

付 属 資 料

フィリピン電気通信訓練センター
巡回指導チーム帰国報告

S. 58. 12. 26

1. 調査の目的

TTIプロジェクトの現状を調査し、実施上の問題を明らかにするとともに、比側及び日本人専門家チームとの協議を通じてそれら問題点の解決を図る。また本プロジェクトの今後の効果的な実施につき比側及び日本人専門家チームと協議し、具体的なプロジェクト実施スケジュールを策定する。

2. チームの構成

団長	総括	井上陽二郎	郵政省
団員	交換・電信	高島一純	NTT
〃	無線・搬送	本多慶成	〃
〃	電力・線路	喜岡清一	〃
〃	協力・企画	松永龍児	JICA

3. 日程、スケジュール

昭和58年11月14日(月) ～ 同年11月25日(金)

月日	曜日	調査内容	
		A M	P M
11月14日	月	(東京発10:15)	(マニラ着13:30) 大使館, JICA表敬
15日	火	TTI専門家との全体会議 (於, JICA事務所)	TTI専門家との個別会議 (於, JICA事務所)
16日	水	BUTEL表敬	TTI学園長及びカウンターパートとの打合せ (於, TTI)
17日	木	TTIにて調査 (訓練スケジュール)	TTIにて調査 (訓練スケジュール)
18日	金	TTIにて調査 (機材, カウンターパート)	TTIにて調査 (機材, カウンターパート)
19日	土	調査団打合せ (於, 宿舎)	サブコミティ資料検討 (於, 宿舎)

11月20日	日	報告書打合せ (於, 宿舎)	資料整理 (於, 宿舎)
21日	月	MOTC表敬	TTIにて調査 (専門別)
22日	火	TTIにて調査 (専門別)	サブコミティ出席 (於, BUTEL)
23日	水	PLDT訪問(北部ルソン通信 網関連事情聴取)	TTI学園長と協議及び調査結果 概要説明 (於, TTI)
24日	木	資料整理 (於, 宿舎)	大使館・JICAにて帰国報告 (調査結果概要)
25日	金	帰国準備	(マニラ発 14:20) (東京着 19:20)

4. 調査結果

(1) プロジェクト運営状況

前回の調査時(1982.12.)以降1983年1月第1回のナショナルステアリングコミ
ティ及びサブコミティが開催され, その後TTI—JICAプロジェクトの運営に関して
ナショナルステアリングコミティ8回, サブコミティ7回開催されている。

(2) JICAコース開設状況

現在までのJICAコース開設状況は下表のとおりである。

コース \ 専門	交換	無線	線路	搬送	電信	電力	計
エンジニアコース	0	0	2	2	2	0	6
テクニシャンコース	0	1	0	1	1	1	4

なお, 1984年, 1985年の予定は別紙のとおりである。

(3) テキスト作成状況

未開設のコースも含め各コースのテキストはほぼ完成している。

(4) 訓練生

現在までにエンジニアコース85名(3コース), テクニシャンコース33名(3コース)
が各コースを修了している。

(5) カウンターパートの状況

(i) 配置状況

現在29名のカウンターパートが配置されているが, Daily Wageが13名を占め, そ
の定着性が問題であるとともに, Non degree(大学修了の資格なし)が15名, 高齢者

が3名という状況にあり、最新技術を移転する対象者としてはなお問題である。

(ii) 日本での研修状況

57年度2名、58年度4名の計6名がすでに派遣されており、今年度中にはさらに2名の派遣が予定されている。

(6) 日本人専門家のその他の活動状況

上記活動の他、カウンターパートへのマンツーマンの指導、TTI既存コースでの講義等
はもとより、特にTTI構内のPBX（構内交換機）を旧館から新館へ移転したが、これを
オンザジョブトレーニングとして専門工業者の手によらず専門家とカウンターパート自身の
手で遂行した。

(7) 機材

短期専門家の協力を得て予定通り設置され、有効に活用されている。今後搬入されるもの
についてもほぼ予定どおり設置される見通しである。

(8) プロジェクトに対する比側の状況

新校舎建設について第一期工事は本年当初に完了し、教官室、教室が整備されている。第二
二期工事についても年内には完成の見通しである。

5. チームとしての見解

以上述べたように本プロジェクトは、昨年計画打合せチーム来比時（57年12月）に比較
し、大きな進捗が見られ、ほぼ軌道に乗りだしたとみてよい。今後は以下の点について配意が
望まれる。

- (1) 本プロジェクトは比側の電気通信政策の動向に大きく影響される要素を含んでいる。この
大きな流れの状況を正確に把握し、的確に対応することこそ本プロジェクトの成否を決する
ものと考えられる。

こうした観点から専門家チームとしても単にTTI内でのプロジェクトの遂行という観点
にとどまらず、より広い視点からTTIプロジェクト全体の位置づけについて認識した上で
諸問題について発言し、働きかけていくべきであると考えられる。

例えば、本プロジェクトの主たる目的は北部ルソン電気通信網プロジェクトに関する技術
移転であるが、その運用主体はPLDTとなることについて大勢は決っており、BUTEL
-PLDT間の具体的協定はできていない状態にある。

こうしたことはカウンターパート及びその訓練対象者の明確化等、TTI-JICAプロ
ジェクトの効果的な実りある実施という観点から極めて重要な問題であり、専門家チームと
してもその早期の実施について働きかけを行なっていく必要があると考えられる。

- (2) 本センター協力は来年以降最終フェーズに入る。これまで専門家はコース開設に向けて全
精力を注いできた。

今後はカウンターパートが授業をするのに必要なテキスト以外のドキュメント類の作成など、協力期間経過後日本人専門家がいなくなっても比側だけでコースの維持向上ができる体制作りが必要と考えられる。

訓練コース計画




別紙

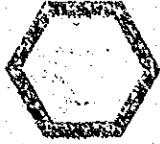
1984年

専門	1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
交換	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース
搬送	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース
無線	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース
電力												
電信												
線路												

1985年

交換	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース	レギュラーコース
搬送	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース	JICAエンジニアコース
無線	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース	JICAテクニシャンコース
電力												
電信												
線路												

-  レギュラーコース
-  JICAエンジニアコース
-  JICAテクニシャンコース



Republic of the Philippines
Ministry of Transportation and Communications
BUREAU OF TELECOMMUNICATIONS
A. Roces Ave., Q. C., MM

別添 2

Minutes of the Meeting of the JICA-TTI Sib-Committee held at the Conference Room, 6th floor, Bureau of Telecommunications Building on November 22, 1983 at 3:00 P.M.

P R E S E N T

- | | |
|------------------------------|------------------------------|
| 1. Mr. Manuel B. Casas | - Chairman |
| 2. Mr. Miguel O. Cordero | - Sub-Committee
BUTEL/TTI |
| 3. Mr. Gaudencio del Rosario | - MOTC |
| 4. Mr. Mutsuaki Nakajima | - JICA, Chief Advisor |
| 5. Mr. Yojirou Inoue | - MPT |
| 6. Mr. Kazuyosi Takabatake | - NTT |
| 7. Mr. Yasufusa Honda | - NTT |
| 8. Mr. Ryuji Matsunaga | - JICA Tokyo |
| 9. Mr. Kiyokazu Kioka | - NTT |
| 10. Mr. Yuichi Ito | - Radio Course |
| 11. Mr. Masami Kato | - Carrier/Power Plant Course |
| 12. Mr. Takanori Ando | - Switching Expert |
| 13. Mr. Masami Haraguchi | - Telegraph Expert |
| 14. Mr. Kazuo Iwabuchi | - Outside Plant Expert |
| 15. Mr. Setsuo Takemoto | - JICA Coordinator |
| 16. Mr. Ernesto Navarro | - BUTEL |
| 17. Mr. Tereso N. Pachica | - BUTEL |

MATTERS TAKEN UP

1. Call to Order

The meeting was formally opened by Mr. Manuel B. Casas, Chairman of the National Steering Committee and Sub-Committee on about 3:30 P.M. The Chairman explained to the body that this Sub-Committee meeting as agreed upon by the Sub-Committee member will hold its meeting or convene when the necessity calls for it. The Chairman appreciated that this meeting was attended by the advisory Team as well as the other members of the JICA Experts. After a brief introduction, the Chairman requested Mr. Miguel O. Cordero, Project Manager of the TTI-JICA Project to give a brief Status Report on the TTI-JICA Project.

Mr. Cordero explained that the Philippine's input to the Project like the Two Storey Building (Phase I) is already completed and is now utilized for Switching laboratory, classrooms and the JICA Room which was utilized by the Japanese experts as office. He made mentioned also about the Phase II which was 95% complete and that is on the finishing touches only and is ready for occupancy in the next few days. He said this will house the audio-visual room, library and other classrooms.

Also, he extended his thanks to the JICA team for donating some 20 units of airconditioners, and other donation of supplies which cost

about ₱ 100,000.00 for use in the preparation of books and manuals needed by the different wings. Mr. Cordero mentioned also the Phil. input such as new airconditioner to supplement the needs of every laboratory and classroom.

Mr. Cordero continued to brief the advisory team and the body on the training schedule for 1984-1985. He reported also the number of trainees who had graduated from 1982 & 1983 in the TTI-JICA program as well as the regular courses.

With this remarks, he requested Mr. Nakajima, chief Advisor, JICA to further report on the status of the JICA-TTI project.

Mr. Nakajima reported the TTI-JICA Training Activity, Counterpart Training in Japan, Short term experts, installation and adjustment of equipment, list of textbooks for JICA Radio & Telephone courses.

Mr. Gaudencio del Rosario asked Mr. Nakajima some clarification about textbooks, whether it is introduction manuals, handouts or reference books. Mr. Nakajima replied that this was handouts and training handouts should be given to trainees during the training in the Institute.

Mr. Cordero requested Mr. Nakajima to submit to the TTI library some training handouts on all courses for use of trainees as reference. Mr. Nakajima promised to submit all in the library in the near future.

At this juncture, the Chairman made a remarks that books are the most important component in the development of training in the country.

He requested Mr. Inoue, the leader of the advisory team whether it is possible to provide TTI some reference textbooks in the coming year.

Mr. Casas, reiterated that this books like training equipments would play important role in the project.

Mr. Nakajima explained the training program for 1983-1984-1985. Mr. del Rosario asked Mr. Cordero regarding the plight of regular courses.

The Chairman, made a remarks that the regular courses must be given also a priority because the Bureau had allocated some amount for the annual budgetary needs of regular courses, so, he said that this courses must be also important, that the government authorities will be asking BUTEL for some output on regular courses. He mentioned that regular and JICA courses were funded separately, and therefore needing also some output for the regular courses.

At this point, Mr. Cordero requested Mr. Pachica to remind the Training Staff about the matter in some revisions of the training schedules.

Mr. Takatabake made remarks that JICA experts were participating in the regular courses. Mr. Casas acknowledged the assistance of the JICA experts in the participation in the regular courses and that he was very thankful for such endeavor.

Mr. Inoue made some comments on the training schedule regarding the inclusion of the regular course to JICA course. The Chairman told him that this was made just to identify the regular courses to that of the JICA courses.

Mr. Cordero asked Mr. Nakajima why in the 1985 training schedule, there were longer period as compared to 1984 schedule. There would be exactly the same that of 1985 schedule.

Mr. Casas in turn suggested that tti-jica staff should review and make final adjustment in the new training schedules.

Mr. Honda made a request to Mr. Cordero and Mr. Nakajima regarding the 1984 program for switching. He said that since this was the first course and it was important that the counterpart for switching be included among the trainees who would take the first course and that the second and third regular courses be shortened for the purpose.

Mr. Cordero replied that they would make up some adjustment in the schedule.

Mr. Casas asked the Advisory team as to when the switching apparatus would come. Mr. Takabatake replied that it would come before the end of May and installed by the end of September 1984.

Mr. Nakajima pointed out some problems regarding accommodations and dormitory for the trainees. Mr. Cordero mentioned that he would have to take care of the matter since there were still various resources to cope with this like the conversion of Marulas Center of the Caloocan Exchange into a dormitory.

Mr. Nakajima stressed a point regarding the transportation of trainees.

Along this line, Mr. Casas suggested that all logistic problems and other recommendations must be tossed up or be submitted to the higher management level for them to study and extend positive solutions and recommendations to the matter. Another point given by Mr. Casas was that energy conservation implemented in TTI, considering that it was in line with the policy of the government to cut down government expenses like this one. But, Mr. Cordero informed Mr. Casas that he had previously issued implementing orders regarding energy conservation in TTI.

3. OTHER MATTERS:

Mr. Inoue expressed his thanks to Mr. Casas and Mr. Cordero for the whole hearted cooperation they had extended for the success of the project. Mr. Casas in turn expressed his gladness in the accomplishment of TTI-JICA project which the group observed during their visits to TTI. He further assured the Advisory Team that full cooperation would be extended to TTI as envisioned by the Minister of MOTC in his remarks during the courtesy call that the training was the most important component in the improvement of our industry.

Mr. Casas said he would continue his support to the TTI-JICA project.

The meeting was adjourned at 4:26 in the afternoon.

Witnessed:

MIGUEL O. CORDERO
Chief, Telecom. Training Inst.

YUJIRO INOUE
Team Leader Advisory Group

MITSUAKI NAKAJIMA
Chief Advisor/JICA



REPUBLIC OF THE PHILIPPINES
MINISTRY OF TRANSPORTATION & COMMUNICATIONS
BUREAU OF TELECOMMUNICATIONS
TELECOMMUNICATIONS TRAINING INSTITUTE
VALENZUELA, METRO MANILA

Minutes of the meeting between the Japanese Advisory Team and the TTI Staff held at the Conference Room November 23, 1983.

P R E S E N T :

- | | |
|------------------------------|----------------------|
| 1. Mr. Ryuji Matsunaga | - JICA Tokyo |
| 2. Mr. Kiyokazu Kioka | - NTT |
| 3. Mr. Yasufusa Honda | - NTT |
| 4. Mr. Yojiro Inoue | - MPT |
| 5. Mr. Kazuyosi Takabatake | - NTT |
| 6. Mr. Setsuo Takemoto | - JICA Coordinator |
| 7. Mr. Mitsuaki Nakajima | - JICA Chief Advisor |
| 8. Mr. Miguel O. Cordero | - Chief, TTI |
| 9. Mr. Orlando Felarca | - TTI |
| 10. Mr. Tereso Pachica | - TTI |
| 11. Mr. Eusebio Pagcaliwagan | - TTI |
| 12. Mr. Roberto Evangelista | - TTI |
| 13. Mrs. Magdalena Francia | - TTI |

MATTERS TAKEN-UP

1. Call to Order

The meeting was formally opened by Mr. Inoue, (head of the Advisory Team) about 1:15 P.M. Mr. Inoue addressed the body with a very brief summary of their study during their stay in Manila. He extended also his thanks to Mr. Cordero and TTI Staff for their whole hearted cooperation to them. He appreciated the harmonious relationships of the Japanese experts and their counterpart. He informed the body that they were able to meet different executives of the Phil. government like Minister Jose Dans of MOTC, Mr. Renato Garcia of MOTC, General Ceferino S. Carreon, BUTEL, Manuel B. Casas BUTEL and Antonio Samson of PLDT. After this, he emphasized the importance of telecommunications.

Mr. Cordero mentioned the forthcoming NEC Training program. He

informed also that TTI Training was actually participating in the training program for Region I & II.

He said that training for Regions I & II was a special project for TTI Training Program. He informed the body of the recent intention for the PLDT to send some of the training officers to TTI since PLDT would operate region I & II.

Mr. Takemoto asked Mr. Cordero regarding the list of reference textbooks and other items given to him by Mr. Pachica. Mr. Cordero answered that the list of additional equipment needed in the TTI-JICA project was deleted in the documents for the Sub-Committee meeting, because those matters would be deliberated by TTI Staff and JICA experts prior to submission to Sub-Committee for approval. Mr. Cordero continued to say that those were the list of reference textbooks requested by Mr. Casas to Mr. Inoue during the recent Sub-Committee meeting.

Mr. Cordero requested Mr. Pagcaliwagan to discuss about the revision of the training program. After a brief discussion, Mr. Nakajima told that adjustment in the training program will be coordinated with the TTI Staff in a few days.

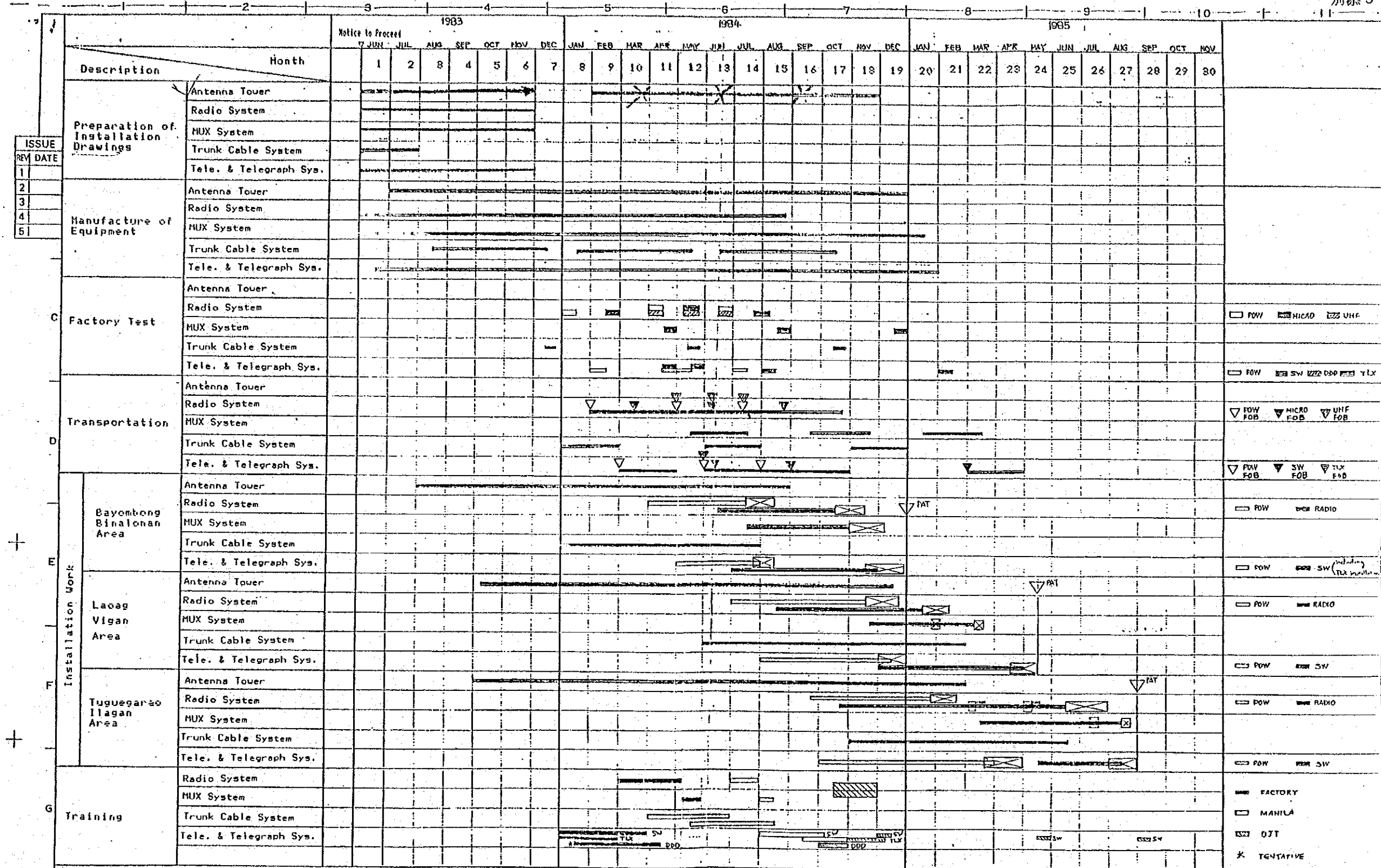
The meeting was adjourned 2:30 P.M.

Witnessed :

Mr. Miguel O. Cordero
Chief, Telecom. Training Inst.

Mr. Yojiro Inoue
Team leader Advisory Team

Mr. Mitsuaki Nakajima
JICA Chief Advisor



ISSUE	REV	DATE
1		
2		
3		
4		
5		

FILM	AP ROLL	LIMIT
REF. No.		

Note:

⊠ : Acceptance Test of each sub-system.

▽PAT : Ready for Provisional Acceptance Test.

ISI DATE CH APP
1129 JUL 1985

REGIONAL TELECOMMUNICATION
DEVELOPMENT PROJECT
IN REGIONS I & II

SUMMARIZED
IMPLEMENTATION
SCHEDULE

03201-0005
REV 12/14/84

NEC NEC Corporation

Description	1981												1982												1983												1984												1985												1986																	
	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A																		
Time Schedule	Bid Evaluation and Contract Assistance		-----												-----												-----												-----												-----												-----															
	Installation and Test Supervision Including Factory Test		-----												-----												-----												-----												-----												-----												-----			
	Tower		-----												-----												-----												-----												-----												-----												-----			
	Radio System		-----												-----												-----												-----												-----												-----												-----			
	Cable System		-----												-----												-----												-----												-----												-----												-----			
	Telephone SW System		-----												-----												-----												-----												-----												-----												-----			
	Telegram Sys.		-----												-----												-----												-----												-----												-----												-----			
	Coordination of Project		-----												-----												-----												-----												-----												-----												-----			
	Team Leader or Asst. Leader		8/19 - 12/18												6/19 - 6/28												7/24 - 7/24												29.5																																							
	Senior Engineer (S)		Civil (Tower)		9/2 - 10/27										7/21 - 8/28												3.0												17.0																																							
		Radio		8/21 - 11/12										7/23 - 8/28																																																																
		Outside Plant		8/21 - 11/1										7/23 - 8/28																																																																
		Telegraph		9/2 - 11/12																																																																										
		Multiplex		9/2 - 11/12																																																																										
		Power Plant		9/2 - 10/30																																																																										
Engineer (A)		Civil (Tower)-1												3.0												10.5																																																				
		Civil (Tower)-2																																				3.0												10.0																												
		Radio-1																																				3.0												2.5																												
		Radio-2																																				3.0												12.5																												
		Outside Plant																																				2.0																																								
		Telephone Switching		8/21 - 11/12										7/27 - 11/4												3.0												17.0																																								
		Telegraph												7/27 - 11/20												1.0												3.0																																								
		Multiplex												7/27 - 9/14												3.0												3.0																																								
		Power Plant																								2.0												2.0												3.0																												

Note: On the column of manpower schedule — shows the work in Japan, — shows the work in the Philippines and --- shows the duration for witness to factory test (equipment). The total manpower for witness to factory test is estimated 14 M/M.

STATUS REPORT
ON THE
TTI-JICA PROJECT

LIST OF DOCUMENTS

	Page
T.T.I. - JICA Training Activity - - - - -	1
Counterpart Training in Japan - - - - -	2
Short Term Expert - - - - -	3
Installation and Adjustment of Equipment - - - - -	4
List of Text Book for JICA Radio Course - - - - -	5
List of Text Book for JICA Telephone Switching Course - - - - -	6
Donations from the Government of Japan - - - - -	7
Additional Training Equipment needed in the TTI-JICA Project - -	8
Project Accomplishment Report (JICA-TTI Infra Project)- - - - -	9
Appraisal Report on Infra Project 1983 Development/Improvement of TTI - - - - -	10
Status Report - List of Training Equipments/Materials to be procured - - - - -	11
Other Government's Input to the Project - - - - -	12
Training Schedule for 1983 - - - - -	13
Training Schedule for 1984 - - - - -	14
Training Schedule for 1985 - - - - -	15
1981 Number of Graduates in TTI - - - - -	16
1982 Number of Graduates in TTI - - - - -	17
1983 Number of Graduates in TTI - - - - -	18

T.T.I. - JICA TRAINING ACTIVITY

Name of Course	Duration	Number of Trainees	Original Office
Radio (PCM) Technician Course	November 7- December 16	9	BUTEL - 8 T.T.I. - 1
Carrier Technician Course	November 7- December 9	12	BUTEL - 8 PLDT - 3 DOMSAT - 1
Power Plant Technician Course	October 3- November 11	11	BUTEL - 7 PLDT - 4
Telegraph Switching Engineer Course	October 10- December 2	10	BUTEL - 8 PAF - 2

Counterpart Training in Japan

(1) For General Management (one person)

September 18 - October 2

For Carrier (one person)

September 30 - November 14

For Radio (one person)

September 30 - November 7

For Power Plant (one person)

November 12 - December 5

For Telephone Switching (2 person)

January - March, 1984

SHORT TERM EXPERT

Depending upon the requirement of the government of Philippines the following Japanese short experts arrived at TTI for installation of training equipment.

1 Power plant

Mr. Koichi Mochihara

Arrival ; Oct 3 Termination Nov. 25

2 PCM Multiplex

Mr. Masayoshi Niwa

Arrival ; Oct. 11 Termination Nov. 6

3 Radio system (SHF/UHF transmitter & receiver)

Mr. Mamoru Hasegawa

Arrival ; Oct. 17 Termination Dec. 12

INSTALLATION AND ADJUSTMENT OF EQUIPMENT

1 POWER PLANT ;

From Oct. 4 to Nov. 24

By Mr. Masami Kato

Mr. Koichi Mochihara (short term expert)

and TTI staff

2 PGM MUX ;

From Oct. 12 to Nov. 5

By Mr. Masami Kato

Mr. Masayoshi Niwa (short term expert)

and TTI staff

3 RADIO SYSTEM ;

From Oct. 18 to Dec. 5

By Mr. Yuichi Ito

Mr. Mamoru Hasegawa (short term expert)

and TTI staff

4 TELEPHONE SWITCHING (Stroger & IB), Power Supply (cable & distribution board)

From Aug. 22 to Oct. 1 , From Nov. 7 to Nov. 24

By Mr. Takanori Ando

By Mr. Ando

and TTI staff

and TTI staff

5 TELEGRAPH MULTIPLEX ;

From Nov 3 to Nov. 5

By Mr. Masami Haraguchi

Mr. Masayoshi Niwa

and TTI staff

LIST OF TEXT BOOK FOR JICA RADIO COURSE

1. The Regional Telecommunication Development Program aiming at the advanced Information society.
2. Digital Radio System.
3. Microwave Propagation and Path Design.
4. Practical Microwave Communication System Design.
5. Microwave Waveguide Components, Feeder & Antenna.
6. Microwave Components, Devices & Circuits.
- 7-1 Instruction Manual for TRP-6G68MB-500B TRANSMITTER RECEIVER
- 2 Instruction Manual for MDP-68MB-12A/B Modulation Demodulator
- 8-1 60CH UHF RADIO PCM TRANSMITTER-RECEIVER TR5 PC 60
- 2 Instruction Manual for type TR5PC60-1A/1B Digital Transmitter Receiver.
- 9-1 " " " NAR-500 Series
- 2 " " " NAL-500 Series
Switchover Control Equipment
- 11-1 Test Data TRANSMITTER-RECEIVER TRP-6G68MB-500B
- 2 " " 8PH PSK Modulation-Demodulator MDP-68MB-12A
- 3 Test Data UHF TRANSMITTER-RECEIVER TR-5PC6-1A
- 4 " " Supervisory and Control Equipment
- 5 " " Switchover Control Equipment NAL-50 LBP
- 6 " " Supervisory and Control Equipment NAR-512T Service Bay, NAS-501
- 7 " " NAR-511A, NAR-5110, NAR-512T, NAS-501
- 8 " " NAR-512T, Service Bay, NAS-501 (UHF SLAVE)
12. Experiment guide of Microwave Technique Trainer.
13. UHF CIRCUIT DIAGRAM.
14. TROUBLE SHOOTING and Test Procedure NAR-500 SERIES.
15. Supervisory and Control Equipment.

LIST OF TEXT BOOK FOR JICA TELEPHONE SWITCHING COURSE

1. Introduction to Digital Telephone Switching System
2. " to Digital Data Exchange System
3. Digital Switching System (I)
4. Telephone Switching Engineering
5. Telephone Traffic and Forecasting
6. The Regional Telecommunication Development Project aiming at the advanced Information Society.
7. Digital Switching system (signalling)
8. Digital Switching system (II)
9. " " " (III)
10. " " " (IV)
11. " " " (V)
12. " " " (VI)
13. " " " (VII)

DONATIONS FROM THE GOVERNMENT OF JAPAN

I. RADIO TRAINING EQUIPMENT

- | | |
|--|--------|
| 1. SHF PCM Transmitter and Receiver | 2 sets |
| 2. Modulator and Demodulator for TX and RX | 2 sets |
| 3. Supervisory System for TX and RX for SHF System | 2 sets |
| 4. UHF PCM Transmitter and Receiver | 2 sets |
| 5. Supervisory System for TX and RX for UHF System | 2 sets |
| 6. Measuring Equipment | |
| i Microwave Frequency Counter | |
| ii Error Rate Measuring Equipment | |
| iii Digital Tester | |
| iv Synchroscope | |
| v Microwave Repeater Test Set | |
| vi Microwave System Analyzer | |

II. AIR CONDITIONER 22 sets

III. CONSUMING MATERIALS FOR COPYING MACHINE AND PRINTER

(Copy paper, Toner, Developer, Master plate and some spare part etc.)



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Additional Training Equipment needed in the
TTI - JICA Project

1. A) INSIDE PLANT WING
 - 1) Logic & Digital Techniques Trainer
 - 2) Electronic Circuit Trainer
 - 3) Sampling, TDM/PCM Techniques Trainer
 - 4) Microprocessor Trainer (or general purpose microcomputer)
 - 5) Precision dc power supplies (adjustable, regulated voltage & current)
 - 6) Function generator, variable pulse/waveforms
 - 7) Transistor & I.C. device checker
 - B) OUTSIDE PLANT WING
 - 1) Fiber Optic Jointing Machine, including related tools.
 - 2) Coaxial Cable Jointing Machine, including related tools.
 - 3) Test equipment for conducting measurements on optical fiber cables.
 - 4) Optical Fiber cable for training and/or demonstration purposes.
 - 5) LPG Torch for use in closing telephone cable splices.
 - 6) Aerial telephone cable fault tester/locator.
 - C) CARRIER WING
 - 1) Soldering Iron 18W
 - 2) Soldering Iron 25W
 - 3) Soldering Iron 60W
 - 4) Beta L750 tape (blank)
 - 5) Beta L500 tape (blank)
 - D) TELEGRAPHY WING
 - 1) Datax TDM with complete accessories (1 set)
 - 2) Medix 510AS Switching Equipment with Maintenance console & Maintenance Teleprinter with complete accessories (1 set)
 - 3) MDF Frame for Switching Equipment and TDM (1 set)
- OTHERS:
- 1) Hand platen press (hand operated)
 - 2) Paper cutter (29 inches)

PROJECT ACCOMPLISHMENT REPORT

JICA - TTI INFHA PROJECT

October 1983

(In Thousand Pesos)

PROJECT DESCRIPTION	%	TOTAL	FINANCIAL STATUS		BALANCE	PHYSICAL ACCOMPLISHMENT	REMARKS
			AMOUNT	OBLIGATED			
AFT I (\$300.00)							
• Training Facilities Improvement	9.35%	300.00	297.705		2.295	9% of total work accom- plished	0.44% still on-going
AFT II (\$21.30)							
• Repair & Renovation of existing Bldgs., Fencing & Landscaping	56.35%	1,809.093	269.660		1,539.433	8.40% of total work accom- plished	Civil work will be undertaken by MPWH
• Purchase of Training Equipment	29.62%	950.907	673.683		277.224	20.98% of total training equipment required were already purchased	on-going
• Purchase of Training Supplies and Materials	4.67%	150.00	54.687		95.313	1.7% of total purchase of Training Supplies and Materials were already purchased	on-going
• Personal Services	-	220.00	51.45		168.55	Covers 5 months period of Honorarium	on-going
Total	100%	3,430.00	1,347.185		2,082.815		40.08%

Prepared by:

DANTE M. SUAREZ
Project Coordinating Staff

Submitted by:

MIGUEL O. CORDERO
Project Manager

Appraisal Report on Infra-Project 1983
Development/Improvement of TTI
As of October, 1983

Project Description/Activities	Appropriated Amount	Amount Obligated	Balance	Status	Remarks
Part I (₹300,000.00)					
1. Improvement of Office of the Chief & JICA Experts	₹109,093.00	₹109,082.50	10.50	Completed	
a) Carpet & Curtains	85,093.00	85,082.50			
b) Air Conditioning Unit	24,000.00	24,000.00			Delivered and installed at TTI
2. Construction of Foundation of Power Plant	23,450.00	21,000.00	2,450.00	Completed	August 19, 1983
3. Repair of TTI Water System	27,500.00	27,500.00		Completed	Operational
4. Provision of Telephone/Teleg-raph System & Others	139,957.00	140,122.98	(165.98)	On-going work	80% of the total work completed & remainings 20% still on-going
a) Outside Plant Supplies	66,503.00	66,503.00			Items were already at TTI
b) Bill of Lading, YMA-43	12,564.50	12,564.50			Items were already at TTI
c) Telephony & O/P Spare Parts	24,520.00	24,520.00			For delivery at TTI
d) 15 sets of Fire Extinguishers (Assorted)	25,040.00	25,040.00			For installation
e) Bill of Lading, MA-23	11,329.50	11,495.48			Items were already at TTI
Total	₹300,000.00	₹297,704.48	₹2,295.52		

10.1

Project Description/Activities	Appropriated Amount	Amount Obligated	Balance	Status	Remarks
Part II (P.1.13M)					
1. Repair/Renovation of existing bldgs., fencing and landscaping	1,809,093.00		1,539,432.04		Installed & being use
1. Administrative Bldg.	600,000.00		382,922.00		
a) T-partition (Training Staff Room)	160,980.00	187,730.00	(26,750.00)	Completed	
b) Repair & Replacement of tiles (Training Staff Room)	56,098.00	79,600.00	(23,502.00)	Completed	Chargeable against contingencies for civil work
2. Radic & Carrier Bldg.	400,000.00		400,000.00		To be undertaken by the BPW
3. Canteen Bldg.	200,000.00		200,000.00		
4. Trainees Quarters	539,093.00		539,093.00		
II. Purchase of Training Equipment	250,207.00		277,223.44		
a) Manual Typewriter	19,327.56	19,327.56			Partially delivered and installed at FTI
b) Air Conditioning Unit	522,788.00	506,776.00	16,012.00		
c) Fire Extinguisher	24,750.00	24,750.00			P.O. awarded to Car-del Mktg. For installation
d) Filing Cabinet	10,000.00	7,830.00	2,170.00		P.O. awarded to Delivered at Property Unit
* e) Digital Experimentor PAM/PCM Demo Board	115,000.00	115,980.96	(980.96)		Chargeable against total contingencies for civil work

Project Description/Activities	Appropriated Amount	Amount Obligated	Balance	Status	Remarks
III. Purchase of Supplies & Materials	₱ 150,000.00		₱ 95,312.50		
1. Purchase of Telephone Cable	54,687.50	54,687.50			Delivered at Property Unit
IV. Honorarium & Personnel Services	220,000.00	51,450.00	168,550.00		
TOTAL - - -	₱ 3,130,000.00	₱ 1,049,482.02	₱ 2,080,517.98		

NOTE: Desk pen w/ pen and all deficit in Part II (3.13M) chargeable against total contingencies for civil works.

* Digital Experimenter & PAM/PCM Demo. Board for Re-calvassa.

STATUS REPORT
AS OF OCTOBER 1983
LIST OF TRAINING EQUIPMENTS/MATERIALS TO BE PROCURED

QTY.	UNIT	DESCRIPTION	STATUS	REMARKS
6	each	Air Conditioner 5 tons	P.O. awarded to Dante Mktg.	2 ACU installed remaining 4 ACU for installation
9	each	Air Conditioner 2 Hp	- do -	All installed
4	each	Air Conditioner 3 tons	- do -	Delivered at TTI for inst.
3	each	Typewriter 33.02 cm	P.O. awarded to Francor Corp.	Delivered at TTI Property S/R
1	each	Typewriter 68.58 cm	- do -	- do -
15	sets	Fire Extinguisher (assorted)	P.O. awarded to Cardel Mart and Engineering Ent.	Delivered at TTI, for inst.
10	each	Filing Cabinet	P.O. awarded to T.D. Castro Ent.	D Livered at Supply Unit for withdrawal
1	set	AC Arc Welder	P.O. awarded to P & R Dielectric Parts & Supply	Not yet delivered
6	each	Electric Fan w/ stand 16"	P.O. awarded to LUCKY Ent.	- do -
10	each	Ceiling Fan Aero-matic 36"	- do -	- do -
5	each	Ceiling Fan Aero-matic 16" Cycle fan	- do -	- do -
4	each	Exhaust Fan with metal blade	- do -	- do -
1	each	Heavy duty Engine Stand	RIV at Property for bidding	
5	each	White Chalk Board	- do -	
1	each	Minerva Letter press hand operated	- do -	
1	each	Paper Cutter 29" hand operated	- do -	
15	sets	Assorted paints gothic	- do -	

QTY.	UNIT	DESCRIPTION	STATUS	REMARKS
2	each	Two Door Refrigerator	For Canvass	
20	pcs.	Upholstered Chair (for JICA counterpart)	- do -	
16	pcs.	Wooden Tables 4' x 8' (for lab. use)	- do -	
1	set	PAM/PCM Demonstration Board	Re-canvass	
1	set	Digital Experimentor	- do -	
3	each	Floor Polisher	- do -	
3	each	Vacuum Cleaner	- do -	
3	each	Engine driven saw Mower	- do -	
1	set	Intercom 1 master, 12 stns.	- do -	
200	pcs.	Wooden Tables for student	- do -	
300	pcs.	Wooden Chairs for student	- do -	
10	each	Desk Lamp	RIV for preparation	
1	each	Washing Machine	- do -	
3	each	Drinking Fountain	- do -	
1	set	Master Maintenance Set	- do -	
1	set	Public Address System with 6 microphone with 12", 4" speaker wall mounted (including installation)	- do -	
1	set	Lercy Lettering Set	RIV for approval of Project Manager of JICA-TTI	



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November 16, 1983

OTHER GOVERNMENT'S INPUT TO THE PROJECT

- A) Phase I of the Two Storey Building completed.
- B) Phase II of the Two Storey Building 90% complete.

TRAINING PROGRAMME FOR 1983

COURSE TITLE	WING											
	JAN.	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SWITCHING												
CARRIER												
RADIO												
TELEGRAPHY												
OUTSIDE PLANT												
POWER PLANT												
Methods of Instruction												
Supv. & Off. Mgt.												
Reorientation												
1. MAN / WEEKS (PLANNED) 2. MAN / WEEKS (ACTUAL) 3. TARGET FOR THE MONTH 4. TARGET FOR THE YEAR												
REMARKS	LEGEND * □ : REGULAR COURSE ▨ : JICA ENGINEERING COURSE ▩ : JICA TECHNICIAN COURSE ■ : NON-TECHNICAL COURSE											

TRAINING PROGRAMME FOR 1984

COURSE TITLE	WING												REMARKS			
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC				
SWITCHING	10/1	10/2	10/3	10/4	10/5	10/6	10/7	10/8	10/9	10/10	10/11	10/12	10/13	10/14	10/15	10/16
CARRIER	10/1	10/2	10/3	10/4	10/5	10/6	10/7	10/8	10/9	10/10	10/11	10/12	10/13	10/14	10/15	10/16
RADIO	10/1	10/2	10/3	10/4	10/5	10/6	10/7	10/8	10/9	10/10	10/11	10/12	10/13	10/14	10/15	10/16
POWER PLANT	10/1	10/2	10/3	10/4	10/5	10/6	10/7	10/8	10/9	10/10	10/11	10/12	10/13	10/14	10/15	10/16
TELEGRAPHY	10/1	10/2	10/3	10/4	10/5	10/6	10/7	10/8	10/9	10/10	10/11	10/12	10/13	10/14	10/15	10/16
OUTSIDE PLANT	10/1	10/2	10/3	10/4	10/5	10/6	10/7	10/8	10/9	10/10	10/11	10/12	10/13	10/14	10/15	10/16
MAN / WEEKS (PLANNED)																
MAN / WEEKS (ACTUAL)																
% TARGET FOR THE MONTH																
% TARGET FOR THE YEAR																
REMARKS	<p>REGULAR COURSE (T) TELEGRAPH TERMINAL</p> <p>JICA ENGINEERING COURSE (S) TELEGRAPH SWITCHING</p> <p>JICA TECHNICIAN COURSE</p> <p>NON-TECHNICAL</p>															

TRAINING PROGRAMME FOR 1985

COURSE TITLE	WING												REMARKS																						
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC																							
SWITCHING	1/1	1/2	1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30	1/31				
CARRIER	1/1	1/2	1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30	1/31				
RADIO	1/1	1/2	1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30	1/31				
TELEGRAPHY	1/1	1/2	1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30	1/31				
OUTSIDE PLANT	1/1	1/2	1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30	1/31				
POWER PLANT	1/1	1/2	1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30	1/31				
SUPV. & OFC. MGMT.																																			
REORIENTATION																																			
RURAL TEL. STN. MGMT.																																			
MAN / WEEKS (PLANNED)																																			
MAN / WEEKS (ACTUAL)																																			
% TARGET FOR THE MONTH																																			
% TARGET FOR THE YEAR																																			
REMARKS	<p>REGULAR COURSE</p> <p>VICA ENGINEERING COURSE</p> <p>VICA TECHNICIAN COURSE</p> <p>NON-TECHNICAL</p>																																		

1981 NUMBER OF GRADUATES IN TTI

<u>Technical Course</u>	<u>No. of Graduates</u>
1. Outside Plant	44
2. Telephony	47
3. Telegraphy	17
4. Radio	44
5. Basic Carrier	24
6. Siemens T-100	8
Total -	<u>234</u>

<u>Non-Technical Course</u>	<u>No. of Graduates</u>
1. Supervision and Office Management Course	32
2. Rural Telephone Exchange Management	7
3. NTTS Seminar Workshop	34
4. Accounting Procedures	75
5. Reorientation	<u>50</u>
Total -	<u>198</u>

Grand Total - 432

1982 NUMBER OF GRADUATES IN TTI

<u>Technical Course</u>	<u>No. of Graduates</u>
1. PABX Switching Maintenance Course	20
2. Machine Telegraphy	34
3. Telephony	59
4. Outside Plant	58
5. Carrier & Transmission	19
6. Basic Radio	55
7. Power Plant	34
	<hr/>
Total -	279

<u>Non-Technical Course</u>	<u>No. of Graduates</u>
1. Rural Telephone Clerical Procedures	18
2. Reorientation Course	22
3. Supervision & Office Management	62
4. NTTS Seminar Workshop	18
	<hr/>
Total -	120

Grand Total - 399

1983 NUMBER OF GRADUATES IN TTI

<u>Technical Course</u>	<u>No. of Graduates</u>
1. Power Plant	21
2. Telephony	23
3. Radio	28
4. Outside Plant	21
5. Siemens T-100	7
6. Telegraph & Telex Terminal	10
Total -	<u>110</u>

<u>JICA Engineer Course</u>	<u>No. of Graduates</u>
1. Outside Plant Engr. Course	30
2. Telegraph & Telex System Engr.	25
3. PCM System Engineering Course	30
Total -	<u>85</u>

<u>JICA Technical Course</u>	<u>No. of Graduates</u>
1. Power Plant	11
2. PCM Technician	12
3. Advance Radio Course	10
Total -	<u>33</u>

<u>Non-Technical Course</u>	<u>No. of Graduates</u>
1. NPTS Seminar Workshop	69
2. Reorientation	27
3. Supervision & Office Management	39
Total -	<u>135</u>

Grand Total - 363

A G E N D A

Steering Committee : 1. Status Report on:
PLACE : 1.1 Telecommunications Training Institute
Conference Room : 1.2 Telecommunications Training Institute -
BUTEL BLDG., Roces ; Japanese International Cooperation Agency
Avenue, QUEZON CITY : Program.
JANUARY 26, 1983 : 2. Report of the Mutual Consultation Team,
 : Japanese International Cooperation Agency
 : (Views and Recommendations)
 : 2.1 Creation of Sub-Committee under the Steering
 : Committee.
 : 2.2 JICA-TTI Training Schedule
 : 2.3 Philippine Counterparts
 : 2.4 Other matters.

Steering Committee : 1. Reading of the minutes of JICA-TTI Steering
PLACE : Committee meeting last January 26, 1983.
Telecom. Training : 2. JICA-TTI Training Schedule
Institute : 3. Employment of Philippine Counterpart, JICA-TTI
FEBRUARY 16, 1983 : Project.
 : 4. Proposed Guidelines in Technical Training by the
 : National Telecommunications Steering Committee.
 : 5. Report on the Status of the Feasibility Study
 : of the Project for National Telecommunications
 : Manpower Development Program.
 : 6. Other matters.

Sub-Committee : 1. Reading of the minutes of the joint meeting of the
PLACE : Steering Committee and the JICA-TTI Sub-Committee
CONFERENCE ROOM : on Feb. 16, 1983.
BUTEL BLDG. Roces, : 2. Other matters
Avenue, QUEZON CITY :
MARCH 18, 1983

A G E N D A

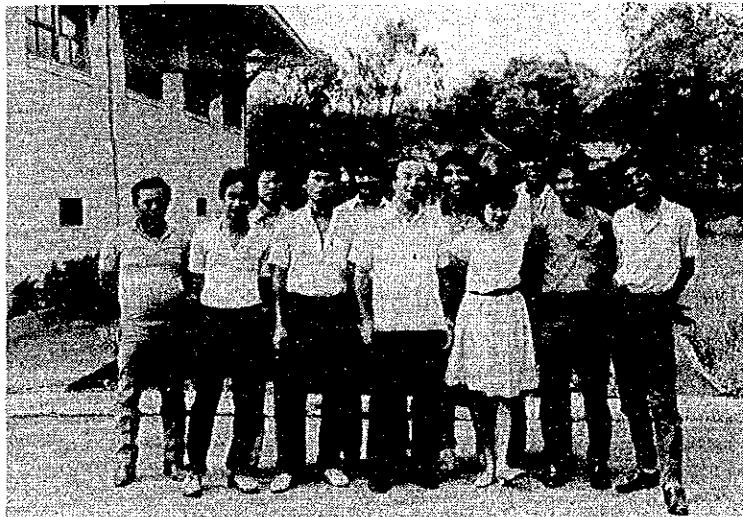
Sub-Committee : 1. Reading of the Minutes of the meeting last
PLACE: : March 25, 1983.
CONFERENCE ROOM: 2. Report on the JICA-TTI Project.
BUTEL BLDG. : 3. Report on the Status of the Feasibility Study on the
Roces Ave., Q.C: on the Project of National Telecommunications Manpower
MAY 30, 1983 : Development Program.
: 4. Other matters.

Sub-Committee : 1. Reading of the minutes of the meeting last
Director's Office March 25, 1983
CONFERENCE ROOM: 2. Recommendations on the cost estimate per trainee
BUTEL BLDG. : under the JICA-TTI Training Program.
Roces Ave., Q.C: 3. Other matters.
JUNE 24, 1983

Sub-Committee : 1. Status report on the JICA-TTI Project.
PLACE: : 2. Report on the Status of the Feasibility Study of the
CIUDAD DE : of the National Telecommunications Manpower Development
FERNANDO Green : Program.
hill, San Juan : 3. Other matters.
Sept. 15, 1983

Sub-Committee : 1. Reading of the minutes of the meeting last Feb.
PLACE: : 16, 1983.
CONFERENCE ROOM: 2. JICA-TTI Sub-Committee Report on:
BUTEL BLDG. Roces : 2.1 Sub-Committee meeting last March 18, 1983
Ave., Q.C. : 2.2 JICA Training Program on the following on-going
MARCH 25, 1983 : engineering courses: PCM, TELEGRAPHY & OUTSIDE
PLANT.
: 3. Report on the Status of Feasibility Study of the
Project on National Telecommunications Manpower
Development Program.
: 4. Other matters.

ACCOMPLISHMENT REPORT
ON
OUTSIDE PLANT ENGINEERING COURSE
2nd BATCH



Nov. 8, 1983

General Ceferino Carreon
Director
Bureau of Telecommunication
Quezon City
Signatory: Butel - JICA Record of Discussion

Attention
Mr. Miguel Cordero
Chief
Telecom. Training Institute
Valenzuela, Metro Manila

Subject: Accomplishment Report on Outside
Plant Engineering Course

Dear Sir,

Enclosed is an accomplishment report on the Outside Plant Engineering Course training conducted on Aug. 29 to Oct. 14, 1983.

This second training which I conducted also at T.T.I. