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SUPREME COURT OF VIRGINIA
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RICHMOND, VIRGINIA

IN THE

Supreme Court of Virginia

AT RICHMOND

RECORD NO. 920639

TECHDYN SYSTEMS CORPORATION,

Appellant,

v.

WHITTAKER CORPORATION,

Appellee.

EXHIBIT VOLUME IX

Garry R. Boehlert
Benjamin T. Riddles, II
Douglas C. Proxmire
WATT, TIEDER, KILLIAN & HOFFAR
7929 Westpark Drive
Suite 400
McLean, VA 22102
(703) 749-1000

Counsel for Appellant

Peter B. Work
Janis Orfe
Amy J. Mauser
CROWELL & MORING
1001 Pennsylvania Ave. NW
Washington DC 20004
(202) 624-2500

Counsel for Appellee

William L. Carey
MILES & STOCKBRIDGE
11350 Random Hills Rd
Suite 500
Fairfax, VA 22030
(703) 934-1174

Counsel for Appellee

LAWYERS PRINTING COMPANY 7th & Franklin Bldg. Richmond, Virginia 23219 (804) 648-3664

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TechDyn SYSTEMS

11 July 1988

125-S001-0710

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

Attn: Mr. Frank Bohler
Director of Contracts

Subj: Subcontract 125-001; Iceland Command and Control Enhancement (ICCE), Tactical Air Force (TAF) Trouble Reports (TRs)

Ref: (a) Letter, HQ ESD (Banks) to TechDyn (Hise), dated 5 July 1988, NADS-597

(b) Technical Interchange Meeting between TechDyn Systems Corporation and WCCS at Los Angeles, CA, 9 June 1988

Dear Mr. Bohler:

TechDyn Systems has reviewed and is forwarding the referenced letter with regard to the subject Tactical Air Force (TAF) Trouble Reports (TRs) to Whittaker Electronic Systems (WES) for information and corrective action. The enclosed TRs are being forwarded to WES in accordance with the Whittaker Command and Control Systems (WCCS) request made during the referenced (b) Technical Interchange Meeting (TIM).

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Senior Contract Administrator

Enclosure: TR Status (Unclassified)
TAFCT (Classified)

PLAINTIFF'S EXHIBIT
109L

MSR/dlw

2890

THIS LETTER UNCLASSIFIED WHEN REMOVED FROM CLASSIFIED ATTACHMENT

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013 • FAX (703) 971-3928

CONFIDENTIAL

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

05 JUL 1988

REPLY TO ATTN OF: PKTG/(TCN-4/Lt Dalrymple)/NADS-597

SUBJECT: Contract F19628-85-C-0079, Iceland Command and Control Enhancement (ICCE), Tactical Air Force (TAF) Trouble Reports (TRs)

TO: TechDyn Systems Corporation
Attn: Mr. William C. Hise
6564 Loisdale Court
Suite 600
Springfield, Va 22150

Reference: a) TechDyn Letter 124-C-0481 dated 14 June 88
b) TechDyn Letter 124-C-0490 dated 29 June 88
c) 10-11 May 88 Technical Interchange Meeting (TIM) at Langley AFB, VA

1. The referenced letters request the Government provide the subject TAF TRs that are considered to be within the scope of the contract. The classified second attachment provides these TRs. The first attachment provides a list of all TRs from the TAF Certification Test identified as "In Scope", "Out Scope," and "Required for TAF Certification" and which were agreed upon as in scope at the reference b TIM. Disposition of TR #783 has not yet been determined but has been included for your information in the event that it is determined to be within scope.

2. Performance of the above task is considered to be within the present requirements of the subject contract. In the event that the Contractor does not agree that this task is within the present requirements, he/she shall take no action but must notify the contracting officer in writing within seven (7) calendar days from this date.

Reginald A. Banks

REGINALD A. BANKS, CAPT, USAF
Contracting Officer
Directorate of Contracting
Tactical Systems, JTIDS & AWACS

2 Atchs:
TR Status (Unclas)
TAF CT TRs (Confid)

cc: TCN-4
HHA
MITRE

CONFIDENTIAL

THIS LETTER UNCLASSIFIED WHEN REMOVED REMOVED FROM CLASSIFIED ATTACHMENT

TECHDYN D.C. No.:
88-C-352

PLAINTIFF'S EXHIBIT

Attachment 1

ICCE TAF CERTIFICATION TR STATUS (AS OF 11 MAY 88)

TR	In Scope	Out Scope	Required for TAF Certification	Comments
003		X	X	Requires SOCC change (sim)
004	X			
008	X			
009		X	X	Requires SOCC change
010		X	X	Requires SOCC change
011	X			
013	X			If repetition rate problem
016	X			
021	X			
022	X			If no data changes
037	X			
040	X		X	
044	X			Even if caused by operator error
047	X			
780	X			
781		X	X	Requires SOCC change (also data overlap)
782	X		X	
783	(a)X	(b)X		
784	X			
785	X			
786	X			
787		X		Non-ICCE problem
788	X			Repetition rate only
789	X			(but SL TN not in data base
790		X	X	Requires SOCC change (SOCC/TADIL-A incompatibility)
791	X			
792	X			
793	X		X	
794	X			
795	(a)X	(b)X	X	(a) Value = 8 (b) Values = 2,3,4
796	X			
797	X			
798		X		Related to 799
799		X		B-5 spec inconsistent; if TADIL has info it will send it

UNCLASSIFIED

TECHDYN D.C. No.:
88-C-352

TR	In Scope	Out Scope	Required for TAF Certification	Comments
800		X		Data overlay; requires msg check
801	X			
802	X			
803	X			
804		X		Related to 799
805		X		Related to 799
806	X			
807		X		
808	X			
809	X		X	
810	X			For wrong amplification
811	X			Assuming good SOCC data and no operator error
812		X		Related to 799
813	X			
814	X			
815		X		Non-ICCE problem

LS/n
2H
MSR
ICCE

TechDyn SYSTEMS

MSO-471-A14

24 January 1989

125-S001-0801

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

Attn: Mr. Frank Bohler
Director of Contracts

Subj: Subcontract 125-001; Iceland Command and Control Enhancement (ICCE), Status of System Trouble Reports (STRs)

Ref: Letter, HQ ESD (Chilson) to TechDyn (Hise), dated 17 January 1989, NADS-748

Dear Mr. Bohler:

TechDyn Systems has reviewed and is forwarding the referenced letter with regard to the subject ICCE System Trouble Reports (STRs) to Whittaker Electronic Systems (WES) for action in accordance with paragraph 1 contained therein. WES is directed to provide TechDyn with a current status of said STRs no later than COB 27 January 1989.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Manager of Contracts

Enclosure: As stated

MSR/kjs

PLAINTIFF'S EXHIBIT 1049

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013 • FAX (703) 971-3928

LSM
WCH
MSR
SC

M30-471 A

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

JAN 1 7 '89

REPLY TO ATTN OF: ESD/PKTG (TCN-4/Lt Cho)/NADS-748

SUBJECT: Contract F19628-85-C-0079, Iceland Command and Control Enhancement (ICCE), Status of System Trouble Reports (STRs)

TO: TechDyn Systems Corporation
Attn: Mr William C. Hise
6564 Loisdale Court
Suite 600
Springfield, VA 22150

References: a. Test Plan Working Group (TPWG) #18 Minutes, 15 December 1988.
b. ESD/TCN Letter, NADS-550, 3 June 1988, Trouble Reports (TRs)/Software Trouble Reports (STRs) Disposition.

1. The Government requests a current status of the System Trouble Reports (STRs) for the Software Qualification Test (SQT) and Tactical Air Force Certification (TAF CERT) tests. Reference a. Statement for Record (SFR) 18-1, made by the subcontractor, stated that the STRs had not been worked to date. The subcontractor acknowledged that the TAF CERT STRs in reference b. were within the scope of the current contract. The Government previously understood that the STRs were opened and that progress was being made to close them. Please provide a current status of the STRs.

2. Point of contact is Lt Sueling Cho at (617)271-8989.

3. Performance of the above task is considered to be within the present requirements of the subject contract. In the event that the contractor does not agree that this task is within the present requirements, he/she shall take no action but must notify the contracting officer in writing within seven (7) calendar days from this date.

PHILIP B. CHILSON, CAPT, USAF
Contracting Officer
Directorate of Contracting
Tactical Systems

cc: TCN-4
MITRE
DMC
TBS

MSO 471 960

LSH
CH
SR
CCE

TechDyn SYSTEMS

13 September 1989

125-S001-0935

Whittaker Electronic Systems
1785 Voyager Avenue
PO Box 8000
Simi Valley, CA 93063-8000

Attn: Ms. Marie Raymond
Manager, Contract Administration

Subj: Subcontract 125-001; ICCE, Correction of System Trouble Reports (STRs)

Ref: Letter, HQ ESD (Chilson) to TechDyn (Hise), dated 6 September 1989, NADS-885

Dear Ms. Raymond:

TechDyn Systems has reviewed and is forwarding herewith the referenced letter with regard to the subject ICCE, Correction of System Trouble Reports (STRs) to Whittaker Electronic Systems (WES) for action in accordance with paragraph 3 therein.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Manager of Contracts

MSR/clz

Enclosure: As stated

PLAINTIFF'S EXHIBIT
1073

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • FAX: (703) 971-3928

HSO 471-95

1014
H
HSO
ICCE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

08 SEP 1989

REPLY TO ATTN OF: PKTG/(TCN-4/Lt Cho)/NADS-885

SUBJECT: Contract F19628-85-C-0079, Iceland Command and Control Enhancement (ICCE), Correction of System Trouble Reports (STRs)

TO: TechDyn Systems Corporation
Attn: Mr. William C. Hise
6564 Loisdale Court
Suite 600 Springfield, Va 22150

References:
a) 29 Mar 89 Technical Interchange Meeting (TIM) at Whittaker Electronics Systems (WES); Carlsbad, CA
b) ESD/TCN-4 Letter, NADS-809, dated 11 Apr 89; Subject: Closure and Verification of STRs
c) 12 Mar 89 TIM at WES; Simi Valley, CA
d) 6 Jun 89 TIM at WES; Simi Valley, CA
e) 20 Jul 89 TIM at WES; Carlsbad, CA

1. Reference a. TIM was conducted to induce an approach to software completion, an area which the Government had seen no movement since February 1988. This TIM resulted in reference b. letter in which the Government outlined a planned approach to software completion including informal contractor verification (in-plant and at Government facilities), Government generated test procedures, a Formal Verification Test (FVT), and in-plant Government representative visits. The plan is currently in use.

2. Reference c, d, and e TIMs were conducted to:

a. identify STRs requiring correction through software manipulation
b. identify STRs required to be verified through the FVT
c. come to a common understanding of the problem for which the STRs were written
d. discuss resource availability for both formal and informal testing
e. discuss schedule and correction status

This letter provides formal notification of the Government's position on which STRs remain to be fixed and how they must be verified.

3. The contractor is required to fix all STRs. Attached is a list of the STRs remaining from the Software Qualification Test (SQT) and from the Tactical Air Force (TAF) Certification Tests (CTs), totaling 83 STRs. These STRs are identified as requiring verification from one (possibly two) of four methods:

a. Explicit testing in FVT
b. Proof of software correction through audit of code
c. Audit of documentation changes
d. Acceptance of a contractor initiated Engineering Change Proposal

4. Performance of the above task is considered to be within the present requirements of the subject contract. In the event the contractor does not agree that this task is within the present requirements, he/she shall take no action but notify the Contracting Officer in seven (7) calendar days from this date.

PHILIP B. CHILSON, Capt, USAF
Contracting Officer
Directorate of Contracting
Tactical Systems

1 Atch: STR List
cc: TCN-4
MITRE
TCNC
SBA
DCAS

Attachment to
NADS-885

Open STRs Requiring Correction

* - Explicit Verification Through Formal Verification Test (FVT) of Software Correction (44)
+ - Proof of Software Correction Required (20)
D - Documentation Change - Audit Required (22)
E - Contractor Initiated Engineering Change Proposal (ECP) Required (2)

STR	CAT	STR	CAT	STR	CAT
87-069	+	88-298	*	88-683	*
87-084	D	88-306	+	88-684	*
87-127	D	88-413	*	88-685	*
87-128	D	88-414	*	88-853	+
87-141	* (Note)	88-450	+		
87-146	D	88-580	D		
87-225	D	88-581	D		
87-231	D	88-582	D		
87-232	D	88-609	+		
87-233	D	88-610	*		
87-234	D	88-611	D		
87-307	D	88-654	*		
87-566	D	88-655	*		
87-581	D	88-656	*		
87-582	D	88-657	*		
87-596	+	88-658	*		
87-621	D	88-659	*		
87-659	D	88-660	*		
87-686	D	88-661	*		
87-700	D	88-662	*		
87-790	D	88-663	*		
87-825	D	88-664	*		
87-831	E	88-665	*		
87-845	E	88-666	*		
87-863	* (Note)	88-667	*		
87-884	+	88-668	*		
87-966	+	88-669	*		
87-974	+	88-670	*		
87-975	D	88-671	*		
87-978	+	88-672	*		
87-981	* (Note)	88-673	*		
87-986	+	88-674	*		
87-994	+	88-675	*		
88-006	+	88-676	*		
88-007	*	88-677	*		
88-008	+	88-678	*		
88-052	*	88-679	*		
88-053	*	88-680	*		
88-280	*	88-681	*		
88-281	*	88-682	*		

(Note: WES has stated problem already fixed - Gov't requires verification at FVT)

A150 677A56

TechDyn SYSTEMS

FAXED 3/8/90

3 March 1990

125-S001-1054

Whittaker Electronic Systems
1785 Voyager Avenue
PO Box 8000
Simi Valley, CA 93063-8000

Attn: Ms. Marie Raymond
Manager, Contract Administration

Subj: Subcontract 125-001; Technical Order Validation

Ref: Letter, HQ ESD (Chilson) to TechDyn (Hise), dated 26 February 1990, NADS-973

Dear Ms. Raymond:

TechDyn Systems has reviewed and is forwarding the referenced letter with regard to the subject Technical Order Validation to Whittaker Electronic Systems (WES) for action in accordance with the direction contained therein.

WES is requested to provide its response no later than COB 12 March 1990.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Manager of Contracts

MSR/br

Enclosure: As stated

PLAINTIFF'S EXHIBIT 109B

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • FAX: (703) 971-3928

MS0697A55

L&M
CV
1
ICCE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

26 FEB 1990

REPLY TO ATTN OF: ESD/PKTG (G. Desrosiers)/NADS-973

SUBJECT: Contract F19628-85-C-0079, Iceland Command and Control Enhancement (ICCE), Technical Order Validation (PDFA O&M) CDRL C009/H003

TO: TechDyn Systems Corporation
Attn: Mr. William C. Hise
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Reference:
a) ESD/TCNL NADS-960 Ltr, dated 12 Feb 90.
b) TechDyn 125-C-0672 Ltr, dated 19 Oct 89.
c) WES Ltr to TechDyn, 8910-1887-MR/125-001, dated 10 Oct 89.
d) ESD/TCNL NADS-909 Ltr, dated 22 Sept 89.
e) Meeting between Mr. Steve Jones (WES) and Mr. Gene Desrosiers (ESD/TCNL) on 1 Feb 90.
f) Telecon between Mr. Dave Christensen (WES) and Lt Scott Dalrymple (ESD) on 31 Jan 90.

1. During reference e, Whittaker provided the Government with a copy of the validated PDFA O&M manual for review. The purpose of this review was to ensure that the 80% In-Process Review (IPR) comments and the validation comments were incorporated.

2. The Government was informed during reference e and f that the validated O&M manual included the comments from the 80% IPR and validation. On 5 Feb 90, the user (CENTAF) was provided with a copy of the PDFA Validated O&M manual for review. The following comments are provided from that review.

a. <u>80% IPR Comments</u>

(1) References to the ICCE and CENTAF systems are still prevalent throughout the manual, rather than referencing the official nomenclatures, i.e., AN/GSQ-235(V)1 and (V)2. The manual mentions the AN/GSQ-235(V); however, it never correlates ICCE/CENTAF to AN/GSQ-235(V)1/(V)2.

(2) Reference designators are still inaccurate in some cases, i.e., the digitizer sub-assemblies A191, A1902, and A1905.

(3) Official nomenclatures for the remote monitor and large screen display, IP-1579/GSQ-235(V) and ID-2449/GSQ-235(V) respectively, are not identified in the manual.

(4) Table 1-6 should show NSN 6625-01-114-2598 for the digital multimeter, also paragraph 1-8 should state "Procured equipment should be as identified or the equivalent." This statement gives the flexability for item substitution, when necessary.

(5) Table 2-1 and paragraph 2-2.4 are still confusing. Does crated/uncrated mean with/without transit cases or is it referring to the wooden shipping crates it is delivered in? If the reference is to the wooden shipping crates, then the dimensions for with/without the transit cases are still required.

(6) Table 4-3 needs a step between steps 4 and 5 which reads "Type 27h and press CR."

(7) Table 6-30 steps 6 and 7 were to be rewritten, in such a manner, to ensure the action in step 7 would be accomplished quickly enough after the response to step 6. The steps have not been changed.

(8) In Figure 1-2 reference designator A20 and A21 are still identified; however, there is no mention of them throughout the text. Why are cable connections given reference designators?

b. Validation Comments

(1) After reviewing each comment sheet (reference b) we could not find any of the comments to be incorporated.

3. We are concerned that given the lack of progress on the PDFA O&M manual since the 80% audit that the contractor will have difficulty in meeting the Feb 91 contract delivery date. This manual is in the critical path leading to M-Demo, Training, Verification, and therefore all installation activities.

4. Request TechDyn provide the Government a schedule, NLT 10 days after receipt of this letter, showing when the O&M manual will be ready for review. The manual must include the 80% audit comments listed above and have the results of validation effort either red-lined or incorporated.

5. Point of contact is Lt Darryl Glenn or Mr. Gene Desrosiers, ESD/TCNL, (617) 271-7175 or 8990 respectively.

6. Performance of the above task is considered to be within the present requirements of the subject contract. In the event the contractor does not agree that this task is within the present requirements, he/she shall take no action but must notify the Contracting Officer, in writing seven (7) calendar days from this date.

PHILIP B. CHILSON, CAPT, USAF
Contracting Officer
Directorate of Contracting
Tactical Systems

cc: HQ TAC/DRCS/LGKE
HQ USCENTAF/DOY
507TAIRCW/LGKA
SM-ALC/MMBBA/MMDDCA

LSM
MCH
RV
ICCE

TechDyn SYSTEMS

FAXED 10 Aug 90

10 August 1990

125-C-0795

Department of the Air Force
HQ, Electronic Systems Division/PKTP
Building 1618
Hanscom Air Force Base, MA 01731

Attn: David S. Glowacki, Capt., USAF
Contracting Officer
Directorate of North Warning and
North Atlantic Defense Systems Contracts
Deputy for Contracting

Subj: Contract F19628-85-C-0079; ICCE Program Cure Notice

Ref: (a) Letter, HQ ESD (McKenna) to TechDyn (Hise), dated 13 June 1990

(b) Letter, WES (Raymond) to TechDyn (Hise), dated 3 August 1990, 9008-3517-MR/125-001

Dear Capt. Glowacki:

TechDyn Systems, in response to the referenced (a) ICCE Cure Notice, is providing the Government herewith its plan for the correction of defiencies noted in said letter in accordance with paragaraph 4 contained therein.

On 3 August 1990, a meeting was held between the Presidents of TechDyn Systems and the directed subcontractor, Whittaker Electronic Systems (WES), along with associated staff, to discuss the issue of software closure and the cure notice which pertains to same. During said meeting, a conference call took place between the meeting participants and Colonel Robert Johnson, Systems Program Director NADS. During said conference call, agreements were reached between TechDyn/WES/HQ ESD with regard to software acceptance. These agreements are as outlined in the referenced (b) letter, enclosed herewith.

TechDyn trusts that this plan for software acceptance as agreed to between TechDyn/WES/HQ ESD, and as described in the referenced (b) letter, fully responds to the issues raised in the referenced (a) letter.

PLAINTIFF'S EXHIBIT 113

6564 LOISDALE COURT. SUITE 600. SPRINGFIELD. VIRGINIA 22150 • (703) 922-51

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Hise

William C. Hise
Vice President

WCH/pas
Enclosure: As Stated

Whittaker

Whittaker Electronic Systems
1785 Voyager Avenue
Post Office Box 8000
Simi Valley, California 93062-8000
Telephone (805) 584-8200
Telex 65-1329 TWX 910-494-1214

CONTRACTS
MASTER FILE

03 August 1990

9008-3517-MR/125-001

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: Mr. William C. Hise

Subject: Subcontract 125-001; Software Acceptance

Reference: TechDyn/WES Meeting of 03 August 1990

Dear Mr. Hise:

This letter serves to confirm the agreements reached between Whittaker Electronic Systems (WES) and TechDyn Systems Corporation at the reference joint meeting.

1. WES will prepare and transmit to TechDyn ICCE software version 90-054 on 07 August 1990.
2. This software, as agreed between the parties, will not be subject to further contractor supported testing.
3. A demonstration of version 90-054 designed to show that the version is bootable will be conducted at the test bed at Veda during the week of 06 August 1990, on a mutually agreeable date.
4. The software documentation to be delivered will reflect software version 90-054 as delivered.
5. As consideration for acceptance in this manner, Whittaker engineers will provide fifty hours of telephonic support to the Air Force, should the Air Force require assistance with the delivered software.

If you should have questions regarding this matter, please contact the undersigned at 805/584-8200, extension 404.

Sincerely,

WHITTAKER ELECTRONIC SYSTEMS

Marie E. Raymond

Marie E. Raymond
Manager, Contracts

615 B 89

FAXED 9/19/90

TechDyn SYSTEMS

17 September 1990

LSM
WCH
MSR
ICCE
MSO
FILE
ATTY

125-S001-1147

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

Attn: Ms. Marie Raymond
Manager, Contract Administration

Subj: Subcontract 125-001; RSSF Software Acceptance Test and Compile Link, and Load Testing

Ref: (a) RSSF Software Acceptance Test and Compile, Link and load Testing, Tyndall AFB, Florida, 11 - 12 September 1990

(b) SOW-ECI-1229

Dear Ms. Raymond:

During reference (a), Governmental Testing was performed to: (a) determine if the subcontractor had met the requirements of S.O.W. paragraphs 3.2.1 and 3.2.2, reference (b), which essentially focused on providing installation, integration and testing of the additional hardware and software required at the ROCC Software Support Facility (RSSF), Tyndall AFB to allow software support of any Government accepted modifications and upgrades to the present RADIL baseline; and to complete the Compile, Link, Load and Edit function, a formally proposed CPT&E activity.

Government personnel rated both of the above tested activities as incomplete, citing the following known software yet to be delivered to the RSSF:

(a) TCOM Source Code
(b) CCOS Source Code
(c) An updated version of CMS-LIST.PR
(d) Classify - LISTING.CLI
(e) MAPGEN Source Code
(f) MAPDIGIT Source Code
(g) DOWNLOAD Source Code
(h) CMS AOS.PENT LIST
(i) Other Missing Files
:CCOS:DBG4C
:CCOS:DEB4C.OB
CCOS:DIR.CCOSLIB.LB
CCOS:DIR:CCOS.RESOLVER.LB

PLAINTIFF'S EXHIBIT 436

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100

(j) Directory structure, as delivered, does not match the Linker Files for 5 of the 10 CPLSs (DCS-TCOM linkage errors; DRR-TCOM linkage errors; DRO TCOM linkage errors; and DCS-CCOS.DIR does not exist and is set in the Search List).

(k) Some link modules appear to be missing.

(l) The above list does not constitute a complete picture of the gaps contained in the delivered software.

Request that WES notify TechDyn as to what action will be taken to correct the above deficiencies. It is further requested that WES provide a proposed date for the completion of the above testing activities.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Kise

for Max Rosen
Manager of Contracts

CC: Capt. David Glowacki; HQ ESD

471

TechDyn SYSTEMS

FAXED 10/16/90

LSM
WCH
MSR
ICCE
MSD
AM

16 October 1990

125-S001-1156

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

Attn: Ms. Marie Raymond
Manager, Contract Admininstration

Subj: Subcontract 125-001; ICCE Program Compile, Link and Load (CLL) Demonstration, ICCE Software Delivery and Software PCA

Ref: (a) Letter, HQ ESD (Glowacki) to TechDyn (Hise), dated 9 October 1990, TNR-4-899

(b) Letter, TechDyn (Rosen) to WES (Raymond), dated 17 September 1990, 125-S001-1147

(c) Letter, TechDyn (Rosen) to WES (Raymond), dated 26 September 1990, 125-S001-1150

(d) Letter, WES (Nienow) to TechDyn (Rosen), dated 4 October 1990, 9010-3940-DN

Dear Ms. Raymond:

TechDyn Systems has reviewed and is forwarding the referenced (a) letter with regard to the subject ICCE Program Compile, Link and Load (CLL) Demonstration, ICCE Software Delivery and Software PCA to Whittaker Electronic Systems (WES) for action in accordance with paragraphs 3, 4, 5, and 6 contained therein. The referenced (b) letter partially addressed paragraphs 3 and 4 of said letter and the referenced (c) letter also addresssed paragraph 3 of same. Further, TechDyn requests that WES provide its position with the Government's request in paragraph 6 of the referenced (c) letter for telephone support.

Data provided by WES in the referenced (d) letter concerning Final PDFA "C" Specifications delivery was briefed at the 9 October 1990 Program Management Review and will be passed to the Government via contract correspondence. Should there be changes to the data contained in the referenced (d) letter, WES is requested to submit such information to TechDyn at the earliest possible date.

PLAINTIFF'S EXHIBIT 147

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Manager of Contracts

Enclosure: As stated

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE MASSACHUSETTS 01731-5000

REPLY TO ATTN OF: TNK/TNC/TNR-4-899

09 OCT 1990

SUBJECT: Contract F19628-85-C-0079, ICCE Program, Compile, Link and Load (CLL) Demonstration, ICCE Software Delivery and Software PCA

TO: TechDyn Systems Corporation
Attn: Mr. William C. Hise
6564 Loisdale Court
Suite 600
Springfield, VA 22150

1. Reference:

a. TechDyn letter 125-C-0797 dated 23 Aug 90, COTS Manuals.
b. TechDyn letter 125-C-0799 dated 27 Aug 90, Software Closure.
c. Compile, Link and Load (CLL) Demonstration at Tyndall AFB, FL 11 and 12 Sep 90.
d. ICCE Software Delivery to Tyndall AFB, FL, 11 through 13 Sep 90.
e. TechDyn letter 125-C-0813 dated 2 Oct 90, PDFA Software PCA.

2. The Government witnessed the demonstration of reference 1.c., above, and regards the Compile, Link and Load demonstration as successfully completed.

3. Regarding reference 1.d., the Government maintains its request that the Contractor provide a complete set of all the software required to perform a complete build of the ICCE executable software from source (90-054 PDFA source code, compiler source (WES' CMS-2 compiler), compilers, assemblers' source (non-DG), assemblers, utilities' source (WES developed), libraries, non-DG library source code (.LB files), diagnostics, etc.) The Government requests the Contractor to perform this complete System build on WES MV 10000, and provide the resultant tapes for loading to and by the 4702 CSS personnel at Tyndall AFB, FL. Particular attention needs to be paid to insure the inclusion of all utility macros, CLIs, etc. that are required to successfully accomplish a "full System build".

Thus far at the 4702 CSS, the previously delivered software has been found to be missing essential components necessary to accomplish this build on a day-by-day basis. A successful Software PCA cannot be conducted on a partial, incomplete set of delivered software.

TechDyn was given a list of required COTS documents at reference 1.c. demonstration. Request status of these documents be submitted to ESD, with a copy going to 4702 CSS/Capt T. Cotter, by 19 Oct 90.

4. When the contractor delivers a complete set of source and COTS software to the 4702 CSS which provides them the capability to perform a complete System build (that is, successfully compile and/or assemble, link and load the System on the 4702 CSS workbench), the Government will be ready to begin the Software PCA using the delivered C5s as the baselined design documentation.

5. Request contractor submit status of C5 CDRL delivery to ESD/TNC/Denise Baker by 19 Oct 90.

6. It is not necessary for the contractor to participate in the Software PCA. The Government team (4702 CSS and ESD/TNR-4/R. Culotta) would appreciate telephone support if required.

7. Point of contact is TNR-4/Roger Culotta/719 554-6341 or TNC/Denise Baker/617 377-7259.

8. Performance of the above task is considered to be within the present requirements of the subject contract. In the event the contractor does not agree that this task is within the present requirements, he/she shall take no action but notify the Contracting Officer, in writing, within seven (7) calendar days from this date.

DAVID S. GLOWACKI, Capt, USAF
Contracting Officer
North Warning and North Atlantic
Defense Systems Directorate
DCS/Contracting

cc: SBA
TAC/DRCS
SMALC/LHSBM
4702 CSS/ADXR
MITRE D65
TNR-4/DRC
DMO

Whittaker **NEWS RELEASE**

Whittaker Corporation
10880 Wilshire Boulevard, Los Angeles, California 90024
213/475-9411

file
4C Debentures file
Hse 10/8/

Release: October 3, 1985
Contact: Robert Murray
213/475-9337

COMMAND, CONTROL AND COMMUNICATIONS CORPORATION TO MERGE WITH WHITTAKER

Los Angeles -- Whittaker Corporation and Command, Control and Communications Corporation (4C) today announced the signing of a merger agreement under which 4C will become a wholly owned Whittaker subsidiary. Terms of the merger, which is subject to approval by 4C's shareholders, were not disclosed.

Headquartered in Torrance, California, 4C is a closely held corporation employing 200 people. Among other electronic hardware and software products, the company develops and manufactures ground terminal systems for military reconnaissance aircraft. Its primary customers include government agencies and defense contractors.

According to officials of both companies, 4C's systems capability complements that of Whittaker's technical products group, which develops and manufactures advanced radar systems, microwave equipment and other defense related products. Whittaker's president and chief executive officer, Joseph F. Alibrandi, said that the merger is consistent with Whittaker's basic growth strategy in the technical systems field.

Listed on the New York and Pacific Stock Exchanges (symbol: WKR), Whittaker reported sales of $1.4 billion for the fiscal year ended October 31, 1984.

2912

# # # # #

26-10385

PLAINTIFF'S EXHIBIT
1251

COMMAND
CONTROL AND
COMMUNICATIONS
CORPORATION 23670 Hawthorne Blvd., Torrance, CA 90505 • (213) 373-9651 • Telex: 653578

CONTRACTS MASTER FILE

8510-490-MR/16386

24 October 1985

TechDyn Systems
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: W. Hise

Subject: Command, Control and Communications Corporation Acquisition

Dear Mr. Hise:

Effective 15 October 1985, Command, Control and Communications Corporation (4C) became a wholly owned subsidiary of Whittaker Corporation as a result of a merger action. 4C will retain its name, to be followed by words identifying it as a subsidiary of Whittaker Corporation, which is headquartered at 10880 Wilshire Boulevard, Los Angeles, CA 90024.

In conjunction with the merger action, Mr. John Freitag resigned the presidency of 4C and has been replaced by Mr. Monte J. Hatchett, previously based at 4C's Huntsville, Alabama, office. The remainder of 4C's managerial team remains in place and will continue to operate in accordance with previously established practice.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Manager of Contracts

PLAINTIFF'S EXHIBIT
1252

COMMAND, CONTROL AND COMMUNICATIONS CORPORATION
Corporate Headquarters: 23670 Hawthorne Blvd., Torrance, CA 90505 • (213) 373-9651 • Telex: 653578
Huntsville Office: 1515B Sparkman Drive, Huntsville, Alabama 35805 • (205) 837-8064 • Telex: 594458
San Diego Office: 3065 Rosecrans Place, San Diego, California 92110 • (619) 226-1816 • Telex: 697943
El Paso Office: P.O. Box 6070, Ft. Bliss, Texas 79906-0070 • (915) 562-4222
Ft. Monmouth Office: Post Office Box 60, Ft. Monmouth, N.J. 07703 • (201) 389-1333

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

Whittaker

9 February 1987

8702-0177-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, Virginia 22150

Attention: Mr. David Yenowine

Subject: Subcontract 125-001; Extension of 4C Proposal for CLINs 0057/0058, HF/UHF Upgrade

Reference:
a) TechDyn letter 125-S001-0250 dated 22 January 1987
b) 4C letter 8701-0125-MER/16393

Gentlemen:

Because of the recent reorganization of the ICCE program management structure, submission of subject proposal is delayed until 16 February 1987.

If you have questions regarding this delay please contact Mr. Mikki Segraves at (213) 373-9651.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

MER:nch

PLAINTIFF'S EXHIBIT
1253

FEB 13 1987

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

Whittaker

19 February 1987 8612-0222-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, Virginia 22150

Attention: Mr. David Yenowine

Subject: Subcontract 125-001; Status of Responses

Reference:
a) TechDyn Letter 125-S001-0264, dated 11 February 1987
b) TechDyn Letter 125-S001-0265, dated 11 February 1987
c) TechDyn Letter 125-S001-0261, dated 11 February 1987

Gentlemen:

Responses to reference correspondence, due 18 and 19 February 1987, are being prepared and will be forwarded upon completion. Changes within the 4C organization have caused a delay in response time. 4C apologizes for any resulting inconvenience caused to TechDyn.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

MER/nch

PLAINTIFF'S EXHIBIT
1254

Corporate Office 23670 Hawthorne Boulevard, Torrance, CA 90505 • (213) 373-9651 Telex 756886
Huntsville Office 1515B Sparkman Drive, Huntsville, Alabama 35816 • (205) 837-8064
San Diego Office 3065 Rosecrans Place, San Diego, California 92110 • (619) 226-1816 • Telex: 697943
El Paso Office 1611 Beech Drive, Suite E, El Paso, Texas 79925 • (915) 779-3904
Ft. Monmouth Office P O Box 60, Ft Monmouth, N.J. 07703 • (201) 542-6714

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23870 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756586

Whittaker

26 February 1987

8702-0260-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, Virginia 22150

Attention: Mr. David Yenowine

Subject: Subcontract 125-001; Critical Design Review

Reference: TechDyn letter 125-S001-0264, dated 11 February 1987

Dear Sir:

Again, please excuse the delay in responding to the reference communication. As you are aware significant management and organizational changes have been implemented within the 4C corporation. These change will further enhance program visibility and success.

4C is disturbed by the incomplete CDR and the fact is that 4C was not permitted to continue its CDR presentations. Further, no constructive comments other than "unsatisfactory" were provided. 4C understands the sequence of events which must occur for successful CDR completion. Accordingly, 4C is focusing on a delivery of eight (8) copies of the C5 specifications as discussed in 8702-0147-MER/16393.

With respect to test plans and procedures, PDFA Test Plan change pages were transmitted 25 February and H/W Test Procedures were transmitted 17 February 1987. RCE test documents and the SQT Procedures are scheduled for submission 16 March 1987. Assuming that ESD requires a 30 day review, completion of the CDR can commence 16 April 1987.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

MER/nch

PLAINTIFF'S EXHIBIT
1256

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

Whittaker

26 February 1987 8702-0252-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, Virginia 22150

Attention: Mr. David Yenowine

Subject: Subcontract 125-001; Open Action Items

Reference:
a) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 11 February 1987, 125-S001-0263
b) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 11 February 1987, 125-S001-0265
c) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 11 February 1987, 125-S002-0261
d) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 11 February 1987, 125-S001-0264
e) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 26 February 1987, 125-S001-0271

Dear Sir:

As indicated in 4C letter 8702-0222-MER/16393, and in answer to you reference e) query, responses to references have been delayed due to program management changes. Response to reference b) will be provided by 27 February 1987. Responses to references a), c) and d) will be provided no later than 3 March 1987.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

MER/nch

PLAINTIFF'S EXHIBIT 1257

Corporate Office 23670 Hawthorne Boulevard, Torrance, CA 90505 • (213) 373-9651 Telex 756886
Huntsville Office, 1515B Sparkman Drive, Huntsville, Alabama 35816 • (205) 837-8064
San Diego Office: 3065 Rosecrans Place, San Diego, California 92110 • (619) 226-1816 • Telex: 697943
El Paso Office: 1611 Beech Drive, Suite E, El Paso, Texas 79925 • (915) 779-3904
Ft. Monmouth Office P.O. Box 60, Ft. Monmouth, N.J. 07703 • (201) 542-6714

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

Whittaker

06 March 1987

8703-0299-MR/16393

TechDyn Systems Corporation
6564 Loisdale Court, Ste. 600
Springfield, VA 22150

Attention: Mr. Gary Fourney

Subject: Subcontract 125-001; Open Action Items

Reference:
(a) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 11 February 1987, 125-S001-0263
(b) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 11 February 1987, 125-S001-0264
(c) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 11 February 1987, 125-S001-0261
(d) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 25 February 1987, 125-S001-0270
(e) Letter, 4C (Raymond) to TechDyn (Yenowine) dated 27 February 1987, 8702-0263
(f) Letter, TechDyn (Yenowine) to 4C (Raymond) dated 26 February 1987, 125-S001-0272
(g) Letter, TechDyn (Fourney) to 4C (Raymond) dated 2 March 1987, 125-S001-0273
(h) Letter, TechDyn (Fourney) to 4C (Raymond) dated 2 March 1987, 125-S001-0275
(i) Letter, TechDyn (Fourney)to 4C (Raymond) dated 5 March 1987, 125-S001-0278

Dear Mr. Fourney:

In response to reference (i) status of references (a) through (h) is as follows:

References (a), (c) and (f), as previously indicated, have been delayed due to organizational restructure. Data for responses is expected by 16 Mar 87. Reference (d) is being transmitted this date. Reference (g) response was provided under 8703-0270-MER/16393 on 2 Mar 87 and 8703-0277-MER/16393 on 4 Mar 87. Reference (b) response was provided under 8702-0260-MER/16393 dated 26 Feb 87.

2918

PLAINTIFF'S EXHIBIT
1258

As indicated in our telephonic discussion of 2 Mar 87, the attachment to reference (e) was mailed on 27 Feb 87 and will again be mailed with the original copy of this letter.

We apologize for the delay and thank you for your patience.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

MER/mm

Enclosure

RECEIVED
MAR 1 1987

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

Whittaker

20 March 1987

8703-0387-MR/16393

TechDyn Systems Corp.
6564 Loisdale Ct, Ste. 600
Springfield, VA 22150

Attention: Mr. G. Fourney

Subject: Subcontract 125-001; status of responses

Reference: TechDyn 125-S001-0304, dated 20 March 1987

Dear Sir:

In response to your request for status, please be advised that reference d) of your reference letter was answered under 8703-383-MER/16393, dated 20 March 1987 and that reference g) response was sent directly to the Government as your letter requested.

All other references have been delayed as a result of organizational change and will be discussed by Mr. Mikki Segraves during the upcoming Program Management Review at the TechDyn facility.

Thank you for your patience. We apologize for the delay.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

2920

Corporate Office: 23670 Hawthorne Boulevard, Torrance, CA 90505 • (213) 373-9651 Telex 756886
Huntsville Office: 1515B Sparkman Drive, Huntsville, Alabama 35816 • (205) 837-8064
San Diego Office: 3065 Rosecrans Place, San Diego, California 92110 • (619) 226-1816 • Telex: 697943
El Paso Office: 1611 Beech Drive, Suite E, El Paso, Texas 79925 • (915) 779-3904
Ft. Monmouth Office: P.O. Box 60, Ft. Monmouth, N.J. 07703 • (201) 542-6714

PLAINTIFF'S EXHIBIT 251

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

Whittaker

6 May 1987

8705-0636-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: Gary Fourney

Subject: Command, Control and Communications Corporation, Change of Name

Reference: Subcontract 125-001

Dear Sir:

Command, Control and Communications Corporation (4C), a subsidiary of Whittaker Corporation, has formally changed its name to Whittaker Command and Control Systems, Incorporated. This change has been filed with The Secretary of The State of California and was certified by that office on 24 March 1987. Whittaker Command and Control Systems, Incorporated will remain in its present facility locations, retaining, for a time, telephone listings under both the old and the new names.

This letter serves as official notice of that change and is also a request that you disseminate this information throughout your organization in order to avoid the confusion that may ensue for a time.

In addition, in accordance with reference FAR 42.1205, provided herewith are the following enclosures to provide information for modifications to the reference subcontract reflecting 4C's name change:

Corporate Office: 23670 Hawthorne Boulevard, Torrance, CA 90505 • (213) 373-9651 Telex 756886
Huntsville Office: 1515B Sparkman Drive, Huntsville, Alabama 35816 • (205) 837-8064
San Diego Office: 3065 Rosecrans Place, San Diego, California 92110 • (619) 226-1816 • Telex: 697943
El Paso Office: 1611 Beech Drive, Suite E, El Paso, Texas 79925 • (915) 779-3904
Ft. Monmouth Office: P.O. Box 60, Ft. Monmouth, N.J. 07703 • (201) 542-6714

PLAINTIFF'S EXHIBIT 1260

1. Change-of-Name Agreement, provided to 4C ACO
2. Certification of name change by The Secretary of The State of California
3. Certificate of Amendment of Articles in Incorporation of Command, Control and Communications Corporation, a California Corporation
4. Certification by Vice President and Secretary of Command, Control and Communications Corporation.

Please advise if you require further data.

Please sign and return the duplicate copy of this letter to acknowledge receipt of this transmittal.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

RECEIVED
MAY 15 1987

Received this _____ 1987

MER:nch

Attachments

_____
Gary Fourney

CHANGE-OF-NAME AGREEMENT

The COMMAND, CONTROL AND COMMUNICATIONS CORPORATION, a corporation duly organized and existing under the laws of California and the UNITED STATES OF AMERICA, enter into this Agreement as of 24 March 1987.

(a) THE PARTIES AGREE TO THE FOLLOWING FACTS:

(1) The Government, represented by various Contracting Officers of the U.S. Army, U.S. Navy, U.S. Air Force and U.S. Marine Corps, has entered into certain contracts and purchase orders with the COMMAND, CONTROL AND COMMUNICATIONS CORPORATION, as shown in the attached list marked "Exhibit A" and incorporated in this Agreement by reference. The term "the contracts," as used in this Agreement, means the contracts and purchase orders and all other contracts and purchase orders, including all modifications, made by the Government and the Contractor before the effective date of this Agreement (whether or not performance and payment have been completed and releases executed if the Government or the Contractor has any remaining rights, duties, or obligations under these contracts and purchase orders).

(2) The COMMAND, CONTROL AND COMMUNICATIONS CORPORATION, by an amendment to its certificate of incorporation, dated 2 March 1987, has changed its corporate name to WHITTAKER COMMAND AND CONTROL SYSTEMS, INCORPORATED.

(3) This amendment accomplishes a change of corporate name only and all rights and obligations of the Government and of the Contractor under the contracts are unaffected by this change.

(4) Documentary evidence of this change of corporate name has been filed with the Government.

(b) IN CONSIDERATION OF THESE FACTS, THE PARTIES AGREE THAT-

(1) The contracts covered by this Agreement are amended by substituting the name "COMMAND, CONTROL AND COMMUNICATIONS CORPORATION" for the name WHITTAKER COMMAND AND CONTROL SYSTEMS, INCORPORATED" wherever it appears in the contracts; and

(2) Each party has executed this Agreement as of the day and year first above written.

UNITED STATES OF AMERICA,

By:

Title:

COMMAND CONTROL AND COMMUNICATIONS CORPORATION,

By: Marie E. Raymond
Marie E. Raymond

Title Director of Contracts

State of California
OFFICE OF THE SECRETARY OF STATE

CORPORATION DIVISION

I, *MARCH FONG EU*, Secretary of State of the State of California, hereby certify:

That the annexed transcript has been compared with the corporate record on file in this office, of which it purports to be a copy, and that same is full, true and correct.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this

MAR 24 1987

March Fong Eu

Secretary of State

2925

CERTIFICATE OF AMENDMENT OF
ARTICLES OF INCORPORATION OF
COMMAND, CONTROL AND COMMUNICATIONS CORPORATION
a California corporation

EDWARD R. MULLER and JOHN D. FREITAG certify that:

1. They are a duly elected and acting Vice President and Secretary, respectively, of Command, Control and Communications Corporation, a California corporation.

2. The Articles of Incorporation of said corporation shall be amended by revising Article FIRST to read as follows:

FIRST: The name of the corporation is Whittaker Command and Control Systems, Inc.

3. The foregoing Amendment was approved by the required vote of the sole shareholder of said corporation in accordance with Section 902 of the California General Corporation Law; the total number of shares entitled to vote is One Thousand (1,000); and that the total number of shares voting in favor of the Amendment of Articles of Incorporation was One Thousand (1,000).

4. The foregoing Amendment of Articles of Incorporation has been duly approved by the Board of Directors.

IN WITNESS WHEREOF, the undersigned have executed this Certificate on March 2, 1987.

COMMAND, CONTROL AND COMMUNICATIONS CORPORATION

Edward R. Muller
Vice President

John D. Freitag
Secretary

ENDORSED
FILED
in the office of the Secretary of State
of the State of California
MAR 20 1987
MARCH FONG EU, Secretary of State

DNJV/AmendCert

The undersigned Edward R. Muller and John D. Freitag, Vice President and Secretary, respectively, of Command, Control and Communications Corporation, each declares under penalty of perjury that the matters set out in the foregoing Certificate are true of his or her own knowledge.

Executed at Los Angeles, California, on March 2, 1987.

COMMAND, CONTROL AND COMMUNICATIONS CORPORATION

Edward R. Muller
Vice President

John D. Freitag
Secretary

KAW8/02

Whittaker

Whittaker Command & Control Systems, Inc.
23670 Hawthorne Boulevard
Torrance California 90505
213/373-9651 Telex 756886

26 August 1987

8708-1141-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: Mr. Gary Fourney

Subject: Subcontract 125-001; Change in Program Management

Dear Sir:

This serves to advise you that due to a company reorganization engendered by the forthcoming merger of two Whittaker subsidiaries, Whittaker Command and Control Systems, Inc. and Lee Telecommunications, a change in the program management responsibility for subject subcontract has occurred.

Effective 28 August 1987, Mr. Don Salyers will assume responsibility as Director of Programs for WCCS and Mr. David Bumstead will assume responsibility for the ICCE program. If you should have questions regarding this change, please contact Mr. Salyers or the undersigned.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

MER:nch

2928

PLAINTIFF'S EXHIBIT
1261

Whittaker

Whittaker Command and Control Systems
6190 Yarrow Drive
Carlsbad, CA 92009
619/438-7336
Telex 756886

5 July 1988

88Ø7-Ø546-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court, Suite 6ØØ
Springfield, Virginia 2215Ø

Attention: Mr. Max S. Rosen

Subject: Subcontract 125-ØØ1; Merger of Whittaker Command & Control Systems with Whittaker Electronic Systems

Dear Mr. Rosen:

Effective 1 July 1988 Whittaker Corporation merged Whittaker Command & Control Systems (WCCS) with Whittaker Electronic Systems (WES). As a result of this action the WCCS name will be changed to WES and, beginning 5 July 1988, all corporate functions will be performed at the WES facility in Simi Valley, California. The present Carlsbad facility will remain as a Technical Center.

The appropriate Change of Name and Novation Agreements are being prepared and will be forwarded upon receipt of certified documents from the Secretary of the State of California.

Point of contact for all contractual matters, including telephonic inquiries, will be Mr. Frank Bohler at the Simi Valley facility, 1785 Voyager Avenue, Simi Valley, CA 93Ø63-8ØØØ, telephone 8Ø5/584-82ØØ. Point of contact for Change of Name and Novation Agreement status will be the undersigned at the Carlsbad facility, telephone 619/438-7336.

Sincerely,

WHITTAKER ELECTRONIC SYSTEMS

Marie E. Raymond

Marie E. Raymond
Manager of Contracts

MER:bje

2929

PLAINTIFF'S EXHIBIT
1264

TO: TECHDYN SYSTEMS

ATT: MAX ROSEN

DATE: 24 August 1988

FROM: Frank Bohler

As we are now permanently located in Simi Valley, please send all future Fax correspondence to Fax # (805) 527-8332.

Thank you.

FB/lg

2930

PLAINTIFF'S EXHIBIT 1265

Whittaker

Whittaker Electronic Systems
5931 Priestly Drive, Suite "A"
Carlsbad, California 92008
Telephone: (619) 438-7336
FAX. (619) 438-7336 Ext. 311

26 August 1988

88Ø8-Ø571-MER

TechDyn Systems Corporation
6564 Loisdale Court
Springfield, Virginia 2215Ø

Attention: W. Hise

Subject: Contract Novation/Action

Reference: a) FAR 42.12Ø4/42.12Ø5
b) Notice of Intent to Merge, dated 11 September 1987

Dear Sir:

Effective 3Ø October 1987, Whittaker Corporation merged two subsidiary corporations, Whittaker Command and Control Systems, Inc. (WCCS) and Lee Telecommunications Corporation (LTC). As a result of this merger WCCS ceased as a corporate entity, and LTC became the surviving corporation, changing its name from Lee Telecommunications Corporation to Whittaker Command and Control Systems, Inc.

Accordingly, the contracts held by the disappearing WCCS corporation require novation agreements, while the contracts held by LTC, now WCCS, require an agreement to effect the change of name. In order to allow processing of modifications to these contracts as listed in Exhibit A of the attached Novation Agreement, the below listed documentation is provided.

Further, effective 1 July 1988, Whittaker Corporation merged WCCS into the Whittaker Corporation, making WCCS a part of a Whittaker Corporation division known as Whittaker Electronic Systems (WES). By operation of this merger WCCS will be known as WES and will have corporate status as a division of the parent Whittaker Corporation. Certified copies of the Certificate of Ownership and Merger containing corporate resolutions, the Certified Resolutions of Merger, and the executed novation agreement for that merger action are herewith provided. In an effort to save administrative effort, please consider the possibility of issuing a single modification to the listed contracts to cover both merger actions.

Further, compliance with the requirements for modifications to reflect novation and change-of-name agreements imposes cash flow

PLAINTIFF'S EXHIBIT
1266

hardships on contractors by the paying office's refusal to honor invoices during the novation/modification process and the resultant redundant effort by the contractor in preparing and submitting them anew. It is therefore requested that, while WES continues to perform in good faith, that your office conclude these modifications as expediently as is possible in order to mitigate the resultant financial strain.

Attached hereto for review and action are the following documents:

1. A certified copy of the Agreement of Merger effecting the transfer of WCCS assets to LTC.

2. A certified copy of each resolution of the Board of Directors of LTC authorizing the transfer of assets from WCCS.

3. A certified copy of each resolution of the sole shareholder of LTC authorizing the transfer of assets from WCCS.

4. A certified copy of each resolution of the Board of Directors of WCCS authorizing the transfer of assets to LTC.

5. A certified copy of each resolution of the sole shareholder of WCCS authorizing the transfer of assets to LTC.

6. Opinion of legal counsel regarding corporate actions to effect the merger of the two subsidiaries.

7. Novation Agreement reflecting the merger and change of name.

8. Whittaker Corporation Financial Report as financial evidence of capability to perform the remainder of the effort on the on-going contracts.

9. Novation Agreement reflecting the merger of WCCS into the Whittaker Corporation.

1Ø. Certificate of Ownership and Merger of Whittaker Command and Control Systems, Inc. (a California corporation) Into Whittaker Corporation (a Delaware corporation).

11. Certified Resolutions of Merger of WCCS into Whittaker Corporation.

12. Opinion of legal counsel regarding corporate actions to effect the merger of the subsidiary into the Whittaker Corporation.

If you should have questions regarding these documents or the requested modifications, please contact Ms. Marie Raymond at Whittaker Electronic Systems, 5931 A Priestly Drive, Carlsbad, CA 92ØØ8, telephone 619/438-7336.

In order to signify your receipt of this documentation, please sign and return the duplicate copy of this letter.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Manager of Contracts

MER:bje

Received, this_____1988

_____
Name/Title of Recipient

CH
CH
MR
ICCG

Whittaker

Whittaker Electronic Systems
1785 Voyager Avenue
Post Office Box 8000
Simi Valley, California 93063-8000
Telephone (805) 584-8200

MASTER FILE

July 21, 1988

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA. 22150

Attention: William C. Hise, Vice President

Subject: Subcontract 125-001, Stoppage of Work

Reference: Program Management Review at Whittaker Electronic Systems, Carlsbad, on July 21, 1988

Dear Mr. Hise:

As stated in our many discussions during the course of this subcontract, the latest during the referenced meeting, Whittaker Electronic Systems (WES) feels a great sence of disparity between its actual effort under the subcontract as expected by TechDyn and the division of funding.

On this $15M program WES has been awarded $7.2M ostensively representing 45% of the effort. In reality TechDyn has assumed WES to be responsible for the major portion of the effort while retaining the original division of funding. WES is presently in a $2M loss position.

The problem arises from the ambiguity inherent in a contract made up predominately of whole contractual documents between the Government and TechDyn without direction as to the responsibilities of WES or the division of effort between the two parties.

In light of the above, Whittaker Electronic Systems must stop its effort under the subcontract until the matter is resolved with TechDyn and a clear understanding of the Statement of Work is agreed to by both parties.

It is requested that TechDyn meet with Whittaker Electronic Systems as soon as possible in order to reformat the contract into a mutually understandable document which will allow for successful completion of the program and equity as originally intended by the contract.

For any further information, please contact the undersigned.

Very truly yours,

WHITTAKER ELECTRONIC SYSTEMS

Frank L. Bohler

Frank L. Bohler
Director of Contracts

FLB:jkj

2934

PLAINTIFF'S EXHIBIT 1373

TechDyn SYSTEMS

9 July 1985

Command, Control
and Communications Corporation
23670 Hawthorne Boulevard
Torrance, CA 90505

Attn: Ms. Marie E. Raymond
Manager of Contracts

Subj: Subcontract 125-001; Testbed Facilities

Dear Ms. Raymond:

In order to set up the testbed for the subject Subcontract, TechDyn has certain space and power requirements. During a visit by our engineers to your facilities, Bay Area 5 appeared to be best suited for our needs. Our requirement for approximately 300 square feet, power and cabling to the crypto room would be satisfied if this area was reserved for use by TechDyn.

TechDyn has also arranged for shipments of equipment for testing to be marked to the attention of Mr. Craig Smith. It is requested that all shipments be placed in a reserved and secure area. Further, all shipments should remain unopened until TechDyn personnel arrive at 4C.

The contents of this letter are in no way meant to be used as a a basis to change the cost of the subject subcontract.

If you have any questions, please contact the undersigned at (703) 922-5100. Thank you for your cooperation in this matter.

Sincerely,

David E. Yenowine
Supervisor
Subcontracts/Purchasing

PLAINTIFF'S EXHIBIT 1560

2935

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TWX 901013

Command, Control and Communications Corporation
A Subsidiary of Whittaker Corporation
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

Whittaker

31 January 1986

8601-064-MR/D85-274

TechDyn Systems, Inc.
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: Mr. David Yenowine

Subject: Monthly Program Schedule

Reference: a. Subcontract 125-001
b. CDRL 301/501
c. DID # DI-A-3007

Dear Mr. Yenowine:

In accordance with references cited above, transmitted herewith is one copy of the Monthly Program Schedule dated 28 January 1986.

Accordingly, this submission constitutes delivery of CDRL's 301/501.

If there are comments regarding this submittal, please refer them to Mr. Bob Tobiason at 213-373-9651, extension 337.

Please sign and return the duplicate copy of the letter to acknowledge receipt of this transmittal.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

MER/mm

Enclosure: (1)

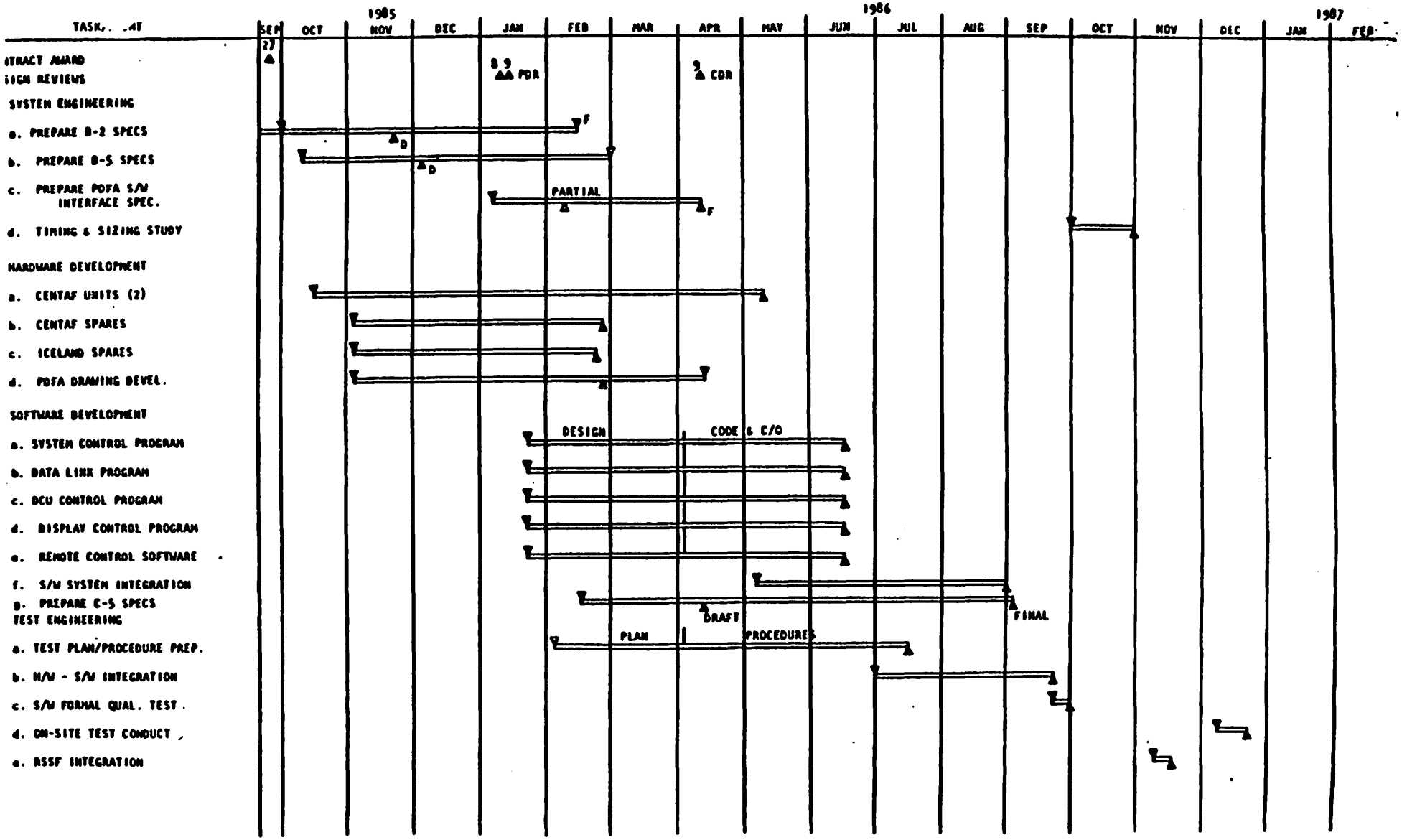
Received this 3 Feb 1986

David Yenowine

PLAINTIFF'S EXHIBIT
1601

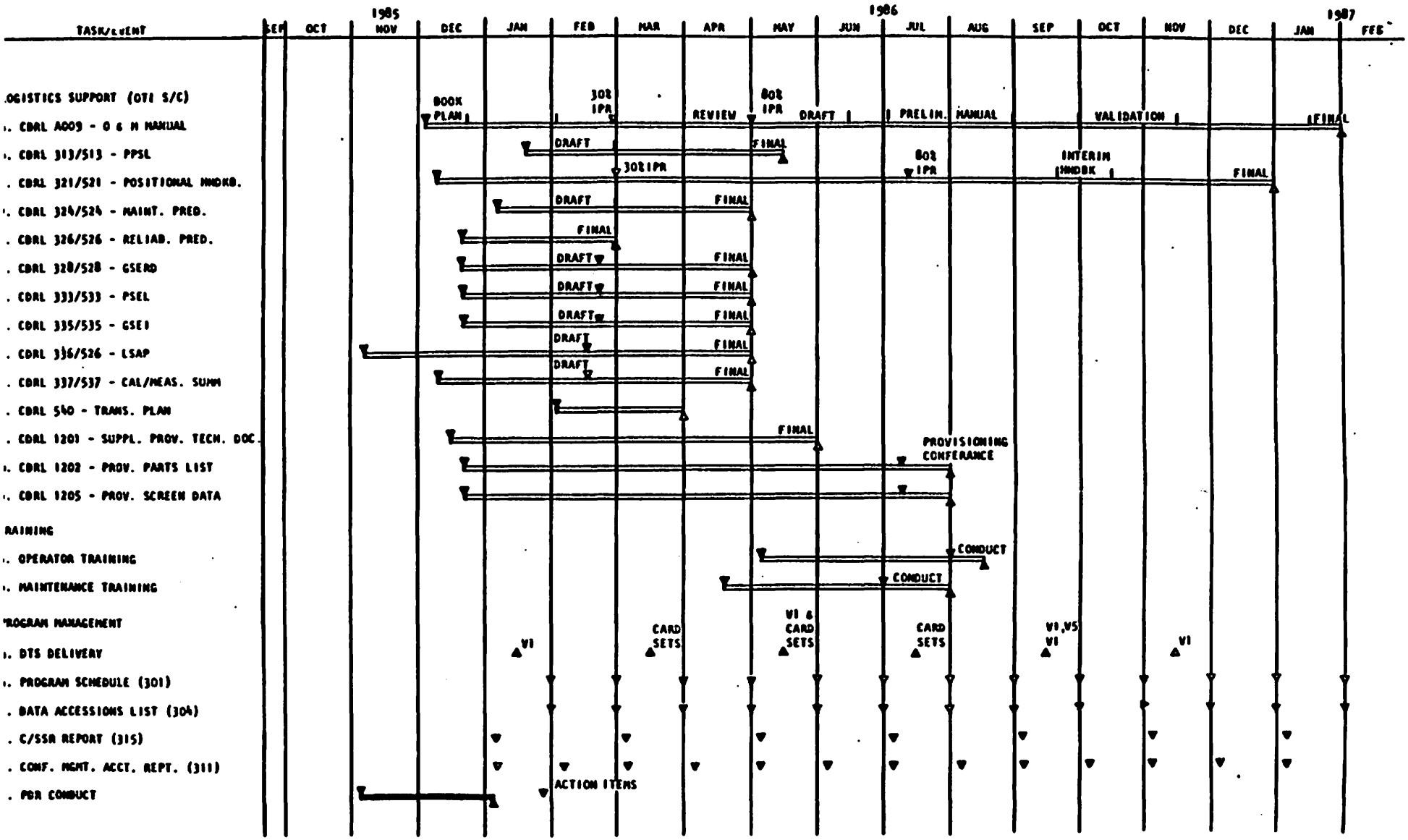
28 JANUARY 16

ICCE/CENTAF ··· SCHEDULE



2937

ICCE/CENTAF MAS[illegible]R [illegible]EDULE (CONT.)



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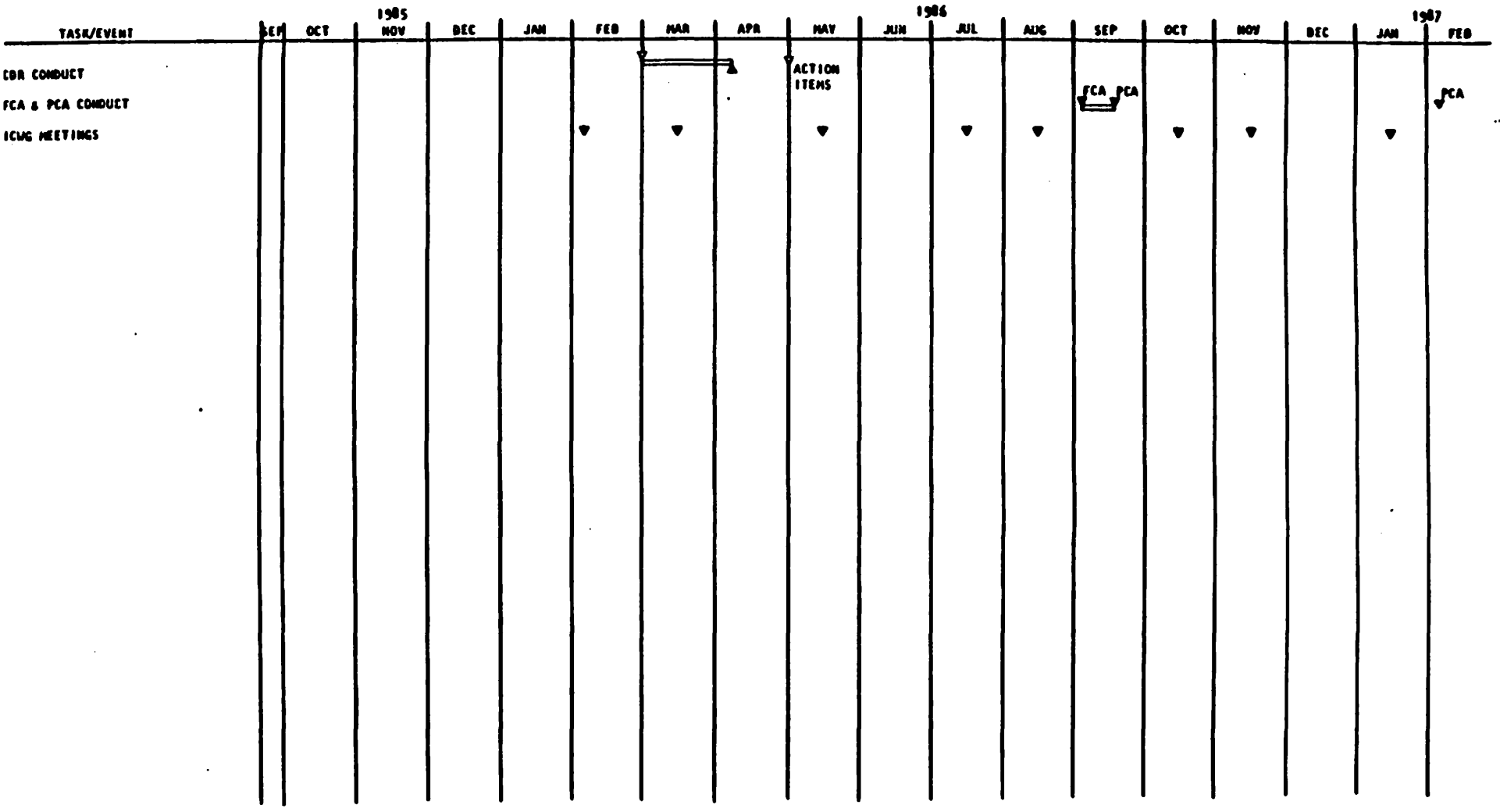

DTS PROCUREMENT

DATE REVISED: 22 January 1986

ITEM	QTY	DATE											
		12/85	1/86	2/86	3/86	4/86	5/86	6/86	7/86	8/86	9/86	10/86	11/86
10053													
V1	2										19 △		
V1	2		20 △										
CONTROL CARD SETS	2				19 △								
V1	1						19 △						
16393													
V5	2										FOC 19 △		
V10	1										FOC 19 △		
SPARE CARD SET	2						19 △ FOC		18 △ CENTAF				
GFE UNITS													
V3 TO GAC	3										19 △ (QTY 2) CENTAF		19 △ (QTY 1) RESF

LSI
WCH
CA
MOO
ICCE
FLG
ATY

FAXED 1/9/91

TechDyn SYSTEMS

CONTRACTS
MASTERFILE
1/10/91

9 January 1991

125-S001-1176

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

Attn: Ms. Marie Raymond
Manager, Contract Administration

Subj: Subcontract 125-001; ICCE Technical Order Verification

Ref: Letter, HQ ESD (Glowacki) to TechDyn (Hise), dated 4 January 1991, TNR-4-973

Dear Ms. Raymond:

TechDyn Systems has reviewed and is forwarding the referenced letter with regard to the subject ICCE Technical Order Verification to Whitttaker Electronic Systems (WES) for action.

Also, WES is hereby advised that TechDyn concurs with the Government's statement and recommendation in paragraph 5 of the aforementioned HQ ESD letter.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Hise

William C. Hise
Vice President

Enclosure: As stated

2941

PLAINTIFF'S EXHIBIT 1616

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • FAX: (703) 971-3525

Faxed IN & Distr. Marks

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

CONTRACTS MASTER FILE

04 JAN 1991

REPLY TO ATTN OF: TNK/TNR-4-973

SUBJECT: Contract F19628-85-C-0079, Iceland Command and Control Enhancement (ICCE) Program, Technical Order Verification

TO: TechDyn Systems Corporation
Attn: Mr. William C. Hise
6564 Loisdale Court
Suite 600
Springfield, VA 22150

1. References: a) TechDyn Ltr 125-C-0833 dated 28 Dec 90.
b) WES Ltr 9012-4391-MR dated 20 Dec 90.
c) ESD/TNR-4-939 Ltr dated 5 Dec 90.

2. During the Technical Order (T.O.) verification effort, Mr. Gene Desrosiers, Chairman/Technical Order Management Agency (TOMA), granted the subcontractor (WES) the opportunity to have a Technical Writer present during the verification effort. Ms. Laurie Weisbaum represented the subcontractor (WES) during this effort. Ms. Weisbaum discussed the comments with each Government reviewer to insure the comments were understood and clear enough for correction. In regard to reference b, WES states they provided a sample manual for purposes of agreement on format. The Government is unaware of such agreement or review.

3. In regard to references a and b, the Government position is that the comments (AFTO Form 158's) generated during the verification effort are accurate as submitted and properly reflect required changes to make the manuals acceptable to the Government.

4. The verification of the PDFA O&M Manual and the System Level Manual was stopped for various reasons and was not taken lightly by the Government. Every effort to continue was taken, but the problems encountered were too great to continue. It is not the Government's task, or intention, to re-write manuals during verification. That is a task of the contractor during validation. In this case, it appears that inadequate validation was performed, thus resulting in manuals with too many errors to allow for a proper verification effort.

5. We will support any Technical Interchange Meeting (TIM) with you and Whittaker to better understand the <u>technical comments</u> dealing with the "Will Not Comply and/or Confusing" areas as stated in reference b. Questions regarding format should be referred to the appropriate MIL-STD.

6. Point of contact is Mr. Richard Lemire or Mr. Gene Desrosiers, ESD/TNL, (617) 377-7214 or 7249 respectively.

7. Performance of the above task is considered to be within the present requirements of the subject contract. In the event the contractor does not agree that this task is within the present requirements, he/she shall take no action but must notify the Contracting Officer, in writing within seven (7) calendar days from this date.

DAVID S. GLOWACKI, CAPT, USAF
Contracting Officer
North Warning and North Atlantic
Defense Systems Directorate
DCS/for Contracting

ISH
H
KK
ICCE
HSO

TechDyn SYSTEMS

FAXED 3/6/91

CONTRACT MASTER FILE

6 March 1991

125-S001-1204

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

Attn: Ms. Marie Raymond
Manager, Contract Administration

Subj: Subcontract 125-001; ICCE Technical Order Verification

Ref: Letter, HQ ESD (Glowacki) to TechDyn (Hise) dated 27 February 1991, TNK/TNR-4-1033

Dear Ms. Raymond:

Enclosed please find a copy of the reference letter, which is provided for your information and action.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions concerning the above, please contact the undersigned at (703) 922-5100.

Sincerely,

Kamran Khan

Kamran Khan
Contracts Administrator

Enclosure: As stated

PLAINTIFF'S EXHIBIT 1031

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013 • FAX (703) 971-3928

LSH
MGP
LWB
MSO

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

CONTRACTS MASTER FILE

27 FEB 1991

REPLY TO ATTN OF: TNK/TNR-4-1033

SUBJECT: Contract F19628-85-C-0079, Iceland Command and Control Enhancement (ICCE) Program, Technical Order Verification

TO: TechDyn Systems Corporation
Attn: Mr. William C. Hise
6564 Loisdale Court
Suite 600
Springfield, VA 22150

1. Reference:
a) TechDyn Ltr 125-C-0836 dated 16 Jan 91
b) WES Ltr 9101-0029-MR/125-001 dated 22 Jan 91
c) TNK/TNR-4-973 Ltr dated 4 Jan 91
d) TNK/TNR-4-999 Ltr dated 28 Jan 91

2. The Government believes the issues in reference b, were discussed at the Technical Interchange Meeting (TIM) held at WES on 17 Jan 91. Once again, the Government has no intention of consolidating the Verification comments. We will support another Technical Interchange Meeting with you and Whittaker, if you feel one is necessary. In addition, the Government disagrees with WES (reference b, third paragraph statement) that we, the Government, have to share the responsibility for the Verification slippage due to not consolidating the comments. The Government position in this matter, as stated in reference c, remains unchanged.

3. The Government agrees that every effort must be made to complete this program in a timely manner. We feel that we have gone the extra mile already, and now it is time for WES to complete the manuals as required by the contract. As discussed during the reference d, Technical Interchange Meeting, the appropriate way to proceed with this effort is to first accomplish a true, Government witnessed, Validation in accordance with the approved plans.

4. As stated on numerous occasions, the Government wants it to be well understood, that when WES revisits the System Manual, it needs to be looked at as a true "system" manual. As currently written, it only refers to the CFA and PDFA on independent bases, and does not address the "system" parameters. Until this issue is properly resolved, the System Manual will not be acceptable to the Government.

5. Point of contact is Mr. Ken Andrews or Mr. Gene Desrosiers, ESD/TNL, (617) 377-7250/7249 respectively.

6. Performance of the above task is considered to be within the present requirements of the subject contract. In the event the contractor does not agree that this task is within the present requirements, he/she shall take no action but must notify the Contracting Officer, in writing within seven (7) calendar days from this date.

DAVID S. GLOWACKI, CAPT, USAF
Contracting Officer
North Warning and North Atlantic
Defense Systems Directorate
DCS/for Contracting

cc: SBA
SM-ALC/LHFFA/TILBB
HQ TAC/DRCS/SCLX
507 TAIRCW/LGK
ESD/TNR/TNR-4/TNC-DMO

TechDyn SYSTEMS

FAXED 3/6/91

CONTRACTS MASTER FILE

6 March 1991

125-S001-1203

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

Attn: Ms. Marie Raymond
Manager, Contract Administration

Subj: Subcontract 125-001; Completion of ICCE Software Delivery

Ref: (a) Letter, ESD (Glowacki) to TechDyn (Hise), dated 20 February 1991, TNK/TNR-4-1034

(b) Letter, TechDyn (Khan) to WES (Raymond) dated 21 February 1991, 125-S001-1199

Dear Ms. Raymond:

Enclosed please find a copy of the reference (a) letter provided for your information and action. This letter clearly defines the support software items that WES must deliver to complete the software delivery requirements of the ICCE program. TechDyn, as indicated many times in the past, concurs with the Air Force's interpretation of this contractual requirement.

The reference (b) letter indicates that delivery of the aforementioned software items is "extra-contractual." WES, once again, has failed to provide any contractual justification for this interpretation. The refusal of WES to provide the necessary source code is unsupported and unacceptable. TechDyn and the Air Force have informed WES repeatedly that it is a contractual requirement for WES to provide the source code software items listed in reference (a) so that the Air Force will have the software resources needed to allow software support of any Government-accepted modifications and upgrades to the present RADIL baseline.

Pursuant to reference (a), WES is directed to forward the nine (9) software items listed in said letter to TechDyn immediately. Delay in delivering these items is seriously impacting all efforts to complete the ICCE program and may result in WES being held further in DEFAULT under its Subcontract.

PLAINTIFF'S EXHIBIT 1635

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013 • FAX (703) 971-3928

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions concerning the above, please contact the undersigned at (703) 922-5100.

Sincerely,

Kamran Khan
Contracts Administrator

Enclosure: As stated

Faxed in & Distr. made

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

CONTRACTS MASTER FILE

20 FEB 1991

REPLY TO ATTN OF: TNK/TNR-4-1034

SUBJECT: Contract F19628-85-C-0079, Iceland Command and Control Enhancement (ICCE) Program, Completion of ICCE Software Delivery

TO: TechDyn Systems Corporation
Attn: Mr. William C. Hise
6564 Loisdale Court
Suite 600
Springfield, VA 22150

1. Reference:

a. ESD letter TNR-4-899 dated 9 October 1990, CLL Demonstration, ICCE Software Delivery and Software PCA
b. TechDyn letter 125-C-0834 dated 4 January 1991, Schedule Concerns
c. Whittaker Electronic System letter 9012-4386-MR/125-001 dated 17 December 1990

2. In reference 1.b, WES letter 1.c was quoted as saying that "WES has delivered all support software to the RSSF, and has, in fact delivered more than was originally envisioned and more than is required". The government takes exception with this position and maintains its request stated in reference 1.a that the contractor provide a "complete set of all the software required to perform a complete build of the ICCE executable software from source".

3. The Government has derived a list of source code which it has determined will suffice to complete this delivery, and, thus, allow the 4702 CSS to perform a complete system build.

4. The Contractor is hereby directed to deliver the following ICCE Source Code in tape format to the 4702 CSS, Tyndall AFB, FL, in order to complete the software delivery requirements of subject Contract:

a. DEBUG.LB

b. TCOM AOS

c. TCOM CCOS

d. FIXOL.PR

e. FIXPR.PR

f. FIXOV.PR

g. CMS2M4C compiler

h. MAPGEN

i. MAPDIGIT

5. Point of contact is TNR-4/Roger Culotta/719-554-6341.

6. Performance of the above task is considered to be within the present requirements, of the subject contract. In the event the contractor does not agree that this task is within the present requirements, he/she shall take no action but notify the Contracting Officer, within seven (7) calendar days from this date.

DAVID S. GLOWACKI, Capt, USAF
Contracting Officer
North Warning and North Atlantic
Defense Systems Directorate
DCS/Contracting

cc: SBA
TAC/DRCS
4702 CSS/ADXR
MITRE D65
TNR-4
TNR-4/DRC/R. Cullota
TNC
TNC/DMO

TechDyn

Actual Revenues (including Revenue from Small Business Administration (SBA) Special Pilot Program)

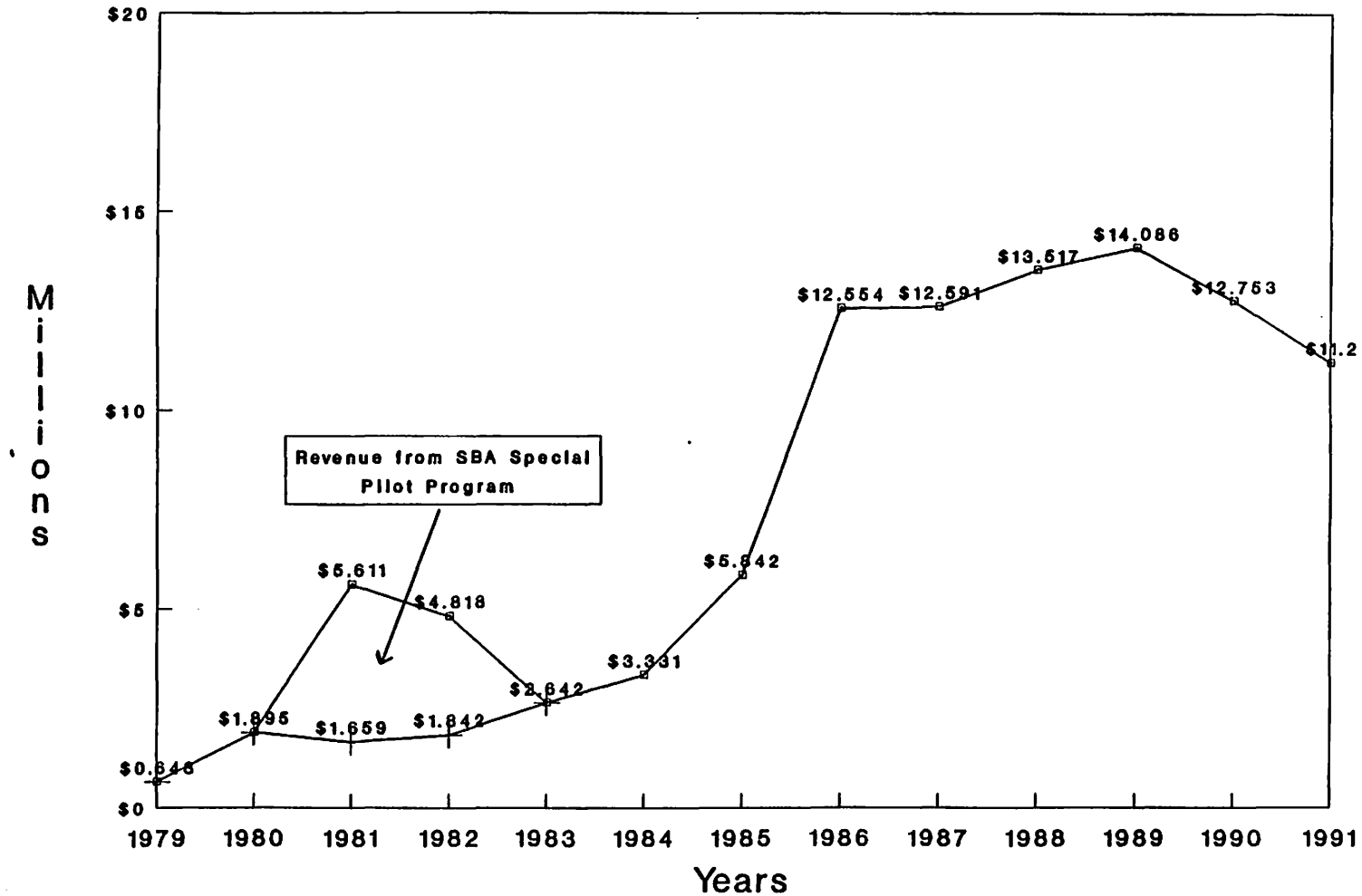

Exhibit 1

PLAINTIFF'S EXHIBIT 901

(End of clause)

(R 7-104.85(a) 1977 DEC)

52.242-11 F.o.b. Origin—Government Bills of Lading or Indicia Mail.

As prescribed in 42.1404-2(b), insert the following clause in solicitations and contracts when f.o.b. origin shipments are to be made using Government bills of lading or indicia mail, if indicia mail has been authorized by the U.S. Postal Service.

F.O.B.—GOVERNMENT BILLS OF LADING OR INDICIA MAIL (APR 1984)

(a) F.o.b. origin shipments shall be made on Government bills of lading, or, if the supplies are mailable, via the U.S. Postal System, using "Postage and Fees Paid" indicia labels.

(b) If Government bills of lading are not furnished with the contract or applicable ordering document, the Contractor shall obtain them from the Contracting Officer or designated representative.

(c) Unless otherwise directed, the Contractor shall address overseas parcel post to an ultimate DOD consignee in care of a designated Army, Air Force, or Navy (fleet) post office and not to, or in care of, a transportation officer, or other activity at a CONUS water or aerial terminal for transshipment.

(End of clause)

(R 7-104.85(b) 1973 APR)

52.242-12 Report of Shipment (REPSHIP).

As prescribed in 42.1406-2, insert the following clause in solicitations and contracts when carload or truckload shipments will be made to DOD installations or, as required, civilian agency facilities:

REPORT OF SHIPMENT (REPSHIP) (APR 1984)

Unless otherwise directed by the Contracting Officer, the Contractor shall send a prepaid notice of shipment to the consignee transportation officer when a truckload/carload shipment of supplies weighing 20,000 pounds or more, or a shipment of less weight that occupies the full visible capacity of a railway car or motor vehicle, is given to any carrier (common, contract or private) for transportation to a domestic (i.e., within the United States excluding Alaska or Hawaii, or if shipment originates in Alaska or Hawaii within Alaska or Hawaii, respectively) destination (other than a port for export). The notice shall be transmitted by rapid means (electrical if necessary) to be received by the consignee transportation officer at least 24 hours before the arrival of the shipment. When the length of time in transit will permit other than electrical means of transmission to provide the information 24 hours before the arrival of the shipment, the Government bill of lading, commercial bill of lading, or letter or other document that contains all of the following shall be addressed and sent promptly to the receiving transportation officer via United States mail. This document shall be prominently identified by the Contractor as being a "Report of Shipment" or "REPSHIP FOR T.O."

Message Example:

REPSHIP FOR T.O. 81 JUN 01
TRANSPORTATION OFFICER
DEFENSE DEPOT, MEMPHIS, TENN.
SHIPPED YOUR DEPOT 1981 JUN 1 540 CTNS MENS
COTTON TROUSERS, 30,240 LB, 1782 CUBE, VIA XX-YY*
IN CAR NO. XX 123456**-GBL***-C98000031****
CONTRACT DLA —— ETA*****-JUNE 5 JONES & CO., JERSEY CITY, N.J.

* Name of rail carrier, trucker, or other carrier.
** Vehicle identification.
*** Government bill of lading.
**** If not shipped by GBL, identify lading document and state whether paid by contractor.
***** Estimated time of arrival.

(End of clause)

(AV 7-105.4 1968 JUNE)

52.243-1 Changes—Fixed-Price.

As prescribed in 43.205(a)(1), insert the following clause in solicitations and contracts when a fixed-price contract for supplies is contemplated. The 30-day period may be varied according to agency procedures.

CHANGES—FIXED-PRICE (APR 1984)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(2) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.

(2) Method of shipment or packing.

(3) Place of delivery.

(b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the

PLAINTIFF'S EXHIBIT 2006

73-174 O—86——7

work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

(c) The Contractor must submit any "proposal for adjustment" (hereafter referred to as proposal) under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

(End of clause)

(R 7-103.2 1958 JAN)

(R 1-7.102-1)

Alternate I (APR 1984). If the requirement is for services, other than architect-engineer or other professional services, and no supplies are to be furnished, substitute the following paragraph (a) for paragraph (a) of the basic clause:

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(1) Description of services to be performed.

(2) Time of performance (i.e., hours of the day, days of the week, etc.).

(3) Place of performance of the services.

(R 7-1902.2 1971 NOV)

Alternate II (APR 1984). If the requirement is for services (other than architect-engineer services, transportation, or research and development) and supplies are to be furnished, substitute the following paragraph (a) for paragraph (a) of the basic clause:

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(1) Description of services to be performed.

(2) Time of performance (i.e., hours of the day, days of the week, etc.).

(3) Place of performance of the services.

(4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.

(5) Method of shipment or packing of supplies.

(6) Place of delivery.

(R 7-1902.2 1971 NOV)

(R 7-103.2 1958 JAN)

(R 1-7.102-2)

Alternate III (APR 1984). If the requirement is for architect-engineer or other professional services, substitute the following paragraph (a) for paragraph (a) of the basic clause and add the following paragraph (f):

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in the services to be performed.

(f) No services for which an additional cost or fee will be charged by the Contractor shall be furnished without the prior written authorization of the Contracting Officer.

(R 7-607.3 1972 APR)

Alternate IV (APR 1984). If the requirement is for transportation services, substitute the following paragraph (a) for paragraph (a) of the basic clause:

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(1) Specifications.

(2) Work or services.

(3) Place of origin.

(4) Place of delivery.

(5) Tonnage to be shipped.

(6) Amount of Government-furnished property.

(R 1-7.703-2)

Alternate V (APR 1984). If the requirement is for research and development and it is desired to include the clause, substitute the following subparagraphs (a)(1) and (a)(3) and paragraph (b) for subparagraphs (a)(1) and (a)(3) and paragraph (b) of the basic clause:

(1) Drawings, designs, or specifications.

(3) Place of inspection, delivery, or acceptance.

(b) If any such change causes an increase or decrease in the cost of, or item required for, performing this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in (1) the contract price, the time of performance, or both; and (2) other affected terms of the contract, and shall modify the contract accordingly.

(R 7-304.1 1965 JUN)

(R 1-7.304-1)

52.243-2 Changes—Cost-Reimbursement.

As prescribed in 43.205(b)(1), insert the following clause in solicitations and contracts when a cost-reimbursement contract for supplies is contemplated. The 30-day period may be varied according to agency procedures.

CHANGES—COST-REIMBURSEMENT
(APR 1984)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(1) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.

(2) Method of shipment or packing.

(3) Place of delivery.

(b) If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this contract, the Contracting Officer shall make an equitable adjustment in the (1) estimated cost, delivery or completion schedule, or both; (2) amount of any fixed fee; and (3) other affected terms and shall modify the contract accordingly.

(c) The Contractor must submit any "proposal for adjustment" (hereafter referred to as proposal) under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

(e) Notwithstanding the terms and conditions of paragraphs (a) and (b) above, the estimated cost of this contract and, if this contract is incrementally funded, the funds allotted for the performance of this contract, shall not be increased or considered to be increased except by specific written modification of the contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract. Until this modification is made, the Contractor shall not be obligated to continue performance or incur costs beyond the point established in the Limitation of Cost or Limitation of Funds clause of this contract.

(End of clause)

(R 7-203.2 1967 APR)

(R 1-7.202-2)

Alternate I (APR 1984). If the requirement is for services and no supplies are to be furnished, substitute the following paragraph (a) for paragraph (a) of the basic clause:

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(1) Description of services to be performed.

(2) Time of performance (i.e., hours of the day, days of the week, etc.).

(3) Place of performance of the services.

(R 7-1909.2 1971 NOV)

Alternate II (APR 1984). If the requirement is for services and supplies are to be furnished, substitute the following paragraph (a) for paragraph (a) of the basic clause:

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

(1) Description of services to be performed.

(2) Time of performance (i.e., hours of the day, days of the week, etc.).

(3) Place of performance of the services.

(4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.

(5) Method of shipment or packing of supplies.

(6) Place of delivery.

TechDyn

CONTRACTS MASTER FILE

Hise 5/20/86

19 May 1986

125-C-0096

Department of the Air Force
HQ, Electronic Systems Division, PKS-3
Mitre Bldg. Oak Park, Room 1N507
Hanscom Air Force Base, MA 01731-5000

Attn: Mr. Stephen L. Smith
Contracting Officer
Directorate of Strategic
System Contracts
Deputy for Contracting

Subj: Contract F19628-85-C-0079; Action Items No. 7 and No. 8

Ref: Letter, Hanscom (Smith) to TechDyn (Hise) dated 15 May 1986

Dear Mr. Smith:

As directed in paragraph 6 of the referenced letter, this is to advise you that the Government's position on the Technical Manuals and Provisioning requirements of the subject contract is not considered by TechDyn Systems to be within the scope of the existing contract requirements. TechDyn is currently putting together the details of its position and will submit this to you when completed.

If you have any questions concerning this matter, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Hise

William C. Hise
Director
Management Support Operations

WCH/meb

DEFENDANT'S EXHIBIT 3N

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 92

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731

CONTRACTS MASTER FILE

21 May 1986

Mr Leo Morrison, President
TechDyn Systems Corporation
6564 Loisdale Court, Suite 600
Springfield, VA 22150

Ref: Contract F19628-85-C-0079

Dear Mr Morrison

Thank you for your responsiveness to our needs during the program management review for the Iceland Command and Control Enhancement Program on 15 - 16 May 1986. Your staff and your subcontractor kept cool under fire and obviously tried to be helpful. In this respect, we have made progress.

However, I must convey my dismay at the continuing lack of cohesiveness in the management of the program. Conflicting schedule data is inexcusable at this point in the program. The lack of an integrated program schedule is totally unacceptable. Without a sound management approach and an integrated schedule, you have no way of identifying impacts, such as those which would result from a delay in the Critical Design Review.

A program management review must provide both the contractor and the customer insight into the tasks of the program — what they are, who's responsible for them, when they are to be completed, how they relate to each other, and the current status of each activity (percent complete, problems that must be resolved). The management review is not the time for a tutorial on reliability, maintainability and availability. We simply don't have the time for that. But we do need to know the status of the RMA Program. That we did not hear.

In summary, the review on 15 May was the worst I have seen in 20 years in the Air Force. The presentations were inconsistent and some approached incoherence. The lack of coordination and organization might have been more understandable early in the program, but not this far along. TechDyn did not demonstrate the degree of professionalism which I believe you wish to achieve.

You have simply got to get organized to manage toward success. You have got to get people who know how to manage and then listen to them. You have some competent people but you also have some glaring weaknesses.

4H

DEFENDANT'S EXHIBIT 4H

I do not demand only one way of doing something. I am flexible and willing to consider anything that is logical, sensible and responsive. TechDyn has yet to prove its ability to manage a moderately complex Air Force program. There is time to change that impression. I and my staff are pledged to help as much as we can. But the bottom line is that we insist on good performance. TechDyn and its subcontractors must provide that good performance.

Sincerely

RICHARD C. RUCHALL, JR, Col, USAF
System Program Director
North Atlantic Defense Systems
Deputy Commander for Strategic Systems

Whittaker

Tasker Systems Division
Whittaker Corporation
1785 Voyager Avenue
Post Office Box 8000
Simi Valley, California 93063-8000
Telephone (805) 584-8200
Telex 65-1329 TWX 910-494-1214

05 August 1988

88-8-1017-FB/ICCE

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: William C. Hise, Vice President

Subject: Subcontract 125-001; Stoppage of Work.

Reference:
A) WES letter Bohler to Hise dated 8 July 1988
B) WES letter Bohler to Hise dated 21 July 1988
C) TechDyn letter 125-S001 0718 dated 15 July 1988
D) TechDyn letter 125-S001 dated 26 July 1988
E) WES letter Bohler to Hise dated 18 July 1988
F) TechDyn letter 125-0727 dated 29 July 1988

Gentlemen:

By References A) and B), Whittaker Electronic Systems (WES) notified TechDyn that WES must stop work under the Subject Subcontract; first on the Remote Control Element (RCE) software development (Reference A) due to TechDyn furnished hardware being unsuitable for its intended use and then on the subcontract as a whole (Reference B) due to the lack of a clear statement of work for WES or distinction of effort between WES and TechDyn in the subcontract. The latter created a situation in which it was not possible for WES to perform. Work was stopped and a request was made to TechDyn for a meeting to clarify and re-define the subcontract.

TechDyn responded by Reference C), D) and F) without reference to the requested meeting alleging that the reasons cited by WES for stopping work were without merit.

In Reference C), TechDyn contends that:

2958

1) WES was awarded the responsibility for the hardware design, installation, integration and testing of the Remote Control Element (RCE) under CLIN 2AB of Modification No. 3, S/C 125-001.

DEFENDANT'S EXHIBIT
109

WES Response: WES did not accept and does not find this assignment of effort under CLIN 2AB or any other CLIN in the subcontract. WES hereby requests TechDyn to provide the specifics of this assignment to WES it claims is in the subcontract.

2) WES's past performance shows that Whittaker prepared and submitted all of the design and engineering input for the RCE.

WES Responce: WES unequivocally did not prepare or submit the design and engineering input to TechDyn for the RCE. Moreover, as noted above, WES has no contractual responsibility for this effort.

3) Whittaker has also previously acknowledged its responsibility for integration and testing of the RCE.

WES Response: WES has never been responsible for any RCE integration and testing under the subcontract other than for the RCE software into the CFE computer and consistant with the lack of responsibility has never acknowledged such responsibility.

4) The equipment that TechDyn procured for the RCE was procured in accordance with the data provided by Whittaker.

WES Response: WES did not provide such data as it had no resposibility under the subcontract to do so.

5) It is TechDyn's position that the real problem with the RCE lies in the fact that Whittaker has been unable to develop software that will work properly with the RCE that it designed and developed.

WES Response: It is WES's contention that software developed in accordance with the ICCE specifications will not work on the inadequate CFE hardware that TechDyn provided. The matter of design and development of the CFE hardware has already been dealt with above.

6) From the inception of the subcontract, Whittaker has provided TechDyn with monthly breakdown showing cost incurred by CDRL? (CLIN).

WES Response: WES has met its contractual obligation to submit such data. None of the submittals included any costs for the design, installation, integration and testing of the RCE other than for the WES developed software into the CFE computer.

7) Whittaker has provided a clear record of incurred cost in support of the design, installation, integration and testing of the RCE.

WES Response: See Response to 6) above. If TechDyn has a "clear record of incurred (WES) cost for design, installation, integration and testing (other than software) of the RCE", they are invited to provide it to WES.

Reference D):

8) Subsection 1.1 (c) of said SOW clearly provided Whittaker with the direction for providing the "Design, fabrication and provision" of the RCU.

WES Response: The SOW itself provides no direction directly to WES as it is directed to TechDyn by ESD. As TechDyn acknowledges, this SOW was never included in any contractual documents subsequently signed by TechDyn and Whittaker.

9) Whittaker, in referencing said SOW, has only provided additional evidence that it has always been directly responsible for the design of the RCE.

WES Response: To the contrary. As noted in WES Response to TechDyn's Contention No. 8 above, the SOW which WES was given in the RFQ never became a part of Subcontract 125-001. Amendment No. 1 to this RFQ SOW, referred to in Reference E), deleted all WES requirements for the RCE except for the software and S/W documentation. This is what WES proposed and what became the subcontract RCE requirement for WES.

10) The Subject Subcontract 125-001 and Modification No. 3 to same, both of which were accepted and signed by Whittaker, provided clear direction to Whittaker for the design, installation, integration and testing of the RCE.

WES Response: Refer to WES Response to TechDyn Contention No. 1 above. If TechDyn can provide such clear direction from the Subcontract, please do so.

11) Whittaker has demonstrated a long record of performance and admitted responsibility for the design, installation, integration and testing of the RCE.

WES Response: Refer to WES Responses under TechDyn Contentions 1, 2, 3, 4, 5, 6 and 7.

12) Whittaker has billed for, and TechDyn has paid for this effort (design, installation, integration and testing of the RCE).

WES Response: WES has never billed and TechDyn has never paid for design, installation, integration and testing of the RCE. If TechDyn has any other record of WES billing and TechDyn paying for the RCE effort in question, please provide it.

13) TechDyn reiterates its position that Whittaker must assume full responsibility for the design, installation integration and testing of the RCE as tasked.

WES Response: As noted in all WES Responses above, there is no assignment to WES of this task in Subcontract 125-001, nor has TechDyn demonstrated that there is.

14) TechDyn holds Whittaker fully responsible for this blatent breach of contract and attendant additional costs incurred by TechDyn as a result.

WES Response: The portions of the CFA which TechDyn provided WES access to under the Subcontract for the purpose of testing the RCE software developed by WES was not suitable for its intended use under the Subcontract. Rather than a blatent breach of contract by WES, there is a cost and schedule impact to the contract due to inadequate CFE furnish by TechDyn which resulted in WES being unable to continue work until the CFE is repaired or replaced.

Reference F):

15) In view of the Stoppage of Work by Whittaker, all Progress Payments under the Subcontract are stopped.

WES Response: While it follows that Progress Payments and performance of work are certainly connected, it does not follow, nor is it excusable, that Progress Payments for invoices previously submitted by WES for work already properly accomplished in good faith are not paid. There is presently $1,943,467 in outstanding invoices owed to WES by TechDyn. There is no justification for this lack of monetary responsibility on the part of TechDyn and WES hereby demands immediate payment of the money it has properly invoiced. In view of the fact that $854,000 of the outstanding invoices are over 90 days old, invoices for accrued interest are in process for submittal to TechDyn.

The Reference F) notice of Progress Payment suspension is the only response WES has received from TechDyn to its 21 July 1988 stoppage of work notification and request for an immediate TechDyn/WES meeting. TechDyn is hereby again requested to convene this meeting as soon as is possible in order to reach agreement on and clearly define our respective scopes of work and responsibilities so that work may resume and the program brought to a mutually successful conclusion. Until such time, the program cannot be concluded by WES nor work continued in any meaningful manner.

Respectfully,

WHITTAKER ELECTRONIC SYSTEMS

Frank L Bohler

Frank L. Bohler
Director of Contracts

FLB:lm

TechDyn SYSTEMS

26 July 1988

125-S001-0724

Whittaker Electronic Systems
1785 Voyager Avenue
P. O. Box 8000
Simi Valley, CA 93063-8000

DEFENDANT'S EXHIBIT 70l

Attn: Mr. Frank Bohler
Director of Contracts

Subj: Subcontract 125-001; Remote Control Element, Stoppage of Work

Ref: (a) Letter, WES (Bohler) to TechDyn (Hise), dated 18 July 1988
(b) Letter, TechDyn (Yanowine) to 4C (Southerland) dated 30 April 1985
(c) Letter, TechDyn (Hise) to WES (Brancati), dated 15 July 1988, 125-S001-0718

Dear Mr. Bohler:

TechDyn Systems has reviewed the referenced (a) letter with regard to the subject Remote Control Element (RCE) and finds the position stated therein untenable.

Whittaker Electronic Systems (WES) cites the elimination of subsection 1.1 (b) from the Statement of Work (SOW) provided under the referenced (b) letter as the basis for its position of not having any reponsibility for the RCE. However, subsection 1.1 (c) of said SOW clearly provided Whittaker with the direction for providing the, "design, fabrication and provision", of the RCU. Whittaker, in referencing said SOW, has only provided additional evidence that it has always been directly responsible for the design of the RCE.

It is further TechDyn's position that any argument based on the Statement of Work referenced above is moot. This SOW was never included in any contractual document subsequently signed by TechDyn and Whittaker. The subject Subontract 125-001 and Modification No. 3 to same, both of which were accepted and signed by Whittaker, provided clear direction to Whittaker for the design, installation, integration and testing of the RCE. TechDyn has never taken any subsequent action relieving Whittaker of this task.

As stated in the referenced (c) letter, Whittaker has demonstrated a long record of performance and admitted responsibility for the design, installation, integration and testing of the RCE. In addition, Whittaker has billed for, and TechDyn has paid for,

6564 LOISDALE COURT, SUITE 500, SPRINGFIELD, VIRGINIA 22150 • (703) 922-8100 • TELEX 901013 • FAX (703) 971

this effort. The fact that Whittaker is now experiencing problems with the equipment it designed does not relieve Whittaker of its contractual responsibilities.

TechDyn reiterates its position that Whittaker must assume full responsibility for the design, installation, integration and testing of the RCE as tasked. Further, TechDyn holds Whittaker fully responsible for this blatant breach of contract and any additional costs that TechDyn incurs as a result thereof.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Senior Contract Administrator

MSR/llc

TechDyn SYSTEMS

200078

12 January 1989

125-S001-0787

Whittaker Electronic Systems
1785 Voyager Avenue
P.O. Box 8000
Simi Valley, CA 93063-8000

REC'D JAN 18 1989

DEFENDANT'S EXHIBIT 204

Attn: Mr. Frank Bohler
Director of Contracts

Subj: Subcontract 125-001; Ten Day Cure Notice for the Remote Control Element (RCE)

Ref: (a) Letter, HQ ESD (Banks) to TechDyn (Hise), dated 26 August 1988, NADS 676
(b) Letter, TechDyn (Rosen) to WES (Bohler), dated 30 August 1988, 125-S001-074
(c) Letter, TechDyn (Rosen) to WES (Bohler), dated 6 January 1989, 125-S001-0786
(d) Letter, WES (Bohler) to TechDyn (Rosen), dated 11 January 1989, 8901-1310-FB/125-001

Dear Mr. Bohler:

TechDyn Systems Corporation, in accordance with FAR Clause 52.249-8 "Default (Fixed Price Supply and Service)", incorporated into the subject Subcontract 125-001 by Section 2-33 of, and Modification No. 3 to same, is herewith issuing this Ten Day Cure Notice to Whittaker Electronic Systems (WES) due to WES' failure to make progress, so as to endanger performance of the subject Subcontract, with regard to the Remote Control Element (RCE). WES was subcontracted to develop the RCE by CLIN 2AB and portions of CLIN 57 under said subcontract. Due to WES' failure to demonstrate satisfactory progress under the above stated CLIN's, TechDyn is considering terminating said CLINs, or relevant portions thereof, with regard to the RCE, for Default.

TechDyn has provided guidelines and lenient A-Specification interpretation to WES to alleviate on-going RCE design problems. TechDyn forwarded the referenced (a) letter by the referenced (b) letter to WES in this regard. To date, TechDyn has never received a response to this letter. In addition, TechDyn has provided consistent guidance to WES with regard to the RCE and WES has either provided insufficient responses, or failed to respond at all.

Pending a final decision in this matter, it will be necessary to determine whether your failure to perform arose from causes beyond your control and without fault or negligence on your part. Accordingly, you are given the opportunity to present, in writing, any facts bearing on the question to the

undersigned, within ten (10) calendar days of the date of this notice. Your failure to present any excuses within this time may be considered as an admission that none exist. Your attention is invited to the respective rights of the subcontractor and TechDyn Systems Corporation and the liabilities that may be invoked if a decision is made to terminate for Default.

Any assistance given to you on this contract or any acceptance by TechDyn Systems Corporation of delinquent goods or services will be solely for the purpose of mitigating damages, and it is not the intention of TechDyn Systems Corporation to further condone any delinquency or to waive any rights that TechDyn Systems Corporation has under the contract.

We consider your reference (d) response to the referenced (c) letter to be unacceptable.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Manager of Contracts

MSR/kjs

Whittaker

Whittaker Electronic Systems
1785 Voyager Avenue
Post Office Box 8000
Simi Valley, California 93063-8000
Telephone (805) 584-8200
Telex 65-1329 TWX 910-494-1214

18 January 1989

89Ø1-1318-FB/125-ØØ

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: Mr. Max S. Rosen

Subject: Subcontract 125-001: Cure Notice for Remot Control Element (RCE) Effort of the ICCE Program

Reference: a) TechDyn 125-SØØ1-Ø787, Subject: Subcontrac 125-ØØ1, Ten Day Cure Notice for the Remot Control Element (RCE), dated 12 January 1989

b) TechDyn 125-SØØ1-Ø742, Subject: Subcontrac 125-ØØ1: ICCE Remote Control Element (RCE) Design dated 3Ø August 1988

Dear Mr. Rosen:

Whittaker Electronics Systems has received reference a) letta and is unable to determine the reasons for the TechDyn Systen allegation of possible default in the performance of the Remot Control Element (RCE) task under subject subcontract.

As you are aware, the shortcomings of the TechDyn furnished RC test and development system, containing the deliverable RC hardware, led to the WES stoppage of work on this effort unti such shortcomings were resolved. WES attachment 1) lettar, data 8 July 1988 advised, "Until the TechDyn hardware problems ar identified and resolved, continuation of the software developmen effort is not possible." To date, WES has not been notified tha the RCE hardware has been improved to allow contractua compliance. Further, the removal of this system, in late Augus 1988, almost two weeks prior to the WES resumption of work on t subject subcontract effort, has made it impossible to resu progress on <u>any</u> tasks which require use of that system. A tasks, however, not requiring the use of the CFE equipment f the RCE have been diligently addressed and executed.

The misunderstanding which has resulted in the generation of reference a) letter appears to stem from the continuing confusion in interpretation of the scope of work as required under the subcontract. The statements in the reference a) letter which refer to on-going design problems as well as the statement that "Whittaker must assume full responsibility for the design, installation, integration and testing of the RCE" as stated in attachment 2) letter show that the TechDyn Systems position on the RCE tasks continues to include the allegation that WES is responsible for both the hardware and software of the ICCE RCE. WES maintains and has consistently maintained that its responsibility in the RCE effort, as negotiated and included in the subcontract, is for development and test of the RCE software only. The following discussion, which further documents and justifies the WES position on RCE responsibility, demonstrates that the development, fabrication and test of the RCE hardware has been accomplished by TechDyn Systems and is the responsibility of TechDyn Systems.

During the proposal phase of the ICCE subcontract, TechDyn, via letter 125-C-0007, dated 30 April 1985, forwarded to WES a Statement of Work for ICCE & CENTAF Programs (Attachment 3) that included the following:

> "1.1 <u>Special Requirement</u>: As indicated above, 4C's area of concentration is the Processing and Display Functional Area (PDFA) as stated in Section 3, this SOW. However, in addition to the PDFA, the subcontractor is requested to plan the design, fabrication and provision of: (a) special 2w/4w voice and data bridges, (b) special switching central interface cards, and (c) special RCU microprocessor controller/UHF interface cards to interconnect voice and data circuits at the main switch control and at each of the designated remote ICCE sites. The specifications/requirements for the bridging equipment are those proposed by Dr. James W. Sutherland, 4C, in schematic diagrams offered to TechDyn (attached as Enclosure 1)."

This paragraph in the RFP is important because, as shown, WES was originally asked to provide a <u>complete</u> remote control/switching unit to include hardware and software, based upon conceptual sketches (not drawings) provided TechDyn by the 4C(WES) Director of Business Development.

On 7 May 1985, however, by TechDyn letter subject: Statement of Work for FOC portion of the ICCE Program; Amendment No. 001 (attachment 4) the requirement was changed as follows:

"1. The requirement in paragraph 1.1 (b) of the original SOW is hereby deleted. TechDyn has selected a switch which does not require a "special interface card".

2. The following requirement is hereby added:

a. Develop computer software and documentation in accordance with section 3.3.8 of the specification (ESD-SS-1020) for installation on the remote control functions as defined in the ICCE specifications . . ."

Regarding paragraph 1.1 of the Statement of Work cited above, entitled Special Requirement, the 'schematic diagrams" (attachment 5) are merely conceptual sketches submitted by Dr. Sutherland to lay out the basis for a switching system to be used in remotely controlling radios at the unmanned GESs and do not represent the delivery of a system design. Amendment number 001 to the RFP deleted the requirement in paragraph 1.1(b), and the hardware design, as conceptually provided to TechDyn, was altered and, therefore, was effectively assumed by TechDyn prior to award of the WES subcontract when selection was made of the switch, and the aforementioned "special interface card," to be used in the Remote Control Element design. The proposed cost of the hardware design, fabrication and test was removed from the WES proposal prior to award of Modification #003, which included the RCE task, to subcontract 125-001.

Further, TechDyn is to be reminded that pre-award discussions between TechDyn and WES changed the original concept of complete design, development and test of the entire RCE by WES and led to the TechDyn purchase, assembly and provision of the RCE hardware. The elements of hardware selected by TechDyn were computers, interface buses, modems and switching modules, which TechDyn chose to procure, integrate and provide to WES for development and test of the RCE software, the only task for which WES is responsible. As further reasoning for the WES position of TechDyn responsibility, and TechDyn's previous admission of the responsibility for RCE hardware design, not only was he RCE hardware chose, procurement and assembled by TechDyn Systems, but all of the configuration item product specifications (CIPS) were written and submitted by TechDyn based upon the hardware commonents that they selected for their proffered design. These actions clearly show that TechDyn accepted the responsibility for the design and development of the RCE hardware and further show that WES can only be responsible for the design, development and documentation of the software

needed to assure compliant operation of the hardware, assuming that the hardware design is operationally effective.

In addition,. during the pre-testing phases of the RCE task a number of problems have persisted in the TechDyn selected hardware (e.g. computer reliability; overheating of components; slow reaction times in the digital switch). These problems have hampered the orderly design and development of the software. The identification of these RCE hardware problems has been time consuming for WES and is out-of-scope to the present TechDyn/WES subcontract. Hardware problems of the RCE test and development system relate to various pieces of equipment in the hardware design as described below:

a. CODEX LSI-48I Modems

The first modem provided by TechDyn as a part of the Remote Control Element design was the Codex LSI-481 modem. The following discussion documents problems encountered with this portion of the design. Initial analysis of test programs indicated that these modems would not re-train after a line interruption of more than 90 seconds. Without this re-train the modems will not communicate with one another over the analog interface (hardwire or telephone-grade circuits). The modems can be made to re-train manually by pressing the "Data Clamp" button on the front of the modem. This is an unacceptable approach since the Iceland design is for, predominantly, unmanned or unattended locations.

After further analysis and testing, WES engineers were able to reproduce the problem using only the LSI-48I modems, the IDS-9000 switches and the Hewlett Packard 4951B Protocol Analyzer. The Bit-Error-Rate Test (BERT) feature of the Protocol Analyzer was used to replicate the modem communication failure. The IDS-9000 switch module was ruled out as a cause of this problem because the modems themselves indicated that a valid analog signal was accepted from the switches, i.e., the "Good Data" light would illuminate.

A thorough review of the problem was conducted by WES and Codex field engineers and applications engineers from the Codex Long Beach, California office. The problem was demonstrated to Mr. Guy Weire, Codex, as he attempted altering the modem strapping options and switch configurations. When these attempts failed, Mr. Weire contacted the design engineers at the Codex factory, and on the basis of these conversations Codex informed WES that the 90 second cut-off problem was

actually a designed-in feature of the LSI-48I modem that was selected for use in the hardware design b TechDyn. The result of these tests, and the course o events leading to them, were reported to Mr. Glenn Hel wig, TechDyn Systems, in order to get a determinatio of design changes that TechDyn, as the system/hardwar engineers/integrators desired to make. Codex requesta that TechDyn return the modems to determine the correc configuration of the modems. At some point, however Codex informed TechDyn that the LSI-48I modem would no work in the design environment that TechDyn had select ed, and that another Codex modem (Codex 2325) was mor appropriate.

The LSI-48I problem considerably slowed the RCE soft ware development effort. Many man weeks of effort wer expended in isolating the problem, writing softwar test drivers, retesting, and communicating with th modem engineers, which was not planned in th contractual task and is beyond the scope of the presen subcontract.

b. <u>Codex 2325 Modems</u>

The Codex LSI-48I Modems were replaced with the Code 2325 Modem. Tests have proven that the Codex 232 Modems are able to perform the basic communication between the RCE Master Control Unit (MCU) and a singl ground entry station (GES) for an extended period o time without problems. This is a standard or norma use of these modems, where they perform an initia "train" to synchronize their communications with eac other and maintain the circuit to pass data. Codex ha some additional features to enhance this type of dat communications. These are "Train on Data" an "Bridging."

However, the problem is that this off-the-shelf equip ment selected by TechDyn is being used in a new ap plication for which the modem design was not intended Specifically, the modems were not designed to switch o and off between various modems. Codex describes thi modem as being one capable of point-to-point dat exchange and/or multipoint data exchange. However, th ICCE application can be best described as switchabl point-to-point -- in other words a "smart" modem- which is not a feature of the Codex 2325 modem.

Specifically, the problem of the Codex 2325 in the ICCE design concerns the "Bridging" feature. "Bridging" describes the condition when communications circuits are capable of being broken and then, when restored, allowing the modems to pick up the data without requiring a "re-train". In the ICCE design the Master Control Unit (MCU) must switch between ground entry stations (GES) without losing synchronization, since the GESs are unmanned. However, when this is attempted, the modem is interrupted, apparently by the noise of the switch selected by TechDyn (see Attachment 4) and operates as if another modem is being "Bridged" onto the <u>same GES</u> instead of switching to a new GES. Synchronization is thereby lost and the circuit path is broken.

All information available to WES on this problem was turned over to the TechDyn engineering staff in July 1988, since TechDyn was responsible for the selection and design of the RCE hardware. However, a resolution of the problem has not been determined and continues as an open issue.

c. <u>Zenith Z-150 Computer</u>

WES has additionally expended resources not envisioned during the subcontract negotiation in trying to overcome general hardware reliability and maintenance problems with the RCE hardware furnished to WES by TechDyn. These problems, which have occurred due to TechDyn's refusal to recognize their responsibility for the integrity of the RCE hardware design and operation, concern reliability and maintenance of the hard disks, keyboards and Z-304 communications cards.

WES has spent many hours on the identification of these problems as well as the attempt to overcome the hardware inadequacies with software solutions. It is incomprehensible to WES that, only when it become evident to both WES and TechDyn that the software designs and re-designs could not overcome the hardware deficiencies and make the hardware compliant with the Government requirements that TechDyn took the position that WES is accountable for <u>all</u> RCE problems, even though TechDyn had previously assumed this responsibility.

TechDyn Systems is responsible for the RCE hardware and has met this responsibility by providing the hardware for the RCE function. It is the further responsibility of TechDyn Systems to provide an RCE test and development system that will allow

contractual compliance. As shown above and as stated i attachment 1), the RCE hardware is "not adequate for its intende use" and is incapable of performing the RCE task in accordanc with the contractual specifications. To date, WES has receive no indication that the RCE hardware has been improved and i available for continuation of the RCE software development task In fact, in attachment 6), on 12 August 1988, TechDyn stated tha "we plan to propose to the Air Force that the Remote Contro Element be accepted in its present configuration and with it present operational capability." That discussions regarding th RCE are on-going is evident by the WES receipt of such letters a TechDyn 125-S001-0786, dated 6 January 1989, (attachment 7) whic identifies four UHF hardware options and one HF hardware optic leading to a rebaselining modification for Remote Control Elemen implementation. Continued effort on the software portion, eve if presently possible, would be imprudent until the hardwar issues are resolved.

The allegation in reference a) letter that WES failed to respon to reference b) letter of 30 August 1988 is incorrect. WES di respond, in a timely manner, to that communication in letta 8809-1065-FB/ICCE, dated 9 September 1988 (attachment 8) advising that "WES herein states its acceptance of TechDyn' direction regarding the RCE." As previously noted, however, WES has been unable to perform any software connected task becaus the RCE hardware was unavailable to WES during the last quarte of 1987. Although TechDyn letter 125-S001-0767, dated 27 Octobe 1988 (attachment 9), advised that "TechDyn has since establishe a CONUS test bed and training facility at Veda in Camarillo California," a query to that facility as late as December 198 resulted in information that the equipment had not yet arrive there.

It is surprising and frustrating to WES that TechDyn

1) continues to maintain that the entire RCE task is th responsibility of WES, despite previous TechDyn actions t the contrary, and despite the WES stoppage of work on th task based upon improperly functioning CFE hardware,

2) considers a termination for default based on the belie that WES can continue progress on the software portion o the RCE without the RCE hardware or the ICCE developmen system, and

3) alleges non-response to issues when response has bee provided in a timely manner.

WES, in all aspects of subcontract performance, including the RCE task, has acted in a responsible manner, advising TechDyn of all problems encountered, providing engineering analyses of the problems and their apparent causes, and stopping work on the task only when continued performance was proven to be an impossibility. It is not the fault of WES that the hardware provided by TechDyn failed in its performance of the contractual task. Accordingly, responsibility for the lack of completion of the RCE portion of the ICCE contract can not be attributed to fault or negligence on the part of WES.

Sincerely,

WHITTAKER ELECTRONIC SYSTEMS

Frank L. Bohler

Frank L. Bohler
Director of Contracts

Attachments:

1) WES letter, Subject: Subcontract 125-001, dated 8 July 1988

2) TechDyn 125-S001-0724, Subject: Subcontract 125-001; Remote Control Element, Stoppage of Work, dated 26 July 1988

3) TechDyn 125-C-0007, Subject: Statement of Work for ICCE and CENTAF Programs, dated 30 April 1985

4) TechDyn letter, Subject: Statement of Work for FOC Portion of the ICCE Programs, dated 7 May 1985

5) Conceptual sketches for RCE hardware, Enclosure 1 Statement of Work for ICCE and CENTAF Programs

6) TechDyn 125-S001-0731, Subject: ICCE, Statement of Work, CDRL and Specification Changes, dated 12 August 1988

7) TechDyn 125-S001-0786, Subject: ICCE Statement of Work, CDRL and Specification Change Proposal FOC-1 and FOC-2, dated 6 January 1989

TechDyn Systems

ICE-M-990

11 January 1989

MEMORANDUM

TO: Mr. Morrison

FROM: Don Ellis

SUBJECT: ICCE Rebaseling, RCE Software

REFERENCE: Telecon between TechDyn (Ellis) and HQ ESD (Major Goodrich and Capt Jacobson), subject as above, dated 11 January 1989

During referenced telecon, Major Goodrich and Captain Jacobson were apprised of your intentions to terminate the RCE software efforts of WES and implement a hardware solution providing there were no repercussions from HQ ESD. Both stated that such an action was between TechDyn and WES; therefore there would be no adverse action by HQ ESD if the intended termination action was taken. They concluded by stating that HQ ESD was interested in achieving satisfactory fulfillment of the contract requirements.

cc: Mr. Hise

DE/vz

DEFENDANT'S EXHIBIT 20nn

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922 5100 • TEL

AGO 500 ll

27 October 1989

125-C-0678

Department of the Air For
HQ, Electronic Systems Division/PKTG
Mitre G Building
Hanscom Air Force Base, MA 01731-5000

Attn: Captain Philip B. Chilson
Contracting Officer
Directorate of Contracting
Tactical Systems, JTIDS & AWACS

Subj: Contract F1[illegible]528-85-C-0079; Software Formal Verification Testing

Ref: (a) Fonec[illegible], TechDyn (Ellis) and HQ ESD (Dalrymple), 25/2[illegible] [illegible]tober 1989
(b) Fonec[illegible], TechDyn (Ellis) and WES (Christensen), 25/26 October 1989

Dear Captain Chilson:

Discussions during the referenced fonecons focused on the planned Software Formal Verification Testing at Tyndall AFB during the week of 13 November 1989. Techdyn and Whittaker Electronic Systems (WES) have, in the past, expressed concern over additional testing of the ICCE software without clearly defined objectives and with being subjected to testing with government-developed test procedures without contractor input.

These concerns must be addressed prior to finalizing plans for the 13 November 1989 testing at Tyndall AFB. Therefore, TechDyn requests that the Government define the software testing objectives and provide TechDyn with the test procedures for comments prior to any further software testing.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Manager of Contracts

MSR/clz

2976

8484 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • FAX: (703) 971-3928

PENGAD-Bayonne, N.J.
DEFENDANT'S EXHIBIT
23F

TechDyn SYSTEMS

18 July 1988

125-S001-0721

Whittaker Electronic Systems
1785 Voyager Avenue
P. O. Box 8000
Simi Valley, CA 93063-8000

Attn: Frank Bohler
Director of Contracts

Subj: Subcontract 125-001; Subcontract Requirements

Ref: Letter, WES (Bohler) to TechDyn (Hise), dated 12 July 1988

Dear Mr. Bohler:

TechDyn Systems has reviewed the referenced letter with regard to Whittaker Electronic Systems' (WES) position on its responsibilities under Statement of Work SOW-ECI-1229 incorporated as a part of the subject subcontract 125-001. TechDyn has no intention of revising the Statement of Work that Whittaker has previously committed to in signing the subject subcontract. Any self-serving annotations made by WES will not alter or affect your responsibilities under the subcontract.

Performance in accordance with the instructions provided herein is considered by TechDyn to be within the scope of the existing subcontract requirements. In the event that WES does not agree that these instructions are within the present requirements, WES must notify TechDyn, in writing, within ten (10) calendar days from receipt of this letter.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Max S. Rosen
Senior Contract Administrator

MSR/llc

DEFENDANT'S EXHIBIT 30G

25 July 85

3.18.2.

1. 1 Centaf IPT Test vice 2
2. 1 Centaf Field Test vice 2
   (could be done as extension of Inplant test).
3. 1 Centaf Test Report
4. 1 Centaf PCA
5. 1 Centaf FCA
6. FOC system qual testing all In-Plant
7. FOC system acceptance: installation checkout — training shakedown
8. Shorten Logistics Planning areas:
   Tng Equip Plan
   Tech Manual Plan
9. No In Plant Test (formal) — for PACAF
   AAC
10. Software — minimal at first — mod later for ultimate version
11. Tadil B Option

See overleaf

Notes

Errata Sheet KY-65

* Very good Tech Proposal

ICCE people say they can't maintain KY-75.
KY-75 has remote control head preamble

USQ 76 (V) 1b for MDC,
USQ 76 V 5 for GES

00035

DEFENDANT'S EXHIBIT 411 N

411 N

CC: M. SEGRAVES
H. WILLIAMS

TechDyn SYSTEMS

April 1987

125-5001-0340

Command, Control & Communications Corp.
23670 Hawthorne Blvd.
Torrance, CA 90505

Attn: Ms. Marie Raymond
Director of Contracts

Subj: Subcontract 125-001; NADS/ICCE Program, Claim No. 125-CL-01

Ref: Letter, HQ ESD (Smith) to TechDyn (Hise), dated 24 April 1987

Dear Ms. Raymond:

TechDyn Systems is in receipt of the referenced letter from the Air Force relative to the subject Claim submitted by TechDyn Systems Corporation which indicates that before negotiations can be concluded, it is necessary that TechDyn submit the following:

(a) A realistic, achievable schedule, coordinated at the highest level at both TechDyn and 4C.

(b) Adequate resources in the area of software engineering and quality assurance that will enable TechDyn to manage 4C and accomplish TechDyn's tasks, through contract completion.

(c) Indication that TechDyn will provide full release of claims from both TechDyn and 4C, from contract award through the date of issuance of any modification settling this claim. Identify any additional claim impact.

(d) The information on provisioning requested during factfinding, attached, which was previously provided TechDyn 10 April 1987.

RECEIVED
APR 30 1987
CONTRACTS

DEFENDANT'S EXHIBIT 42D

2979

BOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013

Sub-paragraphs a. and c. require input from 4C before our response can be made to the Air Force. Therefore, you are requested to furnish as soon as possible, but no later than 30 May 1987, a schedule of 4C deliverables coordinated at the highest level at 4C as well as any claim to be submitted by 4C and a release of claim from 4C from the date of contract award through the date of issuance of any modification settling any claim submitted by 4C. In addition, your submission should identify any additional claim impact.

Further, please note that the Government indicates it will not award any option, including CLINs 0057 and 0058, until it is demonstrated by the TechDyn/4C team that it can successfully complete the program.

TechDyn has enclosed the Government letter referenced earlier in this correspondence for your review and action.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

Gary Fourney

Gary Fourney
Senior Contract Administrator

Enclosure: As stated

GF/dlw

RECEIVED
APR 30 1987

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731-5000

24 APR 1987

REPLY TO ATTN OF: PKS-3

SUBJECT: Contract F19628-85-C-0079, Iceland Command & Control Enhancement (ICCE) - Claim No. 125-CL-01

TO: TechDyn Systems Corp.
ATTN: Mr. William C. Hise
6564 Loisdale Court
Springfield, VA 22150

1. We have determined after initial technical evaluation and factfinding discussions held on 9 and 10 April 87 that your claim has some merit. However, during factfinding you indicated that the schedule has slipped beyond that in the claim and that there are additional on-going claim impacts. Furthermore, it does not appear that you have addressed a plan to complete the contract with adequate resources. Therefore, the Government is understandably concerned about the total cost and schedule risk in completing this program.

2. Request that you address the following before we can conclude negotiations of the claim:

a. A realistic, achievable schedule, coordinated at the highest level at both TechDyn and 4C.

b. Adequate resources in the area of software engineering and quality assurance that will enable you to manage 4C and accomplish your tasks, through contract completion.

c. Indication that you will provide full release of claims from both TechDyn and 4C, from contract award through the date of issuance of any modification settling this claim. Identify any additional claim impact.

d. The information on provisioning requested during factfinding, attached, which was previously provided you on 10 Apr 87.

3. The Government will not award any options, including CLINs 0057 and 0058, until TechDyn has demonstrated that they can successfully complete the program. Accordingly, we will not negotiate CLINs 0057 and 0058 until further notice.

Stephen L. Smith

STEPHEN L. SMITH
Contracting Officer
Directorate of Strategic
Systems Contracts
Deputy for Contracting

1 Atch
Provisions Questions from
Factfinding 9 & 10 Apr 87

1. Validation and validation plan ($22443) should be disallowed as they are not related to provisioning.

2. Develop a logical breakdown of the parts count (i.e., 10,000 piece parts).

3. Provide the basis for estimated hours for each labor category. How does it relate to Section 8.0?

4. Provide a description of the labor categories as they relate to the provisioning effort.

5. Provide a description of the purpose of each trip.

6. Photographs are an alternative when drawings/schematics are not available. As an alternative there should be no additional cost. There should be a reduction in other areas. Pictures should not be required except at a circuit card level.

7. Explain the logic behind the cost of organizing the SPTD at the item level. SPTD consists primarily of drawings and we would not expect a drawing for each piece part.

8. Explain the cost justification time for developing the PPL for equipment such as the 648X-1/1A which has a commercial manual with a parts list that should only need to be reformated.

COMMAND CONTROL AND COMMUNICATIONS CORPORATION

Whittaker

MEMORANDUM

MJH1491286

To: John D. Freitag
Location: Whittaker Corporation

Date: 22 December 1986

From: Monte J. Hatchett
Location: 4C, Torrance

Subject: TechDyn Contract Status

Attached is a copy of a letter received from TechDyn last Thursday afternoon, 18 December 1986, stating that our December invoice would not be processed and will be re-considered after the CDR scheduled for 15 January 1987. Leo Morrison called me 30 minutes after we received the letter, asking that we not consider this as a serious matter for this action is part of his overall game plan to obtain his overrun costs from the U.S. Air Force. As I stated to him, 4C's performance in the past 3 months has been tremendous, as follows: (1) shipment of final B5 specs, (2) delivery and acceptance of the CENTAF system, (3) delivery of the draft C5 specs, and (4) conduct of Hardware CDR, all of which were completed per schedule.

In my latest discussions with Colonel Paschall, the Air Force has no reason to slip the CDR and they are intending to conduct this CDR on 15 January 1987. It remains 4C's intentions to complete the ICCE/CENTAF system delivery by 1 June 1987.

MJH/cm

attachment

cc: Gordon Louttit

2

DEFENDANT'S EXHIBIT 43E

GROOM
TOBIASON
JACKSON
FUKUSHIM

TechDyn SYSTEMS

RECEIVED
DEC 18 1986
CONTRACTS

18 December 1986

125-S001-0219

Command, Control & Communications Corp.
23670 Hawthorne Blvd.
Torrance, CA 90505

Attn: Ms. Marie Raymond
Director of Contracts

Subj: Subcontract 125-001; Stoppage of Progress Payments

Dear Ms. Raymond:

Substantial evidence exists that the progress to date under your Subcontract 125-001 is unsatisfactory. Your letters of 13 November 1986 and 8 December 1986 fail to establish a substantive basis for your Company not being held responsible for the delays that exist in the work under your Subcontract. Therefore, your Progress Payment dated 12 December 1986 in the amount of $126,126 is being returned without processing for payment. After satisfactory completion of the Software Critical Design Review and the authorization to initiate in-plant PDFA DT&E, TechDyn will reconsider the matter of continuation of progress payments. You are advised that this action should in no way further delay your performance under the Subcontract and does not relieve the Command, Control and Communications Corporation of any of its obligations under the Subcontract.

Very truly yours,

William C. Hise

William C. Hise
Vice President

WCH/meb

TechDyn SYSTEMS

20 November 1986

125-S001-0185

Command, Control & Communications Corp.
23670 Hawthorne Blvd.
Torrance, CA 90505

Attn: Ms. Marie Raymond
Director of Contracts

Subj: Subcontract No. 125-001; Stoppage of Progress Payments

Ref: Letter, 4C (Raymond) (8611-962-MR/16393) to TechDyn (Hise) dated 13 November 1986

Dear Ms. Raymond:

We have reviewed your referenced letter of 13 November 1986, and the conclusion stated therein that 4C is without fault or negligence in the delay of the schedule of your Subcontract. This unilateral determination of no fault or negligence by Command, Control and Communications Corporation is not acceptable to TechDyn Systems Corporation.

We are hereby stopping, effective today, the processing of any future claims for progress payments for work under subject Subcontract. This action will remain in effect until such time as 4C agrees to a revised schedule acceptable to TechDyn and to an equitable cost consideration to TechDyn for the delay incurred by 4C in the performance of the Subcontract.

As you are well aware, your agreement with TechDyn is a fixed-price subcontract and you are therefore under an obligation to continue diligently the work under the Subcontract. You are requested to submit your proposal for adjustment of the Subcontract schedule and your offer of cost consideration to TechDyn for the delays no later than 8 December 1986. You are particularly urged to delay in no way the shipment of the First CENTAF RADIL scheduled for delivery 30 November 1986.

We trust that this will permit a prompt resolution of the impact of the delays upon the Subcontract.

Very truly yours,

William C. Hise
Vice President

DEFENDANT'S EXHIBIT 48 E

WCH/meb

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TechDyn SYSTEMS

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

10 February 1987

125-C-0178

Department of the Air Force
HQ, Electronic Systems Division, PKS-3
Mitre Bldg. Oak Park, Room 1N507
Hanscom Air Force Base, MA 01731-5000

Attn: Mr. Stephen L. Smith
Contracting Officer
Director of Strategic
Systems Contracts
Deputy for Contracting

Subj: Contract F19628-85-C-0079 (SBA Subcontract 3-85-2-6605); Claim No. 125-CL-01 for Equitable Adjustment

Dear Mr. Smith:

Having requested on 28 October 1986 an adjustment in the price of the subject contract and that request having been denied by the Air Force in its subsequent response of 2 November 1986, TechDyn Systems Corporation respectfully submits its claim for an equitable adjustment in the contract price and asserts its entitlement thereto under the provisions of the Contract Disputes Act of 1978, and requests a timely decision by the Contracting Officer.

Our claim is based on the schedule submitted to the Air Force on 30 January 1987 and other factors presented herein. A favorable resolution of this claim should also result in a modification of the contract schedule.

If you have any questions concerning this claim, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Hise

William C. Hise
Vice President and Director
Management Support Operations

DEFENDANT'S EXHIBIT 53

Enclosure: Claim No. 125-CL-01

WCH/meb

PLAINTIFF'S EXHIBIT 2001

0260658

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PROTECTIVE ORDER
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cc: Ms. Mary Thomas, Contracting Officer, SBA (Washington) w/Encl.

Ms. Evelyn Donnelly, Administrative Contracting Officer, DCASMA, (Baltimore), w/Encl.

Mr. Samuel Cave, Supervisory Auditor, DCAA (Alexandria) w/Encl.

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PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

Claim No. 125-CL-01

Under

Contract F19628-85-C-0079

(SBA Subcontract 3-85-2-6605)

Submitted to:
Department of the Air Force
Headquarters, Electronic Systems Division,
Air Force Systems Command
Hanscom Air Force Base, MA 01731-5000

Submitted by:
TechDyn Systems Corporation
6564 Loisdale Court, Suite 600
Springfield, VA 22150

10 February 1987

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

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PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

1. Introduction

a. Provisions Under Which Requested

(1) This Claim is submitted under the provisions of the Contract Disputes Act of 1978 (41 USC 601-613) and Section 52.233-1, Disputes, of the Federal Acquisition Regulation (FAR)

(2) In meetings at TechDyn's facilities on 4 November 1986 and on 25 November 1986, both Mr. Anthony D. Salvucci, Deputy Commander for Strategic Systems, Electronic Systems Division (ESD), Air Force Systems Command (AFSC), and Colonel Richard C. Paschall, Systems Program Director for North Atlantic Defense Systems Directorate, Electronic Systems Division (ESD), Air Force Systems Command (AFSC), urged TechDyn to submit its claim for equitable adjustment as a means by which the Government could consider an equitable financial adjustment of the contract.

b. Amount of Equitable Adjustment

This claim for Equitable Adjustment in the price of Contract F19628-85-C-0079 (SBA Subcontract 3-85-2-6605) is in the amount of $1,654,044.

c. Major Elements/Cost Categories of Equitable Adjustment and Respective Dollar Amounts

0260603

(1) Composite Cost Summary of the claim is as follows:

Direct Labor On-Site	$ 208,300
Overhead (117.21%)	244,149
Direct Labor Off-Site	40,300
Overhead (37.56%)	15,137
Other Direct Costs	846,778
Subtotal	$1,354,664
G&A (10.00%)	135,466
Total Costs	$1,490,130
Profit	163,914
Total	$1,654,044

(2) A detailed break-out of the claim Cost Proposal is set forth in Section C. The indirect rates utilized in this claim are the actual indirect rates of TechDyn for Fiscal Year 1986 and a projection of indirect rates for the fiscal year periods of 1987 and 1988.

2. Major Causes of Requirement for Equitable Adjustment

a. "Directed" Subcontractor

(1) Background/General

After extensive discussions between Air Force (ESD) representatives and 4C personnel, the Air Force was convinced that the RADIL systems designed and produced by 4C, used in conjunction with associated telecommunications equipment, should be acquired to satisfy certain air defense requirements of the Iceland Command Control Enhancement (ICCE) Project. The Air Force and 4C set about seeking ways of getting 4C under contract so as to acquire the 4C

RADIL systems. ESD representatives' knowledge of the 4C RADIL equipment apparently derived from the fact that the Air Force had purchased several RADIL systems from 4C under a previous contract.

TechDyn Systems Corporation, an 8(a) telecommunications and systems engineering contractor, was contacted by the Air Force and 4C and apprised of the Air Force interest in acquiring the 4C RADIL equipment. Since it was virtually impossible for the Air Force to let a sole-source contract to 4C, and since going through the full competition acquisition process, would occasion unacceptable delay in contract award, discussions then took place between the Air Force, 4C and TechDyn Systems, as to how a contract to acquire the 4C RADIL systems for the Air Force ICCE project under the 8(a) program, with TechDyn Systems being the 8(a) contractor and 4C being a "directed" subcontractor, could be effected.

The thrust of the Air Force (ESD) representatives' inputs to these discussions was that the Air Force was thoroughly familiar with the 4C RADIL equipment, and with the technical capabilities of 4C, and that the requirements of the prospective ICCE project contract were such that 4C was eminently qualified in all aspects of engineering, furnishing and testing the processing display functional area

(PDFA) portion of the ICCE project envisioned for 4C execution under the prospective contract.

TechDyn Systems capabilities in telecommunications and systems' engineering as related to the communications functional area (CFA) aspects of the prospective ICCE contract were also discussed. As TechDyn had not performed an engineer, furnish, install and test (EFIT) contract for the Air Force, the Air Force had to be convinced of TechDyn's technical capabilities.

A series of technical briefings by TechDyn representatives, a visit by TechDyn senior personnel to senior ESD officials at ESD headquarters, and a visit by an ESD technical review team to TechDyn Systems corporate headquarters to assess TechDyn's technical capabilities were carried out to convince ESD representatives of TechDyn Systems' capabilities to perform those aspects, primarily CFA related, of the prospective contrct targeted for TechDyn performance. Throughout these briefings, disucssions and TechDyn capabilities assessment, the ESD representative's confidence in the technical capabilities of 4C were re-emphasized.

TechDyn representatives believed that 4C would be a responsive and responsible subcontractor largely based on the following: (a) repeated assertions of the Air Force representatives as to the

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

outstanding PDFA capabilities of 4C, and (b) the apparent first hand knowledge possessed by 4C representatives of Air Force air defense technical plans and operations. Both ESD representatives and TechDyn officials realized that it was a virtual impossibility for TechDyn to make an independent objective assessment of 4C PDFA capabilities in a timely fashion.

Subject contract directed that TechDyn "is hereby required to obtain all hardware, software and related documentation for the Processing Display Functional Area (PDFA) as defined in the Statement of Work and Specifications from Command, Control and Communications Corporation (4C) of Torrance, California."

It is the position of TechDyn Systems Corporation that the performance of the directed subcontractor, 4C, is the primary cause of the present requirement for subject claim for equitable adjustment of contract price.

