westinghouse was unable to provide the repair capability for the ARN-84V because the manufacturer of the system, Hoffman, would not disclose certain essential technical information. The parties dispute which one was contractually responsible to obtain that information from Hoffman. This, however, is of no significance, as the contract was frustrated, and the Air Force is thus entitled in any event to a credit for the unperformed work. Based on the affidavit testimony of its Deputy Manager of the IED, Westinghouse concedes that this work would have required 1,600 man-hours and the expenditure of U.S.$1,000 in materials. Consequently, the Tribunal awards the Air Force U.S.$79,000 for the ARN-12, ARN-18, and ARN-84V radio systems.[18]

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[18] While the Air Force's counterclaim on this item is only for U.S.$49,785, this is no limitation, as the Tribunal is valuing incomplete performance under a frustrated contract, not determining damages as a result of a breach of contract.

5) The VFSE-65 Radio System

287. Westinghouse agreed to provide maintenance capability for the VFSE-65 radio system under Amendment 4. The 1978 LOA transferred this system to a Second General Expansion contract, IWPC-018, at no additional cost to the Air Force. Westinghouse concedes that some minor work still remained to be done on the system when it left Iran in December 1978. Westinghouse's Deputy Manager of the IED estimated in his affidavit that this work would have required 320 man-hours and U.S.$500 in materials. There is no other probative evidence. Consequently, the Air Force is entitled to receive a credit of U.S.$16,100 for the VFSE-65.

6) The E-4 Autopilot

288. Support for the E-4 Autopilot, a flight control system in the electromechanical shop, was included in the contract by Amendment 6. The 1978 LOA stated that "Westinghouse will complete its tasks on the E-4 autopilot" in accordance with certain provisions of the Amendment 6 statement of work and that the items would be transferred to contract IWPC-018 "at no additional cost" to the Air Force. Westinghouse asserts, however, that work on this system was, in fact, completed prior to its departure from Iran in December 1978. The evidence indicates that work had been delayed because the Air Force had been unable to supply two essential pieces of prime equipment. The supervisor of Westinghouse's activity in the electro-mechanical shop stated in his affidavit that the missing equipment was received after he approached the Air Force's then Captain (now General) Shahrokhi personally and that all necessary work was then done. The Air Force provided no adequate rebuttal to that evidence. Consequently, the Tribunal concludes that the Air Force is entitled to no credit for the E-4 Autopilot system.

7) The ASN-63 Inertial Navigation Set

289. Support for this system was called for in Phase I and again in Amendment 6. The evidence indicates that Westinghouse had provided an automatic test station for the system, but that it did not fully satisfy the requirements of the Air Force. The 1978 LOA provided as follows:

> . . .
>
> b. Westinghouse will provide the additional test and alignment capabilities to the AN/ASN-63 test station developed and provided under Contract IED 001-71.
> These additional capabilities are:
>
> (1) Gyro bias.
> (2) Accelerometer bias.
> (3) Alignment of azimuth, pitch and inner/outer roll gimbals, resolvers and synchros.
> (4) Shaft alignment of the integrator.
> (5) Static balancing of the gimbals and drift rate tests.
>
> c. Westinghouse will provide on-station-training in the use of [Air Force] furnished AN/ASN-63 special tools and fixtures. This task will be considered complete upon demonstration of the following technical order procedures.
>
> (1) Demagnetization.
> (2) The inner/outer azimuth and pitch gimbal back lash adjustments.
> (3) Azimuth, pitch and roll gear alignment.

290. Westinghouse's supervisor for the activity in the electromechanical shop testified in his affidavit that some of the work called for by the 1978 LOA was completed prior to Westinghouse's departure in December 1978, and he estimated that the remaining work would have required U.S.$6,000 in direct labor and material costs, 80 man-hours of training services, as well as 10 to 15 man-hours of engineering services to verify and demonstrate certain test equipment capabilities. In the light

of the high selling price for these engineering services quoted by Westinghouse's comptroller in his affidavit, the Tribunal understands the testimony of Westinghouse's supervisor as meaning that verification and demonstration of those capabilities would have required, in effect, not one, but nine engineers each working 10 to 15 man-hours, for a total of 90 to 135 man-hours of engineering services. While the Air Force provided an affidavit by an Air Force technician and a December 1978 report by Near East Technological Services on the IED maintenance capabilities for inertial navigation systems, the only evidence of the extent of the unperformed work is that provided by Westinghouse. Consequently, Westinghouse is indebted to the Air Force in the amount of U.S.$16,481.

8) 107 Precision Instruments

291. Amendment 7 provided for support of some precision instruments in the electromechanical shop. The parties had disagreed as to the scope of the obligations Westinghouse had undertaken in this respect, but they resolved their dispute in the 1978 LOA, which stated:

> 3. Electro-Mechanical Shop, Instruments
>
> Delete all requirements for integrated test capabilities and associated support for 107 instruments from Tables F-1 and F-2 of the Contract. The deleted instruments are recorded in the IED Project Office and copies have been forwarded to Westinghouse Corporation. Add 32 instruments, including the necessary support and spares for [Air Force] self-sufficiency and provide engineering services for 15 mechanical pitot instruments. Transfer this task to Contract IWPC-018, Second General Expansion, at no additional cost to [the Air Force].

292. The Tribunal is satisfied from the negotiating history of the 1978 LOA that this provision resolved the prior disagreement between the parties and defined the tasks that remained to

be performed by Westinghouse. Westinghouse's supervisor for activity in the IED electromechanical shop estimated in his affidavit that the unperformed work on both types of instruments in Iran would have required 6 man-months of engineering services in total. Westinghouse's U.S.-based supervisor of design engineering for the IED electromechanical shop estimated in his affidavit that the design, manufacture, and technical publications efforts in the United States necessary to provide support for the 32 substituted instruments would require three-and-one-half man-weeks of engineering services, one-half man-week of manufacturing labor, and one week of technical publications labor for each of the 32 instruments, and that direct material costs would be U.S.$1,000 for each of those instruments. Westinghouse's comptroller testified in his affidavit that the "sell value" of the materials would have been U.S.$47,680.

293. In sum, according to the estimates offered by Westinghouse's engineers, to complete the work Westinghouse would have required 6 man-months of engineering services in Iran and 40 man-months of such services in the United States. In addition, Westinghouse's comptroller estimated that the sell value of the materials involved would have been U.S.$47,680. Consequently, in the absence of any other probative evidence, the Tribunal determines that the Air Force is entitled to a credit of U.S.$286,480.

9) Twelve Site Survey Checklists

294. Pursuant to Amendment 9, Westinghouse was to prepare and deliver to the Air Force certain site survey checklists. Westinghouse contends that it delivered them prior to the conclusion of the 1978 LOA, but that it had been unable to verify twelve of them because the Air Force had not given permission for Westinghouse engineers to visit the sites. Any dispute about these checklists was resolved in the 1978 LOA, which stated that

the Air Force "will accept" the twelve checklists. Consequently, no credit is due with respect to these checklists.

10) Twelve Mobile Systems

295. Included in Amendment 9 was the obligation to establish mobile maintenance capability for a number of Air Force radar, radio, and communications systems. The 1978 LOA provided for the deletion of twelve of these systems. Westinghouse's Deputy Manager of the IED asserts in his affidavit that most of the work had been done on these twelve systems and that one man-month of work remained incomplete when these systems were deleted. This is the only evidence of the extent of unperformed work on these twelve systems. Consequently, the Air Force should be credited with U.S.$7,800.

11) Instructional Techniques Training

296. Pursuant to Amendment 9, Westinghouse was obligated to provide three weeks of formal classroom training and six months of on-the-job training to the Air Force personnel in the mobile shop. The 1978 LOA deleted these tasks from the contract. Westinghouse concedes that this training was not provided and offered U.S.$40,000 in settlement. At the Hearing, the Air Force accepted that offer. Consequently, the Air Force must receive credit in the amount of U.S.$40,000 for this training.

12) Thirteen Radio Systems

297. The 1978 LOA deleted from the contract thirteen radio systems covered by Amendment 4. Westinghouse concedes partial or total nonperformance with respect to ten of these radio systems. It asserts full performance with respect to one system and also asserts that it was not obligated by the contract to

perform with respect to two of the remaining twelve systems. After considering all the evidence, the Tribunal finds that Westinghouse was obligated by Amendment 4 to support all thirteen systems and that it did not complete its performance with respect to all thirteen systems. Westinghouse's Deputy Manager of the IED estimated in his affidavit that 340 man-hours would have been required per system to complete work on eight systems and that 800 man-hours would have been required per system on four other systems. This is the only probative evidence on record. Based on the Deputy Manager's estimate with respect to the first eight systems, the Tribunal finds that 340 man-hours would have been required to complete work on the one remaining system. Accordingly, it would have taken a total of 156 and one-half man-weeks to complete work on all systems. Based on an affidavit from Westinghouse's comptroller, the Tribunal further determines that U.S.$5,960 worth of materials would have been required to complete work on four systems. Consequently, the Air Force is entitled to a credit of U.S.$311,135 for the thirteen deleted radio systems.

(c) Incomplete Performance Not Referred to in the 1978 LOA

298. The Air Force brought a number of counterclaims for incomplete performance relating to systems not referred to in the 1978 LOA. Westinghouse argues that all technical issues of any significance that remained in July 1978 were dealt with in the 1978 LOA and that the Air Force should be held to have waived any claims relating to this contract that were not raised in the 1978 LOA.

299. The Air Force denies that the 1978 LOA resolved all disputes related to the contract. In support, it points to the sentence in the letter of agreement that said that "[a]ll efforts not specifically addressed herein are completed or will be completed in accordance with the terms of the Contract." The Air Force contends, further, that the letter of agreement addressed

only those contractual items with respect to which Westinghouse was facing performance problems and that it did not include items which presented no such problems.

300. The Tribunal holds that the Air Force is not precluded by the 1978 LOA from asserting claims for incomplete performance under the contract not referred to in the 1978 LOA, as the quoted sentence from the 1978 LOA makes clear that some performance continued after the conclusion of the 1978 LOA with respect to systems not referred to therein. On the other hand, in light of the parties' declared intention to close out the contract and the Air Force's statement that performance that was not presenting problems in July 1978 was not mentioned in the 1978 LOA, it is reasonable to conclude that this performance was not extensive and was expected by the parties to be completed in the near future. The Tribunal concludes that any claims not mentioned in the 1978 LOA and based on substantial technical nonperformance face a presumption that any such nonperformance would have been referred to in the 1978 LOA. Consequently, the Air Force must provide clear proof of such claims to overcome the presumption.

301. While the Air Force raised twenty-one claims relating to allegedly incomplete performance of contractual items not referred to in the 1978 LOA, it has failed to provide adequate proof of any of them. With respect to several items, however, Westinghouse concedes that some work remained to be performed.[19]

1) The APQ-99 Radar System

302. The first of these concessions relates to the APQ-99 radar system. Westinghouse says, however, that the credit it owes the Air Force relates to Second General Expansion contract

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[19] In this section, the Tribunal will also determine the amount of credit Westinghouse owes the Air Force for unperformed work related to the SA-1 console in the radio shop, see supra, para. 272 and infra, para. 308.

IWPC-018 to which work had been transferred, rather than to contract IED-001-71. As the work had been transferred at no additional cost to the Air Force, however, the Tribunal finds that the credit should be made under the present contract. Westinghouse's U.S. Operations Manager stated in his affidavit that Westinghouse had completed all work on the system except for revisions to final manuals for two pieces of test equipment and the installation, testing, verification, and revisions to final manuals for two further pieces of test equipment. He estimated that all of this remaining work would have required no more than three man-months of engineering services. Because there is no other evidence upon which to base the valuation of the unperformed engineering services, the Tribunal accepts this estimate and holds that the Air Force is entitled to U.S.$23,400 for those services. Westinghouse's U.S. Operations Manager did not estimate the costs attributable to the publication and delivery of eight final manuals for the four pieces of test equipment (one HOSI and one HOVI each). As this unperformed work was largely of a clerical nature, however, the Tribunal can make a reasonable estimate. The Tribunal holds that the Air Force is entitled to a credit of U.S.$8,000 for the publication and delivery of eight technical manuals. Consequently, with respect to the APQ-99, the Air Force must receive credit in the total amount of U.S.$31,400.

2) The GPA-64

303. The Air Force contends that Westinghouse did not provide any maintenance capability for the GPA-64 radar. Westinghouse denies this and asserts, instead, that the Air Force had full support capability for the system, because it had in its possession a verified, marked-up copy of the preliminary technical manual for the system. This means that Westinghouse still had to incorporate the changes made in the verification stage into a clean, final version of the manual and deliver it to the Air Force. Westinghouse did not give any estimate of the amount of work and costs required to complete this task. Given

that the work involved was mostly clerical, however, the Tribunal can make a reasonable estimate. The Tribunal concludes that the Air Force should be credited with U.S.$1,000 with respect to the GPA-64.

3) Radio Technical Manuals

304. The Air Force alleges that Westinghouse failed to verify and deliver 17 technical manuals for radio systems. Westinghouse contends that it did verify all the manuals and delivered two of them, but concedes that it did not send copies of the marked-up preliminary versions of 15 of these manuals to the United States so that they could be transformed into published or typewritten versions. Five copies of each manual were required. Westinghouse did not estimate the labor and associated costs attributable to this unperformed work. As the unperformed work was largely of a clerical nature, however, the Tribunal can make a reasonable estimate. The Tribunal holds that the Air Force is entitled to a credit of U.S.$15,000 for the 15 final manuals.

4) The APQ-120 Radar Antenna

305. Westinghouse presented an affidavit by an engineer who had been assigned to modify the hydraulic antenna test station that supported the APQ-120 radar in the electromechanical shop. He asserted that he made the necessary modifications for another radar antenna, the APQ-109, but that he had not completed the design and modification relevant to the APQ-120 when Westinghouse left Iran in December 1978. He estimated that it would have required approximately three weeks to complete that modification. There is no other evidence upon which to base a decision. Consequently, the Air Force should receive credit in the amount of U.S.$5,850 for the APQ-120 radar antenna.

