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**PERUSAHAAN UMUM LISTRIK NEGARA
AGENCY OF MINISTRY OF MINES AND ENERGY
GOVERNMENT OF THE REPUBLIC OF INDONESIA**



**RURAL ELECTRIFICATION PROJECT
CONTRACT AID/ASIA-C - 1357
AID LOAN NO. 497 - T - 052**



RURAL ELECTRIFICATION PROJECT - INDONESIA
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
LOAN NO. 497-T-052

MONTHLY REPORT NO. 37

FOR

OCTOBER, 1981

SUBMITTED BY
CHAS. T. MAIN INTERNATIONAL, INC.

INTRODUCTION

A. THE CONTRACT

Contract AID/ASIA-C-1357 was executed on September 18, 1978 between the United States Agency for International Development and Chas. T. Main International, Inc. following the completion of a Loan Agreement, AID Loan November 497-T-052, dated May 6, 1978, and a Grant Agreement, dated March 30, 1978, between the Republic of Indonesia and The United States of America for the implementation of a Rural Electrification Project, AID Project Number 497-0267.

Funding for Contract AID/ASIA-C-1357 is contained in the Grant Agreement. No Letter-of-Credit is involved in this contract. The date of implementation of the contract was September 18, 1978.

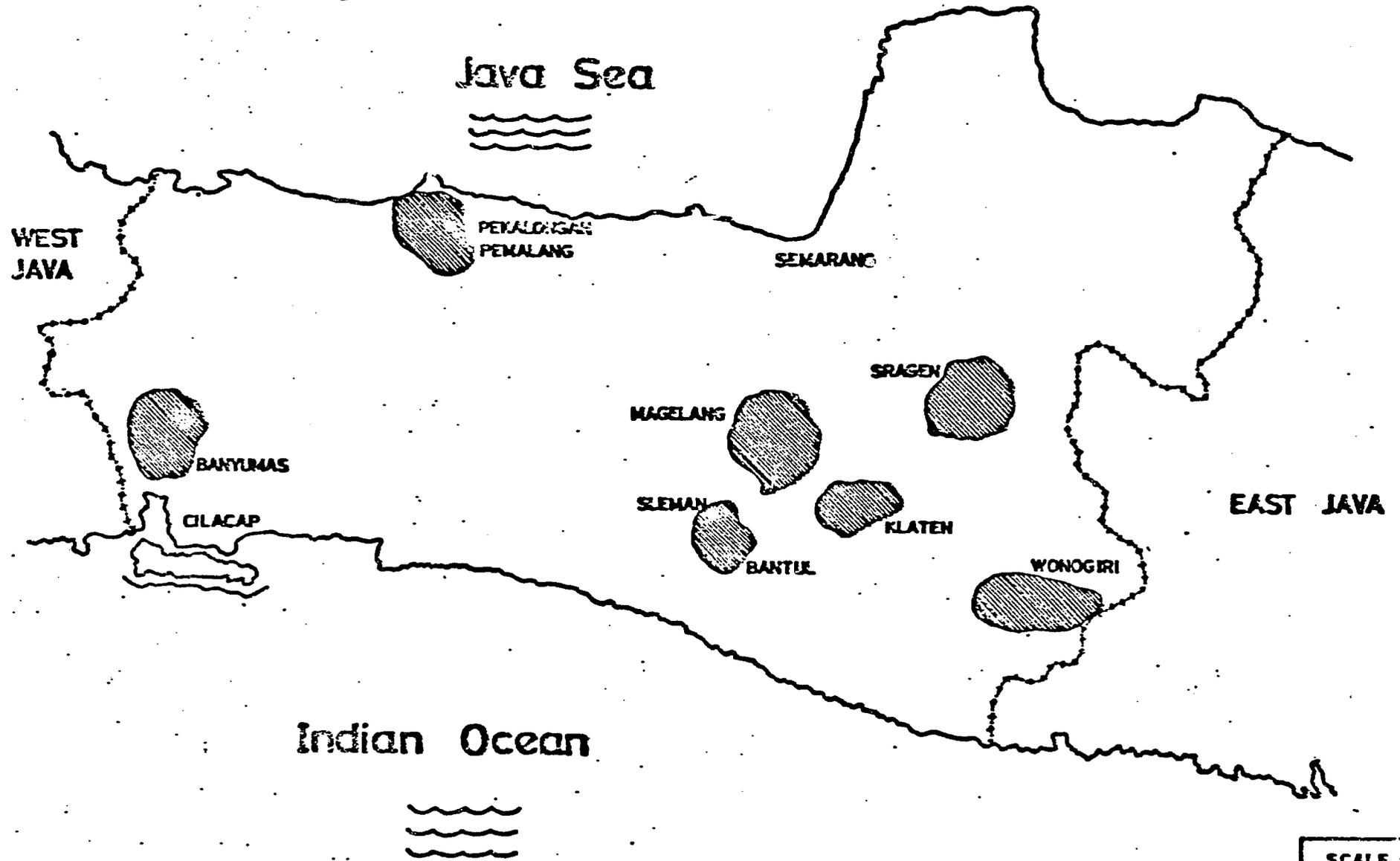
B. DESCRIPTION OF PROJECT

The objective of this project is to assist the Government of Indonesia (GOI) in its plan to provide areawide electric power distribution facilities in ten specified areas.

Seven of the project areas are located in the Province of Central Java, and the distribution systems for these areas will be operated by Perusahaan Umum Listrik Negara (PLN). Information presented in this report applies to the Central Java Project Areas only.

The project will consist of approximately 2,500 kilometers of overhead primary and secondary distribution lines and is planned to encompass at least 440 towns and villages. The completed project will insure the availability of reliable, inexpensive electric service to an estimated 260,000 rural homes. Approximately 130,000 consumers will be connected during the first three years of operation, and the remainder connected during the following twelve years.

CENTRAL JAVA
RURAL ELECTRIFICATION
PROJECT SERVICE AREAS



- 2 -

SCALE : NONE
CTM-109

The seven Central Java Project Service Areas are shown on CTM Map No. 109, page 2 of this report. These seven areas will be connected to the existing PLN, Central Java grid for their power requirements. Project Service Areas, number of villages served, approximate number of consumer connections and the estimated total number of power recipients are as follows :

<u>SERVICE AREA</u>	<u>VILLAGES SERVED</u>	<u>APPROXIMATE NO. OF CONNECTIONS</u>	<u>ESTIMATED NO. OF RECIPIENTS</u>
Klaten	95	25,000	225,000
Pem/Pek	103	20,000	180,000
Bantul	21	20,000	180,000
Wonogiri	54	15,000	135,000
Sragen	49	15,000	135,000
Magelang	83	20,000	180,000
Banyumas	<u>35</u>	<u>15,000</u>	<u>135,000</u>
TOTALS	440	130,000	1,170,000

The above tabulations reflect project expectations after the first three years of commercial operation.

II. SCOPE OF SERVICES

The scope of MAIN's services is to assist the PLN staff located at Semarang and Central Java in all phases of the design and construction of seven rural electric distribution systems. The engineering assistance will consist of, among other things, circuit routing and phasing, structure selection, conductor selection, protection and sectionalizing, and estimating of material and equipment requirements. MAIN will prepare material and equipment bid documents and assist PLN in the evaluation of bids, the preparation and administration of material and equipment supply contracts and the receipt and distribution of materials and equipment. MAIN will also assist PLN during the construction phase of the project by inspecting construction for quality and quantities of work, maintenance of construction schedules and the inventory and documentation of completed construction.

III. PROJECT ACTIVITIES & PROGRESS

A. ENGINEERING

1. DISTRIBUTION SYSTEMS

The preparation of distribution system construction maps by PLN staff continued throughout the reporting period. The status of completion of the construction maps and structure data sheets for the various systems are shown in Table 1. During the reporting period, the percentage of completion of the construction drawings for Pekalongan was increased.

During the reporting period, MAIN's staff continued the engineering review of the construction maps for Magelang, Klaten, Pekalongan, and Banyumas.

2. HEADQUARTERS COMPLEXES

The construction contracts for all headquarters complex sites except Pemalang has been executed and construction has begun. The contractor selected to perform the construction at Pemalang has been notified and construction work at Pemalang will begin during the next reporting period.

B. PROCUREMENT

1. TOOLS AND EQUIPMENT

All contracts in this procurement group are operative and implementation proceeded with imminent receipt at Semarang of various shipments of tools, equipment, and materials.

2. MATERIALS AND EQUIPMENT

A provisional Letter-of-Credit was open by Bank Indonesia covering Contract No. Pj. 148/PST/81 for Hyosung Corp. Three other contracts in this procurement group remain to be funded with Letters of Commitment and Letters-of-Credit.

TABLE NO. 1
STATUS OF MAP AND STRUCTURE DATA SHEETS

As of : October 31, 1981.

<u>Construction Beginning Sequence</u>	<u>PROJECT AREA</u>	<u>No. of Maps</u>	<u>P L N</u>			<u>Structure Data Sheets</u>		<u>M A I N Complete Field Checking & Revisions</u>
			<u>% (1) Complete</u>	<u>No. Complete</u>	<u>Date of Completion</u>	<u>% Complete</u>	<u>Date of Completion</u>	
7	BANYUMAS/CILACAP	311	78.4	87	RE 12/31/81	100	9/30/80	RE 3/31/82
2	KLATEN	352	100	352	A 4/30/81	100	10/31/80	RE 12/31/81
1	MAGELANG	423	100	423	A 12/31/80	100	9/30/80	RE 11/30/81
R 6	PEKALONGAN/PEMALANG	560	87.1	252	RE 12/31/81	100	8/31/80	RE 3/31/82
3	SLEMAN/BANTUL	268	100	268	A 5/31/81	100	8/31/80	A 9/30/81
R 5	SRAGEN	364	100	364	A 7/31/81	100	9/30/80	RE 4/30/82
4	WONOGIRI	530	100	530	A 10/31/80	100	9/31/80	RE 2/28/81

A - ACTUAL

E - ESTIMATED

R - REVISED

(1) INCLUDES FIELD STAKING

3. HOUSEWIRING MATERIALS AND METERS

During the reporting period, PLN determined that the contracts for provision of residential meters and housewiring cables would be awarded to General Electric Co. and New World Research Corp. respectively. Notices-of-Award were issued by PLN during the period.

4. CONDUCTORS

PLN has contracted with P.T. Kabelindo Murni to supply conductors for the Project, funded by a Netherlands Government loan.

5. POLES

During the reporting period, the wood pole supplier delivered 1800 treated wood poles to the Project. A total of 8719 wood poles have been delivered.

As of this reporting period, the PLN contractor supplying steel poles has delivered and set 11,761 steel RS poles.

6. DISTRIBUTION MATERIALS II

PLN has issued Notices of Award to two (2) bidders and supply contracts are being executed.

7. HOUSEWIRING MATERIALS II

This IFB has been submitted by PLN to AID for review and approval.

8. DISTRIBUTION MATERIALS III

It has been concluded by PLN that this IFB shall be re-advertised on November 26, 1981 with the bid documents being available to prospective bidders on December 1, 1981. Bids will be received by PLN on January 26, 1982.

9. FUNDING

The present accumulated value of procurement contracts and funds committed by Letters of Commitment from the USAID loan are shown in Table 2.

TABLE 2
COMMITTED FUNDS - AID LOAN

As of : October 31, 1981.

<u>NO.</u>	<u>CONTRACT SUPPLIER</u>	<u>AMOUNT</u>	<u>NO.</u>	<u>LETTER OF COMMITMENT</u>	
				<u>BANK</u>	<u>AMOUNT *</u>
Pj. 196/PST/1980	Maison Int'l. Ltd.	\$ 322,267.55	497-T-05207	CitiBank NA	\$ 323,878.89
Pj. 195/PST/1980	New World Research Corp.	821,722.00	497-T-05208	CitiBank NA	825,722.00
Pj. 198/PST/1980	Hyundai Corp.	327,804.00	497-T-05209	CitiBank NA	329,443.02
Pj. 215/PST/1980	Ohm International	169,185.17)	497-T-05210	Wells Fargo	1,326,715.29
Pj. 216/PST/1980	Merican Curtis, Inc.	569,473.00)			
Pj. 223/PST/1980	Ohm International	69,149.63)			
Pj. 265/PST/1980	Cable Handling & Stringing Equip. Inc.	314,714.96)			
Pj. 269/PST/1980	ITT Export Corp.	198,171.76)			
Pj. 029/PST/1981	Irby Const. Co.	455,516.38)			
Pj. 030/PST/1981	Copperweld Industries	390,177.99)			
Pj. 031/PST/1981	McGraw Edison Co.	87,619.20)			
Pj. 032/PST/1981	Produtos Para Linhas Preformados Ltda.	144,831.00)			
	Present Total	: \$ 3,870,632.64			

* Includes Bank Charges.

A spread sheet showing additional details of contracts, Letter of Commitment and Letters of Credit is contained in the Appendix.

C. CONSTRUCTION

1. DISTRIBUTION SYSTEMS

Line construction continued with pole placement activity at all sites. Some construction framing activity occurred at Klaten using materials from other PLN project stock. A summary of constructed facilities to date is shown in Table 3.

2. HEADQUARTERS COMPLEXES

Construction proceeded at all sites during the reporting period. No working time was lost due to weather conditions or other reasons. The estimated completion of site facilities are shown on Table 4.

During the excavation for foundations at Sleman/Bantul, sub-soil conditions were uncovered which were deemed inferior to that which was anticipated and inferior to that on which the design of the foundations were based. MAIN recommended larger footings, resulting in reduced unit soil loadings, as a remedy for the sub-soil condition. AID approved this solution to the problem.

D. PROJECT PROGRESS

Project status is portrayed on the revised engineering and construction progress chart contained herein. This revised chart is based on present estimates of availability in the field of basic line construction materials.

LEGEND

- 1 - REPORTING PERIOD
 2 - TOTAL TO DATE
 3 - % COMPLETE

TABLE 3

As of : October 31, 1981

SUMMARY OF CONSTRUCTED FACILITIES
DISTRIBUTION SYSTEMS

SITE (1)		POLES (2)	FRAMING (CKT KM)			CONDUCTORS (CKT KM)			TRANSFORMERS APPARATAS (9)
			3 ϕ (3)	1 ϕ (4)	SEC (5)	3 ϕ (6)	1 ϕ (7)	SEC (8)	
KLATEN	-1	158		.72	7.0				
	-2	2394	-	.72	7.0	-	-	-	-
	-3	22.64		0.29	2.0				
MAGELANG	-1	152							
	-2	2372	-	-	-	-	-	-	-
	-3	34.29							
PEKALONGAN	-1	198							
	-2	2104	-	-	-	-	-	-	-
	-3	14.83							
SLEMAN/BANTUL	-1	96							
	-2	3193	-	-	-	-	-	-	-
	-3	46.03							
SRAGEN	-1	50							
	-2	2145	-	-	-	-	-	-	-
	-3	27.01							
WANGON	-1	74							
	-2	74	-	-	-	-	-	-	-
	-3	1.36							
WONOGIRI	-1	175							
	-2	2203	-	-	-	-	-	-	-
	-3	20.09							

SUMMARY OF
HEADQUARTERS

Estimated P

<u>ACTIVITY</u>	<u>KLATEN</u>		<u>MAGELANG</u>		<u>PEKALONGAN</u>	
	<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>
EXCAVATION/BACKFILL	35	30	55	50		
CONCRETE						
BELOW GRADE	39	30	73	64		
ABOVE GRADE			17	13		
CARPENTRY						
MASONRY						
PLUMBING						
ELECTRICAL						
FINISHING						
TRIM						
TILE						
PAINT						
CONTRACT AMOUNT - RUPIAH	152,175,000		157,727,000		175,299,000	
% COMPLETE - PERIOD						
% COMPLETE - TO DATE	7		13		3	

Note 1 : % Complete - To Date Percentages shown are from inception

11 A

T A B L E - 4

**SUMMARY OF CONSTRUCTED FACILITIES
HEADQUARTERS COMPLEXES**

Estimated Percentage Complete.

KLATEN		MAGELANG		PEKALONGAN		SLEMAN BANTUL		SRAGEN	
<u>OFFICE</u>	<u>WHSE</u>								
35	30	55	50			45	40	65	60
39	30	73	64			58	49	87	81
		17	13			7	4	29	23
								2	2
152,175,000		157,727,000		175,299,000		154,389,000		152,339,000	
7		13		3		9		19	

To Date Percentages shown are from inception

T A B L E - 4

As of : October 31, 1981.

**CONSTRUCTED FACILITIES
QUARTERS COMPLEXES**

percentage Complete.

IN SE	SLEMAN BANTUL		SRAGEN		WANGON		WONOGIRI	
	<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>	<u>OFFICE</u>	<u>WHSE</u>
	45	40	65	60	5	5	17	15
	58	49	87	81			16	12
	7	4	29	23				
			2	2				
	154,389,000		152,339,000		165,130,000		163,033,000	
	9		19		4		5	

ACTIVITY	PERCENT OF PROJECT	REFERENCE NOTE	1978			
			S	O	N	C
ENGINEERING SERVICES MAIN						
DISTRIBUTION SYSTEM						
PROCUREMENT						
ENGINEERING ASSISTANCE						
CONSTRUCTION ASSISTANCE						
HEAD QUARTER COMPLEXES						
ENGINEERING SUPERVISION						
CONSTRUCTION SUPERVISION						
ENGINEERING PLN						
DISTRIBUTION SYSTEM						
FIELD STAKING						
CONSTRUCTION PLANS						
HEADQUARTER COMPLEXES						
DESIGN						
CONSTRUCTION DOCUMENTS						
CONSTRUCTION						
DISTRIBUTION SYSTEM						
POLES						
POLE FRAMING						
R W CLEARING						
CONDUCTORS						
TRANSFORMER & EQUIPMENT						
LINE TESTING						
HOUSE WIRING & SERVICES						
METERS						
HEAD QUARTER COMPLEXES						
SITE ACQUISITION, PREPARATION & CIVIL WORK						
FACILITIES						

1B.

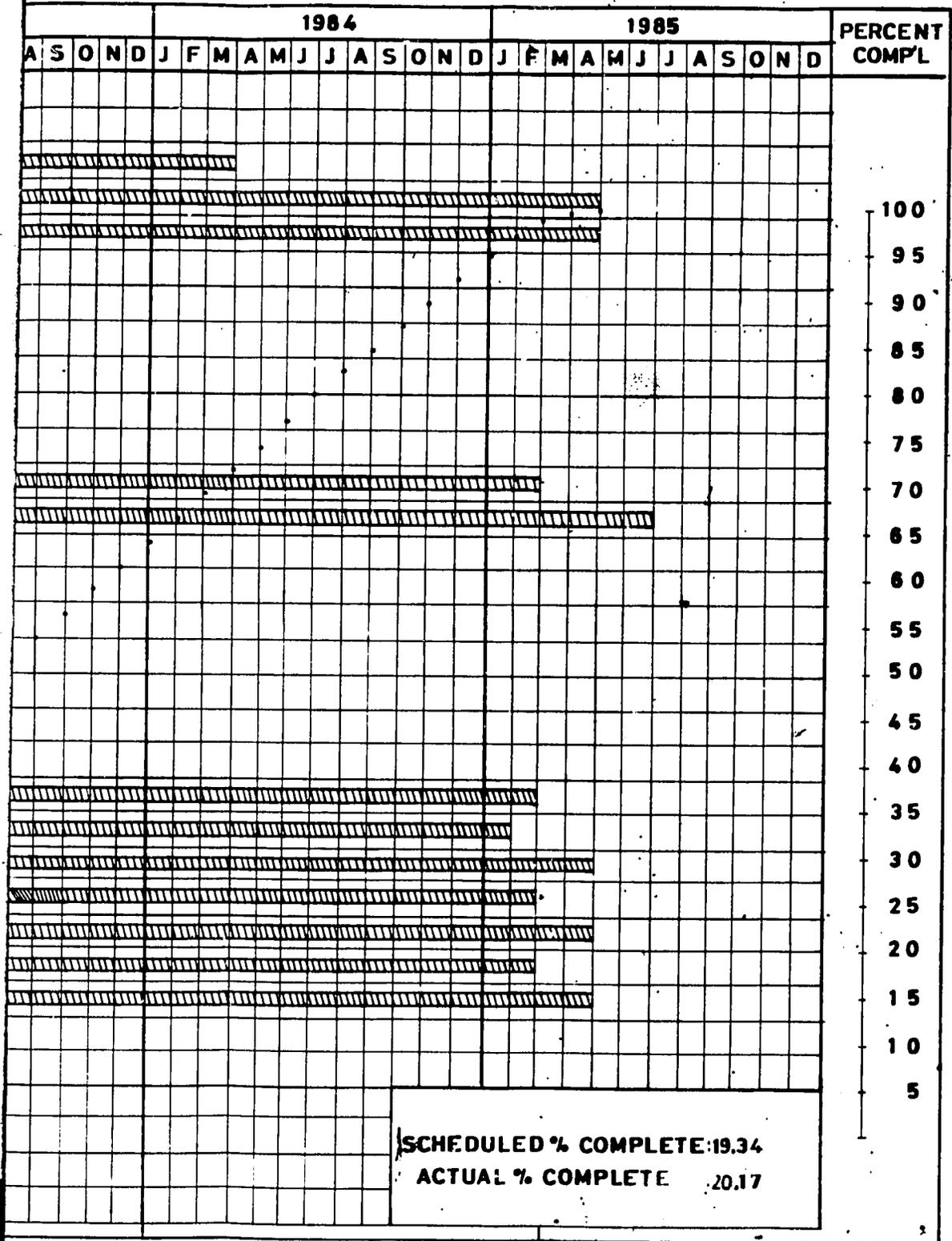
LEGEND

- Scheduled ———— Sched
- Actual ———— Actual
- ⑤ See note 5 APPENDIX

A C T I V I T Y	PERCENT OF PROJECT	REFERENCE NOTE
ENGINEERING SERVICES MAIN		
DISTRIBUTION SYSTEM		
PROCUREMENT		
ENGINEERING ASSISTANCE		
CONSTRUCTION ASSISTANCE		
HEAD QUARTER COMPLEXES		
ENGINEERING SUPERVISION		
CONSTRUCTION SUPERVISION		
ENGINEERING PLN		
DISTRIBUTION SYSTEM		
FIELD STAKING		
CONSTRUCTION PLANS		
HEADQUARTER COMPLEXES		
DESIGN		
CONSTRUCTION DOCUMENTS		
CONSTRUCTION		
DISTRIBUTION SYSTEM		
POLES		
POLE FRAMING		
R W CLEARING		
CONDUCTORS		
TRANSFORMER & EQUIPMENT		
LINE TESTING		
HOUSE WIRING & SERVICES		
METERS		
HEAD QUARTER COMPLEXES		
SITE ACQUISITION, PREPARATION & CIVIL WORK		
FACILITIES		

5

AS OF : OCTOBER 31, 1981
REV : 1



IV. ADMINISTRATION

A. PERSONNEL

Table 5 lists the job classifications and associated manmonths allocated to MAIN. Also shown are the personnel assigned and manmonths consumed for each job classification. The associated manmonths and the percentages related thereto that are shown are as of September 10, 1981.

Mr. J.J. Bennett and family returned from home leave and vacation during the reporting period.

Mr. R.N. Key and family returned from home leave and vacation during the reporting period.

B. LOGISTICS

Table A-2, Appendix, lists the continuing logistic support furnished by PLN to MAIN.

TABLE 5

JOB CLASSIFICATIONS & MANMONTHS

THROUGH : 10 September 1981

JOB CLASSIFICATIONS	LOCATION	AGENCY		PERSONNEL ASSIGNED	MANMONTH		% CONS.	% REMAIN
		PLN	DGC		ALLOCATED	CONSUMED		
Project Director	Jakarta	x	x	D. A. Dowling	40	34.8	87.0	13.0
Business Manager	Semarang	x	x	R. N. Key	39	33.2	85.1	14.9
Admin. Manager	Jakarta	x	x	C. J. Whitby	-	2.6	-	-
Administrative Ass't.	Jakarta	x	x		24	10.6	44.2	55.8
Area Manager	Semarang	x		H. E. Johnson	24	11.1	46.3	53.7
Lead Elect. Engineer	"	x			38	27.7	72.9	27.1
Civil Engineer	"	x		E. M. Downing	24	20.4	85.0	15.0
Architect	-	x		-	3	0.0	0.0	100.0
Field Supervisor	Semarang	x		H. E. Earl	37	31.0	83.8	16.2
Field Supervisor	"	x		J. J. Bennett	34	27.7	81.5	18.5
Field Supervisor	"	x		J. V. Hardman	35	27.4	78.3	11.7
Lead Elect. Engineer	Jakarta		x	G. Smith	39	31.9	81.8	18.2
Elect. Engineer	"		x	E. Leffler/J. Kerr	24	25.6	106.7	(6.7)
Elect. Engineer	"		x	E. V. Borja	24	12.9	53.8	46.2
Elect. Engineer	"		x	G. S. Sanial	24	14.7	61.3	38.7
Elect. Engineer	"		x	T. L. Resabal	24	9.0	37.5	62.5
Civil Engineer	"		x	V. H. Sydiongco	24	13.4	55.8	44.2
Senior Draftsman	"		x	D. K. Hoffer	24	17.5	72.9	27.1
Field Supervisor	Lampung		x	F. P. Cachin	35	32.1	91.7	8.3
Field Supervisor	Lombok		X	C. T. Nuez	35	26.1	74.6	25.4
Field Supervisor	Luwu		x	R. M. Garcia	35	32.4	92.6	7.4
Materials Supervisor	Jakarta		x	P. V. Wilson	12	6.3	52.5	47.5
Boston Office				Various	90	57.0	63.3	36.7
					688	505.4	73.5	26.5
					===	=====	===	=====

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V. FINANCIAL

A. The following is a summary of U.S. AID costs invoiced through September 10, 1981 and PLN costs invoiced through October 31, 1981 :

	<u>Budget</u>	<u>Invoiced To Date</u>	<u>Paid To Date</u>
U.S. AID	\$ 5,355,261	\$ 3,289,304	\$ 2,797,328
PLN		Rp. 69.927.960,-	Rp. 68.564.623,-

B. A detailed breakdown by Contract line item of MAIN'S invoices to U.S. AID is as follows :

<u>Description</u>	<u>Budget</u>	<u>Costs To Date</u>		
		<u>PLN</u>	<u>DGC</u>	<u>TOTAL</u>
Salaries & Wages	\$ 1,484,257	\$ 489,913	\$ 529,308	\$ 1,019,221
Fringe Benefits	278,636	78,359	79,136	157,495
Allowances	382,355	112,024	131,333	243,357
Travel & Transportation	959,825	243,519	232,236	475,755
Other Direct Costs	450,037	46,101	178,335	224,436
Overhead	1,390,151	458,287	493,497	951,784
Fee	410,000	104,763	112,493	217,256
T O T A L :	\$ 5,355,261	\$ 1,532,966	\$ 1,756,338	\$ 3,289,304
	=====	=====	=====	=====

VI. PROBLEM AREAS

The major decisions influencing the procurement of basic line materials, residential meters, and housewiring cables have been made and are being implemented by PLN. The procurement procedures now being followed will result in housewiring materials being available when housewiring construction is scheduled and line construction materials being available in the field during early 1983.

VII. OFFICIAL VISITS AND TRIPS

A. OFFICIAL VISITS

Messrs. J. Baird, R.C. Johnson, and Edi Setianto of AID arrived at Semarang on October 13, 1981 for a visit to the project and to review and coordinate project activities. The group returned to Jakarta October 16, 1981.

Mr. Irwan of AID's technical Staff was in Semarang from October 21, 1981 to October 24, 1981 to consult with PLN and to inspect headquarters complex construction activity at all sites.

B. PROJECT TRIPS

During the period, MAIN field staff members made several lengthy trips to Klaten, Magelang, Pekalongan, Sleman and Wangon to assist PLN pole setting activities and to review construction drawings in the field.

C. PROJECT COORDINATION MEETINGS

No coordination meeting was held during the reporting period.