(2) <u>Requirements on Agency Designating "Directed" Subcontractor</u>

Among other requirements and responsibilities, an agency within the Federal Government which directs the utilization of a particular named subcontractor by a prime contractor has a responsibility to insure that designation of such subcontractor is a responsible designation which resulted

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from an objective and thorough assessment of the capability of such subcontractor to perform the work it is so directing. In the absence of such a valid assessment of prospective directed subcontractor, or in the event such assessment was inadequate, the agency designating a directed subcontractor must bear responsibility for the performance of such directed subcontractor.

It is imperative that the Agency/Client designating a directed subcontractor understands that the directed subcontractor responds to the prime contractor/8(a) subcontractor as a separate operating entity, and not as an operating element of the 8(a) company.

(3) Responsibilities of Prime Contractor/8(a) Subcontractor

The prime contractor/8(a) subcontractor's responsibilities, under a contract that directs a particular named subcontractor, include insuring that the work directed for designated subcontractor is levied on that subcontractor, insuring, to the extent made possible by the prime and subcontract provisions, that the work is performed satisfactorily through the normal processes of assigning directed work, monitoring performance, assessing performance, and advising the agency/client designating directed subcontractor of performance/lack of performance of directed subcontractor. All of these actions have

been taken by TechDyn Systems with respect to the performance of directed work of 4C relating to the PDFA portion of subject contract on a continuous basis. In no case is the prime contractor/8(a) subcontractor expected to actually perform the contract work designated for performance by the directed subcontractor.

(4) Assumptions as to Air Force Actions/4C Capabilities

Prior to, and at the time of subject contract award, it was assumed by TechDyn Systems Corporation that the Electronics Systems Division (ESD) of the Air Force Systems Command (AFSC) had made a thorough technical assessment of 4C, and had considered previous 4C performance on Air Force contracts with respect to the Air Force acquisition of virtually identical RADIL systems (PDFA). It was further assumed, therefore, that ESD representatives were in the best of positions to be thoroughly familiar with 4C's technical capabilities.

These assumptions were also based on repeated assertions and assurances to TechDyn Systems by ESD representatives as to 4C capabilities to perform all aspects of the contract associated with the PDFA portion of the requirements.

Based on 4C performance on subject contract to date, it now appears evident to TechDyn Systems that prior to contract award, the procuring activity,

ESD, failed to properly assess the technical capability of the "directed" subcontractor to perform the work which had been identified for it to perform.

The primary cause of increased costs of subject contract has been the unsatisfactory performance of the Government's "directed" subcontractor, the Command Control and Communications Corporation (4C). The lack of performance of 4C has resulted in extraordinary delays in several significant contract milestones which have resulted in an overall "stretch-out" of the ICCE project schedule.

(5) Action Expected in Case of "Directed" Subcontractor Failure to Perform

Based on discussions with Air Force (ESD) representatives prior to contract award, it was apparent to TechDyn Systems representatives that the ESD representatives were so certain of 4C capabilities to perform that, though unlikely, in the event of 4C failure to perform satisfactorily, the Air Force would recognize the failure of its assessment of 4C's technical capabilities, and its prediction of 4C performance, and would accordingly make responsive adjustments to the contract. It was largely with this understanding that TechDyn Systems entered into subject contract.

As indicated above, when a "directed" subcon-

tractor has failed to perform, the primary obligation of the prime contractor/8(a) subcontractor is to make sure that the directing activity of the Electronics Systems Division (ESD) of Air Force Systems Command, is made fully aware of such failure. The prime contractor/8(a) subcontractor is obligated to take those steps which a reasonable contractor would take -- under a contract which had limited its ability to dismiss or change subcontractors and thus permit subcontract work to be done by other means -- to cause the subcontractor to perform satisfactorily.

The record of subject contract performance is replete with indications of 4C lack of performance; and TechDyn Systems has taken all reasonable steps to insure satisfactory performance of the "directed" subcontractor, 4C. Under no circumstances could TechDyn Systems have extended its level of staffing to the point of actual performance of the directed work.

b. Misrepresentation of 4C Capability

(1) Air Force Assessment of 4C Capability

Throughout the pre-proposal, proposal and negotiation stages, the Air Force representatives constantly advised TechDyn that 4C would be specified as the "directed" subcontractor under the proposed prime contract with the Small Business Administration. The selection by the Air Force of

4C, the assertion by the Air Force of 4C's capabilities to perform the Air Force's requirement of providing the RADIL equipment and associated software and documentation support, and the tenor of all technical fact-finding sessions, clearly indicated that TechDyn and 4C were to operate in a technically complementary fashion -- without duplication of technical capabilities. This is substantiated by the fact that throughout contract performance, representatives of ESD and its support Contractor, Mitre, have on a routine basis used the expediency of going directly to TechDyn's directed Subcontractor; and, in turn, the directed subcontractor has acceded to these channels and has taken every opportunity to go directly to the Air Force on contract matters. TechDyn has repeatedly expressed its concern to the Air Force, and on 5 November 1986 registered such concern in a letter to its Subcontractor reflecting its objections concerning the direct dealing with the Air Force. At the conclusion of discussions, extending over the period from 12 March 1985 to the date the contract was finally signed (13 June 1985) TechDyn considered the following assertions of the ESD representatives to be statements of fact:

(a) 4C was a responsive, well qualified contractor fully knowledgeable of the PDFA/RADIL requirements.

(b) 4C was capable of meeting the required delivery dates of the proposed contract, and at acceptable proficiency levels.

(c) TechDyn should duplicate neither the management nor the technical efforts performed by 4C.

ESD "representation" of the above statements as facts as to 4C's capability of performance has, in fact, proven to be a serious misrepresentation of facts. 4C, ESD directed subcontractor, has consistently submitted delinquent and/or deficient data, and has been non-responsive to TechDyn requests to meet in a timely manner the Air Force requirement for correction of deficient data. Details of 4C non-compliance with the subcontract delivery schedule and required corrective action are presented herein.

An inordinate amount of TechDyn manhours and travel have been devoted to resolving problems associated with 4C's non-compliance with the terms of their subcontract. The record is replete with meetings, telephone calls, travel data, and letters that clearly indicate the utilization of manhours far in excess of those contemplated for this effort at the time of negotiation.

During fact-finding/negotiation, TechDyn, as a result of the ESD misrepresentation of 4C's capability, was misled and reduced the number of manhours required to perform the contract from 70,080 to 54,223. Had it not been for the misrepresentation

of facts by the Air Force negotiators, i.e., that 4C would be a responsive, knowledgeable, capable subcontractor able and willing to comply with the Air Force requirements, TechDyn would not have accepted the ESD offer of $10,411,875 for what resulted as Modification #3 to the Contract -- a reduction, less options, of $7,100,074 from TechDyn's price of $33,792,474 of 5 July 1985. In consideration of this Claim, it is the position of TechDyn Systems Corporation that answers by the Air Force to the following questions are material to its resolution:

(a) Was there an assessment of 4C capability?

(b) If there was an assessment, what were the results, and how determined?

If there was no assessment, this omission was extremely serious and reckless with regard to the 8(a) Company (TechDyn) potential exposure.

TechDyn asserts that, in addition to other facts set forth herein, the Air Force was fully aware, or should have been, of the level of capability of its "directed" subcontractor and, in failing to advise TechDyn fully thereof, did in fact misrepresent to TechDyn, prior to contract award and particularly during the long and extensive period of technical fact-finding conducted by the Air Force, the capabilities of its selected and subsequently "directed" subcontractor, 4C.

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(2) TechDyn Assessment of 4C

At no point prior to contract award did TechDyn consider a full scale technical assessment of 4C to be required, inasmuch as the procurement was represented to TechDyn as a Non-Development Item (NDI) Commercial Off the Shelf (COTS) project. In fact, pre-proposal activities of both 4C and the Air Force solidified the TechDyn presumption that participation in the ICCE/CENTAF Program was contingent upon 4C participation.

Contact was made with TechDyn regarding participation in the ICCE/CENTAF Program with preliminary discussions beginning on 12 March 1984 in Torrance, California. During this initial exchange, 4C provided background information regarding its participation in the North Atlantic Defense Radio System (NADRS) through the sale of its RADIL hardware, installation of additional facilities in Iceland and the complete documentation of the system for operational and maintenance support. 4C indicated at this juncture that the Air Force was considering the 8(a) program as a procurement vehicle to preclude a lengthy unrestricted competitive solicitation. Additionally, 4C expressed the desire to use this

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initial meeting to determine how the two firms should best divide the contract work.

On 15 March 1985, TechDyn met with representatives of the Air Force's Electronics Systems Division. A briefing was presented which addressed the Iceland requirement. Of paramount concern to the Government was the acquisition of RADIL hardware manufactured by 4C. This meeting followed the transmittal of an advanced copy of the ICCE RFP on 4 March 1985.

In consideration of the solicitation's requirement for specific expertise in the production, software development and documentation of RADIL hardware -- the operations of which existed entirely at 4C, -- and the Government's representation of their demonstrated capability, TechDyn considered the conduct of a formal technical assessment to be neither prudent nor required and, therefore, accepted the Air Force's prior assessment and associated rationale without question in view of the NDI/COTS designation of the project.

c. Fact-Finding/Negotiation Impacts

TechDyn asserts that during fact-finding and negotiating sessions with the Air Force, after certain specific descoping actions had been effected, and in

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order to reduce further the costs to a level within its budgetary assets, the Air Force did in fact cause the Contractor, TechDyn Systems Corporation, to make arbitrary and unreasonable cuts in its cost proposal. TechDyn asserts that on 28 May 1985 it submitted its initial response to RFP F19628-85-R-0076 in the amount of $33,178,659. From 28 May 1985 to 30 August 1985, the proposal was incrementally and substantially reduced by fact-finding sessions to the final negotiated contract price of $10,411,875.

A review of the reduction process utilized by the Air Force shows that on 12 August 1985, TechDyn submitted at the request of the Air Force, a proposal for descoping actions. These descoping actions, as well as those that had been submitted on 5 August 1985, resulted in a total reduction of $6,506,764. In addition, the CLINs associated with the Alaska and Pacific Air Forces effort were established as not to exceed options in the contract. The descoping that took place, which resulted in an $6,506,764 reduction, was based on the following key areas of reduction:

(1) All costs associated with the following descoped items were identified and removed:

(a) HF Site
(b) IDC Console
(c) Monitor Displays
(d) DTS Modification
(e) IOC FQT Testing
(f) Others

(2) Overlaps between TechDyn and 4C in the logistics support area were identified and removed.

(3) Software integration and qualification testing for CENTAF were removed as this testing is to be performed under ICCE.

(4) Installation and testing activities were reassigned to reduce travel and labor costs.

(5) Effect of these reductions on overall program costs and rates were identified and removed.

On 25 July 1985, TechDyn provided to the Air Force Negotiator, Lt. Ann Gettleman, the areas and the percentages that it was planning to use in arriving at still further reductions that had been that day jointly discussed with the Air Force. These percentages were:

(a)	Logistics	50%
(b)	Engineering	25%
(c)	Management	10%
(d)	Testing	40%
(e)	Travel	25%

These and further reductions, from 12 August 1985 to 30 August 1985, reduced the contract price by an addition amount of $3,703,156. These reductions were primarily made by the Contractor and its subcontractor in the areas noted above.

In the descoping actions, the Air Force recognized that it was removing from the contract any duplication of effort on the parts of TechDyn and 4C. Each was to perform its portion of the contract. In addition, the overall management capability of TechDyn was by such action seriously impaired if not essentially eliminated.

After contract award, the Air Force, however, has demanded of TechDyn a management oversight responsibility that was not envisioned by either party during the descoping and fact-finding reduction phase that lead to contract definitization.

At no time during the fact-finding/negotiation process did the ESD representatives assert that the contractor's proposal was excessively high in cost, but that the contract cost must be brought in line with the dollar amount which ESD had available to allocate the ICCE project. The thrust of the reduction actions was one of descoping the effort. It must be noted that although a reduction of $10,209,920 was effected during the fact-finding/negotiation process, at the time the contract was signed on 30 August 1985 no revisions to the Statement of Work or the Technical Specifications had been made, except as related to the Option CLINs, to effect or recognize the descoping actions. The Contractor submitted to the Contracting Officer on 14 February 1986 an ECP 309-2, System Specification Update to Reflect Negotiations, which TechDyn requested be processed on an "urgent" basis in order to bring the technical requirements of the contract in line with the contract negotiations. On 11 March 1986 the Contracting Officer reduced the handling priority from Urgent to Routine. The Air Force response to the TechDyn submission reflected seventeen technical areas of disagreement. To date,

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this ECP remains unresolved.

During fact-finding/negotiations, the ICCE project was characterized by ESD representatives as a "non-development item/off-the-shelf: buy or NDI/COTS buy. The suggestion being made that since the principal items existed, namely the RADIL, and communications equipments, no development
with all of its tedious first time capabilities having to be demonstrated, was required. It was extremely important to TechDyn's requirements analysis for contract staffing, and subsequent decision-making, that essentially acceptable software associated with the RADIL existed, and with relatively minor modification would satisfy ICCE project requirements.

Another major misleading factor on the part of ESD in both pre-contract and post-contract award discussions and fact-finding deliberations which materially affected TechDyn's approach to project staffing and associated costs, particularly in the software development area, was the failure of ESD representatives to reveal the primary purpose or objective of the ICCE project as being "to acquire software documentation for the PDFA/RADILs which were purchased earlier, under a separate contract, without proper software documentation." This fact was not revealed until the Fall of 1986 during a meeting between senior ESD representatives and TechDyn and 4C management -- well over a year after contract award.

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At the provisioning guidance conference conducted by the Air Force on 19-20 November 1985, the Government took a position with regard to the level of provisioning which has not been accepted by either TechDyn or its Subcontractor as being in accordance with contract negotiations. TechDyn has asserted to the Air Force that its position on provisioning is that the level of provisioning data required is to the lowest replaceable unit (LRU) and not to the lowest piece part level. It is our opinion that the fact-finding and negotiations which substantially reduced the Contractor's logistics effort could only have reflected the level of provisioning as set forth in our position which was last identified to the Air Force on 3 September 1986.

The Air Force position that all provisioning is to be to the piece-part level is not properly supported. Examination of contractual documentation does not substantiate the contention that top-down-piece-part provisioning was intended in either the solicitation or in the basic contract. Statement of Work (SOW) paragraph 3.6.4.2 indicates that provisioning will be provided in accordance with DD Form 1949-1, DD Form 1949-2 and AFLC Form 718 (with attachments) appended to the CDRL. Only AFLC Form 718, with an incomplete set of attachments was provided. The System Specification does not specifically call out piece-part provisioning. In fact, paragraph 3.5.2 of the System Specification states that "all

supply support requirements and stock levels for all items utilized by the System shall be determined by the contractor."

The total number of CFA piece-part items is estimated to be approximately 10,000. This is predicated upon the assumption that GFE will be nomenclatured to at least the LRU level and that the current trend of COTS vendors claiming proprietary data rights will continue. Based on the above discussion, the following estimate of funding required to adequately provision the ICCE/CENTAF System is provided:

PROVISIONING FUNDING PROFILE	COST
CFA Provisioning of 10,000 piece parts by Veda Corp. @ $68.50 per piece.	$ 685,000
Validation and Validation Plan preparation (Veda)	22,443
PDFA Provisioning under subcontract to 4C	98,740
Subtotal	$ 806,183
G&A (Estimated at 8.95%)	72,153
Subtotal	$ 878,336
Fee (Estimated at 11.0%)	96,617
Total Provisioning Costs:	$ 974,953
Less: Negotiated (CLIN 0047)	<305,926>
Balance (Equitable Adjustment)	$ 669,027

The use of a subcontractor (Veda) to perform CFA provisioning tasks is considered to be most prudent and advantageous to the Government, when compared with the costs and time required for TechDyn to perform the same effort in-house.

(3) Promises of Air Force Assistance in View of Directed Cuts

As a result of descoping actions, TechDyn reduced direct labor hours that would have been directed toward oversight of software development and, specifically, software quality assurance. The Air Force, through the Statement of Work, offered assistance to the contractor in the form of "assist audits." TechDyn, after expending significant resources in an attempt to rectify subcontractor deficiencies, requested such assistance following the September 1985 Program Management Review. An audit was subsequently conducted during period 6-7 February 1986. This audit identified deficiencies in subcontractor software development, but did little to improve "directed" subcontractor performance.

(4) Concept for Staffing Project

The Air Force's concept for project staffing evolved, as a result of descoping, into a team concept with complete complementarity between TechDyn and 4C, while eliminating any and all duplication of effort, to include staffing capabilities and specific performance. TechDyn staffing was concentrated in telecommunications hardware, technical control functions, installation and related documentation. 4C was to staff so as to provide the requisite PDFA hardware, software and documentation expertise. Logistics staffing was to follow the

team concept with TechDyn electing, as a result of descoping, to convert remaining direct labor resources to Other Direct Costs (Subcontractor), in an attempt to complete the logistical effort in the most technically prudent and cost effective manner.

This staffing concept was intended to achieve satisfactory contractual performance, despite severe reductions of overall management resources imposed by the descoping effort. As a result, the Air Force and its support contractor, Mitre, have on a routine basis established direct communications channels with the subcontractor, 4C, which included provisions for the submission of contract deliverables and the review/comment to the same, while completely by-passing TechDyn under the guise of expediency.

Another aspect of fact-finding/negotiations which was extremely misleading to TechDyn, on the part of the Air Force, was the failure to fully disclose to TechDyn the priority nature of the PDFA/RADIL software development aspect of the ICCE project, and the emphasis which the Air Force would place on the software development function of the project. In precontract discussions with both Air Force representatives and 4C officials, software development was de-emphasized, and TechDyn was led to believe that the Air Force had taken positive steps to assess the status of both the applicable RADIL software and the capability of 4C to modify existing software so as to

bring in line with the ICCE requirements, and to produce the software documentation required.

It is TechDyn's position that in precontract discussions and negotiations, the Air Force either intentionally or unintentionally failed to acknowledge its awareness of and commitment to the need for the application of management resources and methodologies by TechDyn to the software development function of this software dependent project. Air Force representatives insisted that TechDyn did not need software development staff resources commensurate with the complexity of the RADIL software development requirements. Air Force Representatives suggested that contract costs could be significantly reduced by not "duplicating" software development management and programming resources possessed by the "directed" subcontractor, 4C.

Accordingly, the Air Force must bear responsibility for failures which occurred in the RADIL software development -- which led to inordinate delay in the project schedule.

d. <u>Subcontractor Performance</u>

An analysis of the technical performance of TechDyn's "directed" subcontractor, Command, Control and Communications Corporation (4C), indicates that its performance contributed directly to the delay which has been experienced to date in the establishment of allocated baselines for both hardware and software and, therefore, a resultant

delay in the successful conduct and completion of critical design reviews. The current delay in acquiring a modified Data Terminal Set is a serious issue warranting an equitable adjustment to the contract price since specification details of said equipment design were not provided in time for conduct of the software Critical Design Review, in January 1987.

Resources expended or to be expended by TechDyn during the period of the slippage were or are to be incurred in order to maintain minimal staffing levels required for contract performance. Due to the incremental nature of the program slippage, it would not have been technically prudent for TechDyn to conserve funding through personnel lay-offs. Additionally, a level of effort for a period equal to the program slippage at this time will be required in order to successfully complete the contractual effort, once the critical design reviews are completed. Due to management resource limitations brought about as a result of descoping efforts prior to contract award, intensive management actions by TechDyn were directed toward resolution of "directed" subcontractor software development problems/issues through the increased efforts of the TechDyn ICCE Project Manager and other TechDyn personnel. The resultant laborious process of resolving software specification deficiencies (the issues of R^2, Correlation and Digital Handover being still unresolved) has been a costly effort to bring the

directed subcontractor's specifications into conformance with the system specification and its references.

The approach taken by 4C in software quality assurance has not been satisfactory and is not an adequate substitute for disciplined software development, software modifications and complete detailed documentation which would allow for tracking and evaluation of the on-going software development effort.

The slippage of the Hardware CDR, although less than that of the Software CDR, was due in no small way to the same software and development specification issues, identified above, as they pertain to the Remote Control Element. In an attempt to reduce slippage, TechDyn agreed to "work-around" these issues by conducting an incremental CDR on 10 and 11 December 1986; with the intent of resolving all outstanding issues at the software CDR in January 1987, or during the second hardware CDR to follow.

Tables 1 and 2 portray the submittals of Critical Item Development Specifications and Computer Program Product Specifications which should have been submitted in final acceptable format and content thirty days after the Preliminary Design Review. Timely submittal in February 1986 would have established an allocated baseline and allowed for a Critical Design Review in March 1986. The only specifications authorized at this time are document numbers R/001495 and R/001499.

Table 3 itemizes estimated resources that were or will be incurred by TechDyn as the direct result of a ten month slippage in the successful completion of a Software Critical Design Review (CDR) and those efforts of the TechDyn Project Manager required to monitor software development by 4C.

e. Government Contribution to Cost Escalation Associated with Data Terminal Set (DTS) Acquisition

TechDyn's original concept for integration of the DTS into the ICCE System called for said equipment to be furnished as GFE and modified into the V(10) configuration through a purchasing action between 4C and Magnavox, separate from the Air Force Peace Sheild Program. By not accepting this proposal, the Government technically bears the liability for the current and projected delays as a result of Peace Shield work stoppages brought about by pending Engineering Change Proposals (ECPs).

The delay in fielding the modified DTS will directly impact the finalization of a hardware allocated baseline and the conduct of requisite in-plant testing, training and provisioning activities necessary to achieve a Final Operating Capability (FOC) system.

f. Schedule Delays

Schedule delays were caused by delinquent and substandard "directed" subcontractor, 4C, performance in the development of software and related computer program development specifications, as well as critical item

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development specifications. The impact of such performance has prevented the authorization of an allocated baseline for the ICCE System and, in turn, the successful completion of critical design reviews. The latest schedule delay is ten months, and will undoubtedly experience further slippage since the software critical design review was not completed in January 1987. The associated costs of the schedule delay, in terms of TechDyn resources expended, are depicted in Tables 3 and 4 above.

As previously stated, the delay incurred by 4C in completing the design and product specifications impacts the program schedule conservatively by 10 months. This delay has in turn impacted other schedule milestones which are just becoming apparent at the present time. The most current and important example of this involves software qualification testing.

The "directed" subcontractor has insisted that lower level tests they conduct prior to the Software Qualification Test (SQT) are informal and do not require USAF approval of specific procedures. This is true if all allocated test requirements to be verified as called out by SOW and B-Level specification are so verified during the conduct of SQT. However, 4C is not allocating all test requirements at the SQT. Some are being verified during two lower level "informal" tests at an earlier date. TechDyn and USAF have insisted that these require-

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ments be exposed at their various testing levels, and that plans and procedures for their testing be submitted to USAF for prior review and approval. 4C has indicated in their latest schedule submission (6 January 1987) at least a 3 week slip in testing. This is in addition to the 10-month delay incurred to date.

g. Divergence of TechDyn's Resources

As previously indicated above, due to the lack of performance of the "directed" subcontractor, TechDyn was required to redirect certain resources from intended and required functions, as well as maintain a minimal staffing level for a period of time currently equal to the present schedule slippage. Redirected resources included the TechDyn Project Manager, whose time and effort were required, by Air Force direction, at additional review sessions held at Torrance, Califorinia totalling fifty-four days. Those additional staffing resources alluded to above and itemized at Tables 3 and 4 are necessary to complete those contractual efforts (testing, training, logistics, contractor technical support for the IOC) directly related to critical design review completion or achievement of FOC. At no time during the negotiation of a definitized contractual level of effort or dollar amount did TechDyn anticipate or expect to encounter the requirement to extend the contractual period of performance for a period of ten months. This was due in no small part to the contractor's reliance upon the Air

Force -- that their directed subcontractor was technically qualified to enhance and document the ICCE System as called out in the Contract.

h. ECP 309-2

The purpose of ECP 309-2 was to state TechDyn's and 4C's views of the system specification after fact-finding and negotiation sessions. TechDyn submitted the ECP on 14 February 1986. As of this time, there is no approved final ECP 309-2.

As the result of a specification for the contract not being agreed to, many facets of the contractural performance were adversly impacted and resulted in additional cost to TechDyn. Much of these costs arose from increased TechDyn program management functions associated with working out differences with 4C in the interpretation of the understanding of the specification based on meetings held during the period of fact-finding negotiations. Much time has been spent discussing when and where specifications were discussed and what changes were made. At one point the Contracting Officer indicated that the final TechDyn proposal did not have to be accepted, and that everything we wanted may not have been accepted in its entirety. A chronology of events related to ECP 309-2 is presented below.

Roland J. Igo, ESD/SCUC, requested on 25 November 1986 that for the purpose of having a baseline, TechDyn

acknowledge the 6 September 1985 specification and the 20 August 1985 specification to be the same. TechDyn acknowledged this with the condition that this acknowledgment cannot be construed as acceptance of everything in the specification.

At the Preliminary Design Review held 8-10 Janurary 1986 the issue of an agreed-to specification was again discussed. This time the questions were whether online diagnostics to the LRU were removed at negotiation, the level of maintenance support under contract and whether the requirement to upgrade commercial manuals existed. None of these questions were resolved because of the lack of an agreed upon specification. Barbara Lawrence, then contracting officer, stated that the Air Force was meeting the following week to finalize their version of the specification.

As indicated above on 14 February 1986, the first submittal of ECP 309-2 was made via TechDyn letter ICE-I-066. Again, the purpose of this ECP was to state TechDyn's and 4C's view of the system specification to reflect negotiation. There were 37 proposed changes in this submittal. The ECP was marked by TechDyn in Block 4 of DD Form 1692 as urgent. This was done as an attempt to get the review of this ECP expedited because of its importance to the successful completion of the contract. The Air Force responded to the ECP on 11 March 1986 by downscoping the "Priority" of this submittal from urgent

to routine. This action further delayed the resolution of this serious issue. Also, in the 11 March 1986 letter, the Air Force stated that their technical review would be completed by 2 April 1986.

The Air Force responded to TechDyn on 29 May 1986 with comments to the 14 February 1986 submittal of ECP 309-2, fifty-seven days after their original due date. The Air Force's response include three attachments: Attachment 1 was a list of comments which the Air Force concurred were discussed at negotiations; Attachment 2 listed comments that the Air Force concurred with, but said that they were not discussed at negotiations; and Attachment 3 listed comments which the Air Force stated were out-of-scope but worthy of discussion. Seventeen of the 37 comments TechDyn submitted with ECP 309-2 were on Attachment 3.

Another example of the specification issue and the failure of the Government to expedite the resolution of a TechDyn ECP aimed at resolving the specification issue is an ESD letter dated 24 June 1986 which stated that the Air Force was meeting on 25 June to expedite agreement of an allocated baseline. Because this effort would not be completed in time for the Critical Design Review to take place, the CDR would be delayed. These delays had a substantial cost impact on TechDyn.

TechDyn via letter number ICE-I-290 dated 15 August 1986 resubmitted ECP 302-9 incorporating the comments

from Attachments 1 and 2 of the 29 May Air Force letter. The letter stated that the comments of Attachment 3 "would be effected following technical agreement on the specific changes that the Government wishes to implement under cover of a separate ECP." These remaining open comments included the issues of fault isolation to the LRU's, vendor documentation and maintainability.

The Air Force responded on 10 October to the above TechDyn submittal by saying discrepancies were found in TechDyn's 15 August and 18 September 1986 submittals. The Government also retracted its postion on a comment previously agreed to that Paragraph 20.3.3.3.2 of CENTAF System Specification does not apply. Their new position is that contractor shall provide all equipment required to filter the power sources and supplies in accordance with NACISM 5203. The contractor shall provide all special software required to produce specific displays and message transmissions for conducting tempest testing. TechDyn submitted its last postion on ECP 309-2 on 24 November 1986 incorporating the Air Force comments of 10 October 1986.

At this time, ECP 309-2 is still being reviewed by the Air Force. As a result of the ECP being not given the urgent review requested originally by TechDyn, the impact of not resolving specification issues were allowed to grow until they caused major cost impacts on TechDyn.

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3. 8(a) As a Contracting Mechanism

Section 8(a) of the U.S. Small Business Act resulted from both Executive and Legislative branch initiatives, and provides a means for the Federal Government to contract with certified small and disadvantaged businesses as a means to ameliorate the conditions of socially and economically disadvantaged groups, by providing them the opportunity for full participation in our free enterprise system and thereby contribute to the improvement of our national economy.

Under the 8(a) program, all organizational entities have responsibilities, i.e., the procuring agency (ESD), the prime contractor (Small Business Administration), the 1st tier subcontractor (8(a) company - TechDyn Systems Corporation) and lower tier subcontractor (4C).

a. Responsibilities of the Procuring Agency

The Responsibility of the Procuring Agency, ESD, is to set-aside certain procurements for the Small Business Administration (SBA) which will in turn subcontract with an 8(a) certified company, in this instance TechDyn Systems. The procuring agency, ESD, in addition to its normal procurement responsibilities, must acknowledge its special commitments and responsibilities under the subject contract in which it directed that a majority, non-8(a) company, 4C be subcontracted with by the 8(a) company, TechDyn, to perform a substantial amount of the overall contract, i.e., approximately 50% of contract costs. As

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pointed out above, in order for the direction of the subcontract award to the non-8(a) subcontractor to have been a "responsible direction," it was the responsibility of the Air Force (ESD) to adequately assess the technical performance capability of such subcontractor prior to directing the subcontract -- and then represent that Technical assessment fairly and accurately to TechDyn Systems. In the absence of a thorough technical assessment of the "directed" subcontractor's, 4C's, technical capabilities by ESD, or in the instance of an inadequate or inaccurate assessment of 4C technical capabilities, ESD must bear responsibility for failing to reveal that no adequate technical assessment was made or that such assessment was inadequate.

Finally, having directed under the 8(a) program that a subcontract of the proportion, approximately 50% of the contract value of subject contract be let to the non-8(a) majority company, 4C, and in the instance of non-performance by such "directed" majority subcontractor -- which had by then become big business by virtue of ownership by the Whittaker Corporation, a Fortune 500 company, it is paramount that the Air Force accepts full responsibility for directing that TechDyn subcontract with the 4C Corporation, and for the subsequent non-performance of 4C which has resulted in inordinate delay of the ICCE project and the escalating contract costs.

b. Responsibilities of the Small Business Administration (SBA)

The primary mission of the SBA is to provide assistance to all small businesses. The SBA administers a Minority Small Business and Capital Ownership Development Program (8(a)) to promote and facilitate equal access opportunities for socially and economically disadvantaged individuals to participate in the small business sector of the nation's economy. It has the responsibility to insure that the 8(a) program is legally and effectively being carried out.

c. Responsibilities of TechDyn (1st Tier Subcontractor)

The responsibility of TechDyn (the first tier subcontractor) is to perform that portion of the contract for which it is directly responsible, and to subcontract to the "directed" subcontractor that portion of the work so directed by the prime contract; and to insure during the performance period that the subcontractor performs satisfactorily to the extent possible within the resources authorized for management and supervision by the contract, take notification action to the Government when non-performance occurs, and to take action against the "directed" subcontractor as ppropriate (See Attachment No. 8).

TechDyn has been in constant contact with ESD and the "directed" subcontractor, 4C, with regard to the

unsatisfactory performance of the "directed" subcontractor, and the resultant project schedule delays.

d. Responsibilities of 4C (2nd Tier Subcontractor)

The responsibilities of 4C (the 2nd tier subcontractor) are to perform portions of the contract as specified in the prime contract and as directed in the subcontract from TechDyn Systems. 4C has not satisfactorily performed its portion of the subject contract, and its performance to date has resulted in significant schedule delays with concomitant escalation of contract costs.

4. Probable Negative Impact of Current Contract on Future Business

The non-performance by the "directed" subcontractor has delayed and put in jeopardy existing contract options and other planned add-ons to the basic contract. Moreover, the delay has caused TechDyn to utilize resources that would have been devoted to expanding its competitive base prior to expiration of its 8(a) status.

5. Why Equitable Adjustment is Needed

An equitable adjustment of the price of this contract is needed in order that TechDyn Systems Corporation can continue to perform its contractual obligations under the contract. The delay and sub-standard performance by the "directed" subcontractor has seriously impacted the contract funds available to TechDyn to meet its financial

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obligations in carrying out the subject contract work.

6. Conclusion

TechDyn Systems Corporation has acted in good faith from the point of precontract discussions through fact-finding/negotiations, and during the contract performance. It was our assumption that Air Force representatives would likewise act in good faith throughout all phases of the project -- from precontract discussions through contract performance. However, our experience to date suggests otherwise in those areas presented above where it appears that TechDyn was either intentionally or unintentionally misled or deceived with respect to such important contract aspects as:

a. Primary purpose of the project, i.e., to acquire software documentation for previously acquired RADIL systems, as well as the RADIL hardware associated with subject contract.

b. Representation of the Air Force assessment of the technical capabilities of the "directed" subcontractor, 4C, specifically in the area of software development.

c. Representation of the ICCE project as an NDI (Non-Development Item)/COTS (Commercial off the Shelf) project which would not require the complete set of software development steps and documentation thereof which are required in formal development projects.

d. Allowable staffing requirements of TechDyn in the RADIL software development management and programming areas of the project.

In summary, TechDyn Systems Corporation submits this claim for equitable adjustment of the contract price and asserts its entitlement thereof on the basis of the following:

a. TechDyn was "directed" by contract to use Command, Control and Communications Corporation for the RADIL equipment and supporting software documentation -- the qualifications of 4C having been misrepresented by the Air Force to TechDyn

b. The "directed" subcontractor has not performed satisfactorily.

c. During negotiations, management hours associated with all task areas of the contract were substantially descoped.

d. TechDyn, since contract award, has been directed by the Air Force to perform a management supervisory role inconsistent with the level of effort placed in the contract.

e. The Small Business Act, specifically Section 8(a), puts a unique obligation on the procurement process not to effect a procurement vehicle inconsistent with the objectives of the law and the program it established.

We respectfuly request your favorable consideration of subject claim, that the Electronic Systems Division (ESD) of AFSC follows the lead of the Department of the Defense which has served as the bellwether for all Federal departments with respect to small and disadvantaged business support, and grant the claim requested.

The urgency of the situation requires immediate attention and approval actions to assure project execution continuity.

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Table 1

CRITICAL ITEM DEVELOPMENT SPECIFICATIONS

Specification	Due Date	Date Submitted
PDFA B-1	29 Nov 85	29 Nov 85
1st Rev.	27 Feb 86	5 May 86
2nd Rev.	17 Aug 86	13 Aug 86
3rd Rev.	21 Nov 86	16 Nov 86
PDFA B-2	29 Nov 85	29 Nov 86
1st Rev.	27 Feb 86	5 May 86
2nd Rev.	17 Aug 86	13 Aug 86
RCE-B-1	29 Nov 85	10 Feb 86
1st Rev.	6 Jun 86	3 Jun 86
2nd Rev.		29 Aug 86
3rd Rev.	10 Nov 86	31 Oct 86
4th Rev.		5 Nov 86
5th Rev.	8 Jan 87	
RCE B-2	29 Nov 85	10 Feb 86
1st Rev.	6 Jun 86	5 Jun 86
2nd Rev.		29 Aug 86
3rd Rev.	10 Nov 86	6 Nov 86

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Table 2

COMPUTER PROGRAM DEVELOPMENT SPECIFICATIONS

Specification	Due Date	Date Submitted
B-5 (R/001494)	29 Nov 85	29 Nov 85
1st Rev.	27 Feb 86	20 Mar 86
Appendix 10	27 Feb 86	28 Mar 86
2nd Rev.	30 May 86	9 Jun 86
3rd Rev.	17 Aug 86	13 Aug 86
4th Rev.		9 Oct 86
Fig. 3-3 Rev.	10 Oct 86	15 Oct 86
5th Rev.	15 Dec 86	5 Dec 86
B-5 (R/001497)	29 Nov 85	29 Nov 85
1st Rev.	27 Feb 86	20 Mar 86
2nd Rev.	30 May 86	10 Jun 86
3rd Rev.	17 Aug 86	13 Aug 86
4th Rev.	3 Dec 86	5 Dec 86
B-5 (R/001496)	29 Nov 85	29 Nov 85
1st Rev.	27 Feb 86	28 Mar 86
2nd Rev.	9 Jun 86	19 Jun 86
3rd Rev.		15 Oct 86
4th Rev.	15 Dec 86	
B-5 (R/001496)	29 Nov 85	29 Nov 85
	27 Feb 86	20 Mar 86
	30 May 86	10 Jun 86
	17 Aug 86	13 Aug 86 *

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Table 2 (Continued)

COMPUTER PROGRAM DEVELOPMENT SPECIFICATIONS

Specification	Due Date	Date Submitted
B-5 (R/001498)	29 Nov 85	29 Nov 85
1st Rev.	27 Feb 86	20 Mar 86
2nd Rev.	30 May 86	10 Jun 86
3rd Rev.		9 Oct 86
4th Rev.	15 Dec 86	5 Dec 86
B-5 (R/001499)	29 Nov 85	29 Nov 85
1st Rev.	5 Apr 86	20 Mar 86
2nd Rev.	30 May 86	9 Jun 86
3rd Rev.	17 Aug 86	13 Aug 86 *

*Authorized on 10 October 1986

Table 3

Activity: S/W CDR

RESOURCES INCURRED DUE TO LATE COMPLETION
CY 1986

Cost Element	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
D/L Hours:									
Dir Tech Opns.	32	112	136	152					
Systems Engr.								160	160
Exec. Secr.									
Cost Analyst									
Clerk Typist									
Consultant:									
Test Dir.								160	160

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Table 3 (Continued)

Activity: S/W CDR

RESOURCES INCURRED DUE TO LATE COMPLETION
CY 1987

Cost Element	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
D/L Hours:												
Dir. Tech. Opns.			80	80	80	80	80	80	80	80	80	80
Systems Engr.	160	160	160	160	160	160	160	160				
Exec. Secr.			80	80	80	80	80	80	80	80	80	80
Cost Analyst			160	160	160	160	160	160	160	160	160	160
Clerk Typist			160	160	160	160	160	160	160	160	160	160
Consultant:												
Test Dir.	160	160	160	160	160	160	160					

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Table 4

Activity: CDR (H/W)

RESOURCES INCURRED DUE TO LATE COMPLETION
CY 1986

Cost Element	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
D/L Hours:									
Sr. Log. Engr.								160	160
Engr. (Sr.)								160	160
Sr. Log. Analyst								80	80
Draftsman									
Field Maint. Engr.									
Consultant:									
Engr. Coord								160	160
Sperry								160	160

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Table 4 (Continued)

Activity: CDR (H/W)

RESOURCES INCURRED DUE TO LATE COMPLETION
CY 1987

Cost Element	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
D/L Hours:												
Sr. Log. Engr.	160	160	160	160	160	160	160					
Engr. (Sr.)	160	160	160	160	160	160	160					
Sr. Log. Analyst	80	80	80	80	80	80	80					
Draftsman			160	160	160	160	160	160	160	160	160	160
Field Maint. Engr.			160	160	160	160	160	160	160	160	160	160
Consultant:												
Engr. Coord.	160	160	160	160	160	160	160					
Sperry	160	160	160	160	160	160	160					

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CLAIM CERTIFICATION
Claim No. 125-CL-01

Under the provisions of Section 33.207 of the Federal Acquisition Regulation (FAR), TechDyn Systems Corporation hereby certifies as follows:

(1) Claim No. 125-CL-01 is made in good faith;

(2) Supporting data for Claim No 125-CL-01 are complete to the best of the contractor's knowledge and belief; and

(3) The amount requested under Claim No. 125-CL-01 reflects the contract adjustment for which the contractor believes the Government is liable.

Leo S. Morrison, Jr.
President and Chairman

Date: 10 February 1987

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PRPGRAM SCHEDULE
FOR
ICELAND COMMAND AND CONTROL ENHANCEMENT SYSTEM
AND
U.S. CENTRAL AIR FORCE SYSTEM
30 SEPTEMBER 1985

CDRL # 301-1 AND CDRL # 501-1
CONTRACT NUMBER F19628-85-C-0079

PREPARED FOR
ELECTRONIC SYSTEMS DIVISION (ESD)
AIR FORCE SYSTEMS COMMAND
HANSCOM AIR FORCE BASE, MA 01731-5000

PREPARED BY
TECHDYN SYSTEMS CORPORATION
6564 LOISDALE COURT
SUITE 600
SPRINGFIELD, VIRGINIA 22150

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PROGRAM SCHEDULE

FOR

ICCE/CENTAF SYSTEMS

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1.0 GENERAL

This Program Schedule is submitted in accordance with:

a. Paragraph 3.5, ICCE Statement of Work (SOW-ECI-1229), dated 20 August 1985.

b. Paragraph 3.5, CENTAF Statement of Work (SOW-ECI-1229A), dated 6 August 1985.

c. Data Item Description, DI-A-3007/M-103-1, dated 1 November 1971.

d. AFSCM 375-4.

1.1 PURPOSE

The purpose is to portray the phases, major milestones, and major segments of the development, test, production, and support activities necessary to accomplish the objective of designing, testing, and fielding the ICCE and CENTAF systems. Symbology used in the preparation of the schedule lay-out is defined in AFSCM 375-4 and is provided at Figure 1. Figure 2 provides the schedule lay-out which will be updated monthly to show significant changes (progress or delays) between reporting dates.

2.0 MAJOR PHASES/MILESTONES

The ICCE/CENTAF Program has been broken down into 13 major tasks. The intent was not to show all tasks but only those which can be used to measure progress. For scheduling purposes, these tasks are expressed as phases/events which cover a span of time or milestones which can be scheduled for completion by a specific point-in-time.

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SYMBOLOGY AND USE

Standard symbols have been adapted for Air Force Milestone Schedules. The most common symbols use and their meanings are shown below:

BASIC SYMBOL		MEANING
⇧	.....	Schedule Completion
⬆	.....	Actual Completion
◇	.....	Previous Scheduled Completion-Still in Future
◆	.....	Previous Scheduled Completion-Date Passed

REPRESENTATIVE USES		MEANING
◇ ⇧	.....	Anticipated Slip-Rescheduled Completion
◆ ⇧	.....	Actual Slip-Rescheduled Completion
◆ ⬆	.....	Actual Slip-Actual Completion
⬆ ◇	.....	Actual Completion Ahead of Schedule
⇧ ⇧	.....	Time Span Action
⬆ ⇧	.....	Progress Along Time Span
⇧ ⇨	.....	Continuous Action

Figure 1 Symbology

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The following paragraphs provide a brief explanation of the tasks shown at Figure 2, and where applicable, reference is made to applicable paragraphs of the Statement of Work (SOW).

a. Formal Technical Reviews (SOW Paragraph 3.3.1.1). All technical review meetings for the ICCE and CENTAF systems will be conducted concurrently. Periodic technical review meetings are scheduled for 45 and 120 days After Contract Award (ACA). The Preliminary Design Review (PDR) will be conducted within 90 days ACA and the Critical Design Review (CDR) within 180 days ACA.

b. Program Management (SOW Paragraph 3.5). A complete Program Management review will be conducted concurrently with all technical reviews, PDR, and CDR and then quarterly thereafter.

c. IOC Installation and Field DT&E (SOW Paragraph 3.3.18.2). This task is currently in progress with an estimated completion date of 30 October 1985. The Field DT&E is scheduled to commence on 27 October 1985.

d. IOC O&M (SOW Paragraphs 3.1.3.1.1 and 3.6.3.2). The IOC O&M phase begins with the acceptance of the IOC system by the Government for operational purposes and ends with the completion of FOC DT&E. During this phase, approximately 14 months, TechDyn will furnish a full-time maintenance person with necessary spares and test equipment.

e. System Design (SOW Paragraph 3.3). The design phase is a 6 month effort which essentially ends with the CDR, around February 1986. B-2 and C-2 Specifications for new development or modifications will be presented at the PDR and the B-5 and C-5 Specifications will be presented at the CDR.

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f. Hardware (H/W) Acquisition and Development (SOW Paragraphs 3.1.3.1.1 and 3.1.3.1.2). Both the ICCE and CENTAF systems consist of many off-the-shelf items or items which have been designed and ready for procurement and/or production. Therefore, the procurement and production phase for these items can begin prior to completion of the system design phase. For example, production of the "basic" RADIL hardware has already begun. Production of the remote control microprocessor and procurement of O-T-S items are scheduled to begin on/about November 1985. Production items and receipt and Acceptance Check-Out (ACO) for all O-T-S hardware items will be completed by March 1986. ACO will be performed at the 4Cs Torrance Facility.

g. Software (S/W) Development (3.1.3). The S/W development phase will consist of a 6-month effort. It will commence following the completion of development specification to be presented at the PDR. Since the remote control system is a new application (i.e. limited previous experience) a two-month period has been allocated for the H/W-S/W integration of the subsystem.

h. In-Plant Testing - ICCE and CENTAF (SOW Paragraph 3.3.18). The In-Plant testing phase is scheduled from July 1986 to February 1987. During this phase, the ICCE FOC, CENTAF-1, and CENTAF-2 systems will be tested. The ICCE S/W and ICCE CFA will be tested utilizing the CENTAF-1 RADIL hardware. The ICCE FOC system will be tested first, followed by testing of CENTAF-1, then SQT/JTAO certification. The latter is scheduled for September 1986. Concurrent with SQT, the ICCE CFA items will be packed and

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shipped. In-plant DT&E for CENTAF-2 will be conducted in January 1987.

i. Training (SOW Paragraph 3.6.10). All training material will be prepared by the end of June 1986. A two-week on-site (Torrance, California) training period is scheduled commencing at the end of system integration testing and prior to FOC DT&E. Exact dates will be determined at the CDR.

j. Installation and Field DT&E - ICCE System (ICCE SOW Paragraph 3.3.18.1.1). The ICCE installation and test phase will consist of a 3-month effort commencing on/about 1 September 1986. Approximately 2 months are allowed for site preparation and installation. One month is scheduled for system burn-in, QA testing and formal DT&E. Formal DT&E is scheduled for completion by the latter part of December 1986.

k. Field DT&E - CENTAF System (CENTAF SOW Paragraph 3.3.18.1.1. and 3.3.18.1.2). The first CENTAF System (CENTAF-1) will undergo a field DT&E and an Air Force conducted OT&E; the second CENTAF system will undergo a field DT&E only. The CENTAF-1 DT&E is scheduled for November 1986 (15 months ACA). The CENTAF-2 DT&E is scheduled for February 1987 (18 months ACA).

l. Install RSSF S/W (SOW Paragraph 3.2.1). Installation of the RADIL baseline (primarily software) will be installed at the ROCC Software Support Facility (LRSSF), Tyndall AFB prior to delivery of the last system (CENTAF-2). This is currently scheduled for the month of February 1986.

m. Formal Qualification Review (SOW Paragraph 3.4.1.5). Formal Qualification Review (FQR) will be conducted concurrent with the

Functional Configuration Audits (FCAs) during In-plant DT&E. Certification documents will be signed by test personnel (contracts and Government). Such certifications will be considered as accomplishment of the FQR.

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Claim No. 125-CL-01/R1

Under

Contract F19628-85-C-0079

(SBA Subcontract 3-85-2-6605)

Submitted to:

Department of the Air Force
Headquarters, Electronics Systems Divison,
Air Force Systems Command
Hanscom Air Force Base, MA 01731-5000

Submitted by:

TechDyn Systems Corporation
6564 Loisdale Court, Suite 600
Springfield, VA 22150

18 May 1987

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ALL-STATE LEGAL SUPPLY CO., ONE COMMERCE DRIVE, CRANFORD, NEW JERSEY 07016

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INTRODUCTION

1.0 Provisions Under Which Requested

1.1 This Revision to Claim 125-CL-01 is submitted under the provisions of the Contract Disputes Act of 1978 (41 USC 601-613) and Section 52.233-1, Disputes, of the Federal Acquisition Regulation (FAR)

1.2 It is submitted in response to Letter from the Contracting Officer to TechDyn, Subj: Contract F19628-85-C-0079, Iceland Command & Control Enhancement (ICCE) - Claim No. 125-CL-01 dted 24 April 1987

2.0 Amount of Equitable Adjustment

2.1 This claim for Equitable Adjustment in the price of Contract F19628-85-C-0079 (SBA Subcontract 3-85-2-6605) in the amount of $1,654,044 is revised by this submittal to the amount of $6,670,468 (provisioning price based on 10,000 piece parts).

2.2 A detailed break-out of the revised claim Cost Proposal is set forth in Section C. The indirect rates utilized in this claim are the actual indirect rates of TechDyn for Fiscal Year 1986 and a projection of indirect rates for the fiscal periods of 1987 and 1988.

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1.0 Background

1.1 The technical basis for equitable adjustment of the ICCE contract, F19628-85-C-0079, derives from a need for extraordinary management of program activities, particularly those of the directed subcontractor, Whittaker Command and Control Systems (WCCS), in order to achieve satisfactory completion of the ICCE/CENTAF Project.

1.2 It is always the intention to avoid intrusion into the on-going business practices of, or even becoming involved in the internal control of, the subcontractor's program practices. However, certain areas of the subcontractor's program management have resulted in delays in TechDyn's contractual commitments, and thereby intensive management and oversight are required in the following areas:

- Systems Engineer and Test Planning Management
- Risk Identification and Assessment
- Configuration Management
- Schedule Planning and Management

1.3 The basis for this viewpoint is TechDyn's need to assess and evaluate the subcontractor's understanding and ability to implement his responsibility in the role of coordinating and managing the objectives of a complex program. Particular areas of concern are past problems with the subcontractor pertaining to:

- Whether controls over functional project areas (Engineering, Logistics, Testing, etc.) are held by some individual not under directional control of the Project Manager.

- The frequency and severity of slippages in the schedule and the realism of adjustments to the schedule after slippages occur.

- Non-responsiveness or evasiveness to requests from TechDyn for information on status.

- Unrealistic forecast estimates as determined by scheduled events and past experience.

- Frequent changes in subcontractor's project organization and the resultant steepening of the learning curve.

- Design problems with the remote control element concerning both hardware and software that will directly affect compliance with system level performance requirements.

- TechDyn concerns that the subcontractor's (and in some instances the government's) desire to meet an early schedule, and

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sucess-oriented testing take precedence over system performance and reliability.

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2.0 Management Re-Emphasis

2.1 The perception of schedule emphasis is that there is only one level of delivery, whether documentation or hardware, without visibility into the inter-relationships of various program elements. No matter how many problems arose or milestones missed there was a perception of a single, set schedule. Clearly, the contractor must accept the burden of risk upon signing the contract for work to be delivered. However, in the case of directed subcontractors and assumption of high risk acquisition direction (in the case of the Modified Data Terminal Set), a greater share of responsibility for that risk must be assumed by the government.

2.2 TechDyn proposes to lower risk and assure project completion through application of rigorous management practices. This exceptional management emphasis will be directed toward selected key areas from the various functions. These key areas include:

- Design review - focused on the Remote Control Element for ICCE
- Qualification Systems - Hardware and Software Testing - to include fall-back software testing in event of problems related to:
- Product Assurance
- Schedule Management

2.3 TechDyn will establish a special task force, or Red Team, to assist the Program Director in monitoring the highest risk areas. This team will be made up of individuals representing the functional areas, e.g.; design, test, production, of critical risk items.

2.4 This Red Team will consider each high risk item/area by emphasizing the following:

- Statement of the Problem
- Assessment of the Problem and its Inherent Risk
- Consequences of Failure
- Recommended Risk Reduction Actions
- Establishing Decision Points for Program Management
- Recommending Backup Solution/Tests

2.5 A small element of the Red Team will be based in California near the WCCS plant in order to:

- Help focus TechDyn management attention on major problem areas

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- Focus WCCS management attention on ICCE problems

- Provide a faster means of offering recommendations for problem solutions and risk reduction

- Assist TechDyn management in evaluating how the overall job is being accomplished

2.6 In summary, the use of the Red Team is the expeditious and practical way of assuring that WCCS re-directs its present project management techniques in a way that will allow TechDyn and WCCS to approach project goals and objectives in a more cooperative manner.

3.0 Special Task Force (Red Team)

3.1 The Special Task Force, or Red Team, will be established under the TechDyn Program Director, ICCE, on or about 15 June 1987. The Red Team will be given an initial on-site briefing at corporate headquarters to familiarize the members with the task of redirecting management of areas of critical risk. Other briefings to be conducted when and as required.

3.2 The Team organization is to be as follows:

Title	Location
Program Director	Springfield, VA
Senior Management Engineer	Springfield, VA
Senior Systems Engineer	Torrance, CA
Senior Software Systems Engineer	Torrance, CA
Clerk Typist/Wordprocessor	Torrance, CA

3.3 Facilities and resources will be provided the Red Team to assure proximity to the WCCS plant and also office integrity needed to discuss matters in private when corporate confidentiality is required.

3.4 In justifying this requirement it must be understood that there is a deviation from the normal Prime/Subcontractor relationship that results from ESD's directed action. Normally, the Prime Contractor is responsible for securing compliance by a subcontractor through incentives, and where necessary, penalties. In the normal situation the Prime Contractor would only deal with subcontractors or vendors who would accept these terms and conditions. However, TechDyn is inhibited in effecting the most drastic penalty, being termination, because in our present contract, without WCCS services and products TechDyn is non-compliant. It is clear from the nature and length of delays due to non-compliance by WCCS, that the termination "lever" may have attracted more management attention and response on the part of WCCS.

3.5 TechDyn will ensure that all areas examined are coordinated directly with WCCS management prior to any re-direction or change. TechDyn will make a concerted effort to avoid an adversary relationship which sometimes results from the pressures of schedule and funding limits.

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3.6 Detailed job descriptions and justification of the Special Task Force (Red Team) follow in later sections.

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4.0 Schedule

4.1 The schedule, attached as enclosure, is our best forecast/estimate of activities/milestones required to complete the basic contract. This schedule has been agreed upon in principle by the Presidents of TechDyn Systems Corporation and Whittaker Command and Control Systems, Inc.

4.1.2 Regarding schedule risk, the one area of concern that was not fully addressed by TechDyn and WCCS in reaching an agreement upon the schedule, is in the area of provisioning. Time in presenting this case to USAF has not permitted 4C to adequately and completely address the cost and schedule of provisioning to the piece-part level for all vendor items. Mr. Hatchett, President WCCS, indicated that the schedule for provisioning activities, that he had agreed to, covered only the 1700 plus parts that were originally proposed by his company. He stated that his staff had indicated that it would take considerably more time to provide the level of provisioning processing as directed by ESD and TechDyn. Further, there were some minor areas of disagreement in scheduling of testing between the two companies that were discussed. However, it is felt that the understandings reached, which mainly involve a re-statement of direction to be given WCCS concerning their participation in hardware and system level testing activities, will not in any way cause perturbations in the schedule.

4.1.3 It will be noted that we have included in the schedule the entire range of activities, particularly those that include pre-operational support, which continue through the completion of OT&E. Additionally, the Contractor Technical Support and Interim Contractor Services that follow OT&E are also covered. In this regard, the schedule and those related cost impacts do not include contract options.

4.2 As compared with the October 1986 Program Schedule the key variances in the schedule are due to the following:

- Software Critical Design Review (CDR) was delayed due to inadequacy of both C specifications and presentation material that would explain the software design of the Computer Program Configuration Items of the PDFA.

- Hardware CDR is delayed due to problems in the design of the ICCE Remote Control Element. The B level specifications for both hardware and software are incomplete. It is not clear at this time whether a hardware solution to RCE problems has been identified by WCCS. An analysis of the problem is delinquent.

- Delivery of systems for the CONUS Upgrade program is delayed due to lack of approved test plans and procedures. WCCS, as of this date, has not submitted these test plans and procedures for review/approval.

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- Software Qualification Testing is delayed due to late completion of CDR activitiies.

- TAF Certification Testing of the TADIL A link is delayed due to delay in Software Qualification Testing.

4.3 The following activities are keyed to completion of the above events and cause program delays because they must be completed prior to system delivery to field locations:

- Completion of In-Plant Testing

- Tech Order Completion

- Provisioning Activities (proportionally incremental)

- Training

- Functional Configuration Audit

- Physical Configuration Audit

- Packing and Shipping

- Field Installation

- DT&E

- System Acceptance

4.4 From a Program Management standpoint these causes for schedule stretch-out increase the need for more (both quantitative and qualitative) management by both TechDyn and ESD. There will be an increase in technical interchange meetings; red-lining sessions; Program Management Reviews, with their resultant action/open items, etc. This situation is reflected in the schedules for personnel and travel.

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5.0 JUSTIFICATION FOR LABOR SCHEDULE

DIRECT LABOR

Program Director — Johnson

The Program Director's labor hours continue full time through the period of the contract. Extended hours are shown against program milestones where it is felt additional hours may be needed to cover travel and increased effort, particularly during periods of testing and project audits. The Program Director will chair the Special Task Force (Red Team) and extended hours are shown against tasks and travel requirements as required.

Cost Analyst — Catlin

Cost Analysis support will continue through the period of the contract. The scope of the work will be intense periodically, and the cost analyst will assist the program manager in project support areas normally covered previously by the executive secretary.

Data Manager — Bell

The data manager is responsible for coordination and accountability of project configuration management and identification actions in addition to the classic data management responsibilities. The data manager is also responsible for coordination of input from the functional directors to the program schedule. He is also responsible for the production and distribution of the program schedule. These data management activities will continue through the period of the contract. It is not expected that the scope of the activities will diminish, because of the number and variety of audits (functional configuration audit, physical configuration audit, etc.) that will continue until after all deliveries in the program are met. Additional hours are included to cover travel and increased effort that will be required during the various audit activities.

Senior Systems Engineer/ Test & Evaluation Manager — Thornton

The Senior Systems Engineer/Test & Evaluation Manager will continue full-time throughout the contract period. During the period of ICCE delivery Quality Assurance responsibility will come under the direction of the Senior Systems Engineer, a member of the Special Task Force. When the Task Force is dissolved, this manager will assume program quality assurance responsibilities. Extended hours are shown against program milestones/tasks where it is felt additional hours are needed to cover travel and increased effort.

Logistics Manager — Jones

The requirement for a Logistics Manager will continue full-time through the period of the contract. TechDyn will have responsibility for all echelons of logistic support for fielded system through the periods of Contractor

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Technical Support and Interim Contractor Support. The preoperational and operational support requirements dictate a quick-reaction capability which will continue through the contract period. Extended hours are shown against program milestones/tasks where it is felt additional hours are needed to cover travel and increased effort.

Logistics Analyst Bethel

The Logistics Analyst will assist the Logistics Manager in the tasks and efforts shown above. The period of performance will end 31 July 1988.

Field Maintenance Engineer Allen

The Field Maintenance Engineer is presently stationed in Iceland providing preoperational support for the ICCE IOC system. Preoperational support will be followed immediately by operational support (Contractor Technical Services).

Senior Engineering Technician Southard

The Senior Engineering Technician is responsible for supervising all installation and installation check-out activities for the ICCE/CENTAF program. This position will be required full time through July 1988. Additionally, there are requirements for part-time close-out actions on this individual's part at the end of installation activity.

Communications Technician Tilley

The Communications Technician is responsible for installation and installation check-out activities for the ICCE/CENTAF program. This position will be required full time through July 1988.

Electronics Technician Clark

The Electronics Technician supports engineering activities (e.g. drawing review, preparation of bills of material, identification of vendors, etc.). Additionally, this technician supports the installation and installation check-out activities for the ICCE/CENTAF program. The position will be required full time through June 1988. Further, the electronics technician will provide support required under Contractor Technical Services for the CENTAF system as shown in the schedule and in accordance with the Statement of Work.

Secretary/ W/P Operator Harris

This position is required full time through the period of the contract providing program management support.

Computer Operator Bolden

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This position is required to complete ICCE/CENTAF test plan and procedure submittals through the period 12 June 1987.

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Other Direct Consultants

Project Coordinator Thomas

The project coordinator is required full time through the period of the contract. The responsibilities include the coordination of tasking and activities of the various program functional managers. The period of performance would be through 22 November 1989.

Senior Systems Engineer Helwig

This individual will fill this position through 30 June 1987.

Senior Test Engineer Ashley

The Senior Test Engineer will work on a part time basis through software quality testing. This effort should be completed by the end of September 1987. He is responsible during this period for preparation and coordination of the CFA test plans and procedures and for oversight of subcontractor software development efforts. Additional hours are added to cover travel and extended hours for the second incremental hardware critical design review.

Senior Draftsman Carmichael

Drafting support will be required for project management, engineering management, test management and logistics support management through July 1988.

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Other Direct Consultants/New Hires

The following positions will be filled as new hire consultants as shown on the labor schedule. This group includes the Special Task Force (Red Team) and additional personnel to provide TechDyn with an in-house quality assurance team to oversee the installation and test activities of the functional organization. Since some of these positions are new, brief job descriptions are included.

Senior Systems Engineer Consultant/New Hire

This position represents the senior member of the Red Team and will perform additional duties as Quality Assurance Manager, reporting directly to the Program Director. His immediate area of concentration will be in identifying risk areas in the program, performing risk analysis and establishing a risk management plan that would be followed by the prime subcontractor. The area of concern to date in monitoring the subcontractor's development progress has been inability to determine and track testing that is done in the engineering phase, the production phase as opposed to testing being conducted by their quality assurance team. In order to have more confidence in reliability of subsystems, it is necessary to assure that more test data is available to the program from the engineering element at WCCS. This concern relates to both hardware and software testing requirements.

This position is required full time through the period of the contract. The individual will be based in a TechDyn facility to be established in Torrance, California.

Senior Software Systems EngineerConsultant/New Hire

This position will be that of a Red Team member with additional duty as software quality assurance team leader. Justification for the position follows the rationale above.

The position is required full time through the period of the contract. The individual will be based in a TechDyn facility to be established in Torrance, California.

Clerk Typist/WP Operator Consultant/New Hire

The position provides clerical support to the Torrance, California office. Duties include typing, record keeping, file maintenance and message control. The position is required through July 1988.

Senior Management Engineer Consultant/New Hire

This position will be that of a Red Team member with duties oriented toward quality assurance aspects of engineering audits, test and evaluation plans and procedures and review of hardware design considerations of the ICCE/CENTAF systems.

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This position will be required through April 1988. This individual will operate from corporate headquarters in Springfield, Virginia.

Hardware/Software Engineer Consultant/New Hire

This position will assist the Red Team and the quality assurance organization on a part time basis. The duties will supplement those of the engineering positions shown above in the project areas of concern shown in the labor schedule.

This position will be required through June 1988. This individual will operate from corporate headquarters in Springfield, Virginia.

Senior Test Technician Consultant/New Hire

The position will be assigned through the quality assurance organization. This individual will be responsible for assisting in verification of subsystem and system level requirements during qualification and acceptance testing. This individual should have knowledge of electronic apparatus, components or circuitry for use in electronic and electromechanical equipment and devices.

This position is required through June 1988. This individual will be based in Springfield, Virginia.

Test Technician Consultant/New Hire

This individual will assist the Senior Test Technician in the duties described above.

This position is required through June 1988. This individual will be based in Springfield, Virginia.

Senior Installation Technician Consultant/New Hire

This individual will assist and come under the supervision of the senior engineering technician. The duties involve installation and installation check-out of ICCE/CENTAF systems at various sites. Emphasis of the effort will be assistance at the CENTAF installation and acceptance tasks and any residual work required during the CONUS Upgrade portions of the contract.

The position is part time through June 1988, as described in the labor schedule. This individual will be based in Springfield, Virginia.

Installation Technician Consultant/New Hire

This position calls for a lesser degreee of responsibility than that of the senior installation technician. The job description is the same as that described above.

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The position is full time through June 1988. This individual will be based in Springfield, Virginia.

Maintenance Technician Consultant/New Hire

This position provides field support for the TechDyn logistics manager. For those systems not based in Iceland, he will perform diagnostic and troubleshooting routines on both PDFA and CFA equipments. Position requires an individual capable of working with limited direction while maintaining some latitude for independant action and decision. This position calls for a person with knowledge of the fabrication, modification and evaluation of electronic circuitry pertaining to electronic and electromechanical equipment and devices.

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Contract Administrator: Interface with the government to ensure TechDyn's contractual compliance with the prime contract's terms and conditions. Responsible for expedient movement of contractual documents received from the Government, TechDyn Project Management or the subcontractor. Maintain proper document control to ensure that delivery/due dates set forth in the contract are met.

Subcontract Administrator: Sole interface between TechDyn and the subcontractor on all contractual matters. Ensure that the work awarded to the subcontractor is satisfactorily performed through assigning/directing work, monitoring performance, and advising the Procuring Agency of the subcontractor's level of performance. Responsible to keep a central subcontractor file to ensure contractual compliance with the prime contract.

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ATTACHMENTS

1. Claim Certification
2. Standard Form 1411 Covering Claim
3. Standard Form 1411 Covering Provisioning
4. Program Schedule as of 18 May 1987
5. Technical Analysis, VEDA Proposal, 43465-874/Q310-8
6. Correspondence Relating to Claim Revisions

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CLAIM CERTIFICATION
Claim No. 125-CL-01/R1

Under the provisions of Section 33.207 of the Federal Acquisition Regulation (FAR), TechDyn Systems Corporation hereby certifies as follows:

(1) Claim No. 125-CL-01/R1 is made in good faith;

(2) Supporting data for Claim No 125-CL-01/R1 are complete to the best of the contractor's knowledge and belief; and

(3) The amount requested under Claim No. 125-CL-01/R1 reflects the contract adjustment for which the contractor believes the Government is liable.

Leo S. Morrison, Jr.
President and Chairman

Date: 18 May 1987

TechDyn SYSTEMS

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13 July 1987

125-C-0330

Department of the Air Force
HQ, Electronic Systems Division, PKS-3
Mitre Bldg. Oak Park, Room 1N507
Hanscom Air Force Base, MA 01731-5000

Attn: Mr. Stephen L. Smith
Contracting Officer
Director of Stragetic
Systems Contracts
Deputy for Contracting

Subj: Contract F19628-85-C-0079 (SBA Subcontract 3-85-2-6605); Claim No. 125-CL-01/R2 for Equitable Adjustment

Ref: (a) Letter, TechDyn (125-C-0178) (Hise) to ESD-PKS-3 (Smith) dated 10 February 1987

(b) Letter, ESD-PKS-3 (Smith) to TechDyn (Hise) dated 24 April 1987

(c) Letter, TechDyn (125-C-0283) (Hise) to ESD-PKS-3 (Smith) dated 18 May 1987

(d) Letter, ESD-PKS-3 (Smith) to TechDyn (Hise) dated 17 June 1987

(e) Red-Line Revisions to Cost Proposal, Claim No. 125-CL-01/R1 Presented to ESD (Smith) on 22 June 1987

(f) Further guidance furnished by ESD (Smith) on 23 June 1987, concerning Red-Line Revisions submitted to ESD on 22 June 1987

Dear Mr. Smith:

In accordance with further guidance received from the Contracting Officer on 23 June 1987, we are furnishing the Enclosed formal revision of our Claim 125-CL-01 marked as Revision 2 for equitable adjustment to the subject contract.

It should be understood that this Revision 2 to our Claim is based on the following considerations:

(1) The contract schedule submitted in Revision 1 as adjusted for a FOC System delivery completion date of 31 January 1989.

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6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013

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ATTORNEY AND EXPERTS

(2) TechDyn's Claim is decoupled from the Claim that has been submitted by TechDyn's directed Subcontractor, WCCS, and does not include TechDyn's costs incident to processing and settlement of the WCCS Claim.

(3) This Revision 2 deletes and reserves for future settlement TechDyn's Claim for provisioning related efforts.

(4) This Revision 2 is based on those causes known to TechDyn and as are identified in this Revision 2, which constitute a basis for equitable adjustment as of the date of this submission, 13 July 1987.

As pointed out in the initial Claim package submitted on 10 February 1987, TechDyn has lost substantial revenue and profit which would have been generated by assigned ICCE project -- dedicated personnel resources, had it not been for delays incident to the directed subcontractor's performance. It is estimated that this profit would have approximated $2,200,000.00.

As per earlier agreement, TechDyn representatives are planning to meet with you starting at 0900 hours on Thursday, 16 July 1987, to begin formal negotiations of the Claim settlement. Our negotiating team will be as follows:

William C. Hise, Director, Management Support Operations

Alfred H. Johnson, III, Director, Technical Operations

If you have any questions concerning this submission, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Hise

William C. Hise
Director
Management Support Operations

Enclosure: As stated

WCH/meb

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ATTORNEY AND EXPERTS ONLY

cc: Ms. Mary Thomas, Contracting Officer, SBA (Washington) w/Encls.

Ms. Evelyn Donnelly, Administrative Contracting Officer, DCASMA (Baltimore) w/Encls.

Mr. Samuel Cave, Supervisory Auditor, DCAA (Springfield) w/Encls.

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ATTORNEY AND EXPERTS ONLY

Claim No. 125-CL-01/R2

Under

Contract F19628-85-C-0079
(SBA Subcontract 3-85-2-6605)

Submitted to:

Department of the Air Force
Headquarters, Electronics Systems Divison,
Air Force Systems Command
Hanscom Air Force Base, MA 01731-5000

Submitted by:

TechDyn Systems Corporation
6564 Loisdale Court, Suite 600
Springfield, VA 22150

13 July 1987

0201035

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PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

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1. Claim Certification
2. Standard Form 1411 Covering Claim 125-CL-01/R2
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4. Justification of Additional Information Presented

ALL-STATE LEGAL SUPPLY CO. ONE COMMERCE DRIVE, CRANFORD, NEW JERSEY 07016

EDS 11

TECHNICAL JUSTIFICATION

For Claim 125-CL-01/R2

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ATTORNEY AND EXPERTS ONLY

The previous submission of the claim has looked at the Critical Design Review (CDR), within the program schedule, as the point at which the basis for equitable adjustment has been identified. This was done to simplify the need for a detailed analysis that would have taken considerably more time and analysis in terms of manpower and simple chronology than was felt justified. However, since the Air Force has indicated that the CDR slip and Provisioning requirements are the only bases that have been justified to this point, a more detailed analysis is required. When analyzing the overall program, the amount of work that had to be redone because of the directed subcontractor's poor performance is really identified by the program Preliminary Design Review, and that period of time when the system design was not quite identified, during calendar year 1986. If we look at the various schedule elements such as the Preliminary Design Review, the Critical Design Review and the events regarding system testing, then a more clear picture can be seen as to the culpability of the directed subcontractor, and in some cases, the Government, in the slips that have occurred to date.

In performing this analysis, there has to be established at least an understanding of what happened during the fact-finding sessions that led negotiations to the present contract. After TechDyn and WCCS had submitted their proposal, the Government in reviewing this, clearly saw that there was insufficient funding to cover the proposed amount in the contract. As a result of this, clear statements of intent were made by the Government to descope parts of the contract. This descoping, which involved the establishment of options for the additional ground entry stations in Iceland and Alaska and Hawaiian requirements, were easy enough to identify in terms of level of effort, materials

and other costs involved. As the fact-finding progressed, and other adjustments had to be made downward in the costs, the audit trail on cost savings or cost reductions became more subjective. It was very clear during the fact-finding sessions, that ESD and Mitre objected to areas in the functional organizations of TechDyn and its subcontractor where there were duplications in staffing within the various engineering and logistics disciplines. The Government made it clear that TechDyn was to implement the Communications Functional Area portion of the program, and to provide the necessary management overview of the project. The seeming intent on the part of the Government was that TechDyn needed only to provide management disciplines in their organization, except where detailed engineering and logistics were applicable to the Communications Functional Area. Whereas TechDyn had proposed a detailed engineering capability for the Processing and Display Functional Area, the Government insisted that the directed subcontractor alone needed to provide those disciplines in their organization. The implication being that WCCS was the more experienced company and would have no problem covering those areas without any oversight; or at least with only limited oversight by TechDyn management. With this understanding, TechDyn reduced staffing to a minimum, covering the oversight of engineering, test, logistics, configuration and data management. Additionally, TechDyn proposed in its organization, an austere element to be based at the WCCS plant for purposes of supervision and coordination that was felt needed in a complex program, However, this too was considered redundant by the Government and was descoped by TechDyn. The point being made here is that in each of these areas the substandard performance by the directed subcontractor belied the Government's confidence and established a series of cause-effect problems that impacted both the ICCE/CENTAF program and the contractual delivery schedule.

Another consideration that is relevant, and should not be neglected during the evaluation of this claim, is the importance

of continuity in the overall program management, particularly during period of lengthy delays as have been experienced in this project. TechDyn has not been in a position to lay-off personnel in order to cut costs and losses. The nature of delays and slippages have been such that documents and progress have been promised as being imminent or at least reasonable when considered in the time-frame of days or weeks. However, these delays and promises have been extended over longer and longer periods of time, causing managers to continually work the problems at the expense of the overall program or project. We have had to maintain a minimal staff of managers as problems occurred -- a case in point being software quality assurance audits. Additional technical manpower had to be called in, in the way of augmentation. This fire brigade approach to operations keeps the program in a reactionary mode and does not allow a disciplined approach to problem solution with valid application and understanding of the lessons learned. The position of the directed subcontractor's effort and the program critical path has caused a geometric effect when delays occurred, mainly because it was never readily apparent that WCCS had an understanding of the problem or a solution. In a number of instances, which will be cited, the Government comments or guidance was not received as agreed upon in various technical interchange meetings. There is no doubt that these delays may have been aggravated by lack of information through contractor channels, however, this does not eliminate the need for consideration of the delay's cost.

A cursory review of the WCCS claim against TechDyn indicates a serious misunderstanding of requirements and at least, in a number of situations, a failure to believe that WCCS would be held responsible for the verification of any requirements. Programs of this nature, when considering the diversity of users and the interaction between the users and developing command must have a Systems Requirement Review and at least the establishment of a Functional Baseline. The fact that

the Government did not feel these relevant is the basis for a perception that has caused a technical and certainly a philosophical rift between TechDyn and the subcontractor. At each turn in the program where requirements have become an issue, and WCCS was found deficient, their response was that the Government wanted the "old RADIL everyone has come to love" and that changes were therefore "out of scope."

Documentation across the board has been a point of contention with WCCS (the references and MIL Standards notwithstanding) and their failure in this area has inhibited progress in this program. This difference in approach to requirements can be applied to a majority of the TechDyn costs incurred during calendar year 1986, and the trend, with its concomitant causes and effects, continues. As previously indicated, the Preliminary Design Review should be the key measure or basepoint for assessing the causes that justify TechDyn's claim for equitable adjustment. The Preliminary Design Review held 8-9 January 1986, cannot be considered a valid milestone in terms of completion because it did not satisfy its inherent prerequisites. The reason that it did not satisfy these prerequisites is because the development specifications submitted by WCCS were too far below standards to dignify the substantive review and comments. A Preliminary Design Review should not be held until after acceptance, if not approval, of part I of development specifications. The majority of these specifications were not sufficient until the October-November 1986 time frame. The Remote Control Element development specification, which is a WCCS responsibility, is still outstanding. During calendar year 1986, all of TechDyn Systems' management focus was directed toward completion of Preliminary Design Review related actions. WCCS's reaction was not to apply all of their resources and efforts toward this end, but to continue software coding and movement toward testing which should not have been done until completion of the Critical Design Review and its normal cycle of approvals. Their reaction

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ATTORNEY AND EXPERTS ONLY

to most of the deficiencies brought out during and after the Preliminary Design Review was that the requirements were out of scope, that they were negotiated out of the contract.

ATTACHMENTS

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1. Claim Certification
2. Standard Form 1411 Covering Claim 125-CL-01/R2
3. Certificate of Current Cost or Pricing Data
4. Justification of Additional Information Presented

ALL-STATE LEGAL SUPPLY CO., ONE COMMERCE DRIVE, CRANFORD, NEW JERSEY 07016

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PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONL

CLAIM CERTIFICATION
Claim No. 125-CL-01/R2

Under the provisions of Section 33.207 of the Federal Acquisition Regulation (FAR), TechDyn Systems Corporation hereby certifies as follows:

(1) Claim No. 125-CL-01/R2 is made in good faith;

(2) Supporting data for Claim No 125-CL-01/R2 are complete to the best of the contractor's knowledge and belief; and

(3) The amount requested under Claim No. 125-CL-01/R2 reflects the contract adjustment for which the contractor believes the Government is liable.

Leo S. Morrison, Jr.
President and Chairman

Date: 13 July 1987

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

Claim No. 125-CL-02
Under
Contract F19628-85-C-0079
(SBA Subcontract 3-85-2-6605)

Submitted to:

Department of the Air Force
Headquarters, Electronics Systems Division,
Air Force Systems Command
Hanscom Air Force Base, MA 01731-5000

Submitted by:

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

28 December 1987

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CC LSM
AJ
MR

TechDyn SYSTEMS

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CONTRACTS
MASTER FILE

12/30/87

28 December 1987

125-C-0430

Department of the Air Force
HQ, Electronic Systems Division, PKS-3
Mitre Bldg. Oak Park, Room 1N507
Hanscom Air Force Base, MA 01731-5000

Attn: Mr. Stephen L. Smith
Contracting Officer
Directorate of Strategic
Systems Contracts
Deputy for Contracting

Subj: Contract F19628-85-C-0079; TechDyn Systems Claim for Equitable Adjustment No. 125-CL-02

Dear Mr. Smith:

TechDyn Systems Corporation is pleased to submit its subject Claim for Equitable Adjustment in the amount of $1,509,744.00.

If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Hise

William C. Hise
Director
Management Support Operations

Enclosure: As stated

WCH/dlw

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ATTORNEY AND EXPERTS ONLY

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2. Standard Form 1411 Covering Claim

3. WCCS Request for Equitable Adjustment D87-076R2, dated 15 December 1987

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A

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

Introduction

1.0 Provisions Under Which Requested

1.1 Claim No. 125-CL-02 is submitted under the provisions of the Contract Disputes Act of 1978 (41 USC 601-613) and Section 52.233-1, Disputes, of the Federal Acquisition Regulation (FAR).

1.2 This Claim is submitted in response to those areas covered under WCCS' Request for Equitable Adjustment No. D87-076R2, dated 15 December 1987. These areas were excepted from TechDyn's Claim for Equitable Adjustment 125-CL-01/R2 by Letter No. 125-C-0429 from TechDyn to the Contracting Officer, Subj: Contract F19628-85-C-0079; Claim for Equitable Adjustment 125-CL01 (R-2), dated 23 December 1987.

2.0 Amount of Equitable Adjustment

2.1 This Claim for Equitable Adjustment in the price of Contract F19628-85-C-0079 (SBA Subcontract 3-85-2-6605) is submitted in the amount of $1,509,744.00.

2.2 A detailed break-out of the revised Claim Cost Proposal is set forth in Section C.

B

TechDyn SYSTEMS

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

ICE-M-703

24 December 1987

TO: W. C. Hise

FROM: A. H. Johnson

SUBJECT: Review of WCCS Claim for Equitable Adjustment under Subcontract 125-001

1. The WCCS Claim for Equitable Adjustment has been reviewed for technical accuracy and compliance and the following comments apply thereto. These comments apply to Volume I, "Technical Discussion" without any attempt to substantiate costs; comments are made with a view toward supporting or, in some measure, justifying the rationale presented by WCCS.

2. The review indicates 3 major areas of possible responsibility on the part of the government warranting equitable adjustment:

a. Documentation Review Delay

b. Additional Scope Areas

c. Management Support Costs - LOE resulting from a and b above.

3. In order to relate these areas for discussion purpose to the WCCS Claim the following breakout of WCCS paragraphing in Volume I was made.

a. <u>Documentation Review Delay</u>

Functional Area	WCCS Para.
-Logistics Related Delay	1.1.1
Positional Handbook	1.1.2
GIDEP	1.6.3
Increased Training	2.4
-Preparation for CDR	
Meetings	1.4
Incremental CDR's	1.5
Specification Reviews	1.7
External IDS	2.7

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Functional Area	WCCS Para.
-Preparation for SQT	
SQT Delay	1.2
RCE Software	2.5.1
DTS Timing Analysis	2.6
b. Additional Scope Areas	
-IOC Support	2.1
-DTS Repair	2.2
-CENTAF 1 Delivery	2.3
c. Management Support Costs	
-Level of Effort Spt	1.6.1

4. Comments

a. Documentation Review Delay.

(1) Logistics Related Delay Documentation. This is a possible area of claim for adjustment. WCCS accepted some risk in establishing due dates for their subcontractor, OTI, to provide deliverables within the contract schedule. TechDyn had requested a reasonable delay from the government in its documentation, however, the request was not acted upon. The indication is that WCCS submitted documentation that was either not commented on by the government or their comments were late in being received by WCCS.

-Positional Handbook - Agree with WCCS position.

-GIDEP - Agree with WCCS position.

-Increased Training - Agree with WCCS position.

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NOTE: Prior to negotiation and during factfinding there was very little exchange with logistics experts or technicians who would be involved in implementation. These personnel became involved after contract award and were not knowledgeable of what was actually bid or the interactions during factfinding that resulted in reductions in planned resources by TechDyn and WCCS.

(2) Preparation for CDR comments apply to the four subparagraphs (Meetings, Incremental CDR's; Specification Reviews; External IDS). These functions are all related to the contractual objective of reaching an agreed upon Allocated Baseline for the ICCE System. It is evident that TechDyn's Claim for Equitable Adjustment, in the main, was based upon the inability of WCCS to perform its obligation in such a manner to reach an Allocated Baseline on time. Further, that the functions shown e.g., Technical Interchange Meetings, were all required because of unsatisfactory delivery of specifications, etc. However notwithstanding the above, WCCS may be justified in their claim for the following reasons:

- Government comments were seldom transmitted officially to the contractor prior to interchange meetings. Generally, with several commands represented at the meetings, it was necessary for the government representatives to caucus continually, to ratify their own positions. This made for confused meetings with no clear understanding that verbal dictates were actual government positions on various issues.

- Government attendance and chairmanships changed for most meetings. The flow of information to WCCS was not coherent and could have added to delays and misunderstanding.

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- It was believed after these Technical Interchange Meetings that official comments would follow, however, they were usually followed by another meeting and more direction. The best illustration of this is the fact that the statement of the most complex software problems (digital handover, reporting responsiblity and correlation) were not transmitted to the contractor until 9 months after the specification review process began. The fact that there were problems with these areas of software development was brought up 6 months after the beginning of the review cycle, however, government direction was not given before an additional 90 days had elapsed.

- For the above reasons the documentation review process prior to CDR was prolonged and may have caused continual resource adjustments on the part of WCCS.

(3) Preparation for SQT.

- SQT Delays - Agree with WCCS position.

- RCE Software - Agree with WCCS position. WCCS claims that the descoping of ground entry stations (GES) during factfinding caused them to descope the software for these sites.

- DTS Timing Analysis - Agree with WCCS position. The 60% reduction in frames for timing sequence was a result of changes in the Peace Shield program. TechDyn feels that the government made the decision to take advantage of design changes to the DTS in the Peace Shield program, thereby saving non-recurring development costs bid by WCCS. The responsibility for this added task rests with the government since TechDyn had no control or access to the DTS design/modification process.

b. Additional Scope Areas.

(1) IOC Support - Agree with WCCS position.

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(2) DTS Repair - Agree with WCCS position.

(3) CENTAF 1 Delivery - Agree with WCCS position.

c. Management Support Costs.

(1) Level of Effort Spt - Agree with WCCS position.

d. WCCS Claim Areas not supported.

- RCE CFE para 1.3.

  - WCCS claims reliability problems with TechDyn furnished equipment. However, during the entire period that WCCS used the equipment in developing their design no trouble reports or fault analysis reports were submitted to TechDyn. Further, it was learned, modification's were made by WCCS to equipments prior to approval by TechDyn/U.S. Government.

- CFA Storage Costs para 1.6.2

  - CFA Storage Costs. This is not accepted because storage of equipment for in-plant testing was extended due to program slippages caused by WCCS. These slips were part of the basis of TechDyn's claim for equitable adjustment.

Sincerely,

ALFRED H. JOHNSON
Program Director

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Attachments

1. Claim Certification
2. Standard Form 1411 Covering Claim
3. WCCS Request for Equitable Adjustment D87-076R2, dated 15 December 1987

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Claim Certification
Claim No. 125-CL-02

Under the provisions of Section 33.207 of the Federal Acquisition Regulation (FAR), TechDyn Systems Corporation hereby certifies as follows:

1. Claim No. 125-CL-02 is made in good faith;

2. Supporting data for Claim No. 125-CL-02 are complete to the best of the contractor's knowledge and belief; and

3. The amount requested under Claim No. 125-CL-02 reflects the contract adjustment for which the contractor believes the Government is liable.

Leo S. Morrison, Jr.
President and Chairman

Date: 28 December 1987

ALLSTATE LEGAL SUPPLY CO ONE COMMERCE DRIVE CRANFORD, NEW JERSEY 07016

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CONTRACT PRICING PROPOSAL COVER SHEET

1. SOLICITATION/CONTRACT/MODIFICATION NO. F19628-85-C-0079

FORM APPROVED OMB NO 3060-0116

NOTE This form is used in contract actions if submission of cost or pricing data is required. (See FAR 15.804-6(b))

2. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

TechDyn Systems Corporation
6564 Loisdale Court, Suite 600
Springfield, VA 22150

3A. NAME AND TITLE OF OFFEROR'S POINT OF CONTACT
William C. Hise, Director
Management Support Operations

3B. TELEPHONE NO.
(703)922-5100

4. TYPE OF CONTRACT ACTION (Check)

A NEW CONTRACT	D. LETTER CONTRACT
B CHANGE ORDER	E UNPRICED ORDER
C PRICE REVISION/ REDETERMINATION	X F. OTHER (Specify) Claim fo Equitable Adjustmer

5. TYPE OF CONTRACT (Check)
[X] FFP [ ] CPFF [ ] CPIF [ ] CPAF
[ ] FPI [ ] OTHER (Specify)

6. PROPOSED COST (A+B=C)

A. COST	B. PROFIT/FEE	C. TOTAL
$1,360,130.00	$ 149,614.00	$1,509,744.00

7. PLACE(S) AND PERIOD(S) OF PERFORMANCE

Springfield, VA; Torrance, CA; Iceland

8. List and reference the identification, quantity and total price proposed for each contract line item. A line item cost breakdown supporting this recap is required unless otherwise specified by the Contracting Officer. (Continue on reverse, and then on plain paper, if necessary. Use same headings.)

A. LINE ITEM NO	B. IDENTIFICATION	C. QUANTITY	D. TOTAL PRICE	E. REF
	Claim for Equitable Adjustment		$1,509,744.00	Attac A

9. PROVIDE NAME, ADDRESS, AND TELEPHONE NUMBER FOR THE FOLLOWING (If available)

A. CONTRACT ADMINISTRATION OFFICE
DCASMA, Baltimore
Attn: Ms. Evelyn Donnelly
(301) 321-4964

B. AUDIT OFFICE
DCAA, Rosslyn
Attn: Mr. Irving Anderson
(703) 696-5386

10. WILL YOU REQUIRE THE USE OF ANY GOVERNMENT PROPERTY IN THE PERFORMANCE OF THIS WORK? (If "Yes," identify)
[ ] YES [X] NO

11A. DO YOU REQUIRE GOVERNMENT CONTRACT FINANCING TO PERFORM THIS PROPOSED CONTRACT? (If "Yes," complete Item 11B)
[X] YES [ ] NO

11B. TYPE OF FINANCING (If ap
[ ] ADVANCE PAYMENTS [X] PROGRE PAYMEN
[ ] GUARANTEED LOANS

12. HAVE YOU BEEN AWARDED ANY CONTRACTS OR SUBCONTRACTS FOR THE SAME OR SIMILAR ITEMS WITHIN THE PAST 3 YEARS? (If "Yes," identify item(s), customer(s) and contract number(s))
[ ] YES [X] NO

13. IS THIS PROPOSAL CONSISTENT WITH YOUR ESTABLISHED ESTI-MATING AND ACCOUNTING PRACTICES AND PROCEDURES AND FAR PART 31 COST PRINCIPLES? (If "No," explain)
[X] YES [ ] NO

14. COST ACCOUNTING STANDARDS BOARD (CASB) DATA (Public Law 91-379 as amended and FAR PART 30)

A. WILL THIS CONTRACT ACTION BE SUBJECT TO CASB REGULATIONS? (If "No," explain in proposal)
[ ] YES [X] NO Small Business

B. HAVE YOU SUBMITTED A CASB DISCLOSURE STATEMENT? (CASB DS-1 or 3)? (If "Yes," specify in proposal the office to which submitted and if determined to be adequate)
[ ] YES [X] NO

C. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NON-COMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)
[ ] YES [X] NO

D. IS ANY ASPECT OF THIS PROPOSAL INCONSISTENT WITH YOUR DISCLOSED PRACTICES OR APPLICABLE COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)
[ ] YES [X] NO

This proposal is submitted in response to the RFP, contract, modification, etc. in Item 1 and reflects our best estimates and/or actual costs as of this date

15. NAME AND TITLE (Type)
William C. Hise
Director, Management Support Operations

16. NAME OF FIRM
TechDyn Systems Corporation

17. SIGNATURE
William C. Hise

18. DATE OF SUBMISSION
DEC 28 1987

NSN 7540-01-142-8846 1411-101 STANDARD FORM 1411 (10-
Prescribed by GSA
FAR (48 CFR) 53.215-2(c)

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Use or disclosure of data contained in this sheet is subject to the restrictions

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ATTORNEY AND EXPERTS ONL

Cost Summary	
Direct Labor On-Site	$ 39,343
Overhead (124.63%)	49,033
Travel	36,138
Other Direct Costs	1,130,913
Subtotal	1,255,427
G&A (8.34%)	104,703
Subtotal	1,360,130
Profit	149,614
Total	1,509,744

Use or disclosure of data contained in this sheet is subject to the restrictions on the title page of this proposal or quotation.

LABOR PROJECTION	Project Name F19628-85-C-0079	Cont. Code 125-CL-02	On-Site
Task Name	Prepared By & Date MSO 12/28/87	Approved By & Date DIR, MSO 12/28/87	

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Code	Job Classification: Job Title	No. of Persons	Rate Per Hour	Task Hours	Task Dollars
E	Director, Technical Operations	1	34.70	380	13,186
E	Computer Operator	1	9.62	120	1,154
E	Senior Logistics Analyst	1	20.20	217	4,383
E	Senior Systems Engineer/Test	1	21.82	344	7,506
E	Senior Logistics Engineer	1	21.82	264	5,760
E	Contract Admin. (Composite)	6	15.18	208	3,157
E	Subcontract Admin. (Composite)	6	12.45	260	3,237

Totals			
	Total Hours & Dollars	1,793	38,383
	Raise @ 2.5%		960
	TOTAL		39,343

Code: E = Employee
NH = New Hire

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Travel

Director, Technical Operations

Springfield, VA to Carlsbad, CA

4 Days, 3 Nights		
Air Fare (R/T)	$1,090	
Per Diem ($100/day)	350	
Car Rental ($60/day)	240	
Ground Transportation	20	
	$1,700	
Number of Trips	x4	
		$ 6,800

Springfield, VA to Boston, MA

3 Days, 2 Nights		
Air Fare (R/T)	$ 342	
Per Diem ($108/day)	270	
Ground Transportation	20	
		632

Senior Logistics Analyst

Springfield, VA to Carlsbad, CA

4 Days, 3 Nights		
Air Fare (R/T)	$1,090	
Per Diem ($100/day)	350	
Ground Transportation	20	
	$1,460	
Number of Trips	x2	
		$ 2,920

Springfield, VA to Boston, MA

2 Days, 1 Nights		
Air Fare (R/T)	$ 342	
Per Diem ($108/day)	162	
Car Rental ($49/day)	98	
Ground Transportation	20	
		622

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ATTORNEY AND EXPERTS ONI

Senior Systems Engineer/Test

Springfield, VA to Carlsbad, CA

4 Days, 3 Nights		
Air Fare (R/T)	$1,090	
Per Diem ($100/day)	350	
Car Rental ($60/day)	240	
Ground Transportation	20	
	$1,700	
Number of Trips	x4	
		$ 6,800

Springfield, VA to Boston, MA

2 Days, 1 Nights		
Air Fare (R/T)	$ 342	
Per Diem ($108/day)	162	
Car Rental ($49/day)	98	
Ground Transportation	20	
		622

Senior Logistics Engineer

Springfield, VA to Carlsbad, CA

4 Days, 3 Nights		
Air Fare (R/T)	$1,090	
Per Diem ($100/day)	350	
Ground Transportation	20	
	$1,460	
Number of Trips	x2	
		2,920

Springfield, VA to Carlsbad, CA

3 Days, 2 Nights		
Air Fare (R/T)	$1,090	
Per Diem ($100/day)	250	
Car Rental ($60/day)	180	
Ground Transportation	20	
	$1,540	
Number of Trips	x4	
		6,160

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Contracts Administration		
Springfield, VA to Carlsbad, CA		
4 Days, 3 Nights		
Air Fare (R/T)	$1,090	
Per Diem ($100/day)	350	
Ground Transportation	20	
	$1,460	
Number of Trips	x2	
		2,920
Springfield, VA to Boston, MA		
3 Days, 2 Nights		
Air Fare (R/T)	$ 342	
Per Diem ($108/day)	270	
Car Rental ($49/day)	147	
Ground Transportation	20	
	$ 799	
Number of Trips	x2	
		1,558
Subcontract Administration		
Springfield, VA to Carlsbad, CA		
4 Days, 3 Nights		
Air Fare (R/T)	$1,090	
Per Diem ($100/day)	350	
Ground Transportation	20	
	$1,460	
Number of Trips	x2	
		2,920
Springfield, VA to Boston, MA		
3 Days, 2 Nights		
Air Fare (R/T)	$ 342	
Per Diem ($108/day)	270	
Ground Transportation	20	
	$ 632	
Number of Trips	x2	
		1,264
Total Travel		$ 36,138

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Other Direct Costs	
Subcontractor	
Whittaker Command and Control Systems	$1,124,534
Consultant	
K. Thomas (225 hours x $28.35 hour)	6,379
Total Other Direct Costs	$1,130,913

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Whittaker

Whittaker Command & Control Systems, Inc.
23670 Hawthorne Boulevard
Torrance, California 90505
213/373-9651 Telex 756886

15 December 1987 8712-1548-MER/D87-Ø76R2

TechDyn Systems
Loisdale Court
Springfield, VA

Attention: W. C. Hise

Subject: WCS Request For Equitable Adjustment under Subcontract 125-ØØ1

Reference: a) Request for Equitable Adjustment D87-Ø76, dated 29 May 1987 as revised 9 September 1987

b) Meeting of 1 December 1987 between R. Jackson, B. Graney, M. Raymond/WCCS and A. Johnson/Techdyn

c) Meeting of 15 December 1987 between Al Johnson and M. Raymond

Dear Mr. Hise:

Transmitted herewith is subject request for equitable adjustment, revised to include the agreements made with Mr. Johnson during reference b meeting and as reviewed by Mr. Johnson during reference c meeting. As you are aware, these agreements concerned the inclusion of certain issues and the wording of Volume I - Review of Impact. In addition, this document has been further updated to reflect the costs incurred to 1 November 1987, rather than 3 May 1987, and to reflect the WCCS FY87 end-of-year rates, which increased from an expected overhead rate of 115% to 122.55% and an expected G&A rate of 2Ø% to 22.5%.

Whittaker Command & Control Systems is eager to have this document forwarded to and reviewed by ESD. If you require any assistance in this regard, we will be pleased to support you as you require, to include direct interface and handling of matters concerning this request for equitable adjustment with ESD personnel.

Any questions regarding this revision are to be directed to the undersigned or to Mr. Bob Graney at (619) 438-7336.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Director of Contracts

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D87-076R2
15 December 1987

SUBCONTRACT 125-001

REQUEST FOR EQUITABLE ADJUSTMENT

Volume I - Technical Discussion

WHITTAKER COMMAND AND CONTROL SYSTEMS, INC.
6190 Yarrow Drive
Carlsbad, California 92009

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INTRODUCTION

Whittaker Command and Control Systems' Request for Equitable Adjustment of costs incurred because of program delay and added scope is separated into two volumes. Volume I presents the narrative discussion of impact to WCCS, while Volume II provides detail on costs.

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Request for Equitable Adjustment under Subcontract No. 125-001, between TechDyn Systems Corporation (TechDyn) and Whittaker Command & Control Systems, Inc. (WCCS), formerly known as Command, Control and Communications Corporation (4C).

GENERAL STATEMENT OF THE CLAIM

The parties entered into Subcontract No. 125-ØØ1 on 16 July 1985, initially requiring the subcontractor to perform specified tasks in support of the Iceland Command and Control Enhancement System (ICCE). As a result of twenty modifications to the subcontract, the scope of work was expanded to require WCCS to perform additional tasks and to deliver specified hardware, software, testing, training and documentation items. As a result of the mentioned added work, the price of the subcontract grew from $428,Ø55 to $7,236,344.38.

WCCS has prosecuted the work under the subcontract in a diligent, efficient and responsible manner, applying at all times its good faith efforts to perform on time and in full compliance with all the terms and conditions of its contractual obligations. Nevertheless, WCCS's progress has been seriously delayed and disrupted as a direct result of events beyond the control and without the fault or negligence of WCCS, but rather caused by TechDyn or by events within the control and responsibility of TechDyn. Additionally, WCCS has been made to perform work beyond that which was required by the subcontract and modifications thereto.

As a direct result of these delays, disruptions and added work, WCCS has suffered an increase in costs of performance, thereby entitling WCCS to an equitable adjustment under the subcontract. The specific events entitling WCCS to an equitable adjustment are detailed below.

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1.Ø DELAY

Implicit in every contract is a provision that neither party will do anything to prevent, hinder, or delay performance by the other party. Not only must the Government or prime contractor refrain from obstructing performance, but he must do what is necessary to enable his subcontractor to perform. In addition, the prime contractor is obligated to perform his work in a reasonable manner, and to ensure that his customer also complies with this expectation in order not to hinder the subcontractor's performance. In the case of WCCS/TechDyn Subcontract 125-SØØ1, WCCS is entitled to performance costs incurred and resulting from delays caused by the Government and the prime contractor on the ICCE/CENTAF contract. These are detailed below.

1.1. LOGISTICS DOCUMENTATION

1.1.1. Delay in Review of Logistics Documentation. WCCS subcontracted for delivery of the logistics deliverables for ICCE/CENTAF under Purchase Order Number 33Ø73T, awarded to Ocean Technology, Inc. (OTI), and effective 2 October 1985. This occurred after the negotiation for the FOC/CENTAF effort, but prior to receipt of TechDyn subcontract Modification ØØ3, on 27 November 1986, which included the logistics tasks. This subcontract was entered into at WCCS's risk in an effort to meet the contractual schedule.

In October of 1985 TechDyn Systems submitted a Task Change Proposal (TCP) petitioning for relief of the CDRL directed schedule, as a number of the logistics deliveries were due 3Ø, 6Ø and 9Ø days after effective date of contract, 31 August 1985. This TCP was rejected and TechDyn (and thereafter WCCS) was verbally requested by the ICCE Project Manager to deliver these CDRLs as soon as practicable.

WCCS worked diligently to catch up with the contractual delivery schedule for the logistics documentation after customer refusal to change the directed dates. (Table 1 presents a list of logistics deliverables, their contractual due dates, dates delivered to TechDyn, and dates when review comments were received.) The WCCS/OTI subcontract provides for a 75 day review cycle (the 45 days required by the Government, a 21 day WCCS/TechDyn review and 9 days for mailing.) If no comments are received within that period, approval of the document is assumed. This review period was generally exceeded. Accordingly, once OTI had assumed approval, WCCS was obliged to incorporate any comments which were finally made to the documents, incurring further in-house costs, or to provide additional funding to OTI so that OTI would finalize the documents.

Table 1. Logistics Delivery Status

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CDRL	NAME	WCCS DUE DATE	DEL DATE	*REVIEW STATUS COMMENTS
316	Training & Training Equip. Plan	11/22/85 6/1/86	1/27/86 5/29/86	6/17/87 (accepted)
		9/3Ø/86	9/26/86	11/26/86 (ESD)
		1/5/87	2/Ø6/87	12/24/86 (WCCS)
319	Integrated Support Plan	11/22/85	1/31/86 2/26/87	7/31/86 NC
32Ø	CFE/CFAE Notices	Prior to 6/Ø1/86	4/Ø1/86 4/18/86 4/22/86	NR
321	Positional Handbook	Prior to DT&E		NS
324	Maintain-ability Prediction	9/1Ø/86	8/28/86	NC
326	Reliability Prediction	9/21/86	7/25/86 3/25/87	2/1Ø/87 NC
328	GSERDS	11/22/85	1/16/86 3/1Ø/86 4/11/86 5/2Ø/86 2/6/87	NC NC NC NC Ø9/Ø2/87
333	Priced Support Equipment List	11/22/85	1/16/86 3/1Ø/86} 4/11/86} 5/2Ø/86} 2/Ø6/87	NC NC NC NC NC

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Table 1. Logistics Delivery Status (continued)

CDRL	NAME	WCCS DUE DATE	DEL DATE	*REVIEW STATUS COMMENTS
334	Support Equipment Plan	1/22/85 12/15/86	12/17/85 2/26/87	7/31/86 NC
335	Ground Support Equipment Illustrations	11/27/85	1/16/86 3/1Ø/86 4/11/86 5/2Ø/86 2/Ø6/87	NC NC NC NC NC
336	Logistics Support Analysis Plan	Stop Work Directed		NC
337	Calibration & Measurement Summary	12/22/85	2/2Ø/86 1/23/87	9/Ø3/86 6/17/87 (accepted)
338	Tech Manual Plan	1Ø/22/85 1/25/86 7/18/86	9/2Ø/85 12/Ø6/85 6/25/86 1/28/87	6/17/87 (accepted) 5/19/86 11/25/86 9/Ø2/87 (accepted)
339	COTS Manuals	12/22/85	1/27/86 1/31/86 4/Ø1/86 4/18/86 4/22/86 5/15/86	NR NR NR NR NR NR
54Ø	Transportation Plan	1/22/86	3/1Ø/86	9/Ø2/86 (accepted)

*Review Status:

NC = No Comments Received

NR = No Comments Received, Needs Resolution, Therefore Considered a Risk

NS = Not Yet Submitted

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1.1.2. Further impact to the logistics documentation effort occurred as follows. CDRL 321, Positional Handbook, has been revised with each new software requirement added to the B-5 specification. In order to keep up with the customer generated changes and in an attempt to meet the need dates in a timely manner, WCCS was required to fund OTI to provide an in-house representative to coordinate the changes, and ensure that technical quality and schedule were adhered to. The delay caused by redirection added unplanned costs to the production of CDRL 321.

1.2 SOFTWARE/FORMAL QUALIFICATION TESTING (SQT OR FQT)

The SQT was initially scheduled for the last week in September 1986. In July 1986, this was postponed since the initial baseline did not include R2, digital handover or correlation, requirements made known in June 1986.

Requests for the E-3 Simulator at Tinker AFB and the ROCC at Tyndall AFB were then made by WCCS to support SQT in December 1986. This SQT was to include the R2 and digital handover procedures implemented in the new (current) software baseline. Prior to requesting this support from the Government, TechDyn revised the anticipated schedule, moving SQT to the end of March 1987.

For each of these scheduled SQT periods, WCCS supported Technical Interchange Meetings (TIM) to discuss planned scenarios, support required by the E-3 Simulator and the ROCC during conduct of test, and for data reduction and analysis following conduct of the real-time portion of the test.

At each TIM (and/or Test Working Group Meeting) actions were generated for the Government to review the scenarios and provide comments to WCCS. None were received. As a result, WCCS submitted SQT procedures in January 1987. These procedures required major overhaul as the result of a TIM held at Tinker AFB in March 1987 where it was learned that the E-3 simulator was unable to support some of the planned scenario events (i.e., subsurface target generation and processing). This information was requested at the March 1986 TIM but was not received until the March 1987 TIM.

1.3 REMOTE CONTROL ELEMENT (RCE) CFE

TechDyn tasked WCCS to design and develop RCE software for controlling CFA voice and data circuits. It was TechDyn's responsibility to supply the necessary elements of the CFA for the RCE software development; that is, the host processors (IBM PC/Zenith 15Ø), modems, the IDS 9ØØØ switch components and technical documentation.

The units supplied were provided later than agreed to; they experienced reliability problems, and no technical documentation

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on the IDS 9ØØØ was provided. WCCS coordinated the repair of the TDS supplied equipment to expedite the repair; their unreliability, however, caused delays in the software development.

1.4 SUPPORT OF TECHNICAL INTERCHANGE MEETINGS

WCCS had estimated and costed, in addition to the PDR and CDR, a technical interchange meeting of 1-2 days duration each month from commencement of performance until SQT. This estimate involved approximately 13-26 days of meetings (plus travel days) over a 16-month period. Table 2 details a portion of the meetings WCCS has been required to support in the 19 months between September 1985 and March 1987. As listed, these reviews involve 87 days (plus any required travel days).

Table 2. Technical Meetings Supported

Coordination Meeting at TechDyn Systems	4 - 5 September 1985
Coordination Meeting at WCCS	3 - 4 October 1985
Coordination Meeting at TechDyn Systems	13 - 14 November 1985
1985 Provisioning Guidance Meeting at AFLC	19 - 21 November 1985
1985 Spec Review/PMR at TechDyn Systems	24 - 26 November 1985
1985 Fourth Technical Review at WCCS	1Ø January 1986
Coordination Meeting at TechDyn Systems	22 - 24 January 1986
Software Quality Review at WCCS	Ø5 February 1986
AAC/PACAF Meeting at WCCS	Ø5 - Ø6 February 1986
3Ø% IPR for Technical Manuals at WCCS	Ø4 - Ø6 March 1986
ICWG - Test Meeting at ESD	19 - 21 March 1986
Coordination Meeting at TechDyn Systems	26 - 28 March 1986
TADIL-A/B Implementation Meeting at WCCS	Ø2 - Ø4 April 1986
System Test Program Meeting at WCCS	Ø9 - 1Ø April 1986
ECP Review at WCCS	29 April-Ø2 May 1986
1986 Program Management Review at TechDyn Systems	14 - 16 May 1986

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Table 2. Technical Meetings Supported (continued)

TADIL-A/B Implementation Review at WCCS	2Ø - 21 May 1986
Technical Interchange Meeting at TechDyn Systems	11 - 12 June 1986
B5 Spec Review at WCCS	23 June-Ø3 July 1986
1986 B5 Spec Review at WCCS	Ø7 - 18 July 1986 CFA
B-Spec Review at TechDyn Systems	Ø4 - Ø6 April 1986
Software Status Review at ESD	12 August 1986 TTEP
Review at WCCS	28 August 1986 PDFA
Provisioning at WCCS	Ø3 - Ø5 Sept 1986
Technical Interchange Meeting at WCCS	Ø4 September 1986
Software Control Review at WCCS	Ø3 - Ø4 October 1986
UHF/HF Option Fact Finding at ESD	Ø8 - Ø9 October 1986
Logistics Coordination Meeting at WCCS	21 - 22 October 1986
CENTAF #1 Delivery Meeting at WCCS	23 October 1986
PMR at TechDyn	19 - 22 January 1987
PMR at TechDyn	24-26 March 1987

It was further anticipated that only two people, the Program Manager and a technical representative, would be required to attend these meetings. These technical meetings have generally required more individuals than planned to discuss the agenda topics provided. This not only affected cost but also caused program delay as technical personnel were required to interrupt their efforts to support the meetings.

1.5 CRITICAL DESIGN REVIEWS (CDR)

WCCS had costed and negotiated a single CDR, to include hardware and software and to be held at the WCCS facility. Subsequently, this one CDR was divided into a separate hardware CDR and a separate software CDR.

1.5.1. TechDyn directed the Hardware CDR be held in their facility in Springfield, Virginia in December 1986. WCCS advised TechDyn of the additional effort and costs over and above the

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negotiated CDR task. In response, TechDyn directed WCCS attendance. Accordingly, WCCS incurred unplanned labor and travel costs to support this Hardware CDR (which was to include the PDFA, RCE and logistics topics). After the WCCS presentation of the PDFA and RCE hardware and logistics data (the Government representatives advised that this presentation was acceptable), TechDyn was not permitted to continue, as they did not have all the data necessary (i.e., Data Terminal Set (DTS) design information) to present a complete CFA presentation. A modification to the DTS was on-going, but was funded under a separate contract, the Boeing Aerospace Company/U.S.A.F. Peace Shield contract, under the cognizance of ESD. Accordingly, neither TechDyn nor WCCS had control over the modification schedule, which was delayed because of three separate changes directed by the Peace Shield prime contractor in the design of the modification. Based on this lack of design data, a second Hardware CDR was required and was scheduled, again at TechDyn facilities, with support again required from WCCS.

1.5.2 The PDFA Software CDR was initially scheduled 1 March 1986 (based on 31 August contract award). TechDyn Systems established 27 September as contract award which moved the scheduled CDR to 28 April 1986.

ESD letter of 18 June 1986, subject CDR, transmitted by TechDyn 125-SØØ1-Ø97, dated 24 June 1986, scheduled the CDR for 8-11 July 1986.

Thereafter, TechDyn 125-SØØ1-Ø1Ø1, dated 3 July 1986, forwarded an ESD letter indicating the need for validated B5's and submittal of C5's prior to CDR.

The B5 specifications were not authenticated to support a July 1986 CDR since they did not include R2, digital handover and correlation as directed by ESD during June 1986. The C5's were in process but required change each time additional comments or requirements for specific implementation of requirements were directed.

CDR occurred 3Ø days after submittal of C5 drafts, or 13 January 1987 and was held in the WCCS facility in Torrance, CA. The intent of submission of C5's 3Ø days prior to CDR was to allow time for Government review. Only a cursory review of the draft C5's was made by the Government, showing them to be incomplete (some PDL missing, flow diagrams not complete). Accordingly, the Government was not prepared to accept the CDR as being complete. Nevertheless, CDR attendants arrived on schedule and WCCS was directed to proceed with the CDR even though there was no chance to complete the design review.

The C5s were resubmitted, and a second software CDR was held in April 1987, requiring additional expenditure of labor and funding.

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In addition, each time each of the CDRs was scheduled and rescheduled, considerable effort was expended to review the presentation charts, modify the agenda, incorporate any updates and dry run the entire presentation. None of this restart activity was planned.

1.6 TIME RELATED IMPACT

1.7.1. Level of Effort Tasks. A number of the WCCS tasks were proposed based on a level of effort over the life of the contract. These included Program Management, Product Assurance, Configuration Control, Technical Publications Support, Computer Operator Support, Sustaining Engineering, Supply Support and Failure Data Reporting. These efforts were proposed based on the level of effort required over the period of original contract schedule. Because of delays incurred, these LOE tasks had to be extended, and further costs were incurred.

1.6.2. CFA Storage Cost. WCCS agreed to store CFA equipment until it was integrated with the PDFA for in-plant system level testing. This system level testing has been delayed, resulting in a requirement for WCCS continue storage of CFA equipment, mainly in commercial off-site locations (since other contracts required the same space). Storage of this equipment is expected to be required until such time that the ICCE/CENTAF System Testing can be completed.

1.6.3. GIDEP Participation. The ICCE SOW states that "the contractor shall participate in GIDEP to the extent necessary to receive data from the Failure Experience Data Base (FEDB). The contractor shall screen all parts prior to their selection IAW paragraph 3.3.1.1 of the System Specification (SS) when applicable." Paragraph 3.3.1.1 of the SS refers to newly designed hardware only. The methodology for receiving FEDB data was established and failure reports reviewed were against parts used in the PDFA. (There was no new design associated with this procurement, only delivery of units identical to the RADIL units in the ROCC system (SOW paragraph 3.1.2.a).

WCCS was directed to set up a GIDEP system to screen all parts used, to establish a computer-to-computer access to the GIDEP facility, and to subsequently host an audit for compliance with TechDyn and ESD. This activity has exceeded the minimal effort proposed within the Program Management task, since one hardware engineer has been required to support this activity since November 1986.

1.7 DELAY OF PROGRAM DUE TO B1, B2 AND B5 SPECIFICATION SUBMITTAL, REVIEW AND APPROVAL

The following sequence of events occurred in the specification review and approval cycles which delayed critical milestones, ultimately delaying the entire program.

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1.7.1 Preliminary drafts of the ICCE B5, dated 2 December 1985, as well as a preliminary B1 specification, dated 4 December 1985, were submitted for the purpose of eliciting comments and guidance on the structure and content. No comments or guidance was received. WCCS was not informed of any adverse reaction to the preliminary B5 drafts during the time that the next iteration of these documents was in production.

In TechDyn letter 125-SØØ1-ØØ63, dated 13 March 1986, the results of a fact finding session held on 24-25 January were communicated to WCCS. This letter stated that the B5s had been received for review and comment, but the letter (Attachments I, II, and III) confined its comments to the B1 specification and contained no B5 comments.

Lacking any adverse B5 comments about structure and content at that time, WCCS prepared a set of B5s that followed the structure and content of the earlier document set, filled in any additional information, and conformed closely to the format and content requirements of the applicable specifications (MIL-STD-49Ø and MIL-STD-483). These documents were submitted to TechDyn in March 1986, and were then forwarded to the Government. A letter, transmitted to WCCS on 31 March 1986, although not containing specific comments about the B5s, required that extensive information (per MIL-STD-1521) be provided at the CDR, which was then scheduled for 28 April 1986.

1.7.2 On 21 May 1986, four months after end of the specified 45-day review cycle, WCCS received, for the first time, comments on the B5 specifications.

These comments were generated by the Government. The comments objected to the structure of the B5s, specifically the fact that WCCS had defined a super-CPCI (1ØØ5Ø) called the PDFA Operational and Support Program Set in which the four inter-related operational CPCIs (1ØØ51 thru 1ØØ54) for the DCU, DLC, MNC, and DSC, and the Support Programs (CPCI 1ØØ55) were treated as an integrated system. This structure, which was defined in the December 1985 submittals and not challenged, allowed WCCS to describe the system aspects in the B5 for CPCI 1ØØ5Ø. Included in the May comments was a complaint that the six B5s for CPCIs 1ØØ5Ø thru 1ØØ55 did not provide the interface details. However, CPCI 1ØØ5Ø referenced an External Interface Design Specification (IDS) which treated the data link, man-machine, and data reduction interfaces on a system requirements basis and would provide the required interface details. This External IDS was not required by the contract but was created by WCCS specifically to provide the interface details for the various WCCS software personnel involved in the software effort. The Government further required that WCCS provide complete details of the TCOM (TCOM Intertask and Network Communications Product, a WCCS product used in the operational software) interfaces between CPCIs 1ØØ51 (System Control), 1ØØ52 (Display Control), and 1ØØ53

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Data Link Control). These details and the details demanded in the External IDS constituted software design information rather than system requirements information called out by MIL-STD 483/49Ø.

During an intensive review session in late May 1986, WCCS agreed to restructure the B5s by deleting the CPCI 1ØØ5Ø B5 and converting it to a System IDS. WCCS also agreed to incorporate customer comments into the remaining B5s as well as into the B1 and B2 specifications, to prepare the External IDS to the customer-demanded level of design detail, and to produce a preliminary version of the internal (TCOM) interfaces between CPCIs (Internal IDS) to the demanded level of design detail. It again should be noted that B5-type specifications are not intended to contain design -- only requirements; design detail is normally contained in the C-level specifications.

These documents, as well as the B1 and B2 specifications for the PDFA, were to be prepared in time for a specification review in advance of the CDR scheduled to begin 23 June 1986. Because of several customer caused delays, the specification review itself did not begin until 23 June delaying the CDR. On the day the review began, a set of additional comments, not previously provided, were given to WCCS. This specification review led to a set of red-lined B1/B2/B5 specifications and identified three open issues (TechDyn letter 125-SØØ1-1Ø4, Attachment: ESD letter to TechDyn Systems dated 31 July 1986) which would impact three of the B5 specifications. Red-lined comments were incorporated into the specifications not impacted, and updated versions, dated 1 August 1986 were transmitted to TechDyn on 5 August 1986.

1.7.3 The open issues which impacted the remaining three volumes were based on three additional capabilities: Reporting Responsibility (RR), Digital Handover, and Correlation. The implementation of these capabilities was not previously specified as such in the system specification. Accordingly, since these were newly specified implementations, WCCS transmitted a solution which was intended to provide for these capabilities in a timely manner. Responses to the proposed methods were to be received by WCCS no later than 11 August 1986 in order to allow production of updated B5 specifications by 9 September 1986.

Comments were not received until 17 September 1986. The three newly updated B5s, dated 1 October 1986, were transmitted to TechDyn on 2 October.

1.7.4 No further response regarding either the 1 October or 1 August revisions was transmitted to WCCS until receipt of TechDyn letter 125-SØØ1-Ø179, dated 6 November 1986, forwarding ESD correspondence which contained one two-sentence change to the B1 specification (R/ØØ1422) and accepted the System Control B5 (R/ØØ1497).

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On 15 October 1986, WCCS received TechDyn letter 125-SØØ1-Ø147, which accepted the DCU B5 (R/ØØ1495) and the Support B5 (RØØ1499).

On 17-21 November 1986, a review of the three remaining B5 specifications was held at WCCS. Although this session was conducted 45 days after specification submittal, comments to these specifications were first presented at this meeting in the form of three separate non-coordinated sets of comments. These comments were later formally received under TechDyn letter 125-SØØ1-Ø197, dated 25 November 1986. Conduct of the red-lining session was made more difficult because many comments were duplicated. No advance warning was received regarding comments which had significant impact upon design, cost, and schedule. Since the objective was to close out all outstanding action items by the end of the review session, the assessment and response to many comments had to be made while the red-lining session was in process. Additionally, although the accompanying letter (to the comments) stated that the comments were either discrepancies between the red-lined version and the October version or based on new information provided, many of the comments dealt with information that had been unchanged from as far back as the March 1986 version of the B5. An example of this concerned the mathematical equations presented in the Appendix 3Ø of the Data Link B5. These equations were first presented in the March 1986 version, appeared unaltered in the June and October versions, and were finally commented on in the November meeting. Most of the comments received on the mathematical equations have required WCCS to educate the reviewer on the derivation of the equations rather than provide updated information to the B5.

Of the 274 comments presented at the November review session, all but the comments on the mathematical equations were either resolved or withdrawn. The mathematical comments were later telephonically resolved. If WCCS had received the comments prior to the meeting, the review could have been shortened from four days to two days, a substantial savings in man-hours.

Updated versions of the Data Link Control, Display Control, and System Control B5's as well as the System Level IDS, dated 1 December 1986 were transmitted to TechDyn on 2 December 1986. On 12 January 1987, comments on the Data Link Control B5 were received in TechDyn letter 125-SØØ1-Ø237. The comments pointed out editorial errors as well as an error in the incorporation of red-lined comments from the November review. Additionally, a comment pertaining to the mathematical equations was received. This comment again asked for clarification of equation derivation rather than pointing out any errors in the B5 document.

On 2Ø January 1987, change pages, dated 16 January 1987, were submitted to the Data Link Control B5. Again, on 23 March 1987 in TechDyn letter 125-SØØ1-Ø3Ø6, an editorial error in one of the mathematical equations (present since the March version of the B5) was pointed out. As a result, change 2 to the Data Link

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Control B5, dated 31 March 1987, was transmitted to TechDyn 26 March 1987.

On 1Ø April 1987, in TechDyn letter ICE-I-564, it was learned that the System Control B5 and the System Level IDS had been authenticated.

The numerous B5 Specification review and approval cycles were in excess of what is normally experienced and reasonably expected in a developmental program. The level of detail required has been greater than what is specified in MIL-STD 483/49Ø, i.e., incorporating design and implementation details versus requirements.

Customer fluctuations on specific issues causing directed changes to be reversed, the imposition of new requirements late in the review cycles, the slow customer response to each new B5 submission (typically exceeding 45 days), and the directed level of detail to be specified have all contributed to the delays experienced, which are substantially beyond the expected, proposed and negotiated review cycle.

2.Ø ADDED EFFORT

WCCS incurred additional costs as a result of performance of the efforts described below. These efforts were out of scope of Subcontract 125-ØØ1 and not previously proposed or negotiated.

2.1. IOC TEST SUPPORT

The in-Iceland support of IOC was to consist of installation and checkout of the PDFA, and operation of the PDFA during system testing to be conducted by TechDyn. The support requested of WCCS was greater than that agreed upon.

WCCS personnel in Iceland held coordination meetings with the USAF, prepared detailed system level test procedures, and essentially conducted the tests. In addition, OJT was provided to local Air Force operators, and WCCS personnel were requested to troubleshoot DTS (GFE unit) malfunctions and subsequently repair the unit. These additional activities extended the WCCS personnel in Iceland, resulting in increased labor and per diem charges above those planned.

2.2. CFE DTS REPAIR

During in-plant integration testing of the IOC system, a CFE DTS unit malfunctioned. WCCS was directed to contact Magnavox and request maintenance support. This was done; the unit was repaired, and Magnavox was paid for travel, per diem and labor.

WCCS was never reimbursed.

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2.3. DELIVERY OF CENTAF SYSTEM NUMBER 1

2.3.1. TechDyn advised WCCS that the CFA packaging, which had been bid to them as an option, would not be required and that TechDyn planned to provide this themselves. When the Air Force required delivery of the first CENTAF system, TechDyn advised that they did not plan to package the DTS (TD 125-SØØ1-Ø174, dated 5 November 1986). WCCS, in order to deliver a usable system, not only had to package the DTS but also had to provide cables which were the contractual responsibility of TechDyn.

2.3.2. Shipping requirements, as stated in the SOW/System Specification (and reiterated in the approved Transportation Plan - CDRL 54Ø), were to provide protective packaging for one-way air shipment to Shaw AFB; that is, the containers were not reusable. WCCS was directed to provide reusable cartons at a cost exceeding the planned for shipping containers. Reusable containers for the DTS were provided as well, but were never to be acquired at WCCS cost.

2.3.3. During the acceptance testing of the CENTAF 1 unit with GFE software, CENTAF personnel required OJT for their assigned operations personnel. WCCS provided console operations support, and trained Air Force personnel in the use of the Map Digitizer (not included in CENTAF #1 delivery) to generate background maps for known areas of deployment. None of this effort was required by the contract.

2.4 INCREASED TRAINING

The PDFA training program was proposed and negotiated to provide separate operator and maintenance training courses. The number of students was to be limited to 1Ø for each course. (This is the maximum number of students as the system is not large enough to provide access to more than 1Ø. The optimum class size is 5 students.) Based on these parameters, a Training and Training Equipment Plan (TTEP) the PDFA was prepared and submitted in April 1986. The integrated ICCE TTEP was submitted to the Air Force and was rejected as being deficient. A Technical Interchange Meeting was held in September 1986 which resulted in direction to revise the training effort negotiated. The number of students to be trained was increased from 1Ø to 14, necessitating two classes for each course versus one. This doubled the number of instructors required, as a two-shift operation was part of the direction.

2.5 REMOTE CONTROL ELEMENT (RCE) SOFTWARE DEVELOPMENT

2.5.1 The RCE baseline development was for control of two Ground Entry Stations (GES). The software architecture was to be designed to eventually support four GESs. WCCS was directed to expand the baseline system, well into the development of the software, to control the additional two GESs rather than allowing for a later software modification to add the control of the two

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additional GESs. As a result, recoding was required, all control and status menus had to be revised, control logic had to be updated to include the additional GES addresses, etc. All previously released documentation had to be revised to reflect these updates. Direction for this upgrade impacted both cost and schedule.

2.6 DTS Timing Analysis

WCCS was tasked at the PMR held in 25-26 March 1987 (PMR Action Item 5), to analyze the capability of the ICCE software to operate with a modified DTS utilizing a two-frame timing sequence (vice the normal five-frame delay).

A timing study was started requiring software modifications to collect the data, analyze the results, and to recommend any software redesign/modification required to make the software/modified DTS compatible.

The study has been completed and the results are being analyzed. The costs identified herein are those associated with the collection, analysis and reporting of the results. A separate proposal will be provided to cover the software modifications (if any) required to work with the new (modified) DTSs.

2.7 EXTERNAL INTERFACE DESIGN SPECIFICATION (IDS)

It is WCCS procedure to prepare an External IDS to present the data link design requirements for use by WCCS programmers, and to provide further visibility into the processing required for the Government. This IDS document, internal to WCCS, was prepared and, in accordance with contractual requirements, listed on the Data Accessions List.

Requests for this document were made and complied with.

WCCS was then directed to include this informal submittal as part of the B-5 documentation package. This ICCE IDS was formatted in three volumes:

Volume 1 presented the Transmit/Receive Codes interpreted from JCS Pub 10.

Volume 2 presented the Man Machine Interface details.

Volume 3 presented the Data Reduction details.

Each volume was subjected to reviews by Government personnel, who directed inclusion of implementation details versus design requirements as called for in MIL-STD-483/490.

Documentation reviews were held after each submittal (Volume 1 has been issued 6 times) and recommended changes were made.

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Following is the sequence of events pertinent to the Government's tion.

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The External Interface Design Specification (IDS), Volume 1 was delivered to TechDyn on 24 February 1986. This IDS was based on the JCS PUB 1Ø version earlier received by WCCS, since the version pertinent to the contract had not yet been received from the Government/TechDyn. When the correct version of JCS PUB 1Ø was received in March 1986, the IDS had to be revised and reissued on 26 March 1986.

A Data Link Implementation (DLI) meeting was held at WCCS on 2-5 April 1986, to review the data link implementation presented in the External IDS. No comments had been provided prior to the meeting, and only one set of written comments was provided at the meeting. The remaining comments were verbal as the review progressed. In addition, Appendix III to the Data Link Computer B5 specification was reviewed.

Some of the comments on the External IDS were based on Block 2Ø-25 (AWACS E-3) changes to JCS PUB 1Ø as well as approved OICPs, neither of which have been made available to WCCS. An action item was taken by ESD to provide WCCS with the E-3 Block 2Ø-25 System Specification as well as with approved copies of the OICPs by 3Ø April 1986. This information was received on 11 June 1987.

In the areas most affected by the Block 2Ø-25 changes and the OICPs, direction concerning ESD-desired implementation was verbally provided at the meeting by MITRE personnel.

A Technical Interchange Meeting was held at WCCS on 2Ø-25 May 1986. During this meeting, all of the action items from the April meeting were discussed. The action item concerning the Block 2Ø-25 changes and the OICPs was left open. Other action items were answered; in some cases the answers provided in the May meeting were reversed in the 17-21 November meeting.

An example of this reversal in direction concerns the Voice Control Frequency and the TADIL-C Frequency. At the April DLI meeting, an action item was taken to "provide information on operator input required for . . . Voice Control Frequency" and TADIL-C Frequency. At the May meeting, the provided response stated, in part, "customer agrees to leave the input as actual frequency. There is no change to the current RADIL implementation which is in accordance with JCS PUB 1Ø." In comments received on 26 November 1986 against the October 1986 version of the External IDS, it was recommended (and later directed) that the "contractor include in the description of the TC FREQ and VC FREQ fields that these fields may be used for channel data". Although, this comment was made in reference to the readout information, it was later (at the November Review meeting) extended to include the operator inputs.

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An updated External IDS was delivered to TechDyn on 3Ø May 1986 (WCCS letter 86Ø5-344-MR/16393). This IDS was reviewed during a meeting held from 24 June to 16 July 1986.

Again, comments to the IDS were not submitted to WCCS ahead of time.

Another update, incorporating these comments of the External IDS, was delivered to TechDyn on 2 October 1986 (see WCCS letter 861Ø-813-MR/16393 and 861Ø-814-MR/16393). This version of the External IDS was reviewed on 17-21 November 1986 (comments were verbally received at the meeting and formally transmitted on 26 November 1986).

Again, an updated External IDS was delivered to TechDyn on 2 December 1986 (WCCS letter 8612-1Ø1Ø-MR/16393 and 8612-1Ø55-MR/16393). The comments received on 12 January 1987 to the IDS were not based on discrepancies between the red-lined version (from the November meeting) or on new material added to the IDS as was stated in the ESD letter, but on information which had not been changed from earlier versions of the IDS.

The current External IDS has had four change packages issued to it: (1) Change 1, dated 16 January 1987 incorporating changes required by comments received on 12 January 1987; (2) Change 2, dated 2Ø March 1987 incorporating the comment received via TechDyn letter 125-SØØ1-Ø295 dated 16 March 1987; (3) Change 3, dated 17 April 1986 incorporating mainly editorial comments, and (4) Change 4, dated 28 April 1987 incorporating ECP-Ø11.

Additional cost was incurred by the formalization of a planned informal and internal document. Further, the number of reviews held, the extent of the comments made and the direction/redirection received has impacted both cost and schedule.

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D87-Ø76R2
15 December 1987

SUBCONTRACT 125-ØØ1

REQUEST FOR EQUITABLE ADJUSTMENT

Volume II - Cost

WHITTAKER COMMAND AND CONTROL SYSTEMS, INC.
619Ø Yarrow Drive
Carlsbad, California 92ØØ9

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INTRODUCTION

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Whittaker Command and Control Systems' Request for Equitable Adjustment of costs incurred because of program delay and added scope is separated into two volumes. Volume I presents the narrative discussion of impact to WCCS, while Volume II provides detail on costs.

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1.Ø DELAY

1.1.1 Delay in review of Logistics Documentation. The WCCS impact is based on the OTI contract modification required to complete the effort.

Subcontract modification (OTI)	$ 83,572
G&A (22.5%)	18,8Ø4
Profit (11.Ø%)	11,262
Total	$113,638

1.1.2 Further impact on Logistics Documentation effort. To achieve the necessary direct contact with all logistics personnel (OTI, VEDA, TechDyn, ESD, AFLC, etc.), and to ensure a rapid review of changing deliverables, assessment of comments, and to provide technical continuity, WCCS subcontracted with OTI to provide a full-time logistics representative, resident at WCCS. This support was provided from June 1986 through February 1987.

Subcontract modification (OTI)	$ 69,889
G&A (22.5%)	15,725
Profit (11.Ø%)	9,418
Total	$ 95,Ø32

1.2 SQT DELAY

After submittal of the preliminary PDFA test plan, WCCS was obliged to start on the SQT test procedures in order to support the planned test conduct schedule. Two test working group meetings were held (only one was planned), both requiring travel (also not planned), the second of which resulted in information requiring substantial revisions since the Government facilities are unable to provide the support planned for and described in the test plan. This rewrite could have been avoided with a timely review of the test plan and Government discussions during WCCS/TechDyn briefings.

Original Budget	$ 51,495		
Cost at Completion	132,414		
Cost Growth		$ 8Ø,919	
Profit (11.Ø%)		8,9Ø1	
Total			$ 89,82Ø

Engineering Labor	$ 29,681
Overhead (122.55%)	36,375
G & A (22.5%)	14,863
Total Cost	$ 8Ø,919

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1.3 REMOTE CONTROL EQUIPMENT CFE

The Zenith 15Ø host processor provided to WCCS for the RCE development did not perform as described in the user documentation. This caused unnecessary software design changes and minor modifications to the standard Z-15Ø interface card. None of this effort was planned, as it was assumed that CFE would operate as advertised, and would be reliable.

The claim is based on the planned effort versus the actual costs incurred for the Code/Checkout and the Installation/Integration tasks.

WCCS will absorb all costs incurred for the testing of the final RCE software product.

Original Budget	$ 66,Ø17		
Cost at Completion	127,932		
Cost Growth		$ 61,915	
Profit (11.Ø%)		6,811	
Total			$68,726

Engineering Labor	$ 23,998
Overhead (115.Ø%)	27,598
G & A (2Ø.Ø%)	1Ø,319
Total Cost	$ 61,915

1.4 SUPPORT OF TECHNICAL INTERCHANGE MEETINGS

WCCS support of TIMs exceeded the planned support by approximately 1ØØ% (31 TIM supported versus 16 planned). The anticipated number of personnel required to attend has also exceeded that planned.

The claim is estimated on the basis of 15 unplanned TIMs, 48.3% more than planned.

Actual travel costs incurred were $29,698. It is estimated that 48.3% of these costs were related to the 15 additional TIMs.

Based on previous meetings, it is assumed that half (8) of these trips will be to the east coast. Travel costs for 15 trips to the east coasts totaled $29,698, or $1,916/trip. Accordingly, 8 trips x $1,916 = $15,328.

Original Budget	$ 93,232		
Cost at Completion	184,944		
Cost Growth		$ 91,712	
Profit (11.Ø%)		1Ø,ØØ8	
Total			$1Ø1,8Ø1

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Engineering Labor	$ 27,195
Overhead (122.55%)	33,328
Travel	14,344
G & A (22.5%)	16,845
Total Cost	$ 91,712

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1.5 CRITICAL DESIGN REVIEW

A separate task was established to collect costs for preparing CDR materials and for supporting the CDR. Because of the delays/restarts, and the requirement to conduct two Hardware and two Software CDR's a cost growth was experienced in this task.

The first hardware CDR, conducted on the east coast in February 1987 as well as the second hardware CDR required WCCS support.

Original Budget	$ Ø	
Cost at Completion	31,316	
Cost Growth		$ 31,316

Engineering Labor	$ 11,487
Overhead (122.55%)	14,Ø77
G & A (22.5%)	5,752
Total Cost	$ 31,316

Because of an incomplete software CDR caused by only cursory C5 review, a second software CDR was conducted in April 1987 at WCCS in Torrance, California.

Original Budget	$ 28,944	
Cost at Completion	62,133	
Cost Growth		$ 33,189

Engineering Labor	$ 12,174
Overhead (122.55%)	14,919
G & A (22.5%)	6,Ø96
Total Cost	$ 33,189

Profit (11.Ø%)	$ 7,Ø96
Total	$ 71,6Ø1

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1.6 TIME RELATED IMPACT

1.6.1 Level of Effort Tasks. Delay of the program has impacted several of the tasks which are level-of-effort activities. WCCS accepts some responsibility for program delay, but asserts that the delay experienced is because of program interference and addition to the scope of the contract. The LOE tasks affected are Program Management, Data Management, Scheduling, Configuration Management, Technical Publications, Computer Operations, Failure Reporting and Sustaining Engineering. These efforts are as follows:

Original Budget	Ø		
Cost at Completion	$117,59Ø		
Cost Growth		$117,59Ø	
Profit (11.Ø%)		12,935	
Total			$13Ø,525

Engineering Labor	$ 43,133
Overhead (122.55%)	52,859
G & A (22.5%)	21,598
Total Cost	$117,59Ø

1.6.2 CFA Storage Costs. Because of the project delay, WCCS was required to rent off-site storage space for TechDyn CFA equipment, as other ongoing WCCS programs required the WCCS in-plant space. Storage costs and incidental labor for receiving and inventory monitoring is included.

Inventory Movement	72 hrs x $9.36	$ 674	
Inventory Monitoring	48 hrs x 7.28	349	
Direct Labor		$ 1,Ø23	
Overhead (122.55%)		1,254	
Storage (9 months @ $2ØØ/month)		1,8ØØ	
G&A (22.5%)		917	
Total Cost			$ 4,994
Profit (11.Ø%)			549
Total			$ 5,543

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1.6.3 GIDEP Participation. Continued participation by a WCCS hardware engineer in the directed GIDEP activity has required additional hours of effort.

Engineering Hours		
12Ø hrs x $18.27	$ 2,192	
Overhead (122.55%)	2,686	
G&A (22.5%)	1,Ø98	
Total Cost		$ 5,976
Profit (11.Ø%)		657
Total		$ 6,633

1.7 SPECIFICATION REVIEW DELAY

Cost growths were experienced in the preparation of B-level specifications because of the many updates, and the addition of R^2, digital handover, and correlation logic.

A separate task was originally established to collect costs for B-5 preparation.

B-5 Preparation

Original Budget	$ 26,172		
Cost at Completion	82,Ø1Ø		
Cost Growth		$ 55,838	
Profit (11.Ø%)		6,142	
Total			$ 61,98Ø

Engineering Labor	$ 2Ø,482
Overhead (122.55%)	25,1ØØ
G & A (22.5%)	1Ø,256
Total Cost	$ 55,838

Additional costs associated with normal software development (i.e., design, code, checkout) are included in the cost growth associated with the software developmental effort. Of this $199,897 cost growth, WCCS accepts 3Ø% ($59,969) as being their responsibility. The direction to update the specifications to include R^2, digital handover and correlation is estimated to be responsible for 5Ø% ($99,948) of this cost growth. Impacts to the B-5s are estimated at 1Ø% ($19,99Ø) of the cost growth. The impact to the IDS is estimated to be 1Ø% ($19,99Ø) of the cost growth, but is included in Section 2.7 herein.

Software Development
(Design, Code, Checkout)

Original Budget	$298,92Ø	
Cost at Completion	498,817	
Cost Growth		$199,897

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Specification Update (1Ø%)	$ 18,959	
R^2, Digital Handover and Correlation (5Ø%)	99,948	
Profit (11.Ø%)	13,193	
Total		$133,131

2.Ø ADDED EFFORT

2.1 IOC TEST SUPPORT

Effort to support IOC testing was planned to include on-site labor, travel and per diem. WCCS personnel were required to expand their efforts by remaining in Iceland longer than planned, resulting in cost growth. The claim is for the cost growth over the planned amount.

IOC Test Support

Original Budget	$ 25,699		
Cost at Completion	32,3Ø6		
Cost Growth		$ 6,6Ø7	
Profit (11.Ø%)		727	
Total			$ 7,334

2.2 GFE DTS REPAIR

During IOC integration and testing in Torrance, a DTS malfunctioned and required repair. WCCS was directed to contact Magnavox, the vendor who provided the two units to the USAF for this effort, to repair the unit in Torrance. The amount claimed represents the actual charges from Magnavox.

Original Budget	$ Ø		
Cost at Completion	1,474		
Cost Growth		$ 1,474	
Profit (11.Ø%)		162	
Total			$ 1,636

2.3 ADDITIONAL COSTS RELATED TO DELIVERY OF CENTAF SYSTEM NUMBER 1

2.3.1 WCCS was directed to package the DTS and radios for CENTAF 1. This was not part of the WCCS effort. A separate cost account was established to collect labor and material costs associated with the effort. The amount claimed herein is the actual amount incurred to perform this task.

Original Budget	$ Ø		
Cost at Completion	29,666		
Cost Growth		$ 29,666	
Profit (11.Ø%)		3,263	
Total			$ 32,929

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Engineering Labor	$ 3,912
Overhead (122.55%)	4,794
Material	11,5Ø1
Handling (34.87%)	4,Ø1Ø
G & A (22.5)	5,449
Total Cost	$ 29,666

2.3.2 Reuseable shipping containers were provided at a cost exceeding that of the containers proposed. The planned costs were based on vendor estimates for shipping two CENTAF systems of $9,2Ø8 (or $4,6Ø4 for one system). The actual costs for one unit were $7,84Ø, resulting in cost growth.

Original Budget (2 Systems)	$ 9,2Ø8		
Original Budget (1 System)	$ 4,6Ø4		
Cost at Completion	8,Ø1Ø		
Cost Growth		$ 3,4Ø6	
Profit (11.Ø%)		375	
Total			$ 3,781

Containers	$ 2,78Ø
G & A (22.5%)	626
Total Cost	$ 3,4Ø6

2.3.3 The planned value of integrating and testing both CENTAF units was $4Ø,Ø66 (or $2Ø,Ø33 per unit). WCCS was directed to provide OJT to USAF operators, and to prepare and train operators in map generation, in addition to integrating and testing the unit.

Original Budget (2 Systems)	$ 4Ø,Ø66		
Original Budget (1 System)	$ 2Ø,Ø33		
Cost at Completion (1 System)	34,455		
Cost Growth		$ 14,422	
Profit (11.Ø%)		1,586	
Total			$ 16,ØØ8

Engineering Labor	$ 5,589
Overhead (115.Ø%)	6,429
G & A (2Ø.Ø%)	2,4Ø4
Total Cost	$ 14,422

2.4 INCREASED TRAINING EFFORT

The latest Training and Training Equipment Plan (TTEP) submitted included directed deviations from the original baseline; namely, the class sizes for both operator and maintenance training courses increased from 1Ø to 14 students each. This necessitates coordinating two separate courses for each class of 7 students.

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This claim is based on the labor required to support a second class for both the operators and the maintenances.

Original Budget

Maintenance Training	$ 12,415	
Operator Training	7,188	
Total		$ 19,6Ø3

Class size dictates an additional class with required budget.

Estimate for Class	$ 19,6Ø3	
Profit (11.Ø%)	2,157	
Total		$ 21,76Ø

Engineering Labor	$ 7,598
Overhead (115.Ø%)	8,738
G & A (2Ø.Ø%)	3,267
Total Cost	$ 19,6Ø3

2.5 REMOTE CONTROL ELEMENT SOFTWARE DEVELOPMENT

2.5.1 WCCS was directed to modify the RCE baseline software to include the control and statusing of radio equipment at four Ground Entry Stations (GES), rather than two GESs. A separate cost account was established to collect costs associated with this update.

Original Budget	$ Ø		
Cost at Completion	73,926		
Cost Growth		$ 73,926	
Profit (11.Ø%)		8,132	
Total			$ 82,Ø58

2.6 DTS TIMING ANALYSIS

WCCS was directed to conduct a timing analysis of the compatibility of the existing software system with the modified DTS (incorporating a shorter time-out delay). A separate cost account was established to collect costs.

Original Budget	$ Ø		
Cost at Completion	42,584		
Cost Growth		$ 42,584	
Profit (11.Ø%)		4,684	
Total			$ 47,268

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Engineering Labor	$ 15,62Ø
Overhead (122.55Ø%)	19,142
G & A (22.5%)	7,822
Total Cost	$ 42,584

2.7 EXTERNAL INTERFACE DESIGN SPECIFICATION

WCCS established a cost account for initially preparing an informal IDS for internal use. After direction to include this as a part of the B-5 deliverables, additional unforeseen costs were accumulated.

Original Budget	$ 6,755		
Cost at Completion	56,992		
Cost Growth		$ 5Ø,237	
Profit (11.Ø%)		5,526	
Total			$ 55,763

Engineering Labor	$ 19,472
Overhead (115.Ø%)	22,393
G & A (2Ø.Ø%)	8,372
Total Cost	$ 5Ø,237

Ten percent of the cost growth associated with the FOC Software Design/Code, Checkout task as described in paragraph 1.7 has been attributed to the production of this IDS.

<u>Software Development</u>
(Design, Code, Checkout)

Original Budget	$298,92Ø		
Cost at Completion	498,817		
Cost Growth		$199,897	
IDS (1Ø%)		19,99Ø	
Profit (11.Ø%)		2,199	
Total			$ 22,189

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2.8 COST OF CLAIM PREPARATION

WCCS has accumulated costs required to produce this claim. Direct labor as well as indirect labor is included.

	Direct	Indirect	Total
Labor	$ 4,Ø92	$ 3,983	
Overhead (122.55%)	5,Ø15	4,881	
Consultant	---	8,4ØØ	
G&A (22.5%)	2,Ø49	---	
Profit (11.Ø%)	1,227	---	
Total	$12,383	$17,264	$29,647
TOTAL CLAIM			$1,198,8Ø3

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TechDyn SYSTEMS

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

CONTRACTS MASTER FILE

25 April 1988

125-C-0462

Department of the Air Force
HQ, Electronics Systems Division, PKS-5
Mitre Bldg. Oak Park
Hanscom Air Force Base, MA 01731-5000

Attn: Captain Anne E. Gettelman
Contracting Officer
Directorate of Strategic
Systems Contracts
Deputy for Contracting

Subj: Contract F19628-85-C-0079; TechDyn Systems Claim for Equitable Adjustment No. 125-CL-02/R1

Ref: (a) Letter, TechDyn (Hise) to HQ ESD (Smith), dated 28 December 1987, 125-C-0430

(b) Letter, TechDyn (Hise) to HQ ESD (Smith), dated 13 January 1988, 125-C-0432

(c) Letter, TechDyn (Hise) to HQ ESD (Smith), dated 15 January 1988, 125-C-0434

Dear Captain Gettelman:

TechDyn Systems Corporation is submitting herewith its Revision 1 to its Claim 125-CL-02 for Equitable Adjustment of the subject Contract F19628-85-C-0079, in the total amount of $1,920,273.00.

As a result of guidance received from the Air Force following our initial submission of Claim 125-CL-02, TechDyn's directed subcontractor, Whittaker Command and Control Systems, Inc. (WCCS), has revised its claim submission in a manner that we believe is more acceptable for review and consideration by the Air Force.

Based on our review and analysis of the WCCS claim for equitable adjustment and discussions held during the fact finding sessions, there have been deleted from the WCCS submission those claim areas which were not attributable to the Air Force. Therefore, in submitting this claim, we feel that the subcontractor has clearly identified areas wherein the Air Force was responsible for delays in contract performance and/or areas where, in fact, the Air Force has increased the scope of the work of the contract. To this submission by its directed subcontractor, TechDyn has added the costs it has incurred as a result of the Air Force delays and/or increased scope and the estimate of costs associated with this claim preparation and its negotiation.

001182

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013 • FAX (703) 971-3928

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If you have any questions regarding the above, please contact the undersigned at (703) 922-5100.

Very truly yours,

William C. Hise
Director
Management Support Operations

Enclosure: As stated

WCH/dlw

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

Claim No. 125-CL-02/R1
Under
Contract F19628-85-C-0079
(SBA Subcontract 3-85-2-6605)

Submitted to:

Department of the Air Force
Headquarters, Electronics Systems Division,
Air Force Systems Command
Hanscom Air Force Base, MA 01731-5000

Submitted by:

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

25 April 1988

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B. Basis of Estimate

C. Attachments:

1. Standard Form 1411 Covering Claim
2. WCCS Request for Equitable Adjustment D87-076R4, dated 15 April 1988
3. Claim Certification
4. DCAA approval of provisional rates

Whittaker

Whittaker Command and Control Systems
6190 Yarrow Drive
Carlsbad, CA 92009
619/438-7336
Telex 756886

2Ø April 1983 88Ø4-Ø312-MER/D87-Ø76R4

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: Mr. William Hise

Subject: Subcontract 125-001; Request for Equitable Adjustment

Reference: TechDyn 125-SØØ1-Ø645, dated 2Ø April 1988

Dear Sir:

In response to reference letter, transmitted herewith are the following items:

1. Claim certification, corrected to include the U. S. Air Force in subparagraph 2)

2. Standard Form 1411

3. Final page of volume II cost data corrected to read total claim value of $1,142,494. (Previous 1,242,494 was typographical error.)

In regard to the request for specific detail on cost, as noted in the Introduction to Volume II, Cost, composite rates were used in order to condense the vast amount of detail required to provide a break out by cost category. This information is available and will be provided at a later date, most easily for audit at the WCCS facility.

In addition, the direct labor rates used were actual rates paid to the personnel performing on the ICCE project; the burden rates were actual rates experienced and have been audited by Ernst & Whinney, Whittaker outside auditors.

The latest audit on WCCS rates and factors was performed at the request of ESD. Verification of rates will, as a result, be available at ESD.

TechDyn Systems
Mr. W. Hise

2Ø April 1988

88Ø4-Ø312-MER/D87-Ø76R3
PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

If you should have further questions concerning Revision 4 of this request, please contact the undersigned at 619/438-7336, extension 21Ø.

In order to signify your receipt of this submittal, please sign and return the duplicate copy of this letter.

Sincerely,

Marie E. Raymond

Marie E. Raymond
Manager of Contracts

Received, this APR 2 1 1988 1988

W. C. Hise

MER:bje

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Whittaker

Whittaker Command and Control Systems
6190 Yarrow Drive
Carlsbad, CA 92009
619/438-7336
Telex 756886

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONLY

18 April 1988 88Ø4-Ø3Ø4-MER/16393

TechDyn Systems Corporation
6564 Loisdale Court
Suite 600
Springfield, VA 22150

Attention: Mr. William Hise

Subject: Subcontract 125-001; Request for Equitable Adjustment

Reference: Meetings of 15-16 April 1988

Dear Sir:

Transmitted herewith is subject Request for Equitable Adjustment, Revision 4. This revision incorporates the comments/agreements made and reached during the reference meetings.

The copies provided to Mr. Ellis and Mr. Thorton on 16 April 1988 were advance copies of this submittal and are superceded by this transmittal.

If you should have questions concerning Revision 4 of our request, please contact the undersigned at 619/438-7336, extension 21Ø.

In order to signify your receipt of this submittal, please sign and return the duplicate copy of this letter.

Sincerely,

Marie E. Raymond
Manager of Contracts

RECEIVED
APR 19 1988

Received, this _____ 1988

W. C. Hise

MER:bje

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D87-Ø76R4
15 April 1988

PROTECTIVE ORDER
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SUBCONTRACT 125-ØØ1

REQUEST FOR EQUITABLE ADJUSTMENT

Volume I - Technical Discussion

WHITTAKER COMMAND AND CONTROL SYSTEMS, INC.
619Ø Yarrow Drive
Carlsbad, California 92ØØ9

02C1235

INTRODUCTION

PROTECTIVE ORDER
ATTORNEY AND EXPERTS ONL

Whittaker Command and Control Systems' Request for Equitable Adjustment of costs incurred because of program delay and added scope is separated into two volumes. Volume I presents the narrative discussion of impact to WCCS, while Volume II provides detail on costs.

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D87-Ø76R4
15 April 1988

Request for Equitable Adjustment under Subcontract No. 125-001, between TechDyn Systems Corporation (TechDyn) and Whittaker Command & Control Systems, Inc. (WCCS), formerly known as Command, Control and Communications Corporation (4C).

PROTECTIVE ORDER
TRADE SECRETS AND EXPERTS ONLY

GENERAL STATEMENT OF THE CLAIM

The parties entered into Subcontract No. 125-ØØ1 on 16 July 1985, initially requiring the subcontractor to perform specified tasks in support of the Iceland Command and Control Enhancement System (ICCE). As a result of twenty modifications to the subcontract, the scope of work was expanded to require WCCS to perform additional tasks and to deliver specified hardware, software, testing, training and documentation items. As a result of the mentioned added work, the price of the subcontract grew from $263,1ØØ to $7,236,344.38.

WCCS has prosecuted the work under the subcontract in a diligent, efficient and responsible manner, applying at all times its good faith efforts to perform on time and in full compliance with all the terms and conditions of its contractual obligations. Nevertheless, WCCS's progress has been seriously delayed and disrupted as a direct result of events beyond the control and without the fault or negligence of WCCS. Additionally, WCCS has been made to perform work beyond that which was required by the subcontract and modifications thereto.

As a direct result of these delays, disruptions and added work, WCCS has suffered an increase in costs of performance, thereby entitling WCCS to an equitable adjustment under the subcontract. The specific events entitling WCCS to an equitable adjustment are detailed below.

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ATTORNEY AND EXPERTS ONLY

1.Ø DELAY

Implicit in every contract is a provision that neither party will do anything to prevent, hinder, or delay performance by the other party. Not only must the Government or prime contractor refrain from obstructing performance, but he must do what is necessary to enable his subcontractor to perform. In addition, the prime contractor is obligated to perform his work in a reasonable manner, and to ensure that his customer also complies with this expectation in order not to hinder the subcontractor's performance. In the case of WCCS/TechDyn Subcontract 125-SØØ1, WCCS is entitled to performance costs incurred and resulting from delays which occurred as a result of events beyond the control of WCCS. These are detailed below.

1.1. LOGISTICS DOCUMENTATION

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Lack of timely comments on documents submitted.

1.1.1. Delay in Review of Logistics Documentation. WCCS subcontracted for delivery of the logistics deliverables for ICCE/CENTAF under Purchase Order Number 33Ø73T, awarded to Ocean Technology, Inc. (OTI), and effective 2 October 1985.
A number of the logistics deliverables were due 3Ø, 6Ø, and 9Ø days after the effective date (31 August 1985) of the prime contract. In an effort to meet the prime contract schedule WCCS awarded the logistics subcontract at risk. Modification ØØ3 to the TechDyn/WCCS subcontract, providing for the logistics effort, was not received until 27 November 1985.

TechDyn submitted TCP 3Ø2-3, petitioning for relief of the CDRL directed schedule, which stated:

"This is a request to extend the due dates for the aforementioned data deliverables. Integrated Logistic Support Planning and System Design are two separate but closely related development activities which should be accomplished in a timely and coordinated manner. These activities should progress in unison during the pre-contract award phase as well as during the post-contract award phase. However, during the pre-contract phase, significant last-minute changes in the System Specifications/Design were made. This, coupled with the uncertainty in contract award date, severely impeded the contractor's logistic support planning and preparation efforts. Approval of this request would: (a) Allow the contractor to effect more timely and coordinated logistic support events, (b) Significantly improve the quality and completeness of these data deliverables, and (c) Allow time to incorporate system changes, such as, the proposed "RADIL Up-grade" and the "HF Option" should

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these events materialize in the near future. It should be noted that approval of this request will not affect the contractor's on-going Logistic Support Program which include the performance of tasks leading to the documentation of these deliverables."

Because this Task Change Proposal was rejected, the original CDRL schedule remained firm. Accordingly, WCCS and OTI worked diligently to catch up with the contractual delivery schedule for this documentation.

Once these documents, however, were delivered to TechDyn, no comments or other disposition was received regarding these documents within the contractually stipulated period. (Table 1 presents the Logistics delivery status and presents reasons for delay and confusion.) WCCS incurred additional cost because the WCCS/OTI subcontract provides for a 75 day customer review cycle (the 45 days required by the Government, a 21 day WCCS/ TechDyn review and 9 days for mailing.) If no comments are received within that period, approval of the document is assumed by OTI. This subcontracted review period was generally exceeded. Accordingly, once OTI had assumed approval, WCCS was obliged to incorporate any comments which were finally made to the documents, incurring further in-house costs, or to provide additional funding to OTI so that OTI would finalize the documents.

TABLE 1. LOGISTICS DELIVERY STATUS

316/516, Training and Training Equipment Plan (TTEP)

CONTRACTUAL DUE DATE	11/22/85
DELIVERY DATE TO TECHDYN	1/27/86
DATE COMMENTS DUE TO WCCS - NLT	3/27/86
DATE COMMENTS RECEIVE	/86
RESUBMITTAL DATE	5/29/86
DATE COMMENTS DUE TO WCCS - NLT	7/27/86
DATE COMMENTS RECEIVED	/86
RESUBMITTAL DATE	9/26/86
DATE COMMENTS DUE TO WCCS - NLT	11/24/86
DATE COMMENTS RECEIVED	12/24/86
RESUBMITTAL DATE	2/06/87
DATE COMMENTS DUE TO WCCS - NLT	4/06/87
DATE ACCEPTANCE RECEIVED	6/17/87

Delays were due to the Government rejecting a TechDyn approach in the preliminary delivery that consisted of a CFA portion and a PDFA portion. The Government required a System approach, causing a resubmittal by TechDyn and an excessive delay in receipt of comments by WCCS. The resubmittal in May 1986 was a preliminary submittal of the TTEP. Incorporation of customer comments into this plan was delayed and then abandoned after review of the

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TABLE 1. LOGISTICS DELIVERY STATUS (continued)

integrated TTEP. At the September 1986 Technical Interchange Meeting (TIM) held at the WCCS facilities in Torrance it was decided that a working group from WCCS, OTI, Veda, and TechDyn would meet the following week and prepare a new TTEP. The TTEP was resubmitted in September 1986. Customer comments required clarification and were addressed at the CDR held at TechDyn in December 1986. The final submittal of the TTEP was accepted in June 1987.

319/519, Integrated Support Plan (ISP)

CONTRACTUAL DUE DATE	11/22/85
DELIVERY DATE TO TECHDYN	1/31/86
DATE COMMENTS DUE TO WCCS - NLT	3/21/86
DATE COMMENTS RECEIVED	7/31/86
RESUBMITTAL DATE	2/26/87
DATE COMMENTS DUE TO WCCS - NLT	4/26/87

The second submittal of the ISP on 26 February 1987 was a resubmittal of the preliminary ISP. Incorporation of Government comments into this plan was delayed because comments were late in arriving from TechDyn, and there was a disagreement as to an acceptable definition of a Line Replaceable Unit (LRU). This disagreement was finally settled at the CDR held at TechDyn in December 1986.

320/520, Technical Order CFE/CFAE Notices

All hardware manuals used in support of the system were reviewed by WCCS, and CFE/CFAE Notices were submitted to the Government with the results of the review. The Notices stated that the Commercial Off-the-shelf (COTS) manuals were not in conformance with MIL-M-7298C. As of this date WCCS has only received copies of the Government review comments of the manuals, nothing as to disposition of this CDRL item. As part of the required information supplied on the Notices, cost and schedule for addition of a supplement were provided by WCCS. During a September 1986 Technical Interchange Meeting (TIM) held at the Torrance facility, it was stated that the manuals would be used as source data only <u>in support of the maintenance level requirements</u> of the PDFA during the preparation of the PDFA O&M Technical Order. Suspension of the Logistic Support Analysis Plan (LSAP) delayed the establishment of acceptable maintenance level requirement for the PDFA, which in turn delayed all other maintenance related logistics tasks.

321/521, Positional Handbook

The production of the Positional Handbook was delayed due to the redirection required because of the continuing changes in the B5 specifications.

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TABLE 1. LOGISTICS DELIVERY STATUS (continued)

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ATTORNEY AND EXPERTS ONLY

CDRL items 324/524, Maintainability Analysis and Prediction Report, and 326/526, Reliability Prediction Report

These CDRLs were delayed due to the Government rejecting a TechDyn approach in the preliminary delivery that consisted of a CFA portion and a PDFA portion. The Government required a System approach, causing a resubmittal by TechDyn and an excessive delay in receipt of comments by WCCS.

CDRL items 328/528, Ground Support Equipment Recommendation Data (GSERD), 333/533, Priced Support Equipment List (PSEL), and 335/535, Ground Support Equipment Illustrations (GSEI)

These CDRLs were delayed due to the delay in Government acceptance of CDRL items 319/519, Integrated Support Plan, and 334/534, Support Equipment Plan.

334/534, Support Equipment Plan (SEP)

Incorporation of Government comments into this plan was delayed because comments were late in arriving from TechDyn, there was a disagreement as to an acceptable definition of a Line Replaceable Unit (LRU), and the maintenance requirements had not been properly defined by the SOW, specifications or the Government.

336/536, Logistics Support Analysis Plan (LSAP)

After a preliminary submittal of this CDRL item to TechDyn, the Government suspended any further work on this CDRL. In the SOW and Specifications, the LSAP and LSA are referenced as the basis of the maintenance requirements for this system. Since the LSAP was suspended, no clear definition as to the maintenance requirements was established. Therefore, WCCS established the maintenance requirements for the manual based upon the LRU listing and discussions with the Government.

337/537, Calibration and Measurement Summary Report

CONTRACTUAL DUE DATE	12/22/85
DELIVERY DATE TO TECHDYN	2/2Ø/86
DATE COMMENTS DUE TO WCCS - NLT	4/2Ø/86
DATE COMMENTS RECEIVED	9/Ø3/86
RESUBMITTAL DATE	1/23/87
DATE COMMENTS DUE TO WCCS - NLT	3/23/87
DATE OF ACCEPTANCE	6/17/87

This CDRL item delay was caused by the delay in receiving comments from the Government.

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TABLE 1. LOGISTICS DELIVERY STATUS (continued)

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338/538, Technical Manual Plan (TMP)

CONTRACTUAL DUE DATE	1Ø/22/85
DELIVERY DATE TO TECHDYN	9/2Ø/85
DATE COMMENTS DUE TO WCCS - NLT	11/18/85
DATE COMMENTS RECEIVED	1Ø/17/85
RESUBMITTAL DATE	12/Ø6/85
DATE COMMENTS DUE TO WCCS - NLT	2/Ø3/86
DATE COMMENTS RECEIVED	5/19/86
RESUBMITTAL DATE	6/25/86
DATE COMMENTS DUE TO WCCS - NLT	8/23/86
DATE COMMENTS RECEIVED	11/25/86
RESUBMITTAL DATE	1/28/87
DATE COMMENTS DUE TO WCCS - NLT	3/28/87
DATE OF ACCEPTANCE	9/Ø2/87

The submittal in May 1986 was a resubmittal of a preliminary plan. Incorporation of Government comments to this delivery was delayed because of the disagreement in the definition of an LRU. Another submittal was made by TechDyn in November 1986 without input from WCCS. This plan was rejected by the Government. When received, WCCS incorporated Government comments and resubmitted the plan. The plan was then accepted by the Government.

339/539, Commercial Off-the-shelf (COTS) Manuals - Reference CDRL item 32Ø/52Ø above.

54Ø, Transportation Plan

CONTRACTUAL DUE DATE	1/22/86
DELIVERY DATE TO TECHDYN	3/1Ø/86
DATE COMMENTS DUE TO WCCS - NLT	5/Ø8/86
DATE OF ACCEPTANCE	9/Ø2/86

The delivery of this plan in March 1986 was a preliminary submittal. Certain sections of the preliminary plan were still being researched. The work effort progressed on this effort. TechDyn received comments from the Government, incorporated the comments, then resubmitted the plan. WCCS was not allowed to respond to the Government comments, add to this plan, or see the revised plan until after Government acceptance.

1.1.2. Further impact to the logistics documentation effort occurred as follows. CDRL 321, Positional Handbook, has been revised with each interpretation of software requirements as added to the B-5 specification. In order to keep up with the customer requested changes and in an attempt to meet the need dates in a timely manner, WCCS was required to fund OTI to provide an in-house representative to coordinate the changes, and ensure that technical quality and schedule were adhered to. The delay caused by redirection added unplanned costs to the production of CDRL 321.

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ATTORNEY AND EXPERTS ONLY

1.2 SOFTWARE/FORMAL QUALIFICATION TEST PROCEDURES

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Untimely provision of direction.

The SQT was initially scheduled for the last week in September 1986. In July 1986, this was postponed since the initial baseline did not include R2, digital handover or correlation, requirements made known in June 1986 during the B5 redline meetings.

Requests for the E-3 Simulator at Tinker AFB and the ROCC at Tyndall AFB were made by WCCS to support a delayed SQT in December 1986, which was subsequently scheduled in March 1987, rescheduled as a result of CDR delays and finally conducted in December 1987. SQT was to include the R2 and digital handover procedures implemented in the revised software baseline. (See paragraph 1.7)

For each of the scheduled SQT periods, WCCS supported Technical Interchange Meetings to discuss planned scenarios, support required by the E-3 Simulator and the ROCC during conduct of test, and for data reduction and analysis following conduct of the real-time portion of the test.

At each TIM (and/or Test Working Group Meeting) actions were generated for the Government to review the scenarios and provide comments to WCCS. None were received. As a result, WCCS submitted SQT procedures in January 1987. These procedures required major overhaul as the result of the TIM held at Tinker AFB in March 1987 where it was learned that the E-3 simulator was unable to support some of the planned scenario events (i.e., subsurface target generation and processing). This information was requested at the March 1986 TIM but was not received until the March 1987 TIM.

During the June 1987 TIM WCCS/TechDyn was directed to use the JSTE Scenario Driver for SQT, necessitating receipt of this driver in order to include the scenario in the test procedures. The JSTE tape was finally received and reviewed in September 1987. Further overhaul of the procedures was required once this tape was received.

1.3 REMOTE CONTROL ELEMENT (RCE) CFE

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Recommended CFE unreliable and did not work in accordance to specification.

As a part of modification ØØ3 to subcontract 125-ØØ1, TechDyn tasked WCCS to design and develop RCE software for controlling CFA voice and data circuits. It was TechDyn's responsibility to

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supply the necessary elements of the CFA for the RCE software development; that is, the host processors (IBM PC/Zenith 15Ø), modems, the IDS 9ØØØ switch components and technical documentation. TechDyn and WCCS had proposed the use of an IBM personal computer as the host processor, but the Government suggested that the Zenith 15Ø be used, as this unit was already existent in the Government inventory. These units did not work as advertised and experienced a multitude of reliability problems. WCCS coordinated the repair of this equipment to expedite the repair; its unreliability and incorrect design, however, caused delays in the software development.

1.4 SUPPORT OF TECHNICAL INTERCHANGE MEETINGS

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Contract assumed reasonable number of Technical Interchange Meetings. Government caused extension of meetings with multiple caucuses.

WCCS had proposed and costed, in addition to the PDR and CDR, a technical interchange meeting of 1-2 days duration each month from commencement of performance until SQT. This estimate involved approximately 13-26 days of meetings (plus travel days) over a 16-month period. During the first nineteen months of contract, WCCS was required to support meetings involving 87 work days in addition to the travel days required to attend them.

It was further proposed that only two people, the Program Manager and a technical representative, would be required to attend these meetings. The agendas provided for the meetings, have, however, generally required more individuals than planned to discuss the topics provided. This not only affected cost but also caused program delay as key technical personnel were required to interrupt their efforts to support the meetings.

In addition, the majority of the meetings were replete with confusion because of the unwillingness of the Government representatives to coordinate their position on various topics and document submittals prior to convening the meetings. This not only resulted in the provision of confused or contradictory guidance, causing further program delay, but also lengthened the meetings, as the Government representatives caucused for several hours before, during, and after each meeting.

1.5 CRITICAL DESIGN REVIEWS (CDR)

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Contract called for single CDR.

WCCS had costed and negotiated a single CDR, to include hardware and software and to be held at the WCCS facility. Subsequently,

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this one CDR was divided into a separate hardware CDR and a separate software CDR.

1.5.1. TechDyn directed the Hardware CDR be held in their facility in Springfield, Virginia in December 1986. WCCS advised TechDyn of the additional effort and costs over and above the negotiated CDR task. In response, TechDyn directed WCCS attendance. Accordingly, WCCS incurred unplanned labor and travel costs to support this Hardware CDR (which was to include the PDFA, RCE and logistics topics). After the WCCS presentation of the PDFA and RCE hardware and logistics data (the Government representatives advised that this presentation was acceptable), TechDyn was not permitted to continue, as they did not have all the data necessary (i.e., Data Terminal Set (DTS) design information) to present a complete CFA presentation. A modification to the DTS was on-going, but was funded under a separate contract, the Boeing Aerospace Company/U.S.A.F. Peace Shield contract, under the cognizance of ESD. Accordingly, neither TechDyn nor WCCS had control over the modification schedule, which was delayed because of three separate changes directed by the Peace Shield prime contractor in the design of the modification. Based on this lack of design data, a second Hardware CDR was required and was scheduled, with support again required from WCCS.

1.5.2 The PDFA Software CDR was initially scheduled 1 March 1986 (based on 31 August contract award). TechDyn Systems established 27 September as contract award which moved the scheduled CDR to 28 April 1986.

ESD letter of 18 June 1986, subject CDR, transmitted by TechDyn 125-SØØ1-Ø97, dated 24 June 1986, scheduled the CDR for 8-11 July 1986.

Thereafter, TechDyn 125-SØØ1-Ø1Ø1, dated 3 July 1986, forwarded an ESD letter indicating the need for validated B5's and submittal of C5's prior to CDR.

The B5 specifications were not authenticated to support a July 1986 CDR since they did not include R2, digital handover and correlation as directed by ESD during the June 1986 B5 redline session. The C5's were in process but required change each time additional comments or requirements for specific implementation of requirements were directed.

Due to the extensive revisions required and necessary review/approval cycle for the B level specifications, an agreed upon baseline was not achieved until October 1986. C5 specifications were then finalized and submitted.

CDR occurred 3Ø days after submittal of C5 drafts, or 13 January 1987 and was held in the WCCS facility in Torrance, CA. The intent of submission of C5's 3Ø days prior to CDR was to allow time for Government review. Only a cursory review of the draft C5's was made by the Government, showing them to be incomplete

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(some PDL missing, flow diagrams not complete). The Government did not convey these deficiencies to WCCS prior to the CDR. Thus WCCS was not given the opportunity to incorporate necessary changes or further details prior to the CDR. Accordingly, the Government was not prepared to accept the CDR as being complete without such data being presented and explained. Nevertheless, CDR attendants arrived on schedule and WCCS was directed to proceed with the CDR even though there was no chance to complete the design review.

The C5s were resubmitted, and a second (complete agenda) software CDR was held in April 1987, requiring additional expenditure of labor and funding.

In addition, each time each of the four CDRs was scheduled and rescheduled, considerable effort was expended to review the presentation charts, modify the agenda, incorporate any updates and dry run the entire presentation. None of this restart activity had been planned.

1.6 TIME RELATED IMPACT

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Contract schedule extended.

1.6.1. Level of Effort Tasks. A number of the WCCS tasks were proposed based on a level of effort over the life of the contract. These included Program Management, Product Assurance, Configuration Control, Technical Publications Support, Computer Operator Support, Sustaining Engineering, Supply Support and Failure Data Reporting. These efforts were proposed based on the level of effort required over the period of original contract schedule. Because of delays in the review and approval of the software and logistics documents, which affected the scheduling of critical milestones, these LOE tasks had to be extended, and further costs were incurred.

1.6.2. GIDEP. The ICCE SOW states that "the contractor shall participate in GIDEP to the extent necessary to receive data from the Failure Experience Data Base (FEDB). The contractor shall screen all parts prior to their selection IAW paragraph 3.3.1.1 of the System Specification (SS) when applicable." Paragraph 3.3.1.1 of the SS refers to newly designed hardware only. As a result of TechDyn direction under TechDyn 125-SØØ1-Ø22Ø, the methodology for receiving FEDB data was established and failure reports reviewed were against parts used in the PDFA.

WCCS was directed to set up a GIDEP system to screen all parts used, to establish a computer-to-computer access to the GIDEP facility, and to subsequently host an audit for compliance with TechDyn and ESD. By delay of the program schedule, this activity has exceeded the minimal effort proposed within the Program

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Management task, since one hardware engineer has been required to support this activity since November 1986.

1.7 DELAY OF PROGRAM DUE TO B1 AND B5 SPECIFICATION REVIEW AND APPROVAL

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Untimely review of and contradictory comments on specifications impacted schedule and performance.

System development which is performed in accordance with MIL-STD-483/490 requires that the B-level specifications state the requirements for the design or engineering product during the development period. The Prime Item Development Specification (i.e., the B1 Specification) is used as the functional baseline for a single item development. The Critical Item Development Specification (i.e., the B2 Specification) is applicable to an item which is below the level of complexity of a prime item but which is engineering critical or logistical critical. The Computer Program Development Specification (i.e., the B5 Specification) is used to describe in operational, functional, and mathematical language all of the requirements necessary to design and verify the required computer programs in terms of performance criteria. As such, these B-level specifications provide the basis for the development of the C-level specifications and, in the case of the B5 Specification, the software programs. Normal development, performed in accordance with this standard, requires the acceptance of the B-level specifications prior to further detailed design activities.

Because of the delays in the review and approval of the B-level specifications, the entire ICCE program schedule was jeopardized. The following paragraphs describe the sequence of events which occurred in the review and approval cycles of the B-level specifications (in particular the B5 Specification) which delayed critical milestones and ultimately delayed the entire development cycle.

1.7.1 Preliminary drafts of the ICCE B5, dated 2 December 1985, as well as a preliminary B1 specification, dated 4 December 1985, were submitted for the purpose of eliciting comments and guidance on the structure and content. No comments or guidance was received. WCCS was not informed of any adverse reaction to the preliminary B5 drafts during the time that the next iteration of these documents was in production.

In TechDyn letter 125-S001-0063, dated 13 March 1986, the results of a fact finding session held on 24-25 January were communicated to WCCS. This letter stated that the B5s had been received for review and comment, but the letter (Attachments I, II, and III) confined its comments to the B1 specification and contained no B5 comments.

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Lacking any adverse B5 comments about structure and content at that time, WCCS prepared a set of B5s that followed the structure and content of the earlier document set, filled in any additional information, and conformed closely to the format and content requirements of the applicable specifications (MIL-STD-490 and MIL-STD-483). These documents were submitted to TechDyn in March 1986, and were then forwarded to the Government. A letter, transmitted to WCCS on 31 March 1986, although not containing specific comments about the B5s, required that extensive information (per MIL-STD-1521) be provided at the CDR, which was then scheduled for 28 April 1986.

1.7.2 On 21 May 1986, four months after the end of the specified 45-day review cycle, WCCS received, for the first time, comments on the B5 specifications.

These comments were generated by the Government. The comments objected to the structure of the B5s, specifically the fact that WCCS had defined a super-CPCI (10050) called the PDFA Operational and Support Program Set in which the four inter-related operational CPCIs (10051 thru 10054) for the DCU, DLC, MNC, and DSC, and the Support Programs (CPCI 10055) were treated as an integrated system. This structure, which was defined in the December 1985 submittals and not challenged, allowed WCCS to describe the system aspects in the B5 for CPCI 10050. Included in the May comments was a complaint that the six B5s for CPCIs 10050 thru 10055 did not provide the interface details. However, CPCI 10050 referenced an External Interface Design Specification (IDS) (see paragraph 2.6) which treated the data link, man-machine, and data reduction interfaces on a system requirements basis and would provide the required interface details. This External IDS was not required by the contract but was created by WCCS specifically to provide the interface details for the various WCCS software personnel involved in the software effort. The Government further required that WCCS provide complete details of the TCOM (TCOM Intertask and Network Communications Product, a WCCS product used in the operational software) interfaces between CPCIs 10051 (System Control), 10052 (Display Control), and 10053 Data Link Control). These details and the details demanded in the External IDS constituted software <u>design</u> information rather than system <u>requirements</u> information called out by MIL-STD 483/490.

During an intensive review session in late May 1986, WCCS agreed to restructure the B5s by deleting the CPCI 10050 B5 and converting it to a System IDS. WCCS also agreed to incorporate customer comments into the remaining B5s as well as into the B1 and B2 specifications, to prepare the External IDS to the customer-demanded level of design detail, and to produce a preliminary version of the internal (TCOM) interfaces between CPCIs (Internal IDS) to the demanded level of design detail. It again should be noted that B5-type specifications are not intended to contain design -- only requirements; design detail is normally contained in the C-level specifications.

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These documents, as well as the B1 and B2 specifications for the PDFA, were to be prepared in time for a specification review in advance of the CDR scheduled to begin 23 June 1986. Because of several customer caused delays, the specification review itself did not begin until 23 June delaying the CDR. On the day the review began, a set of additional comments, not previously provided, were given to WCCS. This specification review led to a set of red-lined B1/B2/B5 specifications and identified three open issues (TechDyn letter 125-S001-104, Attachment: ESD letter to TechDyn Systems dated 31 July 1986) which would impact three of the B5 specifications. Red-lined comments were incorporated into the specifications not impacted, and updated versions, dated 1 August 1986 were transmitted to TechDyn on 5 August 1986.

1.7.3 The open issues which impacted the remaining three volumes were based on three additional capabilities which were neither implemented in the original RADIL program nor required by the ICCE system specification. These three additional capabilities are as follows:

a. Reporting Responsibility - The RADIL program was originally designed to compensate for the difference between the ROCC protocol and the TADIL-A protocol. It was by USAF direction that the RADIL program "violated" certain JCS PUB 10 requirements to such an extent as to compensate for the differences and provide the implementation specifically required by the USAF.

b. Digital Handover - The RADIL program was originally designed to handover aircraft from the ROCC to the TADIL-A participant and vice versa. However, specific conditions required by one system are not necessarily required by the other (e.g., the ROCC requires a voice call sign whereas the TADIL-A participant does not). In order to accommodate the ROCC as well as the TADIL-A participant, the RADIL made assumptions where it could, and rejected handover requests when certain required conditions were not met and the assumptions could not be made.

c. Correlation - The original RADIL program did not provide for the correlation of one track with another based upon any track characteristics other than track number. Additionally, although JCS PUB 10 provides for a correlation message in order to resolve dual designations, the version of JCS PUB 10 for which WCCS was under contract, specifically states that the correlation message will not be used by the interface for the resolution of dual designations. Furthermore, the correlation message is not at this time implemented by the E-3 simulator (against which the ICCE would be tested).

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Since it was clear that the RR, digital handover, and correlation design requested by the customer was not required by the system specification, re-design of the software programs had to be undertaken. Accordingly, WCCS chose an implementation which would satisfy the operational community yet provide the capability in a timely manner. The proposed design was provided on 7 August 1986. Responses to the proposed methods were to be received by WCCS no later than 11 August 1986 in order to allow production of the updated B5 specifications by 9 September 1986.

Comments were not received until 17 September 1986. The three newly updated B5s, dated 1 October 1986, were transmitted to TechDyn on 2 October.

1.7.4 No further response regarding either the 1 October or 1 August revisions was transmitted to WCCS until receipt of TechDyn letter 125-SØØ1-Ø179, dated 6 November 1986, forwarding ESD correspondence which contained one two-sentence change to the B1 specification (R/ØØ1422) and accepted the System Control B5 (R/ØØ1497).

On 15 October 1986, WCCS received TechDyn letter 125-SØØ1-Ø147, which accepted the DCU B5 (R/ØØ1495) and the Support B5 (RØØ1499).

On 17-21 November 1986, a review of the three remaining B5 specifications was held at WCCS. Although this session was conducted 45 days after specification submittal, comments to these specifications were first presented at this meeting in the form of three separate non-coordinated sets of comments. These comments were later formally received under TechDyn letter 125-SØØ1-Ø197, dated 25 November 1986, but were still not coordinated into a single set of comments.

Conduct of the red-lining session was made more difficult because many comments were duplicated. No advance warning was received regarding comments which had significant impact upon design, cost, and schedule. Since the objective was to close out all outstanding action items by the end of the review session, the assessment and response to many comments had to be made while the red-lining session was in process. Had the comments been received prior to the redlining session, and had they been properly coordinated, much time could have been saved during the session.

Additionally, although the accompanying letter (to the comments) stated that the comments were either discrepancies between the red-lined version and the October version or based on new information provided, many of the comments dealt with information that had been unchanged from as far back as the March 1986 version of the B5. An example of this concerned the mathematical equations presented in the Appendix 3Ø of the Data Link B5. These equations were first presented in the March 1986 version, appeared unaltered in the June and October versions, and were

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finally commented on in the November 1986 meeting. Most of the comments received on the mathematical equations have required WCCS to educate the reviewer on the derivation of the equations rather than provide updated information to the B5.

Of the 274 comments presented at the November 1986 review session, all but the comments on the mathematical equations were either resolved or withdrawn. The mathematical comments were later telephonically resolved. If WCCS had received the comments prior to the meeting, the review could have been shortened from four days to two days, a substantial savings in man-hours.

Updated versions of the Data Link Control, Display Control, and System Control B5's as well as the System Level IDS, dated 1 December 1986 were transmitted to TechDyn on 2 December 1986. On 12 January 1987, comments on the Data Link Control B5 were received in TechDyn letter 125-SØØ1-Ø237. The comments pointed out editorial errors as well as an error in the incorporation of red-lined comments from the November review. Additionally, a comment pertaining to the mathematical equations was received. This comment again asked for clarification of equation derivation rather than pointing out any errors in the B5 document.

On 2Ø January 1987, change pages, dated 16 January 1987, were submitted to the Data Link Control B5. Again, on 23 March 1987 in TechDyn letter 125-SØØ1-Ø3Ø6, an editorial error in one of the mathematical equations (present since the March version of the B5) was pointed out. As a result, change 2 to the Data Link Control B5, dated 31 March 1987, was transmitted to TechDyn 26 March 1987.

On 1Ø April 1987, in TechDyn letter ICE-I-564, it was learned that the System Control B5 and the System Level IDS had been authenticated.

The numerous B5 Specification review and approval cycles were in excess of what is normally experienced and reasonably expected in a developmental program. The level of detail required has been greater than what is specified in MIL-STD 483/49Ø, i.e., incorporating into the development specifications design and implementation details versus requirements.
Customer fluctuations on specific issues causing directed changes to be reversed, the imposition of new requirements late in the review cycles, the slow customer response to each new B5 submission (typically exceeding 45 days), and the directed level of detail to be specified have all contributed to the delays experienced, which are substantially beyond the expected, proposed and negotiated review cycle.

In addition, each new revision of the B5 documentation and each subsequent redlining session severely impacted WCCS software resources, adding further delay to the program.

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2.Ø ADDED EFFORT

RESPONSIBLE AGENT: Air Force/TechDyn

DEVIATION FROM CONTRACT: Additional work.

WCCS incurred additional costs as a result of performance of the efforts described below. These efforts were out of scope of Subcontract 125-ØØ1 and not previously proposed or negotiated.

2.1. IOC TEST SUPPORT

The in-Iceland support of IOC was to consist of installation and checkout of the PDFA, and operation of the PDFA during system testing to be conducted by TechDyn. The support requested of WCCS was greater than that agreed upon.

WCCS personnel in Iceland held coordination meetings with the USAF, prepared detailed system level test procedures, and essentially conducted the tests. In addition, OJT was provided to local Air Force operators, and WCCS personnel were requested to troubleshoot DTS (GFE unit) malfunctions and subsequently repair the unit.

Further, the periods of test and other activity was interrupted each time a mission was scheduled, as all WCCS and TechDyn personnel were required to leave the area where the system was located until the mission was completed.

These periods of inactivity and additional activities provided for the Government extended the WCCS personnel in Iceland, resulting in increased labor and per diem charges above those planned.

2.2. CFE DTS REPAIR

During in-plant integration testing of the IOC system, a CFE DTS unit malfunctioned. This unit was loaned to ESD by Magnavox, and was shipped to WCCS to be used in Iceland until the units ordered by WCCS were shipped and FOC was installed. When this unit failed, WCCS was directed by TechDyn to contact Magnavox and request maintenance support. This was done; the unit was repaired, and Magnavox was paid by WCCS for travel, per diem and labor. WCCS was never reimbursed.

2.3 INCREASED TRAINING

The PDFA training program was proposed and negotiated to provide separate operator and maintenance training courses. The number of students was to be limited to 1Ø for each course. (This is the maximum number of students as the system is not large enough to provide access to more than 1Ø. The optimum class size is 5 students.) Based on these parameters, a Training and Training Equipment Plan (TTEP) the PDFA was prepared and submitted in

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April 1986. The integrated ICCE TTEP was submitted to the AF Force and was rejected as being deficient. A Technical Interchange Meeting was held in September 1986 which resulted in direction to revise the training effort negotiated. The number of students to be trained was increased from 1Ø to 14, necessitating two classes for each course versus one (TechDyn 125-SØØ1-Ø2Ø1). This doubled the number of instructors required, as a two-shift operation was part of the direction.

2.4 REMOTE CONTROL ELEMENT (RCE) SOFTWARE DEVELOPMENT

2.4.1 The RCE baseline development was for control of two Ground Entry Stations (GES). The software architecture was to be designed to eventually support four GESs (TechDyn 125-SØØ1-Ø138, dated 3Ø September 1986). WCCS was directed to expand the baseline system, well into the development of the software, to control the additional two GESs rather than allowing for a later software modification to add the control of the two additional GESs. As a result, recoding was required, all control and status menus had to be revised, control logic had to be updated to include the additional GES addresses, etc. All previously released documentation had to be revised to reflect these updates. Direction for this upgrade impacted both cost and schedule.

2.5 DTS Timing Analysis

Modification of the DTS was funded by the Government under another contract, taking this modification and its design out of the control of WCCS. Because the Government feared that the design, once implemented, would cause problems with the operation of the software, WCCS was tasked at the PMR held in 25-26 March 1987 (PMR Action Item 5), to analyze the capability of the ICCE software to operate with a modified DTS utilizing a two-frame timing sequence (vice the normal five-frame delay).

A timing study was started requiring software modifications to collect the data, analyze the results, and to recommend any software redesign/modification required to make the software/modified DTS compatible.

The study has been completed and the results are being analyzed. The costs identified herein are those associated with the collection, analysis and reporting of the results. A separate proposal will be provided by 1 June 1988 to cover the software modifications (if any) required to work with the new (modified) DTSs.

2.6 EXTERNAL INTERFACE DESIGN SPECIFICATION (IDS)

It is WCCS procedure to prepare an External IDS to present the data link design requirements for use by WCCS programmers, and to provide further visibility into the processing required for the Government. This IDS document, internal to WCCS, was prepared

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and, in accordance with contractual requirements, listed on the Data Accessions List.

Requests for this document were made and complied with.

WCCS was then directed to include this informal submittal as part of the B-5 documentation package. The ICCE External IDS was formatted in three volumes:

Volume 1 presented the Transmit/Receive Codes (i.e., implementation) interpreted from JCS Pub 10 as well as from the Lateral-Tell standard.

Volume 2 presented the Man Machine Interface details.

Volume 3 presented the Data Reduction details for both TADIL-A and Lateral-Tell messages.

Each volume became the subject of several meetings to review and incorporate implementation details (which as called out in MIL-STD-483/490 are to be provided in a C-level document), and out-of-scope changes. These out-of-scope changes have been documented in Engineering Change Proposals (ECP's), such as ECP-11. One such ECP (i.e., ECP-06) affected the External IDS document <u>only</u> and had no software impact.

Documentation reviews were held after each submittal (all Volumes have been issued several times) and recommended changes were made. Following is the sequence of events pertinent to the IDS generation:

a. The External Interface Design Specification (IDS), Volume 1 was delivered to TechDyn on 24 February 1986. This IDS was based on the JCS PUB 10 version earlier received by WCCS, since the version pertinent to the contract (dated 1 December 1982) had not yet been received from the Government/TechDyn. When the correct version of JCS PUB 10 was received in March 1986, one year after the design effort had started, the IDS had to be revised and reissued on 26 March 1986.

b. A Data Link Implementation (DLI) meeting was held at WCCS on 2-5 April 1986, to review the data link implementation presented in the External IDS. No comments had been provided prior to the meeting, and only one set of written comments was provided at the meeting. The remaining comments were verbal as the review progressed. In addition, Appendix 40 to the Data Link Computer B5 specification was reviewed.

   Some of the comments on the External IDS were based on Block 20-25 (AWACS E-3) changes to JCS PUB 10 as well as approved OICPs, neither of which have been made available to WCCS. An action item was taken by ESD to

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provide WCCS with the E-3 Block 2Ø-25 System Specification as well as with approved copies of the OICPs by 3Ø April 1986. This information was received on 11 June 1987 under SYBC memorandum 1 June 1987.

In the areas most affected by the Block 2Ø-25 changes and the OICPs, direction concerning ESD-desired implementation was verbally provided by MITRE personnel at the 2-5 April DLI meeting.

c. A Technical Interchange Meeting was held at WCCS on 2Ø-25 May 1986. During this meeting, all of the action items from the April meeting were discussed. The action item concerning the Block 2Ø-25 changes and the OICPs was left open. Other action items were answered; in some cases the answers provided in the May meeting were reversed in the 17-21 November 1986 meeting.

An example of this reversal in direction concerns the Voice Control Frequency (VC FREQ) and the TADIL-C Frequency (TC FREQ). At the April DLI meeting, an action item was taken to "provide information on operator input required for . . . Voice Control Frequency" and TADIL-C Frequency. At the May meeting, the provided response stated, in part, "customer agrees to leave the input as actual frequency. There is no change to the current RADIL implementation which is in accordance with JCS PUB 1Ø." In comments received on 26 November 1986 against the October 1986 version of the External IDS, it was recommended (and later directed) that the "contractor include in the description of the TC FREQ and VC FREQ fields that these fields may be used for channel data". Although, this comment was made in reference to the readout information, it was later (at the November Review meeting) extended to include the operator inputs.

d. An updated External IDS was delivered to TechDyn on 3Ø May 1986 (WCCS letter 86Ø5-344-MR/16393). This IDS was reviewed during a meeting held from 24 June to 16 July 1986. Again, comments to the IDS were not submitted to WCCS ahead of time.

e. Another update, incorporating these comments of the External IDS, was delivered to TechDyn on 2 October 1986 (see WCCS letter 861Ø-813-MR/16393 and 861Ø-814-MR/16393). This version of the External IDS was reviewed on 17-21 November 1986 (comments were verbally received at the meeting and formally transmitted on 26 November 1986).

f. Again, an updated External IDS was delivered to TechDyn on 2 December 1986 (WCCS letter 8612-1Ø1Ø-MR/16393 and 8612- 1Ø55-MR/16393). The comments received on 12 January 1987 to the IDS were not based on discrepancies between the red-lined version (from the November

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meeting) or on new material added to the IDS as was stated in the ESD letter, but on information which had not been changed from earlier versions of the IDS.

The current External IDS has had six change packages issued to it: (1) Change 1, dated 16 January 1987 incorporating changes required by comments received on 12 January 1987; (2) Change 2, dated 2Ø March 1987 incorporating the comment received via TechDyn letter 125-SØØ1-Ø295 dated 16 March 1987; (3) Change 3, dated 17 April 1986 incorporating mainly editorial comments, (4) Change 4, dated 28 April 1987 incorporating ECP-Ø11, (5) Change 5, dated 2 June 1987 incorporating ECP-Ø6, and (6) Change 6, dated 25 September 1987 which incorporated all red-lined changes to date.

Additional cost was incurred by the formalization of a planned informal and internal document. Further, the number of reviews held, the extent of the comments made and the direction/redirection received has impacted the detailed design of the software and the conduct of the CDR. This has ultimately affected both of the cost and schedule of the ICCE program development.

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15 April 1988

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SUBCONTRACT 125-ØØ1

REQUEST FOR EQUITABLE ADJUSTMENT

Volume II- Cost

WHITTAKER COMMAND AND CONTROL SYSTEMS, INC.
619Ø Yarrow Drive
Carlsbad, California 92ØØ9

0201259

CONTRACT PRICING PROPOSAL COVER SHEET

1 SOLICITATION, CONTRACT, MODIFICATION NO: N/A

FORM APPROVED OMB NO 3090 0116

NOTE This form is used in contract actions if submission of cost or pricing data is required (See FAR 15 804-6(b))

2 NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

Whittaker Command & Control Systems, Inc.
6190 Yarrow Drive
Carlsbad, CA 92009

3A NAME AND TITLE OF OFFEROR'S POINT OF CONTACT: Marie E. Raymond

3B TELEPHONE NO: (619)438-7336

4. TYPE OF CONTRACT ACTION (Check)

	A NEW CONTRACT		D. LETTER CONTRACT
X	B CHANGE ORDER		E UNPRICED ORDER
	C PRICE REVISION/ REDETERMINATION		F. OTHER (Specify)

5 TYPE OF CONTRACT (Check)

[X] FFP [ ] CPFF [ ] CPIF [ ] CPAF
[ ] FPI [ ] OTHER (Specify)

6 PROPOSED COST (A+B C)

A. COST	B. PROFIT/FEE	C. TOTAL
$1,031,172	$111,322	$1,142,494

7 PLACE(S) AND PERIOD(S) OF PERFORMANCE
Torrance, CA, Carlsbad, CA, and Iceland
November 1985 - October 1987

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8 List and reference the identification, quantity and total price proposed for each contract line item. A line item cost breakdown supporting this recap is required unless otherwise specified by the Contracting Officer (Continue on reverse, and then on plain paper, if necessary. Use same headings.)

A LINE ITEM NO	B IDENTIFICATION	C QUANTITY	D TOTAL PRICE	E REF
1	Program Delay	Lot	$872,887	Exh. 1
2	Added Effort	Lot	269,607	Exh. 1

9 PROVIDE NAME, ADDRESS, AND TELEPHONE NUMBER FOR THE FOLLOWING (If available)

A CONTRACT ADMINISTRATION OFFICE
DCASMA
7675 Dagget Street, Suite 200/300
San Diego, CA 92111-2241

B. AUDIT OFFICE
DCAA
10455 Sorrento Valley Road
San Diego, CA 92121

10 WILL YOU REQUIRE THE USE OF ANY GOVERNMENT PROPERTY IN THE PERFORMANCE OF THIS WORK? (If "Yes," identify)
[ ] YES [X] NO

11A. DO YOU REQUIRE GOVERNMENT CONTRACT FINANCING TO PERFORM THIS PROPOSED CONTRACT? (If "Yes," complete Item 11B)
[X] YES [ ] NO

11B. TYPE OF FINANCING (Check one)
[ ] ADVANCE PAYMENTS [X] PROGRESS PAYMENTS
[ ] GUARANTEED LOANS

12. HAVE YOU BEEN AWARDED ANY CONTRACTS OR SUBCONTRACTS FOR THE SAME OR SIMILAR ITEMS WITHIN THE PAST 3 YEARS? (If "Yes," identify item(s), customer(s) and contract number(s))
[ ] YES [X] NO

13. IS THIS PROPOSAL CONSISTENT WITH YOUR ESTABLISHED ESTIMATING AND ACCOUNTING PRACTICES AND PROCEDURES AND FAR PART 31 COST PRINCIPLES? (If "No," explain)
[X] YES [ ] NO

14 COST ACCOUNTING STANDARDS BOARD (CASB) DATA (Public Law 91 379 as amended and FAR PART 30)

A. WILL THIS CONTRACT ACTION BE SUBJECT TO CASB REGULATIONS? (If "No," explain in proposal)
[X] YES [ ] NO

B. HAVE YOU SUBMITTED A CASB DISCLOSURE STATEMENT (CASB DS 1 or 2)? (If "Yes," specify in proposal the office to which submitted and if determined to be adequate)
[X] YES [ ] NO June 1986, Adequate

C. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NON-COMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)
[ ] YES [X] NO

D. IS ANY ASPECT OF THIS PROPOSAL INCONSISTENT WITH YOUR DISCLOSED PRACTICES OR APPLICABLE COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)
[ ] YES [X] NO

This proposal is submitted in response to the RFP contract, modification etc in Item 1 and reflects our best estimates and/or actual costs as of this date

15. NAME AND TITLE (Type)
Marie E. Raymond, Manager of Contracts

16. NAME OF FIRM
Whittaker Command & Control Systems, Inc.

17. SIGNATURE
Marie E. Raymond

18. DATE OF SUBMISSION
0201260
20 April 1988

NSN 7540-01-142-8945 1411-101 STANDARD FORM 1411 (10-83) Prescribed by GSA FAR (48 CFR) 53.215-2(c)

EXHIBIT 1

SUMMARY OF COSTS (Page 1 of 2)

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1.Ø	DELAY		
1.1.1	Delay in Review of Logistics Documentation	$ 113,638	
1.1.2	Additional Logistics Impact	95,Ø32	
1.2	SQT Delay	89,82Ø	
1.3	Remote Control Equipment CFE	68,726	
1.4	Support of Technical Interchange Meetings	1Ø1,8Ø1	
1.5	Critical Design Review	77,6Ø1	
1.6.1	Time Related Impact/ Level of Effort Tasks	13Ø,525	
1.6.2	Time Related Impact/ GIDEP Participation	6,633	
1.7	Specification Review Delay/ B5 Preparation	61,98Ø	
1.7	Specification Review Delay/ S/W Development	133,131	
TOTAL COSTS CAUSED BY PROGRAM DELAY			872,887
1.Ø	ADDED EFFORT		
2.1	IOC Test Support	7,334	
2.2	GFE DTS Repair	1,636	
2.3	Increased Training Effort	21,759	
2.4	Remote Control Element Software Development	82,117	

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EXHIBIT 1

SUMMARY OF COSTS (Page 2 of 2)

2.5	DTS Timing Analysis	47,268	
2.6	External Interface Design Specification/Specification Preparation	55,763	
2.6	External Interface Design Specification/S/W Development	22,189	
2.7	Cost of Claim Preparation	31,541	
TOTAL COSTS CAUSED BY ADDED EFFORT			269,6Ø7
TOTAL COSTS CLAIMED			1,142,494

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INTRODUCTION

Whittaker Command and Control Systems' Request for Equitable Adjustment of costs incurred because of program delay and added scope were developed in the following manner:

* Collecting actual costs where possible
* Collecting invoices as back-up to estimates
* Comparing costs incurred versus original budget
* Engineering estimates of impact when specific costs could not be verified
* Using original bids/negotiated ocsts to estimate new work that is similar in scope
* Composite rates by task were used to condense provided detail
* Burden rates are based on actual costs incurred and have been averaged over fiscal years. For this reason the percentages are varied.

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EXHIBIT 2

COST DETAIL

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1.0 DELAY

1.1.1 Delay in review of Logistics Documentation. The WCCS impact is based on the OTI contract modification required to complete the effort.

Cost based upon OTI Purchase Orders.

Original Subcontract	$346,172
Subcontract modification (OTI)	83,572
G&A (22.5%)	18,804
Profit (11.0%)	11,262
Total	$113,638

1.1.2 Further impact on Logistics Documentation effort. To achieve the necessary direct contact with all logistics personnel (OTI, VEDA, TechDyn, ESD, AFLC, etc.), and to ensure a rapid review of changing deliverables, assessment of comments, and to provide technical continuity, WCCS subcontracted with OTI to provide a full-time logistics representative, resident at WCCS. This support was provided from June 1986 through February 1987.

Cost based upon OTI Purchase Orders.

Subcontract Amount (OTI)	$ 69,889
G&A (22.5%)	15,725
Profit (11.0%)	9,418
Total	$ 95,032

1.2 SQT DELAY

After submittal of the preliminary PDFA test plan, WCCS was obliged to start on the SQT test procedures in order to support the planned test conduct schedule. Two test working group meetings were held (only one was planned), both requiring travel (also not planned), the second of which resulted in information requiring substantial revisions since the Government facilities are unable to provide the support planned for and described in the test plan. This rewrite could have been avoided with a timely review of the test plan and Government discussions during WCCS/TechDyn briefings.

Costs are based upon an analysis of the original task budget versus actual costs incurred.

Original Budget	$ 51,495	
Cost at Completion	132,414	
Cost Growth:		$80,919

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Test Engineer 1733.7 Hours @ $17.12 (Composite)	$ 29,681	
Overhead (122.55%)	36,375	
G & A (22.5%)	14,863	
Total Cost	$ 80,919	
Profit (11.0%)		8,901
Total		$89,820

1.3 REMOTE CONTROL EQUIPMENT CFE

The Zenith 150 host processor provided to WCCS for the RCE development did not perform as described in the user documentation. This caused unnecessary software design changes and minor modifications to the standard Z-150 interface card. None of this effort was planned, as it was assumed that CFE would operate as advertised, and would be reliable.

These costs are based on the planned effort versus the actual costs incurred for the Code/Checkout and the Installation/Integration tasks.

WCCS will absorb all costs incurred for the testing of the final RCE software product.

Original Budget		$ 66,017
Cost at Completion		127,932
Cost Growth:		
Engineering Labor	$ 23,998	
Technical Engineer 1290.9 Hours x $18.59 (Composite)		
Overhead (115.0%)	27,598	
G & A (20.0%)	10,319	
Total Cost Growth		$ 61,915
Profit (11.0%)		6,811
Total		$68,726

1.4 SUPPORT OF TECHNICAL INTERCHANGE MEETINGS

WCCS support of TIMs had exceeded the planned support by approximately 100% by March of 1986 (31 TIM supported versus 16 planned). The anticipated number of personnel required to attend has also exceeded that planned.

The cost is estimated on the basis of 15 unplanned TIMs, 48.3% more than planned.

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Actual travel costs incurred were $29,698. It is estimated that 48.3% of these costs were related to the 15 additional TIMs.

Based on previous meetings, it is assumed that half (8) of these trips will be to the east coast. Travel costs for 15 trips to the east coasts totaled $29,698, or $1,916/trip. Accordingly, 8 trips x $1,916 = $15,328.

Costs are based upon an analysis of the original task budget verses actual costs incurred.

Original Budget	$ 93,232		
Cost to 1Ø/31/87	184,944		
Cost Growth (Detail shown below)		$ 91,712	
Profit (11.Ø%)		1Ø,Ø88	
Total			$1Ø1,8Ø1

Attendance at the fifteen (15) unplanned meetings included three (3) personnel at each meeting for three days as follows:

Engineering Labor	$ 27,195
Technical/Mgmt	
1Ø8Ø Hours x $25.18	
(Composite)	
Overhead (122.55%)	33,328
Travel	14,344
G & A (22.5%)	16,845
Total Cost	$ 91,712

1.5 CRITICAL DESIGN REVIEW

A separate task was established to collect costs for preparing CDR materials and for supporting the CDR. Because of the delays/ restarts, and the requirement to conduct two Hardware and two Software CDR's a cost growth was experienced in this task.

The first hardware CDR, conducted on the east coast in February 1987 as well as the second hardware CDR required WCCS support.

Two Hardware CDRs:

Budget for one combined CDR	See Below	
Original Budget for separate H/W CDRs	$ Ø	
Cost at Completion	31,3Ø9	
Cost Growth	$ 31,3Ø9	
Engineering Labor		$ 1Ø,8Ø9

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H/W CDR #1			
Program Mgmt	4Ø Hours x $34.63	$1,385	
Tech Publications	88.6 Hrs x 13.58	1,2Ø3	
ICWG Support	22 Hours x 22.5Ø	495	
		$3,Ø83	
H/W CDR #2			
Program Mgmt	8Ø Hours x $3Ø.Ø3	$2,4Ø2	
Technical	16Ø Hours x 31.56	5,Ø49	
Tech Publications	2Ø Hours x 13.76	275	
		$7,726	
Overhead (122.55%)			$ 13,241
Travel			1,5Ø9
G & A (22.5%)			5,751
Total Cost Growth, H/W CDR			$ 31,3Ø9

Because of an incomplete software CDR caused by only cursory C5 review, a second software CDR was conducted in April 1987 at WCCS in Torrance, California.

Costs are based upon an analysis of the original task budget versus actual costs incurred.

Original Budget for CDR	$ 28,944		
Cost at Completion	62,133		
Cost Growth		$ 33,189	
Software CDR (April 1987)			
Labor			$ 12,174
Program Mgrmt 72 Hrs x $3Ø.Ø6	$ 2,164		
Tech Manager 36 Hrs x 21.67	78Ø		
Technical 293.2 Hrs x 31.48	9,23Ø		
(Composite)	$12,174		
Overhead (122.55%)			$ 14,919
G & A (22.5%)			6,Ø96
			33,189
Cost S/W CDR #2		$ 33,189	
Cost H/W CDRs		$ 31,3Ø9	
Profit (11.Ø%)		$ 7,Ø96	
Total		$ 71,6Ø1	

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1.6 TIME RELATED IMPACT

1.6.1 Level of Effort Tasks. Delay of the program has impacted several of the tasks which are level-of-effort activities. WCCS accepts some responsibility for program delay, but asserts that the delay experienced is because of program interference and addition to the scope of the contract. The LOE tasks affected are Program Management, Data Management, Scheduling, Configuration Management, Technical Publications, Computer Operations, Failure Reporting and Sustaining Engineering. These efforts are as follows:

Original Budget	0		
Cost at Completion	$117,590		
Cost Growth		$117,590	
Profit (11.0%)		12,935	
Total			$130,525

Cost Growth Detail:

Engineering Labor				$ 43,133
Program Mgmt	520 Hrs x	$27.38	$14,238	
Data Manager	260 Hrs x	14.07	3,658	
Scheduling	260 Hrs x	23.28	6,053	
Config Mgmt	260 Hrs x	25.70	6,682	
Tech Pub	260 Hrs x	13.76	3,578	
Computer Op	260 Hrs x	13.25	3,445	
Failure Rptg	130 Hrs x	23.15	3,010	
Sustaining Engrg	130 Hrs x	18.99	2,469	
			$43,133	
Overhead (122.55%)				52,859
G & A (22.5%)				21,598
Total Cost				$117,590

1.6.2 GIDEP Participation. Continued participation by a WCCS hardware engineer in the directed GIDEP activity has required additional hours of effort.

Engineering Hours 120 hrs x $18.27	$ 2,192	
Overhead (122.55%)	2,686	
G&A (22.5%)	1,098	
Total Cost		$ 5,976
Profit (11.0%)		657
Total		$ 6,633

1.7 SPECIFICATION REVIEW DELAY

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Cost growths were experienced in the preparation of B-level specifications because of the many updates, and the addition of R^2, digital handover, and correlation logic.

A separate task was originally established to collect costs for B-5 preparation.

Costs are based upon an analysis of the original task budget versus actual costs incurred.

B-5 Preparation

Original Budget	$ 26,172	
Cost at Completion	82,Ø1Ø	
Cost Growth:		$ 55,838
Engineering Labor	$ 2Ø,482	
Technical 924.7 Hrs. x $22.15		
Overhead (122.55%)	25,1ØØ	
G & A (22.5%)	1Ø,256	
Total Cost	$ 55,838	
Profit (11.Ø%)		6,142
Total		$61,98Ø

Additional costs associated with normal software development (i.e., design, code, checkout) are included in the cost growth associated with the software developmental effort. Of this $199,897 cost growth, WCCS accepts 3Ø% ($59,969) as being their responsibility. The direction to update the specifications to include R^2, digital handover and correlation is estimated to be responsible for 5Ø% ($99,948) of this cost growth. Impacts to the B-5s are estimated at 1Ø% ($19,99Ø) of the cost growth. The impact to the IDS is estimated to be 1Ø% ($19,99Ø) of the cost growth, but is included in Section 2.7 herein.

Software Development
(Design, Code, Checkout)

Original Budget		$298,92Ø
Cost at Completion		498,817
Cost Growth:		
2734.5 Software Eng. Hrs @ $27.82/Hr	$ 76,Ø73	
Overhead (115.12%)	87,575	
G & A (22.15%)	36,249	
TOTAL	$199,897	

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Specification Update (1Ø% of Software Development)	$ 19,99Ø
R^2, Digital Handover and Correlation (5Ø%)	99,948
Profit (11.Ø%)	13,193
Total	$133,131

TOTAL COSTS CAUSED BY PROGRAM DELAY: $872,887

2.Ø ADDED EFFORT

2.1 IOC TEST SUPPORT

Effort to support IOC testing was planned to include on-site labor, travel and per diem. WCCS personnel were required to expand their efforts by remaining in Iceland longer than planned, resulting in cost growth. The amount shown is for the cost growth over the planned amount.

IOC Test Support

Original Budget	$ 25,699	
Cost at Completion	32,3Ø6	
Cost Growth:		$ 6,6Ø7
8Ø Hrs Test Engr @ 22.5Ø/Hr	$1,8ØØ	
Overhead (115%)	2,Ø7Ø	
Travel	1,636	
	5,5Ø6	
G&A (2Ø.Ø%)		1,1Ø1
Profit (11.Ø%)		727
Total		$ 7,334

2.2 GFE DTS REPAIR

During IOC integration and testing in Torrance, a DTS malfunctioned and required repair. WCCS was directed to contact Magnavox, the vendor who provided the two units to the USAF for this effort, to repair the unit in Torrance. The amount claimed represents the actual charges from Magnavox.

Original Budget		$ Ø	
Cost at Completion		1,474	
Cost Growth			$ 1,474
Magnavox	$1,2Ø6.81		
G & A (22.16%)	267.ØØ		
	$1,474.ØØ		
Profit (11.Ø%)			162
Total			$ 1,636

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2.3 INCREASED TRAINING EFFORT

The latest Training and Training Equipment Plan (TTEP) submitted included directed deviations from the original baseline; namely, the class sizes for both operator and maintenance training courses increased from 10 to 14 students each. This necessitates coordinating two separate courses for each class of 7 students. This claim is based on the labor required to support a second class for both the operators and the maintenances. The costs are based upon the original budget. The hours used in calculating this cost are not available.

Original Budget

Maintenance Training	$ 12,415	
Operator Training	7,188	
Total		$ 19,603

Class size dictates an additional class with required budget.

Estimate for Class		$ 19,603	
Engineering Labor	$ 7,598		
Overhead (115.0%)	8,738		
G & A (20.0%)	3,267		
Total Cost			$ 19,603
Proft (11.0%)			2,156
Total			$ 21,759

2.4 REMOTE CONTROL ELEMENT SOFTWARE DEVELOPMENT

2.4.1 WCCS was directed to modify the RCE baseline software to include the control and statusing of radio equipment at four Ground Entry Stations (GES), rather than two GESs. A separate cost account was established to collect costs associated with this update.

Original Budget for development for control and status of two GESs: $167,000

Original Budget for 4 GESs	$ 0	
Cost at Completion	73,979	
Cost Growth		$ 73,979
Technical 34 Hrs x 17.50	$ 595	
Overhead	729	
Travel	5,671	
Job Shop labor	5,644	
Outside Services (Redondo Systems)	47,752	
G & A (22.5%)	13,588	

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Total Cost Growth	$ 73,979
Profit (11.Ø%)	8,138
Total	$ 82,117

2.5 DTS TIMING ANALYSIS

WCCS was directed to conduct a timing analysis of the compatibility of the existing software system with the modified DTS (incorporating a shorter time-out delay). A separate cost account was established to collect costs.

Original Budget	$ Ø		
Cost at Completion	42,584		
Cost Growth:		$ 42,584	
Technical 442 Hrs x 34.78	$15,371		
Test Engr 1Ø Hrs x 16.ØØ	16Ø		
Elec Assembly 1Ø.5 Hrs x 8.48	89		
	$15,62Ø		
Overhead (122.55Ø%)	19,142		
G & A (22.5%)	7,822		
Total Cost	$ 42,584		
Profit (11.Ø%)			4,684
Total		$ 47,268	

2.6 EXTERNAL INTERFACE DESIGN SPECIFICATION

WCCS established a cost account for initially preparing an informal IDS for internal use. After direction to include this as a part of the B-5 deliverables, additional unforeseen costs were accumulated.

Costs are based upon an anlysis of the original task budget versus actual costs incurred.

Original Budget	$ 6,755		
Cost at Completion	56,992		
Cost Growth:			$ 5Ø,237
Technical Mgr. 92 Hrs. x 3Ø.29		$ 2,786	
Technical 425.7 Hrs. x 39.2Ø		16,686	
		$19,472	
Overhead (115.Ø%)		22,393	
G & A (2Ø.Ø%)		8,372	
Total Cost		$ 5Ø,237	
Profit (11.Ø%)			5,526
Total			$ 55,763

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Ten percent of the cost growth associated with the FOC Software Design/Code, Checkout task as described in paragraph 1.7 has been attributed to the production of this IDS.

Software Development (Design, Code, Checkout)		
Original Budget	$298,92Ø	
Cost at Completion	498,817	
Cost Growth		$199,897
2734.5 Software Eng.Hrs. @ 27.82/hour	76,Ø73	
Overhead (115.12%)	87,575	
G&A (22.16%)	36,249	
Total	$199,897	
IDS (1Ø%)		19,99Ø
Profit (11.Ø%)		2,199
Total		$ 22,189

2.7 COST OF CLAIM PREPARATION

WCCS has accumulated costs required to produce this claim. Direct labor as well as indirect labor is included.

	Direct	Indirect	Total
Labor			
Direct Labor			
Technical 144 Hrs @ 28.42	$ 4,Ø92		
Indirect Labor 138 Hrs @ 28.87		$ 3,983	
			$ 8,Ø75
Overhead (122.55%)	5,Ø15	4,881	9,896
Consultant 168 Hrs @ 5Ø.ØØ		8,4ØØ	8,4ØØ
G&A (22.5%)	2,Ø49	1,894	2,Ø49
Profit (11.Ø%)	1,227	---	1,227
Total	$12,383	$19,158	$31,541

TOTAL COSTS CAUSED BY ADDED EFFORT:	269,6Ø7
TOTAL COSTS CLAIMED:	1,142,494

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CERTIFICATION OF DATA

This is to certify that, to the best of my knowledge and belief, cost or supporting data submitted, either actually or by specific identification in writing to TechDyn Systems, the Contracting Officer or his representative in support of Whittaker Command & Control Systems Request for Equitable Adjustment, Document D87-Ø76R4 are accurate and complete as of 15 April 1988.

This further certifies that

1) The Request for Equitable Adjustment is made in good faith; and

2) The amount requested accurately reflects the contract adjustment for which Whittaker Command & Control Systems believes TechDyn Systems/U.S. Air Force is liable.

Whittaker Command and Control Systems, Inc.

BY: Marie E Raymond
Marie E. Raymond
Manager of Contracts

Date of Execution 2Ø April 1988

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3

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Claim Certification
Claim No. 125-CL-02/R1

Under the provisions of Section 33.207 of the Federal Acquisition Regulation (FAR), TechDyn Systems Corporation hereby certifies as follows:

1. Claim No. 125-CL-02/R1 is made in good faith;

2. Supporting data for Claim No. 125-CL-02/R1 are complete to the best of the contractor's knowledge and belief; and

3. The amount requested under Claim No. 125-CL-02/R1 reflects the contract adjustment for which the contractor believes the Government is liable.

Leo S. Morrison, Jr.
President and Chairman

Date: 25 April 1988

4

DEFENSE CONTRACT AUDIT AGENCY
MID-ATLANTIC REGION
ROSSLYN BRANCH OFFICE
COMMONWEALTH BUILDING, 10TH FLOOR
1300 WILSON BOULEVARD, ROOM 1085
ARLINGTON, VA 22209-2395

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IN REPLY REFER TO

6331-8B230005

15 October 1987

TechDyn Systems
6564 Loisdale Court, Suite 600
Springfield, Virginia 22150
ATTN: Mr. William Hise

Dear Mr. Hise:

Based on our review of your indirect cost projections for Fiscal Year Ending June 1988, we are provisionally approving, subject to later audit, the following billing and bidding rates for FY 1988.

	Rate	Allocation Base
On-Site Overhead	124.63%	Direct and B&P On-Site Labor
On-Site (Foreign) Overhead	50.14%	Direct Foreign Labor
Off-Site Overhead	36.25%	Direct and B&P Off-Site Labor
G&A	8.34%	Total Cost Input Excluding G&A Expenses

The reduction to the G&A rate results from questioning Bid and Proposal (B&P) costs and executive compensation. B&P costs were estimated to be $549,394 for Fiscal Year Ending 30 June 1988. This is greater than the allowable ceiling amount of $394,628 based on estimated sales of $11,500,000. The allowable executive compensation ceiling is $150,399 as documented in our 15 October 1987 letter to you. Based on historical costs, we also questioned $45,735 for Fringe Benefits and $78,223 for Travel.

The following were questioned due to adequate support not being supplied by the contractor. We questioned amounts in excess of historical costs.

On-Site Overhead/Travel	$32,848
Off-Site Overhead:	
Other Employee Benefits	$ 3,469
Phone	$ 4,148
On-Site Foreign	
Phone	$17,826
Travel	$13,740
Indirect Labor	$20,115

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6331-8B230005
TechDyn Systems

If you have any questions please contact Mr. Samuel L. Cave, Supervisory Auditor, at (202) 696-5386.

Sincerely,

CHARLES C. WALCUTT
Branch Manager

0291279

TechDyn

CONTRACTS MASTER FILE

27 March 1989

125-CM-0113

TO: William C. Hise

FROM: Max S. Rosen

SUBJECT: Minutes of meeting held at TechDyn on 22 March 1989 to discuss the Partial Termination for DEFAULT issued to WES

ATTENDEES:		
	Leo S. Morrison, Jr	TechDyn
	William C. Hise	TechDyn
	Max S. Rosen	TechDyn
	Donald Ellis	Techdyn
	Major Susan Goodrich	HQ ESD
	Captain Chris Jacobson	HQ ESD
	Captain Dan Petrov	HQ ESD
	Captain Phillip Chilson	HQ ESD

Capt. Jacobson opened the meeting by talking about how good he felt about the way the program was heading "where we are today".

He was happy with the 10 March 1989 meeting at Hanscom AFB, particularly TechDyn. He also felt WES was doing better.

He felt a turning point had been reached as far as attitudes were concerned.

The Air Force supports all RCE decisions made to date; He was, however, concerned with perceptions, particularly with regard to the TechDyn letters of 14 and 17 March 1989 and the WES letter of 15 March 1989.

TechDyn letter dated 14 March looked good.

WES' 15 March letter looked for TechDyn to back off--prerequisite for the resolution being Termination for Convenience. He thought that was unreasonable.

HQ ESD was bothered by the last sentence of the 17 March letter--They felt that showed lack of willingness by TechDyn to change from Termination for DEFAULT.

5564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013 • FAX (703) 971-3928

DEFENDANT'S EXHIBIT 60K

DFT'S DEPOSITION EXHIBIT # 12 FOR IDENT. 16 OCT 90 MLC RON JOHNSON REPORTERS 273-9367

Mr. Morrison asked to talk about the rest of the agenda.

Capt. Jacobson resumed discussion on 10 March meeting--where we are and where we are going. There are three points:

1. Resolve Termination for DEFAULT issue.

Mr. Morrison wished to look at the Termination for DEFAULT.

* RCE capability in the contract
* Software approach didn't get us anywhere
* AF/TechDyn jointly agreed that we weren't getting anywhere--jointly agreed to a mechanical solution
* We presented the mechanical solution to WES. They responded that they had no responsibility.
* We are going with the hardware solution.
* Therefore, we took action against WES.

Capt. Jacobson agreed that we are right on track and stated that WES is still continuing to work.

Mr. Hise said that WES sent out conflicting signals at the 10 March meeting. They didn't recognize the Termination for DEFAULT.

Mr. Morrison stated that WES has no responsibility for the mechanical solution.

* We have the technical solution.
* We are working towards that solution.
* Any other discussion of RCE is contractual between WES and TechDyn; there will be no technical discussion.

Capt Jacobson understands but there are three issues, all contractual:

1. Termination for DEFAULT issue
2. Rebaselining issue
3. WES claim

These three issues drive:

1. AF wants northern sites this summer
2. System level tests must be done

Mr. Hise stated that it boils down to the fact that WES is not rebaselining until the Termination for DEFAULT and the claim are settled.

Mr. Morrison inquired about the new rebaselineing.

Capt. Jacobson stated the rebaselineing of TechDyn Systems means pluses of GES #3 and #4 at NATO facilities. The rebaselineing for WES means a plus--World Wide Lateral Tell software.

Deductives
TechDyn Systems--EMI/EMC testing
WES--real time diagnostics

take out WWLT from TechDyn--the only plus to WES

He wants the rebaselineing with TechDyn to be negotiated as soon as possible.

The Air Force recognizes its share of risk on WES negatives and feels this is a leverage with WES on the claim.

Mr. Ellis--We started with FOC-1 and FOC-2 and that is now rebaselineing.

Mr. Hise pointed out that there are problems for the deductions. TechDyn cannot negotiate with the Air Force without something from WES. The theory sounds good but we may not be able to get the money from WES. It is hard to give credit to the Air Force without knowing what we can get from WES.

Capt. Jacobson stated that the Air Force recognizes the risks involved but there is a need to move forward.

Mr. Hise said that if there were questions resulting from the 10 March meeting and the 14 March letter, TechDyn was open for suggestions.

WES came back and said that Termination for Convenience was the only alternative.

That's why we went back strong--but still left door open

As a result of the meeting on 10 March ways to settle the Termination for DEFAULT were going to be explored.

Capt. Chilson--looking at the interrelationship--He wondered what TechDyn's next step would be.

Mr. Morrison stated that he is surprised that the Air Force is concerned about the Termination for Default:

* The justification is clear.
* From the beginning there have been numerous problems. Under normal conditions TechDyn would have terminated the contract much earlier
* There are no other sources.
* WES is the directed subcontractor.

The FFP contract was for 18 months and it is now two years beyond. TechDyn still maintains the staff and the monthly payroll exceeds $125,000.

With respect to RCE, TechDyn has come up with another solution, hardware.

We have to do something with the other--We gave WES every opportunity to produce a solution.
They were never going to get to solution.

Mr. Morrison stated that due to their failure to perform according to the contract we have to terminate them.

We are in a precarious financial situation and the only prudent way to handle the situation was the way we did it.

Capt. Chilson questioned whether in the Termination for Default TechDyn was looking to not pay any money to WES for RCE work to date.

Mr. Hise stated that this is part of the concern since we have already paid them "X" amount of money. The cost of the mechanical solution is less costly than software. Air Force--may want money back.

Capt. Jacobson emphasized that the Air Force does not want money back on RCE. There is no change in the requirements baseline.

Mr. Hise understands but we are giving the Air Force something else.

Capt. Chilson said that the original contract envisioned HW solution.

Mr. Hise stated that there may not be enough unspent dollars to WES to cover the new solution.

Capt. Chilson stated that the money is coming out of RCE CLIN to cover HW solution.

What is the value of RCE at Prime?

Value to WES:
2AB 296,901
57 -- 108,000?

Mr. Morrison with respect to the problem, if WES refuses to perform, there are way to deal with that both by the Air Force and TechDyn Systems

WES has been brazen, arrogant, threatened to stop work and counterproductive as a business

There is a breach of contract involved

It doesn't follow that TechDyn's or the Air Force's approach should be accomodating or coddling.

Major Goodrich agrees.

Capt. Jacobson has been encouraged by what we are doing with WES since July

Brancati surprised by the meeting with Cardile--Thought they would be supported by ESD. Thinks Brancati got bad information from Moeller.

Major Goodrich does not expect us to give up any remedies--only looking for some type of solution

Mr. Morrison--Air Force thinks the Termination for DEFAULT is impeding progress for WES

Capt. Jacobson sees WES making progress but converging on the problem.

Capt. Chilson sees a problem with TechDyn and the Air Force due to risk on rebaselining negatives

Mr. Morrison sees things differently--since July--problem ESD hasn't recognized
believes WES is preoccupied with one thing--bottom line
ESD has not focused or enough--
Acquisition and mergers dilute capabilities--4C-WCCS-WES
WES not capable at this time--

Capt. Chilson What would TechDyn Systems do if directed subcontract lifted?

Major Goodrich Can WES perform with people reassigned?

Mr. Morrison stated the only person who has been reassigned is Marie Raymond. Still not capable. We have tried to get resumes but WES would not provide them.

This was never a complex job technically

No more HW left--only books--TOs, etc.

All we need from WES is access to proprietary information. If we had it we could do it or in conjunction with someone else.

Capt. Chilson inquired if the proprietary information is necessary--we get the licensing from WES

Mr. Morrison said the Air Force should get it

Major Goodrich -- that would cost big bucks

Capt. Jacobson stated that Jimmy Young is now with the Government's side. HH Aerospace provided WES insights. Some old SW consultants working... WES rehired another old 4C & SW man...WES now acknowledges RSSF requirement and that is seen as a major step forward...Brancati is, on a daily basis, finding out what is going on...Still skeptical

Mr. Hise wondered why was no one positive at the meeting on the 10th

Mr. Morrison stated that no additional monies have been put on the contract to cover two years...Plus other lost opportunities...Being saddled with WES for four years it is hard to be optimistic....There is need to be realistic in assessing the probability of redoing the end line...This contract is inspecting other jobs. We need to find solutions. It is to our advantage to get WES out of the way; there is nothing tough about the job

Mr. Hise WES is telling us that System Manuals--they don't recognize that baseline is without RCE...We should Termination for Default Systems Manuals

Capt. Jacobson stated that we can do what we want with regard to sub

Major Goodrich reiterated that the Air Force is not interested in coddling WES

Capt. Jacobson indicated that there are two schools:
1. Hardline approach--that WES is still irrational; strategy to replace them
2. Build bridges

Mr. Hise pointed out that it is costing us $125,000 a month to build bridges

Capt. Jacobson asked what the Air Force/TechDyn System strategy is to be

Mr. Morrison--shows where the Air Force school of thought is off base--This doesn't cost the Air Force but it does cost TechDyn. There is a need for the Air Force to prove the Air Force school of thought. What can the Air Force do to cause WES to perform?

Major Goodrich referred to 17 March letter to Bohler. What does TechDyn Systems say now?

Mr. Hise stated that TechDyn has taken action and he wondered what the Air Force wanted TechDyn to do.

Capt. Chilson wondered if TechDyn had taken money back.

Mr. Hise said that that has not happened yet. WES wants the contract terminated for convenienceso that they can recover their costs but TechDyn Systems won't do that. How TechDyn will get the money back is not known yet.

Capt. Chilson agrees.

Major Goodrich wondered if we had gotten a response from WES to the 17 March letter.

Mr. Hise said that we had not...noted that only one person from WES was coming to PMR.

Capt. Jacobson said that his personal opinion is that he would like to see Mr. Morrison and Mr. Brancati talk and lay out where we are and determine how to get where we need to go. Persisting with Moeller and Bohler does not give the Air Force the right message.

Mr. Morrison doesn't consider any "bad blood" with Brancati. He doesn't agree with WES's decisions and doesn't feel talking to Brancati solves anything. The letters express our position--we only want performance. Last year "no beef"

The Air Force should look again at the subcontract.

TechDyn Systems and the Air Force work well together; the problem is with WES.

What can we do to finish the job?

Capt. Jacobson said that a lot of work by WES went in to TOs--feels good about WES SW

Break out 2AC--SW and liquidate

Rather than reformulate team approach--wants to complete

Mr. Morrison wondered what remains to be done.

Capt. Jacobson--WES--Positional Handbooks Audit
TOs--80% IPR
Software
Training
Validation

He is optimistic due to so little remaining
If we ended WES today--manuals are healthy, SW is healthy

Mr. Hise -- no manuals until RCE resolved; Termination for Default to Termination for Convenience

Capt. Jacobson that is WES's emotional posture... Moeller and lawyer's perspective

Mr. Hise wondered who is calling the shots at WES.

Capt. Jacobson said that Brancati is telling different people different things; Moeller and Bohler threatened by Cannady.

Major Goodrich--summarize

1) The Air Force believes there is a good team with TechDyn Systems and the Air Force; the Air Force wants to stay involved in on-going issues; understands where each other is coming from; situation with WES; understands problems.

2. It is not the Air Force's intention to coddle WES and there is a very serious problem with WES; termination; the Air Force want to remain involved; in loop; right now the approach may not be very focused as to where we go from here. The Air Force will come back as necessary.

3. Personalities; problems; the Air Force sees positive trends; rehires; would like to see a phone call between Mr. Morrison and Brancati; clarify point of intent with regard to change Termination for Default to Termination for Convenience in 17 March letter.

Capt. Chilson would like to be kept involved. He is willing to enjoin with TechDyn as to financial position with regard to settling the Termination. It would help for the Air Force to be involved with financial settlement.

Major Goodrich said that the 17 March letter puts the ball in WES's court but it needs clarification; the Air Force will stay involved.

Mr. Morrison said that two things are needed here; not mentioned: 1) Performance; 2) Money. It is not about personalities; who is rehired etc. Our problem with this is money; would like for the Air Force to increase money; losing money--no fault of ours

Major Goodrich--needs input--impact on TechDyn--justify the money

Mr. Morrison We put in claim--PSSR--no secret that the profit is gone

Major Goodrich wondered what WES impact of cost drain is

Mr. Morrison said that an issue not dealt with adequately is responsibility. The Air Force says that TechDyn is responsible and even though directed subcontractor
The settlement is unfair--not adequately addressed--the Air Force not presented capability for coming up with money
Money on order of what is required
Two-year drain--not trade offs

Capt Jacobson: 4 buckets--three cost money
1) RCE--Air Force will pay additional money recognize principle--based on facts
2) Recognize--rebaselining--should have been WES--now recognize anticipate providing compensation for risk of IOUs--no hard and fast agreements with WES
3) WW lateral tell--
4) Two years of schedule slips--impact--no way to adjust for that except through claim

Mr. Hise said that the problem is that as long as WES drags their feet, months are being added to the contract. We have to take prudent actions to stop that.

Major Goodrich said that there have been an additional two years of delays due to WES.

Mr. Hise did not agree. We need to make the Termination for Default stick.

Capt. Jacobson asked why a Termination for Default.

Mr. Morrison explained that we don't take contractual actions due to emotions. A Termination for Default is based on contractual sense---don't know liabilities. Based on dollars--we have not closed doors on Termination for Convenience

Capt. Jacobson wondered what the method is for enjoining the Air Force and TechDyn Systems

Mr. Hise said that he doesn't understand WES's position when they will only talk if we agree to a Termination for Convenience

Major Goodrich asked if anyone had talked with Brancati.

Mr. Hise said that he hasn't called TechDyn.

Capt. Chilson said that he needs to be involved to make sure he isn't throwing good money behind bad.

Mr. Morrison asked what the Air Force needs from TechDyn. he doesn't see anything foggy about the 17 March letter. We can suggest that we are willing to discuss the Termination for Default. WES can come here any time they want. We will tell WES that the door is open. We will negotiate with WES but a prerequisite is that they perform.

Capt. Chilson said he will send a letter on what is needed on RCE.

Mr. Hise--we'll send one more letter to WES

Max S. Rosen

TechDyn

CC. CONTRACTS
1/13/88 MASTER FILE

7 January 1988

125-CM-0072

TO: Alfred H. Johnson

FROM: Leo S. Morrison, Jr.

SUBJECT: Cost Control and Reduction - ICCE Project

Al, as you know I have settled our claim with the Air Force under the ICCE contract, except for the area of provisioning and the WCCS claim, in the amount of $1,719,441. Based on costs incurred as of 10/25/87 and your projection of costs-to-complete for the period 10/26/87 through 8/31/88, it appears we can complete the ICCE project with a profit of $312,831 or approximately two and one half (2.5) per cent, a far cry from the eleven (11) percent profit negotiated.

It is absolutely mandatory that in our remaining performance under this contract that this per cent of profit not be decreased. In fact, it is requested that you institute immediately those cost controls and those cost reduction actions which will not only maintain the 2.5 per cent profit, but will establish an objective to increase our profit to five (5) per cent or more.

Further, when the CLIN 0057 and CLIN 0058 Modification and the OJT Modification, both of which have been negotiated and both of which have been signed by TechDyn and SBA, are added to the contract, their cost performance should be separately accounted for and monitored so as to maintain the negotiated eleven (11) per cent on each of those CLINs.

Travel must be curtailed except where absolutely necessary. When labor can be reduced or eliminated from the project, this must be done.

Of equal importance is that we identify in a timely manner any event, whether caused by the Air Force, WCCS, Veda, or by TechDyn, which causes an increase in the estimate to complete.

DEPOSITION EXHIBIT
DEFT'S
10/26/90

6564 LOISDALE COURT, SUITE 600, SPRINGFIELD, VIRGINIA 22150 • (703) 922-5100 • TELEX 901013 • FAX (703) 971-3928

DEFENDANT'S EXHIBIT
61B

On the first working day following the 15th day of each month beginning in January, I want to receive from you a current revised , up-to-date projection of costs-to-complete as of the end of the previous month with a detailed and specific analysis of any variations from the previous month's report. Actual costs incurred must be reflected through the same period and should be available from Finance as of the 10th day of the month covering the preceding month.

It is my plan that upon receipt of this projection (estimate to complete) that you, Bill and I will sit down and review and critique the projection and the analysis. Only by doing this can we avoid further unknown cost growths on this project.

Leo S. Morrison, Jr.

cc: William C. Hise

SUMMARY OF WHITTAKER'S COUNTERCLAIMS

COUNT ONE

Compensation Under Changes Clause For Added Work Performed And TechDyn Breaches

Software	$1,408,720
Testing	224,314
Logistics	733,036
Remote Control Element	426,531
Data Terminal Sets	36,158
Cabling and Packaging	20,000
Administrative	500,000
TechDyn's Performance Shortcomings	---
Interest	895,964
TOTAL	$4,244,113

TechDyn's Breach Of The Disputes Clause And BadFaith Litigation (Undetermined Litigation Costs)

COUNT TWO

Quantum Meruit

(Non-contractual theory for recovering amounts claimed under Count One)

COUNT THREE

Compensation Under Termination Clause For Winding Up Costs On RCE

COUNT FOUR

Unpaid Progress Payments And Earned Retainage

Unpaid Mod 3 Progress Payments	$ 219,839
Unpaid Front-End Progress Payments	113,927
[redacted]	[redacted]
Interest	40,052 [redacted]
TOTAL	373,818 [redacted]

DEFENDANT'S EXHIBIT 108

SUMMARY OF WHITTAKER'S COUNTERCLAIMS

COUNT ONE

Compensation For Added Work Performed And TechDyn Breaches

Software	$1,408,720
Testing	224,314
Logistics	733,036
Remote Control Element	426,531
Data Terminal Sets	36,158
Cabling and Packaging	20,000
TechDyn's Performance Shortcomings	----
TOTAL	$2,848,759

COUNT FOUR

Invoiced But Unpaid Progress Payments

Unpaid Mod 3 Progress Payments	$ 219,839
Unpaid Front-End Progress Payments	113,927
TOTAL	$ 333,766

DEFENDANT'S EXHIBIT 108-A

A-108a