5) The TACAN RTA-2 Antenna

306. The Air Force contends that Westinghouse failed to modify the TACAN RTA-2 antenna, as required by Amendment 9. Westinghouse responds that, because the Air Force failed to fulfill its obligation to provide Westinghouse with the needed TACAN maintenance van and TACAN maintenance and modification kit, Westinghouse was unable to provide a capability to allow dynamic balancing of that antenna. In support, Westinghouse relies on affidavits from several of its managers and engineers. In reply, the Air Force submitted affidavits from one of its technicians, who stated that he had put all prime equipment required for Phase III work related to the mobile shop at the disposal of Westinghouse personnel; he also stated that, since the beginning of Phase III work in the mobile shop, three vehicles were parked in front of the IED awaiting Westinghouse personnel to equip them.

307. In any event, Westinghouse conceded that some work required by Amendment 9 on the RTA-2 antenna was not performed. Consequently, since the contract terminated by reason of frustration, the Air Force is entitled to a credit. Unfortunately, there is no evidence in the record with respect to the extent of the work that was not performed. Neither Westinghouse nor the Air Force has offered any estimate of either the extent of the unperformed work or of its value. The Air Force, at one point in the pleadings, requested U.S.$68,826 as relief on this counterclaim; at the Hearing, it requested U.S.$42,421.05, which it described as "the full amount of this modification." The Air Force, however, did not explain or justify either of the amounts requested. In the circumstances, the Tribunal deems it reasonable to award the Air Force the nominal amount of U.S.$15,000.

6) The SA-1 Console

308. The Tribunal has concluded supra, at para. 272, that the Air Force is entitled to a credit for the production and

delivery of the final HOSI for the SA-1 console. The Tribunal has estimated that the value of the mainly clerical work required for the printing and delivery of a final technical manual is U.S.$1,000. See supra, paras. 303 and 304. Accordingly, the Tribunal holds that the Air Force is entitled to a credit in that amount for the SA-1 console.

(d) Spare Parts

309. Amendments 5, 8, and 9 involved the procurement by Westinghouse of spare parts for the IED. Pursuant to Amendment 5, Westinghouse undertook to provide training, engineering services, and spare parts. In relevant part, Westinghouse agreed to provide 48 man-months of supply support services and approximately a one-year supply of spare parts for the radio and radar systems described in Amendments 3 and 4. To secure payment of the spare parts portion of the Amendment, the Air Force agreed to establish a letter of credit in the amount of U.S.$3,122,816 which could be drawn down as Westinghouse submitted proof of delivery.

310. Pursuant to the relevant provisions of Amendment 8, Westinghouse undertook to provide 10 man-months of spares specialist services and approximately a one-year stock of spare parts for the electromechanical shop described in Amendments 6 and 7. To secure payment of the spare parts portion of the Amendment, the Air Force agreed to establish a letter of credit in the amount of U.S.$2,495,155 which could be drawn down by Westinghouse.

311. Pursuant to the relevant provisions of Amendment 9, Westinghouse undertook to provide approximately a one-year supply of spare parts for the mobile shop and the specialized maintenance shop. In return, the Air Force agreed to establish a letter of credit in the amount of U.S.$999,400 which could be drawn down by Westinghouse.

312. With regard to the amount set forth for spare parts, Amendments 8 and 9 state that "the amount can be adjusted, either upward or downward upon mutual agreement of the parties, if, during the period of support, it is determined by the parties that the amount estimated is insufficient or is in excess of the requirements."

313. It is clear to the Tribunal that these contractual provisions authorized Westinghouse to make the initial determination of what spare parts would be needed, the quantity needed for a one-year supply, and the prices to be charged for individual parts. The Air Force, however, raised concerns on several occasions about the high prices it was being charged for spares. On 19 April 1978, the Air Force told Westinghouse that it would conduct an internal investigation of the pricing of spare parts. It stated that if the prices were indeed excessive, it would seek a reduction in price. Following the 19 April 1978 meeting, the Air Force stopped payment of Westinghouse's spares invoices, and Westinghouse virtually suspended shipment of spare parts under the three amendments.

314. The evidence shows that in 1979, the Air Force authorized payment of Westinghouse spare parts invoices totalling U.S.$454,773.

315. The Air Force claims that Westinghouse overcharged it for spare parts and failed to provide all the spare parts and related services required under the amendments. The Air Force bases its overcharging claim primarily on differences between the prices shown in contemporaneous United States Air Force microfiche lists and the prices charged by Westinghouse. The Air Force, citing a 1971 Westinghouse letter, alleges that Westinghouse represented to it that its prices would conform to those accepted by the United States military. The cited letter does not prove that allegation. First, it precedes Amendments 5, 8, and 9 by two full years. Moreover, the letter makes its representation with regard to Westinghouse's entire IED proposal,

not specifically with regard to spare parts. Finally, neither contract IED-001-71 nor the Amendments thereto make any reference to the letter or any similar representation.

316. Westinghouse denies that it overcharged for spare parts. Westinghouse points out that it was acting as the Air Force's purchasing agent for the parts, and that the Air Force knew that, because of the expenses of being a middleman, Westinghouse's prices were higher than both the U.S. microfiche prices and the prices the Air Force would have been charged had it purchased directly from commercial sources. Westinghouse asserts that, in addition, the Air Force, unlike the United States Air Force, was buying the parts in small quantities; thus, it could not benefit from any volume discounts.

317. After reviewing all the evidence, the Tribunal finds that the Air Force is not convincing in its overcharging claim. As noted, the Air Force authorized payment of U.S.$454,773 worth of Westinghouse spares invoices as late as 1979, long after it had complained about the prices charged by Westinghouse and, in effect, suspended the spare parts program. The Tribunal finds that this contemporaneous conduct is inconsistent with the position the Air Force took in this proceeding. The Air Force's contemporaneous behavior seems to suggest, rather, that in 1979, after it had carried out its internal investigation of the spares pricing, see supra, para. 313, the Air Force concluded that Westinghouse's prices were, after all, acceptable. Taking this into account, as well as the terms of Amendments 5, 8, and 9, which gave Westinghouse the task of procuring the spares, without fixing any prices or standards therefor, the Tribunal holds that the Air Force has failed to prove that Westinghouse was charging it unreasonable prices not authorized by the contract.

318. With respect to the Air Force claim that it did not receive all the required parts, it should be noted that the Air Force effectively suspended deliveries in 1978 and that it was to pay only upon delivery. Consequently, the Air Force should

receive no credit for that incomplete performance. The Air Force has also failed to prove that related spare parts services were not rendered, and Westinghouse has submitted evidence showing that many such services were rendered.

319. The parties agree that the Air Force paid U.S.$2,632,552 for spare parts delivered pursuant to all three Amendments. Westinghouse claims that spare parts priced at a total of U.S.$1,444,556 were delivered but not paid for and asserts a counter-counterclaim for that amount. Westinghouse also claims U.S.$586,174 as lost profit on the remaining value of the three Amendments. Because the Tribunal has determined that the contract was frustrated, this latter claim must be dismissed. See supra, para. 64.

320. The Tribunal has thus reached the question whether it may entertain Westinghouse's counter-counterclaims on the counterclaims contracts.[20] As an initial matter, the Tribunal declines to accept Westinghouse's counter-counterclaims as amendments to its claims, thereby allowing Westinghouse to recover additional sums for claims based on contracts different from the original claims contracts. It is true that Article 20 of the Tribunal Rules allows amendments of claim by a party in the absence of prejudice to the other party. Nevertheless, the Tribunal concludes that to allow an amendment in this instance would be inconsistent with the deadline for filing of claims with the Tribunal contained in Article III, paragraph 4, of the Claims Settlement Declaration.

321. In making its determination, moreover, the Tribunal must take into account that Westinghouse chose not to assert before the Tribunal any claim based on any of the counterclaim contracts during the period prior to 19 January 1982, when it was

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[20] These are as follows: contract IED-001-71 with its Amendments Nos. 3 through 9; Second General Expansion contracts IWPC-018, IWPC-019, and IWPC-020; contract IWPC-027; and contracts for missile support IED-002-72 and IWPC-002.

free to do so. On the other hand, in the unusual circumstances of this Case, where the Air Force's counterclaims against Westinghouse under the counterclaims contracts are within the Tribunal's jurisdiction[21] because, in its Interlocutory Award in this Case (Interlocutory Award No. ITL 67-389-2, 12 Feb. 1987, reprinted in 14 Iran-U.S. C.T.R. 104), the Tribunal held that contracts IWPC-018, IWPC-019, and IWPC-020 were part of the same transaction as the claims contracts,[22] the Tribunal, in allocating between the parties the consequences of frustration, cannot ignore the extent of Westinghouse's performance under the counterclaims contracts. To do so would be unfair.

322. For all the above reasons, the Tribunal will consider Westinghouse's counter-counterclaims but will limit Westinghouse's potential recovery thereon. Thus, in allocating the parties' losses, the Tribunal will consider the extent of Westinghouse's performance under the counterclaims contracts, but only to a limited degree -- that is, only to reduce or satisfy the Air Force's counterclaims on those contracts, without allowing Westinghouse to recover any amounts in excess of the Air Force's recovery on its counterclaims.

323. Within the parameters laid out in the foregoing paragraph, therefore, Westinghouse is entitled to a credit under Amendments 5, 8, and 9 for spare parts it delivered and for which it received no payment. Having reviewed the evidence, the Tribunal determines that adequate proof of delivery is found in either Air Force acknowledgements of receipt, acceptance forms signed by Behring (the Air Force's freight forwarder in the United States), or bills of lading or cargo manifests indicating shipment to the Air Force or its freight forwarder. See Islamic

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[21] With the exception of missile contracts IED-002-72 and IWPC-002. See infra.

[22] As noted, in light of this determination, Westinghouse subsequently recognized the Tribunal's jurisdiction over the Air Force's counterclaims on contract IED-001-71, including Amendments 3 through 9, and contract IWPC-027.

Republic of Iran and United States of America, Interlocutory Award No. ITL 60-B1-FT, para. 31 (4 Apr. 1986), reprinted in 10 Iran-U.S. C.T.R. 207, 216 ("a shipping document which shows receipt by a carrier, freight forwarder or authorized representative of the purchaser and which identifies the defense article in question as having been shipped shall, by itself, constitute conclusive evidence of shipment"). See also International Technical Products Corp., et al. and Islamic Republic of Iran, et al., Award No. 186-302-3, at 29 (19 Aug. 1985), reprinted in 9 Iran-U.S. C.T.R. 10, 28-29.

324. Based on the evidence submitted, the Tribunal concludes that the total value of the spares shipments for which Westinghouse has presented valid proof of delivery and for which it was not paid meets more than the total recovery of the Air Force's counterclaims on contract IED-001-71, U.S.$838,140. The value of Westinghouse's spare shipments, therefore, is enough to satisfy the Air Force's counterclaims on that contract. See supra, para. 322.

(e) The Amendment 8 Services Counter-Counterclaim

325. Westinghouse asserts a counter-counterclaim on Amendment 8, claiming that it was not paid for U.S.$127,895 worth of services rendered and invoiced. The Air Force contends that it made all payments for services under Amendment 8 through the letter of credit established pursuant to that Amendment. Because the total value of Westinghouse's spare shipments is enough to satisfy the Air Force's counterclaims on contract IED-001-71, see supra, para. 324, the Tribunal need not concern itself with this counter-counterclaim.

c. Conclusions

326. The Tribunal's conclusions concerning the Air Force's counterclaims and Westinghouse's counter-counterclaims on contract IED-001-71 may be summarized as follows:

(1) The Air Force's counterclaims based on delays in contract performance must be dismissed because such claims are precluded by Articles V and VII of the contract.

(2) The Air Force's counterclaims related to the Phase II study must be dismissed, partly because they are precluded by Articles V and VII of the contract and partly because of failure of proof.

(3) Contract IED-001-71 was terminated by the end of 1979 by reason of frustration or impossibility of performance.

(4) Consequently, all claims of both parties based on the termination of the contract because of breach must be dismissed.

(5) The Air Force's counterclaims based on incomplete performance and Westinghouse's counter-counterclaims based on failure of payment for performance rendered are analyzed, within the parameters laid out, supra, at para. 322, as part of the Tribunal's determination of the financial consequences of the frustration of the contract. The Tribunal has determined that the total value of Westinghouse's shipments of spare parts to the Air Force is enough to satisfy the total value of the Air Force's counterclaims on contract IED-001-71, U.S.$871,540. The Tribunal concludes, therefore,

that neither party will be awarded anything on this contract. [23]

3. CONTRACTS IWPC-018, IWPC-019, AND IWPC-020 -- THE SECOND GENERAL EXPANSION

a. Facts and Contentions

327. By the mid-1970s, the number of the Air Force's new aircraft and their weapon and electronics systems in the process of acquisition warranted an expansion of the IED. Thus, on 12 August 1975, Westinghouse and the Air Force signed contracts IWPC-018 ("contract 018"), IWPC-019 ("contract 019"), and IWPC-020 ("contract 020") to implement the Second General Expansion ("SGE") of the IED. The effective date of the contracts was 1 September 1975, when the parties received approval from the United States government. The purpose of these contracts was to provide depot-level maintenance capability for radar, electro-mechanical, and radio systems used in aircraft purchased by the Air Force after the completion of the Phase II study. Contract 018 expanded capability for the radar shop at fixed prices to the Air Force of U.S.$8,745,434 and 196,772,418 rials; contract 019 expanded capability for the electromechanical shop at fixed prices of U.S.$7,957,565 and 179,045,094 rials; and contract 020 expanded capability for the radio shop at fixed prices of U.S.$2,355,124 and 150,962,494 rials.

328. The contracts' payment schedules required the Air Force to make dollar and rial installment payments on designated months after the effective date of the contracts. The rial payments were to be made to Westinghouse in Iran "upon presentation of invoices for Iranian Rials in accordance with the Rial payment schedule." The dollar payments were to be made by drawing on a letter of credit, established in Westinghouse's favor, upon

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[23] In light of this finding, the Tribunal need not address Westinghouse's counter-counterclaim relating to Amendment 8 services.

presentation of Westinghouse's invoices. To draw on the letter of credit, Westinghouse was first to certify its invoices "regarding the percentage of completion of effort and/or percentage of work in process," then to submit them to the Air Force's representative in the United States for approval.