VIII. PROJECT CORRESPONDENCE

A. The following communications were issued from MAIN's Semarang office during the reporting period :

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
Telex - P.T. Elprima/ Agung	S-7784	Oct. 1, 81	PLN Contract No. Pj. 297/PST/81.
PLN Pusat	S-7788	Oct. 1, 81	R.E. Pj. 148/PST/81 Contract Amendment
Telex - P.T. Elprima Agung	S-7790	Oct. 1, 81	Exercise factory inspection rights
P.T. Kabelindo Murni	S-7794	Oct. 2, 81	Netherlands Loan 1977/1978.
P.T. Kabelindo Murni	S-7798	Oct. 3, 81	Netherland Loan 1977/1978
P. I. Ring	S-7800	Oct. 5, 81	R.E. Invoice No. 42 P/E October 1, 1981
P. I. Ring	S-7802	Oct. 6, 81	Constr. funding for Headquarter complexes
Telex - New World Research	S-7808	Oct.10, 81	Contract Pj. 195/PST/80.
PLN Pusat	S-7810	Oct.10, 81	Revised Allocation of Tools and Equipment
Mr. Soedjono	S-7812	Oct.10, 81	Shipping Documents for Contract No. Pj.032/PST/81.
Telex - Irby Const. Co.	S-7814	Oct.12, 81	(1-2) and (2) recloser
U.S. AID	S-7816	Oct.12, 81	Constr. of Hq. Complexes Foundation deficiencies at Bantul.
Memo to Mr. Yuzwar	S-7820	Oct.12, 81	Receipt & Inspection of Incoming Project Material.
U.S. AID	S-7824	Oct.15, 81	Monthly Report Sept. '81
PLN Pusat	S-7828	Oct.17, 81	Conformed Contracts
Memo to Mr. Soedjono	S-7830	Oct.17, 81	Transmittal of Contracts

<u>Addressee</u>	<u>Letter No.</u>	<u>Date</u>	<u>Subject</u>
Memo to D.A. Dowling	S-7834	Oct.21, 81	Contractor Payment Form.
Memo to D.A. Dowling	S-7836	Oct. 21, 81	10 KVA Versus 5 KVA Transformer Study
Telex to Dahana Kencana	S-7838	Oct. 24, 81	Lightning Arresters
Mr. Karso	S-7840	Oct. 26, 81	Construction of Hq. Complexes Office Foundation Revisions - Bantul
D. A. Dowling	S-7842	Oct. 26, 81	Status of Allocated/ Comitted AID Loan Funds
U.S. AID	S-7852	Oct. 28, 81	Constr. of Hq. Complex Warehouse Revisions
P. I. Ring	S-7854	Oct. 28, 81	R.E. Invoice No. 43 for P/E October 28, 1981

- B. The following communications were issued from MAIN's Jakarta office during the reporting period :

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
All Concerned	J-4508	Memo - Outgoing Correspondence during September 1981.
Ir. Wiratmoko Setiadji	J-4509	Rural Electrification Project Final Draft of IFB for Housewiring Materials - II
A. J. Curran	J-4511	Telex - Time Report
A. J. Curran	J-4522	Memo - Boston Invoice No. 38
U.S. AID	J-4523	Contract No. AID/ASIA-C-1357 Rural Electrification Invoice No. AID - 88R
H.W. Hunter	J-4530	Rural Electrification Invoices
H.E. Johnson	J-4531	Financial Data
R.C. Johnson	J-4537	Rural Electrification Project Main Field Staff Man Hour Report
Ir. Wiratmoko Setiadji	J-4540	IFB for Distribution Line Constr. Material for the Central Java Rural Electrification Project.
Ir. A. Andoyo	J-4543	Rural Electrification Contract No. AID/ASIA-C-1357, Pj.195/PST/80 Contract Amendment.
Ir. A. Andoyo	J-4546	Rural Electrification Project New World Research Corp. Contract No. Pj. 195/PST/80.

<u>Addressee</u>	<u>Letter No.</u>	<u>Subject</u>
Ir. A. Andoyo	J-4547	Rural Electrification Project Merican Curtis Inc. Contract No. Pj. 216/PST/80
R.C. Johnson	J-4549	Transformer Sizes
Ir. Soedarso	J-4554	Rural Electrification Project Contract No. Pj. 029/PST/81.
Ir. Soedarso	J-4555	Original Insurance Certificate for NWR Pj. 195/PST/80 L/C No. 0103/17157/PL.
Ir. Moh. Basoeki	J-4560	Rural Electrification Project Distribution Material II.
R.C. Johnson	J-4561	Rural Electrification PLN Co. Pj. 195/PST/80
USAID	J-4571	Contract No. AID/ASIA-C-1357 R.E. Invoice No. AID-89R
Ir. Moh. Basoeki	J-4572	Rural Electrification Project Central Java Housewiring Materials
Ir. Moh. Basoeki	J-4573	Rural Electrification Project Central Java Housewiring Materials
All Concerned	J-4574	Cancellation of Scheduled Coordination Meeting.
Ken Jordan	J-4575	Telex - Contract No. 265
Ken Jordan	J-4588	Telex - Contract No. 265
R.C. Johnson	J-4591	CTM Staffing
Hyosung	J-4610	Telex - Ref. Hyosung Tlx. JB-999 & JB-1021 CTM Tlx. J-4603.

IX. PROJECT CONSTRUCTION



SLEMAN/BANTUL



SLEMAN/BANTUL



MAGELANG



PEMALANG

TABLE A - 1

PRE DESIGN LINE STAKING

<u>Service Area</u>	<u>No. Villages</u>	<u>Circuit Length - Total KM.</u>			<u>% of Feasibility Study Requirements</u>
		<u>Three Phase</u>	<u>Single Phase</u>	<u>Sec. Only</u>	
Sleman/Bantul	21	30	192.8	172.6	130
Banyumas	35	45.6	135.6	64.6	102
Klaten	102	64.5	246.8	303.8	112
Magelang	83	51.6	277.8	86.1	131
Pemalang/ Pekalongan	136	73.1	226.1	197.7	153
Sragen	55	35.1	217.3	236.4	149
Wonogiri	54	58.7	346.5	255.7	181

TABLE A-2
LOGISTICS SUPPORT

<u>PERSONNEL</u>	<u>HOUSING</u>		<u>TRANSPORT</u>
	<u>LOCATION</u>	<u>BY</u>	
J. J. Bennett & Family	Semarang	PLN	PLN
D. A. Dowling & Family	Jakarta	AID	Vehicle by PLN operation by DGC
E. M. Downing & Family	Semarang	PLN	PLN
H. E. Earl	Semarang	PLN	PLN
J. V. Hardman & Family	Semarang	PLN	PLN
H. E. Johnson	Semarang	PLN	PLN
R. N. Key & Family	Semarang	PLN	PLN

PLN provides offices at Semarang for MAIN and full logistics support consisting of secretarial personnel, drivers and all operational necessiters.

PLN provides office facilities at Jakarta and partial operational support for that office.

CONTRACT No	CONTRACTOR	DATE OF CONTRACT	EFFECTIVE DATE OF CONTRACT	
Pj. 195/PST/80	New World Research Corp.	30-7-80		Lab. & Vehicle Ground
Pj. 196/PST/80	Maison International Ltd.	18-8-80		Commun. Maint.
Pj. 198/PST/80	Hyundai Corp.	5-8-80		Ground
Pj. 215/PST/80	Ohm International, Inc.	8-9-80		Distr.
Pj. 216/PST/80	American Curtis, Inc.	8-9-80		Mainten
Pj. 223/PST/80	Ohm International, Inc.	23-9-80		Compre
Pj. 265/PST/80	Cable Handling & Stringing Equipment Inc.	27-10-80		String
Pj. 269/PST/80	ITT Export Corp.	10-11-80		Distr.
Pj. 029/PST/81	Irby Construction Co.	20-2-81	15-7-81	Service Protect
Pj. 030/PST/81	Copperweld Industries	23-2-81	10-7-81	Guy Str
Pj. 031/PST/81	McGraw Edison Co.	23-2-81	17-6-81	Protect
Pj. 032/PST/81	Produtos Para Linhas Preformadas LTDA	23-2-81	15-6-81	Conduct
Pj. 148/PST/81	Hyosung Corp.	4-5-81		Distrib
Pj. 156/PST/81	Walsin Lihwa Electric Wire & Cable Corp.	27-5-81		Tie Wir
Pj. 157/PST/81	P.T. Putera Tolhas	9-5-81		Miscell Materi
Pj. 170/PST/81	Walsin Lihwa Electric Wire & Cable Corp.	27-5-81		Service

CONTRACT FOR MATERIAL & EQUIPMENT

A3. - (2)

FOR SUPPLY OF	LETTER OF COMMITMENT		
	CORRESPONDENT BANK	No	DATE
Lab. & Test Equipment \$ 197,822.00	CITI BANK N.A.	497-T-05208	2-1-81
Vehicular Equipment 113,900.00			
Ground Rods 510,000.00			
Communication Equipment 225,073.71	CITI BANK N.A.	497-T-05207	25-11-80
Maint.. Shop Equipment 97,193.84			
Grounding Material 327,804.00	CITI BANK N.A.	497-T-05209	21-1-81
Distr. Hand Tools 169,185.17	WELLS FARGO BANK INTERNATIONAL		
Maintenance Trucks 569,473.00	WELLS FARGO BANK INTERNATIONAL	497-T-05210	12-2-81
Compression Tools 69,149.78	WELLS FARGO BANK INTERNATIONAL		
Stringing Equipment 314,714.96	WELLS FARGO BANK INTERNATIONAL		
Distr. Line Tools 198,171.76	WELLS FARGO BANK INTERNATIONAL		
Service Materials 268,107.50	CITI BANK N.A.	497-T-05214	19-6-81
Protective devices 187,408.88			
Guy Strand 390,177.99	CITI BANK N.A.	497-T-05214	19-6-81
Protective devices 37,619.20	AMERICAN EXPRESS BANK	497-T-05215	19-6-81
Conductor Specialties 144,831.00	AMERICAN EXPRESS BANK	497-T-05215	19-6-81
Distribution Transformers 1,640,840.00	CHASE MANNATTAN		
Tie Wire 24,261.50			
Miscellaneous Materials - 1 24,164.00			
Service Conductor-1 878,750.00			

A3(A) - (3)

AS OF : OCTOBER 31, 1981.

SHEET 1 OF 2

EXPIRE. DATE	LETTER OF CREDIT			
	BANK INDONESIA No	DATE	CORRESPONDENT No	BANK DATE
1-11-82	0103/17157/PL	18-3-81		
1-11-82	0103/16410/PL	18-12-80		
1-11-82	0103/16903/PL	18-2-81		
	0103/16909/PL	29-4-81		
31-1-83				
	0103/17610/PL	29-4-81		
	0103/17611/PL	29-4-81		
	0103/17612/PL	29-4-81		
15-9-83	0103/18075/PL	8-6-81	10783079	
15-9-83	0103/18076/PL	8-6-81	10783080	10-7-81
15-9-83	0103/18077/PL	8-6-81		
15-9-83	0103/18078/PL	8-6-81	E 057905	15-6-81
	0103/18906/PL	10-13-81		

CONTRACT No	CONTRACTOR	DATE OF CONTRACT	EFFECTIVE DATE OF CONTRACT	
Pj. 296/PST/81	P.T. Mataram Indah	12-9-81		Housew Device
Pj. 297/PST/81	P.T. Elprima Agung Teknik	12-9-81		Housew Device Protac Dev. Lamps

A3 B (2)

CONTRACT FOR MATERIAL & EQUIPMENT

FOR SUPPLY OF	LETTER OF COMMITMENT		
	CORRESPONDENT BANK	No	DATE
Housewiring Devices-2 Rp. 84.217.500,-			
Housewiring Devices-1 Rp. 85.072.500,-			
Protective Devices Rp. 155.182.500,-			
Lamps Rp. 65.407.500,-			

EXPIRE. DATE	LETTER OF CREDIT			
	BANK INDONESIA No	DATE	CORRESPONDENT No	BANK DATE

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CONTRACT No	CONTRACTOR	MATERIALS
Pj. 196/PST/80	Maison International	Communications Equipment Maint. Shop Equipment
Pj. 195/PST/80	New World Research Corp.	Grounding Mat'l - Partial
	" " " "	" " "
	" " " "	Watt Hour Test Tables
	" " " "	Headquarters Test Equip.
	" " " "	" " "
	" " " "	Ground Rods
Pj. 269/PST/80	ITT Export Corp.	Distribution Line Tools
Pj. 029/PST/81	Irby Construction Co.	Reclosers & Service DE.
Pj. 198/PST/80	Hyundai Corp.	Ground Wire Fittings, Staples
Pj. 216/PST/80	Merican Curtis	Trucks, Spare Parts
Pj. 052/PST/80	Produtas Para Linhas	Conductor Specialties

A-4 (2)
a

MATERIALS & EQUIPMENT

INVOICE TOTAL	BILL OF LADING		DATE OF ARRIVAL		
	No	DATE	PORT	WAREHOUSE	
\$ 224,857.57	007	Jan. 23, 1981	March 1981	April 1, 1981	Ret
97,193.84	007	Jan. 23, 1981	March 1981	April 1, 1981	Com
150,218.80	1	April 9, 1981	Aug. 14, 1981	Sept 16, 1981	Par
189,767.60	1	June 6, 1981		Sept 16, 1981	Par
142,500.00		June 5, 1981			
50,392.00	2	June 8, 1981		Sept 16, 1981	Par
4,980.00		April 9, 1981			
170,000.00		Sept. 9, 1981			
198,171.76	1	July 10, 1981			Com
330,356.61	23	Aug, 22, 1981			Par
327,804.00	PSM-1	July 22, 1981			Com
569,473.00		Sept 10, 1981			Cor
144,831.00					

from the coll

(2) b

SUMMARY OF SHIPPING MATERIALS & EQUIPMENT

INVOICE TOTAL	BILL OF LADING		DATE OF ARRIVAL		
	No	DATE	PORT	WAREHOUSE	
\$ 224,857.57	007	Jan. 23, 1981	March 1981	April 1, 1981	Ret
97,193.84	007	Jan. 23, 1981	March 1981	April 1, 1981	Comp
150,218.80	1	April 9, 1981	Aug. 14, 1981	Sept 16, 1981	Part
189,767.60	1	June 6, 1981		Sept 16, 1981	Part
142,500.00		June 5, 1981			
50,392.00	2	June 8, 1981		Sept 16, 1981	Part
4,980.00		April 9, 1981			
170,000.00		Sept. 9, 1981			
198,171.76	1	July 10, 1981			Comp
330,356.61	23	Aug. 22, 1981			Part
327,804.00	PSM-1	July 22, 1981			Comp
569,473.00		Sept 10, 1981			Com
144,831.00					

From the coll

A4 (3)

AS OF: October 31, 1981

SHEET 1 OF 1

SE

REMARKS

981 Retained by customs due to lack of import permit. Complete Shipment
981 Complete Shipment
981 Partial Shipment - Insurance Claim
981 Partial Shipment - Insurance Claim
981 Partial Shipment
Complete Shipment
Partial Shipment
Complete Shipment
Complete Shipment

TABLE A-5
PERCENT COMPLETION
ENGINEERING & CONSTRUCTION PROGRESS

<u>PERIOD</u>	<u>SCHEDULED</u>	<u>ACTUAL</u>	<u>PERIOD</u>	<u>SCHEDULED</u>	<u>ACTUAL</u>
OCT. 78	-	.04	JAN. 82	26.42	
NOV. 78	-	.07	FEB. 82	28.59	
DEC. 78	-	.15	MAR. 82	30.87	
JAN. 79	-	.29	APR. 82	32.6	
FEB. 79	-	.43	MAY 82	33.87	
MAR. 79	-	.60	JUN. 82	34.71	
APR. 79	-	.77	JUL. 82	35.53	
MAY 79	-	.95	AUG. 82	36.34	
JUN. 79	-	1.18	SEPT. 82	37.16	
JUL. 79	-	1.41	OCT. 82	37.86	
AUG. 79	-	1.64	NOV. 82	38.41	
SEPT. 79	-	1.86	DEC. 82	38.56	
OCT. 79	-	2.07	JAN. 83	38.78	
NOV. 79	-	2.27	FEB. 83	39.45	
DEC. 79	-	2.42	MAR. 83	41.2	
JAN. 80	-	2.57	APR. 83	43.36	
FEB. 80	-	2.73	MAY 83	45.76	
MAR. 80	-	2.86	JUN. 83	48.26	
APR. 80	-	2.99	JUL. 83	50.8	
MAY 80	-	3.12	AUG. 83	53.39	
JUN. 80	-	3.25	SEPT. 83	56.0	
JUL. 80	-	3.32	OCT. 83	58.63	
AUG. 80	-	3.51	NOV. 83	61.26	
SEPT. 80	-	3.64	DEC. 83	63.92	
OCT. 80	-	3.77	JAN. 84	66.58	
NOV. 80	-	4.52	FEB. 84	69.24	
DEC. 80	-	5.66	MAR. 84	71.91	
JAN. 81	-	7.31	APR. 84	74.57	
FEB. 81	-	9.11	MAY 84	77.22	
MAR. 81	-	10.95	JUN. 84	79.87	
APR. 81	-	12.86	JUL. 84	82.49	
MAY 81	-	14.68	AUG. 84	85.08	
JUN. 81	-	16.24	SEPT. 84	87.58	
JUL. 81	-	17.24	OCT. 84	90.03	
AUG. 81	-	17.92	NOV. 84	92.43	
SEPT. 81	-	18.45	DEC. 84	94.77	
OCT. 81	20.17	19.34	JAN. 85	97.05	
NOV. 81	22.21		FEB. 85	98.87	
DEC. 81	24.37		MAR. 85	99.44	
			APR. 85	100.0	