329. The contracts stated that "[s]ince the Letter of Credit is for payment for the Progress of [Westinghouse], it shall not contain any provisions which make payment contingent upon the shipment of goods." Each contract further provided that "[p]ayments under this Agreement are for the progress of [Westinghouse] during the term of the Agreement." The contracts also gave Westinghouse the right to cease all work in the event it did not receive a scheduled payment "when due," in the case of contract 018, or "within ten (10) days after scheduled date," in the case of contracts 019 and 020.

330. The responsibilities of the parties were described in the shop proposals prepared by Westinghouse and incorporated into each contract. These proposals, or statements of work, required Westinghouse to design and manufacture new test equipment for various electronic systems at its Baltimore facility, then deliver, install, and validate the new equipment at the IED facility. Westinghouse was also to supply technical documentation, engineering services, training, and spare parts support. The Air Force, for its part, among other things was required to supply one set of each prime system listed in Table 2-3 of each statement of work "for design and compatibility testing" of the new radar shop and electromechanical shop test equipment, and for "design, technical data preparation and verification and training" for the radio shop test equipment.

331. According to the performance schedules for the radar and electromechanical shops, the prime equipment was due to be delivered by the Air Force starting four months after the effective date of the contract. Prime equipment for the radio shop was due two months after the effective date. Westinghouse

was to complete the expansion of the radar shop within 27 months of the effective date, that of the electromechanical shop within 38 months, and that of the radio shop within 19 months. The first Westinghouse test equipment delivery for the radar and electromechanical shops was to take place on month 12 of the performance period and for the radio shop on month 7. All three contract statements of work noted that the program schedule was

> based on the assumption that firm detailed information concerning the configurations of the aircraft noted in Table 1-1, and complete maintenance documentation and specifications for the systems, units and equipments to be maintained will be available to Westinghouse at the time of contract award.

332. The statements of work provided that the configuration of the prime equipment "as defined in the initial delivery under the respective FMS case or direct contract" -- the so-called "baseline configuration" -- represented "the basis for developing the maintenance requirements and design of the Depot Support Equipment." Each statement of work required the Air Force to notify Westinghouse of any changes in its prime equipment after this baseline configuration had been established. The statements of work noted that "any such changes which impact the maintenance requirements or DSE design must be considered out of scope and subject to further possible negotiations."

333. The contracts ran into almost immediate difficulties and delays as a consequence of the unavailability to Westinghouse of the prime equipment it needed in order to manufacture the test equipment. This unavailability, Westinghouse contends, was due to the Air Force's inability to furnish the prime equipment when required. On 16 September 1975, Westinghouse sent a letter to the Air Force reminding it of its prime equipment responsibilities. The letter included, as an attachment, lists for each shop of all the prime systems to be provided. However, by the spring of 1976, no prime equipment had been delivered. Responding to an Air Force request that Westinghouse provide exact part numbers

to assist in the task of locating the components of each system in existing Air Force spare parts stocks or procuring the components needed, Westinghouse then agreed to compile parts lists for systems from four different aircraft, including the manufacturer part number and "Federal Stock Number" ("FSN")[24] for each part. Westinghouse provided these lists to the Air Force on 8 March 1976, 17 March 1976, 8 June 1976, and 28 June 1976.

334. On 21 June 1976, an Air Force IED review team presented its report on IED capability to Westinghouse and Air Force representatives. At this meeting, the IED review team noted, with respect to the SGE contracts, that "[t]he avionics systems configuration in the Second General Expansion Contract has several errors. The contracts must be corrected and the associated prime equipment procured." The action taken by the review team was summarized as follows: "Westinghouse has been given a current configuration of avionics systems . . . and will initiate action to amend contracts." Westinghouse responded to the Air Force comment and action as follows:

> Current base line configuration has been established for the P3F by direct examination of the aircraft at Bandar Abbas by Westinghouse personnel.
>
> Other base line configurations will be established as feasible.
>
> Actions will be initiated to amend contracts by negotiation as required.

335. The issue of the correct configuration of the aircraft systems became an action item discussed at weekly status meetings

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[24] According to the Air Force, the FSN was a critical piece of information for equipment retrieval. For the Second General Expansion contracts, the Air Force supplied the pieces of prime equipment from its spare parts warehouses. Because the Air Force's computerized retrieval system was organized by FSN, that number was necessary to enable the Air Force to locate the various parts that, when assembled, would make up the piece of prime equipment required.

between Westinghouse and the Air Force throughout the rest of 1976 and 1977. Minutes of the meetings indicate that Westinghouse began physically inventorying the various aircraft to determine the baseline configuration of the avionic systems and began compiling system configuration lists by component and part number, including FSNs. Westinghouse had difficulties in compiling the lists, and it was forced to revise submitted lists on a number of occasions. At one point, Westinghouse was delayed in conducting a physical inventory of the RF-4E aircraft because its personnel were unable to obtain security clearance from the Air Force. As of mid-October 1977, Westinghouse had provided three lists of prime equipment needed for the SGE contracts. Rather than just stating the name and number of the prime system, each list was broken down into individual parts for the various systems and identified the manufacturer part number and FSN for each part.

336. Meanwhile, on 3 August 1977, Erwin W. Yoder, Westinghouse's business manager in Iran, had written the Air Force's General Naderi following a meeting between the parties to discuss the prime equipment problems. The letter stated in relevant part:

> Although not contractually required, we have provided the FSN, manufacturer's code and part number associated with each item of prime equipment where such information was available to us. In most cases this information was obtained, at Westinghouse expense, by a physical inventory of [Air Force] aircraft. Except for the Second General Expansion Radio Shop, this information has been submitted to [the Air Force] on several previous occasions by us -- as recently as earlier this year. Considerable effort at Westinghouse cost has gone into the research and preparation of these lists, but this was undertaken by Westinghouse in the interest of assisting [the Air Force] in their responsibility to provide such data to their appropriate commands so as to expedite delivery of the [Air Force] provided prime equipment.

Mr. Yoder went on to provide a time schedule for the delivery of prime equipment to Westinghouse. He concluded by stating:

"[F]ailure to deliver by the dates shown . . . will require us to cease further contractual efforts with a concurrent increase in cost to [the Air Force] which would be brought about by the attendant delays in performance, storage charges and other cost overruns."

337. On 13 September 1977, General Naderi responded to Mr. Yoder's request and schedule for prime equipment, in part as follows:

> As you are well aware, [the Air Force] is making every effort to provide Westinghouse with Prime Equipment to support contracts at the Integrated Electronics Depot.
> . . .
>
> We are aware of the requirements to furnish Prime Equipment by [the Air Force]. [Given that in Phase II Westinghouse undertook to identify the equipment to be maintained at the IED as well as the configuration of that equipment and given that the Phase II study was the basis for the implementation of Phase III], [i]t is the contention of [the Air Force] that lists of equipment are clearly the responsibility of Westinghouse under the Statement of Work references to Management and Support to be provided by Westinghouse.

General Naderi stated, moreover, that Westinghouse had not fulfilled its obligation to provide accurate prime equipment lists. His letter covered a list of alleged inaccuracies. General Naderi also objected to the deadline set by Mr. Yoder for the delivery of all prime equipment and assured Mr. Yoder that the Air Force was doing all it could to resolve the prime equipment problems.

338. Evidence submitted by the Air Force shows that as late as 1977, there were errors in the prime equipment lists compiled by Westinghouse. Specifically, there were discrepancies between the configuration of the prime equipment on the lists and that of the prime equipment in Westinghouse's possession for which Westinghouse was fabricating test equipment. The Air Force has also produced three internal Westinghouse memoranda dated 6 March 1978, 8 March 1978, and 27 May 1978, indicating that, in many

instances, Westinghouse had deviated from the contracts by not supplying test equipment that met contract requirements concerning the depth of support for some of the systems. The memoranda called for contract amendments to reflect the reduced support being provided. The Air Force, furthermore, has proffered minutes of a meeting held among Westinghouse engineers at the IED on 3 April 1978 to discuss the system coverage in the radio shop. These minutes proposed the following action item:

> On overall Systems area, [Iran-Westinghouse Program Center] should clarify with [Hunt Valley] why coverage is not being provided in certain areas and what is the [Westinghouse] approach to [the Air Force] when deleting items from the Contract or reducing the stated depth of coverage.
>
> The Contract schedules need to be amended to reflect realistic schedule milestones. How this will be handled will be decided later.

There is no evidence of whether and how these problems were resolved with the Air Force.

339. Westinghouse contends that the Air Force had begun delivery of various prime equipment parts to Westinghouse by March 1977. According to a memorandum recording a status meeting held on 10 October 1977, by that date, 42 items of prime equipment had been shipped to Westinghouse Baltimore and processing begun on 9 more items. However, by the following year, in a letter to the Air Force dated 29 August 1978, see infra, para. 345, Westinghouse noted that "significant items of prime equipment [had] yet to be delivered to Westinghouse."

340. The Air Force itself acknowledged the delivery problems in a memorandum to Westinghouse dated September 1978 with the following language:

> SUBJECT: Prime equipment shortages
>
> 1. Some 38 items of Prime Equipment are required to be provided [Westinghouse] by [the Air Force] under present IED contract. [The Air Force]

> base, IACI, and MAAG sources cannot supply subject items.
>
> 2. Request you query commercial suppliers to determine cost of [a]ll NEEDED items listed below, with estimated delivery times to [WESTINGHOUSE]/ BALTIMORE. Items would be [Air Force] funded for spares after [Westinghouse] utilization [i]n IED test station development/verification.
>
> 3. Subject items are attached.

Westinghouse contends that the Air Force never provided all the necessary prime equipment to Westinghouse by December 1978, when Westinghouse left Iran.

341. Westinghouse alleges that, despite the problems with the prime equipment deliveries, it was able to make some progress on the contracts. Westinghouse asserts that it succeeded in designing and manufacturing parts of the test equipment by obtaining technical data for the missing prime equipment from other sources in the United States. Westinghouse states that it stored the partially completed test equipment until the arrival of the prime equipment. When the prime equipment arrived, Westinghouse continues, it would then complete the test equipment and ship it to Iran for installation in the IED. For contracts 018 and 019, Westinghouse has produced Air Force confirmations of receipt of equipment and Westinghouse shipment notices for equipment and technical documentation shipped to Iran in 1978 and early 1979. It has also submitted computerized summaries of all of Westinghouse's direct costs for contracts 018, 019, and 020,[25] as well as computerized summaries describing engineering and training services Westinghouse allegedly performed under the three contracts. Finally, Westinghouse has produced lists of contract 018 and 019 test equipment and technical publications which, Westinghouse alleges, are in storage in the United States.

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[25] These cost summaries -- so-called "Contract Cost Reports No. 1" -- listed the cost subtotals for each category of expenses (for example, labor, materials, engineering travel, etc.) as well as the total direct costs incurred on a given contract. See supra, para. 146.

342. An internal Westinghouse memorandum dated July 1978, entitled "IWPC Collection Plan for the IED," submitted by the Air Force, summarizes performance and payments on the various contracts between the parties. Progress on the SGE contracts is presented in a table that describes the work completed in the United States and Iran. The table indicates that for contract 018, 78.6 percent of the work was to be performed at Hunt Valley in the United States and 21.4 percent was to be performed in Iran; for contract 019, 82.3 percent of the work was to be performed at Hunt Valley and 17.7 percent was to be performed in Iran; for contract 020, 41.9 percent of the work was to be performed at Hunt Valley and 58.1 percent was to performed in Iran. According to the table, at that time, 59 percent of the total work in both the United States and Iran had been completed on contract 018 as compared to 75 percent of dollar payments made; 71 percent of the total work had been completed on contract 019 as compared to 75 percent of dollar payments; and 38 percent of the total work had been completed on contract 020 as compared to 51 percent of dollar payments. The memorandum compared separately performance in Iran against rial payments. An explanatory note accompanied this summary, stating: "This is really the percentage of money spent in country against money allocated to be spent and may not represent percentage of actual progress."

343. The memorandum also contained the following discussion, which reflects the performance problems on the Second General Expansion:

> The agreements provide for scheduled payments while also stating the payments are for the progress of the Seller. The intent of the contract, when written, was that the progress and the payment schedules were matched. The "progress of Seller" statement was apparently for the Seller's protection, but is working in favor of the Purchaser since the schedule has changed.

344. Westinghouse successfully drew down the full amounts of the letters of credit established for the three SGE contracts. See supra, para. 328. The dollar invoices Westinghouse presented for payment contained the following certification:

> We hereby certify that contractual effort has been performed on the subject contract . . . . All goods, equipment and/or services purchased to date under subject contract shall become the irrevocable property of [the Air Force] upon payment of this invoice.

345. On 29 August 1978, Westinghouse's Mr. Yoder wrote to the Air Force's General Shakib. Mr. Yoder began by referring to the exchange of correspondence between the parties concerning the prime equipment problems. He then observed that the efforts described in this correspondence failed to produce all the necessary prime equipment. Mr. Yoder went on to say that, due to the unavailability of the prime equipment, "our production is reaching the point where no further progress can be made without additional equipment." Continuing, Mr. Yoder wrote:

> An urgent decision must now be made with regard to the DSE [Depot Support Equipment]. Westinghouse could be directed to ship the equipment in its present condition . . . thereby completing its contractual obligations. Or, the contract could be amended to allow for payment of storage of the equipment and to complete the effort at the earliest possible date following the delivery of the complete list of required prime equipment. Incorporated in this amendment would be provisions to reimburse Westinghouse for the actual cost growth resulting from the unavailability of prime equipment to date, the cost of storage of the DSE and other costs associated with the shut down and later re-initiation of the effort.

Mr. Yoder recommended the latter alternative and requested a meeting to determine a course of action.

346. The record contains an internal Westinghouse memorandum dated 13 September 1978 from Mr. Erwin Yoder to Mr. E. Bruin. This memorandum, referenced "IED London Meeting" and entitled

"Contract Considerations," analyzed the SGE contracts and detailed three options which Mr. Yoder thought were available to Westinghouse. The first option, which Mr. Yoder deemed to be the best approach,

> would be to argue a constructive substitution in the [Statement of Work] in that the value of the out-of-scope work Westinghouse was forced to perform because of [the Air Force's failure to provide prime equipment] equates to the contract value of the remaining in[-]scope work yet to be done. Therefore, the contracts are deemed to be completed in full because of this constructive substitution of work effort.
>
> Should [the Air Force] then desire the in-scope work to be performed, a proposal would be submitted setting forth the price and terms to complete such effort.

Mr. Yoder described the third option in the following terms:

> [F]ailure to provide prime [equipment] forces Westinghouse to stop work on the basis of a constructive partial termination of the remaining contracted-for effort with the equitable reduction in the contract value being set-off against the out-of-scope delay costs incurred as a result of [the Air Force's failure to provide prime equipment].

347. Following discussions between the parties on the problems relating to the Second General Expansion, on 15 November 1978, Mr. Yoder wrote General Naderi to propose cost and schedule adjustments to the SGE contracts. His letter included an executive summary describing these proposed adjustments, a proposed Memorandum of Understanding on these adjustments, an analysis of outstanding rial payments on each of the SGE contracts, as well as 6 rial invoices and 10 documents entitled "Invoice," identifying scheduled rial payments and noting: "Original & Copies To Be Supplied Later." The executive summary described the Second General Expansion as originally conceived and as actually performed. It attributed the difference between conception and reality to the Air Force's failure to provide prime equipment as required under the contracts. It stated that

the Air Force's delay in providing prime equipment delayed Westinghouse's performance in turn and created cost overruns, as Westinghouse took extra-contractual steps to complete its performance. It further stated:

> Because of the factors related above, which have produced extra and inordinate costs to the program, Westinghouse has now reached the point where it has expended all of the funds issued to date by [the Air Force]. The situation in which Westinghouse finds itself was caused by factors beyond Westinghouse's control. From both a fiscal and physical viewpoint, it is nearly impossible for Westinghouse to continue on this program in the same mode as in the past.

The executive summary stated that Westinghouse had incurred additional costs of U.S.$5,376,000, and it proposed that the Air Force make an immediate supplementary progress payment while Westinghouse prepared a detailed analysis of its additional costs. The proposed Memorandum of Understanding would have required the Air Force to make a payment of 297,824,481 rials. According to the executive summary, this sum, together with payments already made, represented "the [a]ctual progress on [the SGE] contracts through 30 September 1978." The proposed Memorandum of Understanding would have required Westinghouse to submit by 2 January 1979 an analysis of costs incurred as a consequence of Air Force delays in providing prime equipment. The proposed Memorandum of Understanding next provided for negotiations between the parties and continued performance by Westinghouse as prime equipment was made available by the Air Force.

348. Mr. Yoder concluded his letter by stating: "Because of the urgency of the need to resolve this matter, Westinghouse respectfully requests that the Memorandum of Understanding . . . be executed by December 2, 1978; and the [attached] invoices . . . be processed for payment on this date."

349. Westinghouse submitted a 29 November 1978 letter by General Naderi, responding to Mr. Yoder's 15 November 1978

letter. The 29 November Naderi letter stated that "[the Air Force] has reviewed the referenced letter concerning certain claims for payment and a proposed Memorandum of Agreement. In addition, the Air Force has reviewed all Westinghouse contracts and finds [the Air Force] has offsetting claims against Westinghouse." The letter suggested a mutual review of performance by both parties "in all contracts" before a negotiated settlement could be reached. The Air Force alleges that the 29 November 1978 Naderi letter is of doubtful validity. It is undisputed that Westinghouse's proposed Memorandum of Understanding was never executed by the parties.

350. As noted earlier in this Award, on 6 December 1978, Westinghouse wrote a letter to the Air Force notifying it that Westinghouse was withdrawing its personnel from Iran for the Christmas holidays. See supra, para. 57. This letter was followed by a second letter dated 10 January 1979, in which Westinghouse, inter alia, stated the following:

> Contractually under the terms of the Force Majeure Article of our Agreements, we are exercising our right to stop work in Iran and are entitled to a day by day slippage in the delivery schedule. Furthermore, under the Payments Article of our Agreements, we are exercising our right to discontinue further effort in both Iran and our Hunt Valley Facility pending receipt of past payments due us.

See supra, para. 57.

351. In October 1979, the parties discussed the possibility of resuming work on the IED contracts, including the SGE contracts. As noted earlier, Westinghouse's 1 November 1979 letter to the Air Force, in which Westinghouse expressed its willingness to resume work on the contracts under certain conditions, enclosed a report on the status of the IED contracts. This report stated that work on the Second General Expansion had been suspended pending negotiations on delayed prime equipment deliveries. The analysis of the SGE contracts included estimates of the performance completed by Westinghouse, the prime equipment

provided by the Air Force, and work that remained to be performed. In response to an Air Force inquiry concerning the reactivation of the efforts on the Second General Expansion, the report stated the following:

> Each of the SGE contracts [was] in different states of completion. All the [Electromechanical] Shop equipment except one console have been delivered to Iran, Part of the Radar Shop equipment had been delivered to Iran. All of the Radio Shop equipment is still at Hunt Valley. Therefore, in order to make meaningful recommendations, it will be necessary for Westinghouse to conduct a detailed review.
>
> . . .
>
> Westinghouse is desirous of coming to agreement with the Iranian Air Force concerning all aspects of the SGE contracts. . . . Such an effort requires a considerable amount of time, effort and money. Westinghouse is more than willing to undertake such an effort. However, Westinghouse believes that before such an effort is undertaken, prior issues and payments due should be resolved to mutual satisfaction.

b. The Parties' Arguments

352. Both parties urge the Tribunal to conclude that the other party was in breach of the SGE contracts. The Air Force contends that, contrary to Westinghouse's assertions, the Air Force did not breach the contracts by failing to provide the necessary prime equipment, because Westinghouse had an obligation to provide detailed and accurate specifications of this equipment -- including the manufacturer part numbers and FSNs -- before the Air Force was required to act. Thus, the Air Force maintains, the prime equipment problems rest on Westinghouse's failure to fulfill this preceding obligation. In response to Westinghouse's argument that the prime equipment problems were the result of changes in the Air Force's inventory of which Westinghouse was never notified, the Air Force alleges that it, the Air Force, did not change its inventory. The Air Force states that any

discrepancies between the statements of work and the Air Force's inventory in fact are attributable to Westinghouse's failure correctly to identify, in the Phase II study, the Air Force's maintenance needs.

353. The Air Force contends that Westinghouse was not entitled to any payments while its initial obligation to identify the prime equipment went unfulfilled. The Air Force urges that Westinghouse committed fraud in withdrawing funds on the letters of credit in scheduled payments without making progress in its performance under the contracts. The Air Force asserts that in the end, Westinghouse wholly failed to perform its obligations to deliver test equipment, provide corresponding technical publications, and train Air Force personnel. Consequently, the Air Force seeks reimbursement of all the monies it paid on all three contracts. In response to arguments by Westinghouse, the Air Force contends that Westinghouse was not entitled to any rial payments on the contracts. These rial payments, the Air Force goes on, were for services in Iran; but these services were never provided, because Westinghouse never reached that stage of performance.

354. On its counterclaim, the Air Force seeks the reimbursement of U.S.$8,745,434 on contract 018, U.S.$7,957,565 on contract 019, and U.S.$2,355,124 on contract 020. The Air Force also seeks the return of prime equipment and test equipment in Westinghouse's possession or damages in an amount equal to their prices as reflected in the U.S. Air Force microfiche. The Air Force further seeks damages allegedly incurred as a consequence of Westinghouse's alleged failure to provide maintenance capability. The Air Force claims interest on all amounts sought.

355. Westinghouse, for its part, contends that the Air Force breached the contracts by failing to make the contractually-required rial payments. This breach, Westinghouse argues, justified Westinghouse's suspension of performance in November 1978. Westinghouse contends that, moreover, the Air Force

breached the contracts by failing to deliver prime equipment on time. In response to the Air Force's assertion that this failure was due to Westinghouse's own failure correctly to identify that equipment, Westinghouse says that the Air Force, not Westinghouse, knew the configuration of its aircraft and was responsible for the accuracy of the baseline configurations in the statements of work. Moreover, the contracts, Westinghouse asserts, explicitly required the Air Force to notify Westinghouse of any changes in the configurations of the prime systems covered by the contracts, an obligation which the Air Force failed to meet.

356. Westinghouse contends, further, that it was not contractually obliged to provide detailed information about the needed prime equipment, but that it undertook at the Air Force's request to provide the information in order to help the Air Force meet its contractual obligations. Westinghouse argues that it is entitled to count these efforts as performance under the contracts, because they were undertaken at the request and with the authorization of the Air Force. Westinghouse states that, even when it provided this detailed information, the Air Force still failed to deliver prime equipment on schedule or, sometimes, at all. Westinghouse further claims that it worked around the missing prime equipment as best it could, and managed to provide the Air Force with much of the contractually-required test equipment. Westinghouse denies that it breached the contracts by drawing down on the letters of credit, because the contracts specifically stated that drawdowns were not contingent upon shipment of goods; because Westinghouse's performance was consistent with the certifications made on each invoice; and because the Air Force waived objections by approving the invoices that were paid.

357. On its counterclaims on the three SGE contracts, Westinghouse seeks: U.S.$3,551,039, the amount by which its costs on the three contracts allegedly exceeded its receipts from the Air Force; U.S.$2,810,428 in alleged lost profits attributable to work already performed; U.S.$241,060 in anticipated lost

profits if the Tribunal relies on the Air Force's breach; U.S.$37,330 for storage costs; and interest. Concerning the SGE prime equipment and test equipment within its possession, Westinghouse is prepared, if the Tribunal so orders, to apply for a license to transfer that equipment to the Victory Van Warehouse in the United States and, once the license is obtained, to make the transfer.

c. The Tribunal's Decision

(1) The Legal Status of the SGE Contracts

358. Both parties' claims are mainly predicated on the argument that the other party breached the SGE contracts. The Air Force argues that Westinghouse breached the contracts in manifold ways before the onset of force majeure conditions. Westinghouse, in contrast, argues that it was the Air Force that breached the contracts and that, in response to this breach, Westinghouse suspended work on the contracts before they were eventually frustrated by force majeure. For the reasons set forth below, neither party is now convincing before the Tribunal in its claim for breach of contract.

359. As to the Air Force's arguments, the Tribunal is not persuaded by the Air Force's contention that Westinghouse fraudulently drew down on the letters of credit. The contracts stipulate that Westinghouse was entitled to progress payments that were not tied to shipment of goods. Nor is the Tribunal persuaded by the Air Force's allegation that Westinghouse wholly failed to perform on the SGE contracts. The record clearly shows that Westinghouse expended considerable time and effort on these contracts, both on work required by the statements of work and on tasks that went beyond the scope of the written contracts. As to Westinghouse's arguments, the Tribunal is likewise not convinced that the Air Force was in breach for failure to make scheduled rial payments. There is evidence that the Air Force

failed to make some of its scheduled rial payments. It is also true that the contracts gave Westinghouse the right to cease all work under the contracts in the event scheduled payments were not made. But Westinghouse did not exercise this right. The contracts' schedules, both for work and payment, were routinely ignored by both parties. The parties' mutual departure from these schedules does not support a conclusion that the contracts were breached.

360. As is the case with regard to the other IED contracts, the parties' assertions that the other party was in breach of contract is in sharp contrast with each party's positions taken before Westinghouse left Iran in December 1978. To be sure, the contracts were not performed as originally envisioned, and the parties had an excruciating history of difficulties and delays, both in performance and payments. Nevertheless, the parties continued working together, attempting to find solutions to the problems and difficulties that arose. By the fall of 1978, it had become apparent to both parties that certain aspects of the contracts would have to be renegotiated. But even when Westinghouse wrote to the Air Force suggesting the need for a Memorandum of Understanding and a renegotiation of the contracts, Westinghouse did not exercise its right to cease all work under the SGE contracts based on a breach of contract by the Air Force. The letters exchanged by the parties in the fall of 1978 and Westinghouse's 1 November 1979 letter to the Air Force, see supra, paras. 347-49 and 351, convince the Tribunal that even at those dates, the parties were still willing to try to iron out their difficulties and continue work under the contracts. For these reasons, the Tribunal concludes that the SGE contracts, like all other IED contracts that had not been previously terminated by the Air Force, were terminated by reason of frustration or impossibility of performance. See supra, para. 61. Consequently, all claims by both parties based on the termination of the contracts because of breach must be dismissed.

(2) The Extent of Performance

361. The Tribunal must now determine the rights and liabilities of the parties in light of the frustration of the contracts. Generally, when calculating an award in a contract terminated by frustration, the Tribunal's task is to measure performance against payment. In the particular circumstances of this Case, however, where, following the Tribunal's jurisdictional determinations in the Interlocutory Award in this Case (Interlocutory Award No. ITL 67-389-2, 12 Feb. 1987, reprinted in 14 Iran-U.S. C.T.R. 104), Westinghouse has asserted counterclaims in reply to counterclaims brought by the Air Force on contracts different from the four original claims contracts, the Tribunal has decided that, in equitably allocating the parties' losses, it will consider Westinghouse's performance under the counterclaims contracts[26] only to a limited degree -- that is, only to reduce or satisfy the Air Force's counterclaims. This means that Westinghouse may not recover any amounts in excess of the Air Force's counterclaims. See supra, paras. 321-22.

362. The Air Force seeks reimbursement of all the monies it paid Westinghouse on the SGE contracts. The Air Force would be entitled to this reimbursement only if Westinghouse had performed no work whatsoever on the contracts. As noted earlier, however, the record shows that Westinghouse, despite all the difficulties and delays, did make progress on the SGE contracts before it left Iran in December 1978. In particular, the evidence indicates that Westinghouse succeeded in designing and manufacturing test equipment for all three shops covered by the contracts. The evidence further suggests that Westinghouse delivered to the Air Force almost all of the electromechanical shop equipment and part of the radar shop equipment. See supra, paras. 341 and 351. In addition, Westinghouse provided extensive assistance to the Air Force to identify the prime equipment required by the contracts. See supra, paras. 333 and 335-36. Even if it were admitted that

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[26] See supra, footnote 20.

Westinghouse is not entitled to count as performance its efforts to identify prime equipment, the Air Force has produced no evidence that would enable the Tribunal to measure Westinghouse's performance in accordance with the contracts' statements of work against the Air Force's payments. In these circumstances, the Air Force's claim for reimbursement of monies it paid under the contracts must be dismissed for lack of proof.

363. Because the Tribunal has decided that Westinghouse may not recover in excess of the Air Force's counterclaims, see supra, paras. 321 and 322, by dismissing the Air Force's counterclaims on the SGE contracts, the Tribunal has necessarily dismissed all of Westinghouse's counter-counterclaims on those contracts. In any event, it would seem to the Tribunal that Westinghouse's present position that the total costs that it incurred in performing the SGE contracts exceeded the Air Force's payments by more than U.S.$3.5 million conflicts with its apparent willingness, as late as September 1978, to essentially call it even with the Air Force. The suggestion that in September 1978, Westinghouse considered payments and performance to date under the SGE contracts essentially a wash appears to be supported by the internal Westinghouse memorandum from Mr. Yoder to Mr. Bruin of 13 September 1978. See supra, para. 346. As noted, that memorandum analyzed the SGE contracts and identified three options available to Westinghouse. The first option, which Mr. Yoder deemed to be the best approach,

> would be to argue a constructive substitution in the [Statement of Work] in that the value of the out-of-scope work Westinghouse was forced to perform because of [the Air Force's failure to provide prime equipment] equates to the contract value of the remaining in[-]scope work yet to be done. Therefore, the contracts are deemed to be completed in full because of this constructive substitution of work effort. Id.

364. In light of the foregoing, all of the parties' claims for monetary relief under these contracts must be dismissed on the merits.

(3) Air Force Prime Equipment and Test Equipment

365. The Air Force seeks the return of two categories of equipment: first, prime equipment provided by the Air Force to Westinghouse; and second, test equipment that had been manufactured, or was in the process of being manufactured, by Westinghouse, but which has not been delivered to the Air Force.

366. Westinghouse concedes that it still has in its possession certain prime equipment that belongs to the Air Force as well as some test equipment that had been manufactured pursuant to the SGE contracts. A detailed summary of this equipment is provided in Westinghouse's 1 November 1979 letter to the Air Force, see supra, para. 351. As noted, in its pleadings, Westinghouse stated its willingness to transfer all prime equipment and test equipment in its possession to an Air Force storage facility in the United States.

367. With respect to the prime equipment that the Air Force sent to Westinghouse, the Tribunal is of the view that the Air Force retained title to that equipment at all relevant times. The Tribunal directs Westinghouse to send all Air Force-owned prime equipment shipped to Westinghouse under the SGE contracts and related spare parts that admittedly remain in Westinghouse's possession to Victory Van Warehouse, successor to the Air Force's freight forwarder in the United States.

368. The Tribunal next addresses the test equipment that was manufactured, or that was in the process of being manufactured, by Westinghouse. Although title to the equipment would ordinarily pass at the time of delivery, there is evidence that title to test equipment manufactured by Westinghouse passed to the Air Force on payment by the Air Force for the equipment. At least some of the invoices on the SGE contracts included language to the effect that "all material, equipment and/or services purchased to date under subject contract shall become the irrevocable property of [the Air Force] upon payment of this

invoice." Taking into consideration this fact, as well as Westinghouse's declared willingness to transfer all test equipment in its possession to an Air Force storage facility in the United States, the Tribunal directs Westinghouse to send all test equipment completed or partially completed under the SGE contracts and related spare parts and publications that admittedly remain in Westinghouse's possession to Victory Van Warehouse, successor to the Air Force's freight forwarder in the United States.

(4) Conclusions

369. The Tribunal's conclusions concerning the Air Force's counterclaims and Westinghouse's counter-counterclaims on contracts IWPC-018, IWPC-019, and IWPC-020 may be summarized as follows:

(1) Contracts IWPC-018, IWPC-019, and IWPC-020 were terminated by the end of 1979 by reason of frustration or impossibility of performance.

(2) Consequently, all claims of both parties based on the termination of the SGE contracts because of breach must be dismissed.

(3) The Air Force's counterclaims based on incomplete performance and Westinghouse's counter-counterclaims based on failure of payment for performance rendered are analyzed, within the parameters laid out, supra, at para. 322, as part of the Tribunal's determination of the financial consequences of the frustration of the SGE contracts. The Tribunal has determined that the Air Force's counterclaims for the return of the monies it paid under the contracts must be dismissed for failure of proof. Because the Tribunal has decided that Westinghouse may not recover in excess of

the Air Force's counterclaims, see supra, paras. 321 and 322, by dismissing the Air Force's counterclaims on the SGE contracts, the Tribunal has necessarily dismissed all of Westinghouse's counter-counterclaims on those contracts, including Westinghouse's counter-counterclaim for storage costs.

(4) Westinghouse must send to Victory Van Warehouse, successor to the Air Force's freight forwarder in the United States, all Air Force-owned prime equipment shipped to Westinghouse under the SGE contracts and related spare parts that admittedly remain in Westinghouse's possession as well as all test equipment completed or partially completed under the SGE contracts and related spare parts and publications that likewise admittedly remain in Westinghouse's possession.

4. CONTRACT IWPC-027

a. Facts and Contentions

370. On 12 April 1976, Westinghouse and the Air Force signed contract IWPC-027 ("contract 027") relating to the provision of engineering and maintenance services to support the IED. Under the contract, Westinghouse agreed, inter alia, to provide 157 man-months of engineering services for the IED, to design and provide interface adapters for six RTC-3 TACAN monitor circuit boards, and to train Air Force personnel in the use of the adapters. The Air Force agreed to pay, and paid, U.S.$687,478 and 45,831,934 rials for these services, in four payments.

371. Concerning adapters and training, Article I.A of contract 027, in pertinent part, provided:

> [Westinghouse] shall . . . design and provide selected interface devices, test procedures and provide on-

> station training for selected [Air Force] Depot personnel of critical circuit assemblies of the RTC 3 TACAN monitors. Price: $125,421 and Rials 8,861,468.

372. A 27 July 1975 letter from Mr. J.G. Langenwalter, Manager of Westinghouse's Air Force Programs, to Colonel Paulissian, Commander of the Integrated Electronics Depot, had proposed a continuation of engineering services, training, and technical assistance. This proposal letter was integrated into contract 027 and described Westinghouse's obligations in greater detail. Concerning the adapters, it stated:

> Experience with the TRC-3 TACAN monitor has shown several circuit boards to be relatively subject to failure. It is recommended that the appropriate test stations in the Radio Shop be equipped with suitable interface adapters for these circuit boards (A47000, A28000, A22000, A21000, A26000, A27000). Westinghouse will provide the engineering services to design the required interface adapters, fabricate the units needed, review the publication, and train the [Air Force] personnel in the proper use of the equipment and procedures.

373. With respect to engineering services, Article I.A of the contract, in relevant part, stated:

> [Westinghouse] . . . shall provide [the Air Force] with Engineering and Maintenance support of the Integrated Electronics Depot. This support shall be provided to [the Air Force's] Integrated Electronics Depot, in accordance with proposal letters . . . dated July 23, 1975, . . . August 25, 1975, and Table I herein, utilizing the efforts of sixteen (16) men. Price $562,057 and Rials 37,470,466.

374. With respect to travel expenses, Article I.C of contract 027 provided:

> . . . Should, in the performance of this Agreement, [Westinghouse's] personnel be required to travel or work in areas other than Tehran, [Westinghouse] will

invoice separately for the additional expenses, if any, associated with such an assignment.

375. The contract's schedule of performance stipulated that Westinghouse was to complete its work within 12 months after the U.S. State Department approved the executed contract. The State Department approved contract 027 on 22 April 1976.

376. Three separate claims are raised under contract 027, two by the Air Force and one by Westinghouse. First, the Air Force asserts that Westinghouse failed to deliver the six TRC-3 TACAN monitor adapters, and that, as a result, Westinghouse failed to perform its contractual obligation to train Air Force personnel in the use of the adapters. As compensation, the Air Force seeks reimbursement of the monies it paid Westinghouse to provide the six adapters and the related services. Second, the Air Force asserts that Westinghouse failed to complete the engineering services required by the contract, and seeks reimbursement for the value of 27.5 man-months of engineering services allegedly not provided. Third, Westinghouse presents a counter-counterclaim asserting that the Air Force failed to pay U.S.$17,325 under the contract for travel expenses incurred by Westinghouse employees outside Tehran. The Tribunal will discuss these three claims in turn. The Air Force also raises a preliminary issue, arguing that contract 027 should be decided upon a theory of breach.

b. Termination by Breach or Frustration?

377. The Air Force urges the Tribunal to conclude that contract 027 was terminated by Westinghouse's breach, rather than by reason of frustration due to force majeure, because, by its terms, contract 027 was to be completed well before the onset of force majeure conditions in Iran. The Air Force maintains that an exchange of letters between Westinghouse and the Air Force in June 1978 establishes that at that time, Westinghouse acknowl-

edged that it had not completed work on the contract. This, the Air Force contends, represents a clear violation of the contract's schedule of performance, which stipulated that Westinghouse's work on the contract would be completed within twelve months after the contract was signed, or by 12 April 1977. The first letter, from Mr. E.J. Bruin, a Westinghouse Operations Manager at the IED, dated 26 June 1978, apparently suggested replacing one RTC-3 TACAN monitor circuit board with another. This letter is not in the record. The second letter is a 28 June 1978 response from the Air Force's Colonel Nossrati-Nia, the IED Commander, which rejected Westinghouse's suggestion and reminded Westinghouse that its obligation "to repair six RTC-3 TACAN monitor circuit boards remains valid." The Air Force argues that Westinghouse breached the contract, because, by its own admission, Westinghouse had not completed work on the contract in conformity with the contract's schedule of work.

378. Westinghouse concedes that it did not complete its contractual performance on schedule and cites as the reason the Air Force's failure to provide the necessary prime equipment. The Air Force responds that Westinghouse has failed to establish that contract 027 required the Air Force to provide prime equipment. In addition, the Air Force proffers an affidavit from an IED technician, Mr. Hossein Arab Alidousti, who testifies that several TACAN monitors were available at the IED and could have been provided to Westinghouse if Westinghouse had asked. Westinghouse responds that there can be little question that the parties understood that the Air Force was obligated to supply this prime equipment. According to Westinghouse, such a provision had been an express term in most, if not all, preceding contracts, and the need for prime equipment had become so customary that it was an implied term in this agreement.

379. The Tribunal is not convinced by the Air Force's argument that contract 027 was breached rather than frustrated. The Tribunal finds that the circumstances prevailing with respect to this contract are similar to those that prevailed between the

parties in the context of the other IED contracts, and that contract 027 was terminated through force majeure by the end of December 1979. See supra, paras. 52-61. The parties' conduct during the duration of this contract, as with the other IED contracts, compels the conclusion that this contract was frustrated rather than breached. As was the case with many, if not all, of the IED contracts, the performance schedule stipulated in contract 027 was not met by the parties for a variety of reasons. In this contract, as in the other IED contracts, the parties tried to work around their problems, including departures from the timing of performance envisioned by the contract. There is no evidence that, at the time Westinghouse left Iran, the parties had any intention other than completing work under the contract when circumstances permitted. Moreover, the Tribunal finds that the Air Force's contemporaneous behavior does not support the conclusion that Westinghouse had breached the contract. At the time, the Air Force did not assert that Westinghouse was in breach because of delays in performance. Rather, the Air Force made the final payments on the contract in early 1978. This conduct is inconsistent with the position the Air Force took in this arbitration. For all these reasons, the Tribunal concludes that contract 027 was terminated through frustration rather than breach. The Tribunal will calculate compensation accordingly.

c. The Air Force's Claim Related to Adapters and Training

(1) The Parties' Arguments

380. The Air Force asserts that Westinghouse failed to manufacture and deliver the six RTC-3 TACAN monitor adapters required by the contract and that, as a result, Westinghouse was also unable to provide training in the use of the adapters. The Air Force seeks reimbursement of U.S.$300,000, plus interest.

381. The Air Force maintains that the 28 June 1978 letter from the Air Force's Colonel Nossrati-Nia to Westinghouse's Mr. E.J. Bruin, see supra, para. 377, establishes "the non-delivery of maintenance capability related to the six adaptors." As noted, the 28 June 1978 letter rejected a Westinghouse suggestion to modify contract 027 by substituting one adapter for another and reminded Westinghouse of its obligation to deliver six RTC-3 TACAN monitor adapters. The Air Force also argues that, according to procedures agreed upon by the parties, if Westinghouse had delivered the six adapters, it would have received an acceptance form signed by the Air Force; Westinghouse, however, did not produce this form to substantiate its claim. The Air Force also relies on the affidavit of Air Force IED technician Mr. Hossein Arab Alidousti, who asserts that the adapters were never delivered.

382. With respect to training, the Air Force argues that, because Westinghouse failed to provide the six adapters, it necessarily also failed to train Air Force personnel in the use of the adapters. Westinghouse concedes that it was unable to fulfill the contract's training requirements and agrees that it must refund the value of the training.

383. With respect to the six RTC-3 TACAN monitor adapters, Westinghouse maintains that it satisfied virtually all of its obligations relating to the design, fabrication, and delivery of the adapters, but concedes it did not complete a small amount of this work due to the Air Force's failure to deliver needed prime equipment. Westinghouse concedes it owes the Air Force the value of the unperformed work on the adapters.

384. Westinghouse provides estimates of the unfinished work on the adapters and the time it would have taken Westinghouse to train Air Force personnel in the use of the RTC-3 TACAN adapters. Mr. Edward A. Nordstrom, a Westinghouse TACAN engineer for contract 027, states in his affidavit that in September 1977 he "designed six adapters for six TACAN monitor printed circuit

boards in connection with contract IWPC-027." Mr. Loring H. Brown, a Westinghouse fabrication specialist at the IED, states in his affidavit that in September and October 1978, he "fabricated and delivered six adapters at the IED for six TACAN monitor printed circuit boards. This work was fully completed by the middle of October 1978."

385. At the Hearing, Mr. John McKeever, Westinghouse's Deputy Depot Manager at the times here relevant, stated that a Westinghouse design engineer completed his design of the six adapters and turned the design instructions over to a technician who fabricated the six adapter boxes. Meanwhile, Mr. McKeever added, the design engineer began drafting preliminary technical manuals relating to the adapters. Mr. McKeever asserted that the hardware and the preliminary documentation were complete and the six adapters were lying on the shelves at the IED when Westinghouse left Iran. Mr. McKeever stated that, because the Air Force had not provided the required prime equipment, Westinghouse was unable to verify whether the adapters worked properly. Mr. McKeever estimated that validation and verification of the adapters would have taken two man-months, and the production of the final manuals would have taken one man-week. In response to a question at the Hearing, Mr. McKeever stated that he never personally submitted or showed the hardware to General Shahrokhinasab of the Air Force. Mr. McKeever explained that the hardware had been fabricated in the lab on the second floor at the IED and was in Westinghouse's possession, awaiting the delivery of the necessary prime equipment by the Air Force so that the adapters could be tested and verified.

386. Westinghouse also provides several estimates about the amount of effort Westinghouse would have required to train Air Force personnel in the use of the RTC-3 TACAN adapters. Lyle D. Carlson, a Westinghouse field engineer at the IED, states in his affidavit that he was unable to train Air Force personnel on the six TACAN monitor adapters because the Air Force failed to provide the necessary prime equipment. He estimates that it

would have taken approximately three man-months to provide the training on the six adapters. At the Hearing, Mr. McKeever gave a different estimate of the work remaining. As noted, Mr. McKeever estimated that it would have taken two man-months to perform the validation and verification of the six adapters and one man-week to produce the final manuals. In addition, according to Mr. McKeever, it would have taken another three man-weeks to provide on-station training in the use of the adapters. Thus, Mr. McKeever estimated that there remained an overall total of three man-months of work in providing the adapters and training in the use of the adapters. Mr. Robert McFarland, Westinghouse's comptroller, placed a value on these three remaining man-months of work at U.S.$21,345, or U.S.$7,115 per man-month.

(2) The Tribunal's Decision

387. The Tribunal has found that contract 027 terminated by reason of frustration. The Tribunal must therefore equitably allocate any losses between the parties in proportion to the extent the contract was performed by the date of termination. See supra, para. 64. While the Air Force made all payments required by contract 027, the evidence indicates that Westinghouse had not completed its work on the TACAN adapters when it left Iran in December 1978. In these circumstances, the Tribunal's task is to determine the extent and value of Westinghouse's unfinished work, for which Westinghouse owes the Air Force a reimbursement. The Air Force seeks reimbursement of U.S.$300,000 on this portion of its claim on contract 027. Such reimbursement, however, would be justified only if Westinghouse had performed no work at all in relation to the RTC-3 TACAN circuit boards. The Air Force, as the claimant here, has the burden of proving the extent and value of the work allegedly not done by Westinghouse. In the Tribunal's view, the Air Force has not met this burden.

388. The only evidence concerning the extent of Westinghouse's unfinished work on the TRC-3 TACAN monitor adapters are the estimates made by Westinghouse's employees Messrs. Lyle Carlson and John McKeever. Concerning unperformed work on the six adapters, Mr. McKeever estimated that their validation and verification would have taken two man-months, and the production of the final technical manuals would have taken one man-week. Mr. McKeever's affidavit is the only estimate before the Tribunal of the extent of the unperformed work on the adapters, and, consequently, the Tribunal accepts it. Concerning training, Westinghouse proffered conflicting evidence. Mr. McKeever estimated that on-station training would have taken one-half week for each of the six adapters, for a total of three man-weeks. Mr. Lyle Carlson estimated that it would have taken approximately three man-months to provide the training on the six adapters. Because Mr. Carlson was the field engineer present at the IED who would have been responsible for providing the training, the Tribunal credits his estimate of the amount of effort required for those services. Accordingly, the Tribunal concludes that, taken together, validation, verification, preparation of final manuals, and the provision of training would have required twenty-one man-weeks of labor.

389. Where a labor rate can be extrapolated from the relevant contract, that rate should be used in valuing Westinghouse's performance. See supra, para. 280. Deriving a rate from contract 027 is straightforward: the contract specifies the portion of the price relating to services, and other contemporaneous evidence indicates the number of man-months of services called for by the contract. Accordingly, in valuing Westinghouse's unperformed work, the Tribunal will apply the labor rate Mr. McFarland extrapolated from these numbers, U.S.$7,155 per man-month. Consequently, the contract value of twenty-one man-weeks of unperformed work relating to the six adapters and associated training is U.S.$37,563.75. Accordingly, the Tribunal awards the Air Force this amount. Interest thereon shall run

from 31 December 1979, the date the Tribunal has determined that the contract has terminated.

d. The Air Force's Claim Relating to Engineering Services

(1) The Parties' Arguments

390. The Air Force contends that Westinghouse provided only 129.5 man-months out of the 157 man-months of engineering services required by contract 027. Accordingly, the Air Force seeks reimbursement of U.S.$196,000.

391. In support of this position, the Air Force relies on a 23 July 1977 letter from Mr. H. J. MacLaughlin, Westinghouse's Contracts Manager, to Major General Sasani, the Air Force's Director of Administration, which reads:

> Subject: Contract IWPC-027
>
> Dear Sir:
>
> Westinghouse and the Integrated Electronics Depot have recently concluded discussions on this contract in regard to the number of man months of services delivered to date. It has been agreed that through June 30, 1977 a total of 129.5 man months have been delivered under this Agreement. Therefore, beginning on July 1, 1977, 27.5 man months are remaining to be delivered for the total 157 man months. The attached chart shows the manner in which the remaining man months are to be delivered.

Based on this letter, the Air Force urges the Tribunal to conclude that Westinghouse failed to deliver any engineering services after 1 July 1977. In addition to the letter from Mr. MacLaughlin, the Air Force relies on the affidavit of Air Force IED technician Mr. Hossein Arab Alidousti, who asserts that Westinghouse provided only 129.5 man-months of engineering services under the contract.

392. Westinghouse responds that the 23 July 1977 letter from Mr. MacLaughlin was a status report which reflected Westinghouse's performance of its engineering services only through 30 June 1977. Westinghouse states that it provided the final 27.5 man-months of services between July 1977 and February 1978. Relying on an affidavit from Mr. John McKeever, Westinghouse states that three British radar specialists under contract with Westinghouse, Messrs. McNamee, Shopland, and Warburton, performed 2.5 man-months of engineering services in July 1977 and Westinghouse employees Coleman, Shea, Sobeck, Standish, and Whitworth performed another five man-months of services in July 1977. To substantiate its assertions, Westinghouse also submits a series of time sheets for the latter six employees.

393. Westinghouse contends that its employees performed the final twenty man-months of services between August 1977 and February 1978. In support, Westinghouse relies, in particular, on the final invoice it submitted to the Air Force in February 1978. The 20 February 1978 letter accompanying the invoice stated the following:

> Westinghouse submits herein the fourth Rial invoice due under this Agreement. This invoice represents the final 20 man-months delivered since August 1, 1977. Copies of the applicable certificates, approved by IED Commander, are attached for your information. Thus, all 157 man-months have now been delivered.

There is no dispute that the Air Force paid this invoice.

(2) The Tribunal's Decision

394. The evidence indicates that in February 1978, Westinghouse submitted an invoice to the Air Force covering the "final 20 man-months" of engineering services to be provided under contract 027. As noted, the 20 February 1978 letter accompanying the invoice stated that all contractually-required 157 man-months of services had been delivered. There is no evidence in the

record that the Air Force, at the time, objected either to the invoice or to Westinghouse's letter stating that Westinghouse had completed its engineering services obligations. Indeed, the Air Force paid the invoice. The Tribunal has repeatedly held that in the absence of contemporaneous objections or disputes, invoices or payment documents presented during the course of a contract are presumed to be correct. See Collins Systems International, Inc. and Navy of the Islamic Republic of Iran, Award No. 526-431-2, para. 57 (20 Jan. 1992), reprinted in 28 Iran-U.S. C.T.R. 21, 39; Houston Contracting Co. and National Iranian Oil Co., et al., Award No. 378-173-3, para. 73 (22 July 1988), reprinted in 20 Iran-U.S. C.T.R. 3, 24-25. See also Lockheed Corporation and Islamic Republic of Iran, et al., Award No. 367-829-2, paras. 91-97 (9 June 1988), reprinted in 18 Iran-U.S. C.T.R. 292, 317-19 (invoice requesting payment for specified services approved and partly paid without contemporaneous objection is sufficient proof services were performed); Time, Incorporated and Islamic Republic of Iran, et al., Award No. 139-166-2 (22 June 1984), reprinted in 7 Iran-U.S. C.T.R. 8, 11 (unpaid invoices approved by appropriate officials represent prima facie valid claims).

395. The Tribunal concludes that, absent any contemporaneous objection by the Air Force, Westinghouse's 20 February 1978 letter submitting the final rial invoice pursuant to the contract establishes a prima facie case that Westinghouse rendered all of the engineering services required by contract 027. This prima facie case is reinforced by the Air Force's subsequent payment of the invoice. The Air Force has presented no evidence adequate to rebut Westinghouse's prima facie case. In addition, the fact that the Air Force paid Westinghouse's final invoice for engineering services, which clearly indicated that the "final" 20 man-months of engineering services had been performed since 1 August 1977, suggests to the Tribunal that at the time, the Air Force accepted that Westinghouse had completed its engineering services obligations. Consequently, the Tribunal dismisses for

want of proof the Air Force's claim related to the provision of engineering services under contract 027.

e. Westinghouse's Counter-Counterclaim Relating to Travel Expenses

(1) The Parties' Arguments

396. Westinghouse contends that the Air Force failed to pay U.S.$17,325 under the contract for travel expenses incurred by Westinghouse employees outside Tehran. Contract 027 stipulates that Westinghouse is entitled to reimbursement for approved travel outside Tehran. Article I.C of the contract states that, if Westinghouse personnel are required to travel or work outside Tehran, Westinghouse "will invoice separately for the additional expenses, if any, associated with such an assignment." See supra, para. 374.

397. To prove its contention that it sought and obtained Air Force approval for such travel, Westinghouse produced a temporary duty summary sheet, listing the travel, and a series of letters exchanged between Westinghouse and the Air Force, in which Westinghouse initially made a claim for U.S.$17,325 in travel reimbursement and thereafter answered questions raised by the Air Force about the request. On 9 September 1978, Mr. F. F. Alexandre, Westinghouse's Contracts Manager, sent a letter to General A. Shakib, Deputy Commander of Air Force Procurement and Production, requesting reimbursement of U.S.$17,325 in per diem expenses for travel outside Tehran. The Air Force responded in a 17 September 1978 letter from Colonel A. Eskandanian, stating that Westinghouse had "only provided documentation approving the travel by [the Air Force] and the purpose, location and length of travel, but no details of the requested amount," and asking Westinghouse to provide these details. In a letter of 25

September 1978, Mr. E. W. Yoder, Westinghouse's Business Manager, responded by explaining that U.S.$17,325 was the product of 175 days of temporary duty multiplied by U.S.$99, the fixed daily per diem rate for work performed on the contract outside Tehran. Westinghouse contends that this exchange of letters establishes that the Air Force owes Westinghouse U.S.$17,325.

398. The Air Force responds that the trips claimed by Westinghouse either never took place or were private journeys by Westinghouse personnel and, as such, are not subject to reimbursement under the contract. The Air Force asserts that there is no evidence that Westinghouse requested or received permission from the IED for the alleged travel. The Air Force also states that Westinghouse has failed to provide evidence concerning the travel, such as the reasons for the travel, documents verifying the travel, and the outcome of the travel. The Air Force also contends that the temporary duty sheet offered by Westinghouse does not substantiate Westinghouse's claim because it is an internal form that does not contain the approval and signatures of Air Force authorities verifying the travel. According to the Air Force, the 17 September 1978 letter proves that the Air Force objected to Westinghouse's claim for the travel expenses and that Westinghouse was requested to provide details concerning the travel. The Air Force maintains that Westinghouse's 25 September 1978 letter does not provide the information requested.

399. At the Hearing, Westinghouse stated that its original letter to the Air Force requesting per diem compensation included an invoice, a temporary duty summary, and a work task authorization form packet, although Westinghouse now has in its files only the letter and the accompanying invoice. In Westinghouse's view, it is clear from the Air Force's response to Westinghouse's request for reimbursement that the Air Force received the entire packet and accepted its contents. According to Westinghouse, the 17 September 1978 letter from Colonel Eskandanian provides a clear indication that the Air Force received and was satisfied with Westinghouse's documentation of the off-site services

rendered. Westinghouse points out that the only question raised in the letter concerned valuation, which Westinghouse addressed in its 25 September 1978 response.

(2) The Tribunal's Decision

400. In the Tribunal's view, Westinghouse has failed to prove that it is entitled to reimbursement for travel outside Tehran. While the Tribunal agrees that Colonel Eskandanian's 17 September 1978 letter establishes that Westinghouse had successfully documented the Air Force's approval of the purpose, location, and length of the travel, the Tribunal is not persuaded that Mr. Yoder's 25 September 1978 letter replying to Colonel Eskandanian resolved the issue of the amount requested for travel reimbursement. Consequently, the contractual liability of the Air Force under contract 027 may well have been limited to the actual travel expenses incurred by Westinghouse personnel on travel outside Tehran. For the Tribunal's purposes, the question is whether Westinghouse has successfully sustained its burden of proving its claim. The evidence before the Tribunal does not support such a conclusion. While it indicates that Westinghouse has a valid claim for travel expenses, the amount due Westinghouse has not been established. Consequently, Westinghouse's claim is dismissed for lack of proof.

f. Conclusions

401. The Tribunal's conclusions concerning the Air Force's counterclaims and Westinghouse's counter-counterclaim on contract IWPC-027 may be summarized as follows:

(1) Contract IWPC-027 was terminated by the end of 1979 by reason of frustration or impossibility of performance.

(2) The Tribunal awards the Air Force U.S.$37,563.75 for work and training that remained incomplete on the six RTC-3 TACAN monitor adapters when Westinghouse left Iran in December 1978. Interest on this amount shall run from 31 December 1979, the date the Tribunal has determined that the contract terminated. As this is also the date from which interest shall run on the total principal amount awarded Westinghouse for its claims on contracts 010 and 035, U.S.$621,726, see supra, paras. 194 and 235, the Tribunal deducts from this amount the sum the Tribunal awarded to the Air Force for its claim on contract 027, U.S.$37,563.75. This results in a net award to Westinghouse of U.S.$584,162.25.

(3) The Air Force's counterclaim relating to engineering services must be dismissed for failure of proof.

(4) Westinghouse's counter-counterclaim relating to travel expenses must be dismissed for failure of proof.

5. CONTRACTS IED-002-72 AND IWPC-002: THE MISSILE CONTRACTS

a. Introduction

402. As noted earlier in this Award, the Air Force asserted eighteen counterclaims against Westinghouse based on various contracts between the parties. In its early pleadings, Westinghouse raised jurisdictional objections against those Air Force counterclaims that were based on contracts other than the claims contracts, arguing that they did not arise out of the same contracts, transactions, or occurrences, as jurisdictionally required by Article II, paragraph 1, of the Claims Settlement Declaration. In its Interlocutory Award No. ITL 67-389-2 (12 Feb. 1987), reprinted in 14 Iran-U.S. C.T.R. 104, the Tribunal

held that the Air Force's counterclaims based on Second General Expansion contracts IWPC-018, IWPC-019, and IWPC-020 were within the Tribunal's jurisdiction. See supra, para. 14.

403. In reaching this conclusion, the Tribunal noted that those contracts "were cumulative, in the sense that they represented expansion from the technological bases created by earlier contracts . . . and they envisaged use of equipment provided pursuant to such earlier contracts." Id. para. 7, 14 Iran-U.S. C.T.R. at 108. The Tribunal further noted that contracts IWPC-018, IWPC-019, and IWPC-020 were "linked" to the IED project, with respect to which the parties were "committed as a whole." Id. para. 11, 14 Iran-U.S. C.T.R. at 109. Thus, the Tribunal went on, "even though the Parties agreed to conclude separate contracts, the [Air Force] had no reasonable opportunity to obtain the desired services from a competitor of [Westinghouse]." Id. Finally, the Tribunal pointed out that when the parties agreed to close out contract IED-001-71 in July 1978, they transferred some remaining work from that contract, as amended, to the Second General Expansion contracts. See id., 14 Iran-U.S. C.T.R. at 110.

404. Following the issuance of Interlocutory Award No. ITL 67-389-2, Westinghouse acknowledged that the Tribunal would also have jurisdiction over the Air Force's counterclaims on contract IED-001-71 and contract IWPC-027. However, Westinghouse has continued to assert that the Tribunal lacks jurisdiction over the Air Force's counterclaims on contracts IED-002-72 and IWPC-002. The Tribunal addresses this jurisdictional question below.

b. Factual Background

(1) Contract IED-002-72

405. On 14 March 1972, Westinghouse and the Air Force signed contract IED-002-72. Under this agreement, Westinghouse

undertook to establish maintenance capability for two Air Force air-to-air missiles, the AIM-7E Sparrow and the AIM-9E Sidewinder. In return, the Air Force agreed to pay U.S.$4,890,000. The contract incorporated by reference Westinghouse's January 1972 proposal entitled "Maintenance Plan for AIM-7E AIM-9J Missiles" ("Maintenance Plan"). The parties amended the contract twice. On 9 October 1973, they expanded its scope to include maintenance support for a new Sidewinder missile, the AIM-9J, and, accordingly, increased the contract price to U.S.$5,173,671. They also substituted a new maintenance plan, dated August 1973, for the original January 1972 maintenance plan. On 19 March 1975, they signed a second amendment providing for extended engineering services and increasing the total contract price to U.S.$5,748,769.

406. Contract IED-002-72's Maintenance Plan, as revised in August 1973, emphasized that, to ensure maximum economy for the Air Force, "[m]issile maintenance capability should be part of [the] Integrated Electronics Depot." Any separate and independent arrangement, it stated, "would certainly include redundant equipment, facilities, and services." The Maintenance Plan's summary stated, inter alia, the following:

> Westinghouse is prepared to establish a complete depot maintenance capability for the AIM-7E and AIM-9J missiles as an integral part of the Integrated Electronics Depot. This will constitute the first element of Phase III. The Phase III maintenance philosophy will be introduced in this element.
>
> . . . Phase I AGE [Aerospace Ground Equipment] will be utilized wherever possible. This minimizes new AGE requirements. All new AGE provided will be designed for maximum utilization and growth potential during later Phase III elements. Hence, the Westinghouse plan will produce both instant and future collateral economies.
>
> . . . .
>
> The Integrated Logistics Support (ILS) functions currently established for the Integrated Electronics Depot will be augmented to provide for the AIM-7 and AIM-9 missiles.

. . . .

> The existing Westinghouse program management team will provide the necessary guidance and control to implement missile capability into the Central Depot facility. The management objectives will be to effect a smooth transition in adapting presently planned facilities and equipment to accommodate missile capability . . . .
>
> . . . .
>
> The required spares will be procured under the proposed Basic Ordering Agreement (BOA) between the [Air Force] and Westinghouse to serve the Integrated Electronics Depot.

407. Concerning standardized Phase I/missile maintenance equipment that could be cross-utilized within the IED, the introduction to the Maintenance Plan, in particular, stated:

> Westinghouse will insure that the Depot AGE Items for AIM-7E and AIM-9J Missiles will be common as economically feasible to those items being designed for the Phase I AGE in the [Air Force] Integrated Electronics Depot. Selection of Common-Standard instrumentation will be as identical to Phase I as possible to minimize cost to the [Air Force]. . . .
>
> . . . [A] Phase I I-F (Intermediate Frequency) Test Station will be utilized to perform maintenance of the AIM-7E Dual I-F Amplifier. The Phase I Electronic Components Service Station will be utilized for cleaning and degreasing of Missile Components, after depotting, before assembly, before potting, before repair, and at any other time a cleaning task is to be performed. These are cost effective measures to the [Air Force's] benefit.
>
> Most significant, however, is the future potential utilization of the Master Control Computer Station (MCCS) during Phase III of the [Air Force] Integrated Electronic Depot. . . .

408. Concerning the physical location of the missile shop, the Maintenance Plan recommended the utilization of existing IED facilities to house the missile work area and equipment:

> Maximum utilization of the Phase I facility coupled with the additions required for missile capability is recommended as the most economical method of achieving the desired objective within the time schedule. This approach eliminates the need for a considerable amount of redundant facilities and equipment that would be required to establish a separate facility independent of the Phase I facility.

However, the Maintenance Plan indicated that the missile facility need not necessarily have been included in the IED facility, as the statement of work required Westinghouse to "[p]rovide detailed recommendations for the adaptation of Phase I facilities and/or construction of a new facility to accommodate missile maintenance requirements."

(2) Contract IWPC-002

409. On 11 May 1974, Westinghouse and the Air Force entered into contract IWPC-002 to expand the existing missile facility to include depot maintenance capability for the Air Force's Maverick AGM-65A air-to-ground missile. The contract required Westinghouse to provide test and other equipment, technical manuals, training, and engineering services to the Air Force. The Air Force, in return, was to pay a total of U.S.$8,437,538. The contract incorporated by reference Westinghouse's March 1974 proposal entitled "Maintenance Plan for the AGM-65A 'Maverick' Missile" ("Contract 002 Maintenance Plan").

410. The introductory paragraphs of the Contract 002 Maintenance Plan described the background and need for a Maverick program and, in addition, suggested ways in which the program could build on existing facilities:

> Expansion of the IED as scheduled during Phase III has resulted in the establishment of the initial Missile Facility. . . .
>
> . . . .

> The AIM-7E/AIM-9J Missile Facility is a part of the [Air Force] Integrated Electronics Depot and was designed with possibilities of future expansion.
>
> . . . .
>
> This proposal presents a plan for the expansion of the Integrated Missile Facility that will be part of the present IED and will be consistent with the Phase III maintenance philosophy. . . .
>
> . . . .
>
> . . . Commonality of existing facilities, test equipments, and functions will be maximized wherever practical. Existing Phase I and Phase II AGE will be considered wherever possible to minimize additional facility and equipment requirements.

The Maintenance Plan explicitly stated that the proposed maintenance concept for the Maverick missile was "consistent with that of the Phase III IED concept and with that of the included [Air Force] AIM-7E/9J Missile Facility and [would] not be repeated in detail here."

c. The Parties' Arguments

(1) Westinghouse's Position

411. Westinghouse begins by observing that the Air Force's missile counterclaims do not arise out of the claims contracts, so jurisdiction over those counterclaims depends on a finding that contracts IED-002-72 and IWPC-002 were part of "the same . . . transaction or occurrence" as the claims contracts, in accordance with Article II, paragraph 1, of the Claims Settlement Declaration. Westinghouse submits that the missile contracts were not part of that transaction or occurrence; consequently, the Tribunal lacks jurisdiction over the missile counterclaims.

412. Westinghouse contends that the Tribunal's Interlocutory Award in this Case (Interlocutory Award No. ITL 67-389-2) provides the basis for making the jurisdictional determination

here. In concluding that the Second General Expansion contracts were part of the same transaction as the claims contracts, Westinghouse asserts, the Interlocutory Award underscored three factors: first, the close interrelationship of subject matter between the claims contracts and the counterclaims contracts; second, the absence of a real opportunity for competition by other companies for the Second General Expansion contracts due to this interconnected relationship of subject matter; third, the transfer of work between the claims and the counterclaims contracts. See supra, para. 403. Westinghouse distinguishes the missile contracts from the other counterclaims contracts with respect to each of these factors.

413. First, Westinghouse contends that the subject matter of the missile contracts differed from that of the other counterclaims contracts. The missiles, Westinghouse argues, involved complex propulsion and warhead components, optics, and hydraulics, in addition to electronics components. Moreover, Westinghouse asserts that heightened security required that the missile systems be housed in a segregated facility. In support, Westinghouse relies on the affidavit testimony of Mr. George Demougeot, Westinghouse's program manager for the IED, who stated:

> During the year following the approval of contract IED-001-71, Westinghouse also submitted a proposal to the Air Force for the development of maintenance capability for the Air Force's AIM-7E Sparrow and AIM-9E Sidewinder missiles. These missiles had been excluded from contract IED-001-71 because these systems involved optical and hydraulic (as well as electronic) components and were thus for maintenance purposes markedly different from the radar and other electronic systems already being supported by Westinghouse.

Mr. Demougeot further testified that, "given the different maintenance needs involved, as well as heightened security precautions, the missile facility was segregated from all other facilities at the IED."

414. Second, Westinghouse contends that, unlike the Second General Expansion contracts, the missile contracts were subject to vigorous competition with other potential suppliers before award. Based on Mr. Demougeot's affidavit testimony, Westinghouse alleges that Raytheon Company and Philco-Ford Corporation, the original manufacturers of some of the Sparrow and Sidewinder missile components, submitted proposals for contract IED-002-72, and that Hughes Aircraft, the manufacturer of the Maverick missile, submitted a proposal for contract IWPC-002. Concerning in particular the award of contract IED-002-72, Mr. Demougeot stated that the Air Force reviewed the competing proposals for almost a year before selecting Westinghouse's multi-purpose proposal. Mr. Demougeot observed that Raytheon and Philco-Ford Corporation had already developed selected test equipment for their missile components, and they could thereby avoid certain start-up costs that would confront Westinghouse. For these reasons, he continued, those companies had a certain competitive advantage over Westinghouse.

415. Third, Westinghouse contends that, unlike with the Second General Expansion contracts, Westinghouse and the Air Force never transferred any work from the missile contracts to any IED agreement when they performed or closed out these agreements. In fact, Westinghouse continues, when the parties closed out contract IED-001-71 in 1978, they explicitly treated missile support as a separate item. The 1978 Letter of Agreement, Westinghouse points out, included all aspects of Westinghouse's electronic maintenance, but excluded missile support.

416. Finally, in reply to arguments raised by the Air Force, Westinghouse denies that in the missile facility Westinghouse used equipment that had been designed for electronics equipment contracts. In support, Westinghouse relies on Mr. Demougeot's affidavit testimony. Pointing out that the missile facility was segregated from all other facilities in the IED, Mr. Demougeot stated that he "[could not] recall any instance in which the

missile facility made use of any of the equipment of any of the other facilities located at the IED."

417. Assuming, arguendo, that the Tribunal finds jurisdiction over the Air Force's missile counterclaims, Westinghouse asserts two counter-counterclaims against the Air Force for allegedly unpaid amounts under contracts IED-002-72 and IWPC-002.

(2) The Air Force's Position

418. The Air Force contends that the missile contracts were part of the same transaction as the claims contracts. Consequently, it urges the Tribunal to conclude that the missile counterclaims are within its jurisdiction. The Air Force asserts that all the contracts at issue in this Case, including the missile contracts, were related to a single, integrated facility. The missile contracts, the Air Force alleges, built upon Westinghouse's Phase II study of the Air Force's needs, which was part of contract IED-001-71. In this connection, the Air Force contends that Westinghouse overstates the differences in subject matter between missile maintenance in the missile facility and maintenance of electronic components in the rest of the IED, since missile warheads, it states, were serviced separately from missile electronics. The Air Force insists that the focus of the Integrated Electronics Depot, with regard to missiles as well as the rest of the Air Force's prime equipment, was electronics.

419. The Air Force characterizes the Tribunal's interlocutory Award in this Case as having emphasized two facts: first, that relations between the parties were conducted on a Depot-wide basis, and not with regard to individual contracts; second, that each contract relied on the devices employed in the preceding contracts. The Air Force discusses the missile contracts in light of these two elements. First, the Air Force asserts that, with respect to missile maintenance, the parties' contractual relations were based, not on the missile contracts individually,

but rather on the IED project as a whole. The Air Force maintains that the parties concluded the missile contracts with a view to expanding Phase III and, ultimately, achieving overall depot-level maintenance capability. Thus, the Air Force concludes, the missile contracts, like the Second General Expansion contracts at issue in the Interlocutory Award, were inseparable from the IED project as a whole.

420. Second, the Air Force asserts that in the missile facility Westinghouse used maintenance equipment that had previously been developed for electronics equipment contracts, including IED-001-71. The Air Force alleges, in particular, that the missile facility depended on test sets developed as part of contract IED-001-71. In support, the Air Force points, inter alia, to the language in contract IED-002-72's Maintenance Plan stating that the Aerospace Ground Equipment for the Sidewinder and Sparrow missiles would be "common as economically feasible" to the Phase I Aerospace Ground Equipment in the IED, and stating, further, that the Master Control Computer Station to be delivered under contract IED-002-72 could be used "during Phase III of the . . . Integrated Electronic Depot." See supra, para. 407. In the Air Force's view, that the missile contracts envisaged the use of equipment developed under earlier contracts, including IED-001-71, means that the missile contracts represented an expansion from the technological bases created by those contracts and, thus, that they were part of a common transaction.

421. The Air Force next asserts that the proposals it received from Westinghouse's competitors for the award of the missile contracts would not, from a technological point of view, have enabled the Air Force to achieve the desired level of missile maintenance capability. In addition, the Air Force contends, those proposals would have increased costs to the Air Force by millions of dollars and would have forced the Air Force to abandon the concept of an integrated electronics depot.

422. Finally, the Air Force emphasizes that the missile facility was located in the same physical facility as the rest of the Depot and that the missile maintenance philosophy was similar to that of the IED electronics contracts. To support these contentions, the Air Force places particular reliance, inter alia, on the Contract 002 Maintenance Plan. This maintenance plan stated that the missile facility was "a part of the [Air Force] Integrated Electronics Depot"; and that Westinghouse's plan for the expansion of the missile facility would be "consistent with the Phase III maintenance philosophy." Supra, para. 410.

d. The Tribunal's Decision

423. Article II, paragraph 1, of the Claims Settlement Declaration grants the Tribunal jurisdiction over counterclaims against those nationals who assert claims before the Tribunal, provided that any such counterclaim "arises out of the same contract, transaction or occurrence that constitutes the subject matter of that national's claim." The missile counterclaims, clearly, are based on contracts different from the claims contracts. Thus, in the circumstances, in order to fall within the Tribunal's jurisdiction, those counterclaims must arise out of the same "transaction" as the claims.

424. As an initial matter, the documentary evidence adduced by the Air Force suggests that the parties indeed linked the IED electronics contracts and the missile contracts. Both the maintenance plans for the two missile contracts and the contracts themselves contain numerous references to other aspects of the IED project. For example, contract IED-002-72's Maintenance Plan stated that "[m]issile maintenance capability should be part of [the] Integrated Electronics Depot" and that this integration would constitute "the first element of Phase III." Supra, para. 406. In addition, the Maintenance Plan recommended that, in order to save the Air Force money, certain Phase I and Phase II

Aerospace Ground Equipment also be used to support the missiles. See supra, paras. 406-407. Again to minimize costs to the Air Force, contract IED-002-72's Maintenance Plan suggested that the existing IED facility be modified to accommodate the missile facility. See supra, para. 408.

425. The Tribunal does not find this linkage between IED electronics contracts and the missile contracts to be surprising. It is clear that, in order to secure the contracts for missile maintenance, Westinghouse had to overcome any competitive advantages the manufacturers of the missiles and missile components might have enjoyed over Westinghouse with respect to the award of those contracts. Thus, Westinghouse obviously grafted its missile maintenance proposal onto the existing Integrated Electronics Depot program. This enabled Westinghouse to present the Air Force with a cost-effective -- and, therefore, attractive -- solution for the Air Force's missile maintenance needs.

426. However, the fact that the parties linked, to some extent, the missile contracts and the IED electronics contracts does not, by itself, make them all part of the same transaction. "That the contracts may refer to one another or may even contemplate the execution of one another does not necessarily make the linkage between them sufficiently strong so as to make them form one single transaction within the meaning of the Claims Settlement Declaration." Morrison-Knudsen Pacific Limited and Ministry of Roads and Transportation, et al., Award. No. 143-127-3, at 52-53 (13 Jul. 1984), reprinted in 7 Iran-U.S. C.T.R. 54, 83. In the only two awards in which it found that multiple contracts were the product of a single transaction, the Tribunal, in addition to the parties' intent to link the contracts, emphasized the following elements: a close interrelationship of subject matter among the contracts; and a practical inability for the purchaser of the goods or services in question to contract with anyone other than the initial supplier. See American Bell International, Inc. and Islamic Republic of Iran, et al.,

Interlocutory Award No. ITL 41-48-3, at 17 (11 Jun. 1984), reprinted in 6 Iran-U.S. C.T.R. 74, 84 (noting that the parties had apparently foreseen that all successive contracts would go to the claimant and finding that the subject matters of the contracts were closely interrelated, within the framework of the project); Westinghouse Electric Corporation and Islamic Republic of Iran, et al., Interlocutory Award No. ITL 67-389-2, paras. 7 and 11 (12 Febr. 1987), reprinted in 14 Iran-U.S. C.T.R. 104, 108-109 (finding that the Second General Expansion contracts represented expansion from the technological bases created earlier by the electronics contracts and that the Air Force had no reasonable opportunity to obtain the desired services from a competitor of Westinghouse).

427. Concerning the element of close interrelationship of subject matters, it should be noted that, while there was a complete overlap of subject matter (maintenance and repair of electronics weapons systems) among the claims and counterclaims contracts at issue in the Interlocutory Award in this Case, the same cannot be said with regard to the IED electronics contracts and the missile contracts. It is true that, at least according to Westinghouse's missile maintenance proposals, certain standardized equipment was to be used in both the missile facility and the rest of the depot. It is equally true that the missile facility and the rest of the Depot were physically under the same roof; and, further, that the missile facility was equipped to support electronic systems.

428. On the other hand, the missile contracts involved maintenance and repair of equipment that was specific to the missiles only, such as hydraulic and optical components; they did not focus on aircraft or ground radar, radio, or electromechanical systems, as the electronics contracts did. Moreover, the missile facility was physically segregated from the rest of the Depot, because it required a higher level of security.

429. The evidence also shows that the parties treated the missile contracts differently from the electronics contracts for purposes of negotiation and close-out. When the parties concluded contract IED-001-71 in April 1971, they did not contemplate a missile maintenance program. Westinghouse's original 1971 Phase I proposal did not provide for the creation of any facilities within the IED where, in the future, a possible missile facility could be established. Furthermore, contract IED-002-72 was signed on 14 March 1972, more than a year before the completion of Westinghouse's Phase II study in April 1973. These facts suggest that the missile program was an unanticipated opportunity for cooperation between the parties, and not a preconceived part of the initial transaction.

430. Moreover, when Westinghouse and the Air Force closed out contract IED-001-71 in the 1978 LOA, they transferred some unfinished work under that contract to the Second General Expansion contracts. This fact illustrates the organic overlap of subject matters among those agreements, overlap that was considered by the Tribunal when it concluded, in the Interlocutory Award in this Case, that those agreements all formed part of the same transaction. With respect to the missile contracts, in contrast, it should be noted that the 1978 LOA, while including all aspects of Westinghouse's electronics maintenance, did not deal with missile support. It should also be noted that Westinghouse and the Air Force never transferred any work from the missile contracts to any other contract.

431. On balance, the evidence presented does not convince the Tribunal that the interrelationship among the missile and the IED electronics contracts was sufficiently close so as to warrant the conclusion that the former represented an expansion of the technological bases created earlier by the latter. In view of this finding, the Tribunal need not concern itself further with the question whether the Air Force had any reasonable opportunity to obtain the desired missile maintenance capability from a competitor of Westinghouse.

432. Based on the foregoing, the Tribunal determines that the Air Force's counterclaims based on contracts IED-002-72 and IWPC-002 are outside the Tribunal's jurisdiction. Accordingly, these counterclaims must be dismissed, as must Westinghouse's counter-counterclaims on those contracts.

D. THE AIR FORCE'S COUNTERCLAIM FOR TAXES AND SOCIAL SECURITY CONTRIBUTIONS

433. The Air Force seeks 614,049,206 rials in allegedly unpaid income taxes and 714,095,774 rials in social security contributions allegedly due. In the alternative, the Air Force argues that these claims should be accepted as requests for set-off against Westinghouse's claims. Westinghouse contends that the Air Force's counterclaims lie outside the jurisdiction of the Tribunal.

434. The Tribunal holds that the Air Force's counterclaims for income taxes and social security contributions arise, not out of the same contracts that are the subject matter of Westinghouse's claims, but rather out of the operation of the applicable Iranian tax and social security laws. See Petrolane, Inc. and Islamic Republic of Iran, et al., Award No. 518-131-2, para. 118 (14 Aug. 1991), reprinted in 27 Iran-U.S. C.T.R. 64, 104; Collins Systems International, Inc., supra, para. 92, 28 Iran-U.S. C.T.R. at 48; Questech, Inc. and Ministry of National Defense of the Islamic Republic of Iran, Award No. 191-59-1, at 38-39 (20 Sept. 1985), reprinted in 9 Iran-U.S. C.T.R. 107, 134-36. Consequently, these counterclaims are outside the Tribunal's jurisdiction. The same applies to the Air Force's requests for set-off. As the Tribunal has previously held, set-offs are permissible only when they meet the jurisdictional requirements for counterclaims. See Collins Systems International, Inc., supra, para. 86, 28 Iran-U.S. C.T.R. at 47; Computer Sciences Corporation and Islamic Republic of Iran, et al., Award No. 221-65-1, at 52 (16 Apr. 1986), reprinted in 10 Iran-U.S. C.T.R. 269, 309-10.

435. For the foregoing reasons, the Tribunal dismisses for lack of jurisdiction the Air Force's counterclaims for unpaid income taxes and social security contributions.

VI. INTEREST

436. In order to compensate Westinghouse for the damages it has suffered as a result of delayed payments, the Tribunal considers it fair to award simple interest at the rate of 8.25 percent on the various amounts found due. See supra, paras. 89, 153, 194, 235, 389, and 401.

VII. COSTS

437. Each party shall bear it own costs of arbitration.

VIII. AWARD

438. For the foregoing reasons,

THE TRIBUNAL AWARDS AS FOLLOWS:

(a) The Respondent, the Islamic Republic of Iran Air Force, is obligated to pay the Claimant, Westinghouse Electric Corporation, the amount of Two Million Five Hundred Fifty Three Thousand Nine Hundred Thirty United States Dollars and Twenty-Five Cents (U.S.$2,553,930.25), plus simple interest at the rate of 8.25 percent per annum (365-day basis), calculated as follows:

- on U.S.$1,219,031 from 31 December 1978;
- on U.S.$750,737 from 29 October 1978;
- on U.S.$584,162.25 from 31 December 1979,

up to and including the date on which the Escrow Agent instructs the Depositary Bank to effect payment from the Security Account.

(b) This obligation shall be satisfied by payment out of the Security Account established by paragraph 7 of the Declaration of the Government of the Democratic and Popular Republic of Algeria of 19 January 1981.

(c) Westinghouse Electric Corporation is directed to send to Victory Van Warehouse, successor to the Islamic Republic of Iran Air Force's freight forwarder in the United States, all prime equipment owned by the Islamic Republic of Iran Air Force that was shipped to Westinghouse Electric Corporation under contracts IWPC-018, IWPC-019, and IWPC-020 and related spare parts that admittedly remain in Westinghouse Electric Corporation's possession. Westinghouse Electric Corporation is further directed to send to Victory Van Warehouse all test equipment completed or partially completed under contracts IWPC-018, IWPC-019, and IWPC-020 and related spare parts and publications that likewise admittedly remain in Westinghouse Electric Corporation's possession.

(d) The parties are awarded nothing on their counterclaims and counter-counterclaims on contract IED-001-71 (including the Amendments thereto) based on incomplete performance and on failure of payment for performance rendered because the Tribunal has determined that the total value of Westinghouse's shipments of spare parts to the Air Force is enough to satisfy the total value of the Air Force's counterclaims on contract IED-001-71.

(e) The Islamic Republic of Iran Air Force's remaining counterclaims are dismissed for the following reasons:

The counterclaim on contract IWPC-007, on the merits;

The counterclaims on contracts IWPC-010 and IWPC-035, partly on the merits and partly for failure of proof of damages;

The counterclaims for consequential damages on contract IED-001-71 (including the Amendments thereto), on the merits;

The counterclaims related to the Phase II study on contract IED-001-71, partly on the merits and partly for failure of proof;

The counterclaims for monetary relief on contracts IWPC-018, IWPC-019, and IWPC-020, for failure of proof;

The counterclaim relating to engineering services on contract IWPC-027, for failure of proof;

The counterclaims on contracts IED-002-72 and IWPC-002 and the counterclaims for taxes and social security contributions, for lack of jurisdiction.

(f) Westinghouse Electric Corporation's remaining counter-counterclaims are dismissed for the following reasons:

The counter-counterclaims on contracts IWPC-018, IWPC-019, and IWPC-020, because Westinghouse may not recover in excess of the Islamic Republic of Iran Air Force's counterclaims on those contracts, which counterclaims have been dismissed by the Tribunal;

The counter-counterclaim on contract IWPC-027, for failure of proof;

The counter-counterclaims on contracts IED-002-72 and IWPC-002, for lack of jurisdiction.

(g) Each party shall bear its own costs of arbitration.

(h) This award is hereby submitted to the President of the Tribunal for notification to the Escrow Agent.

Dated, The Hague
20 March 1997

Krzysztof Skubiszewski
Chairman
Chamber Two

In The Name of God

George H. Aldrich
Separate Opinion

Koorosh H. Ameli
Concurring in part;
Dissenting in part. See
Separate Opinion.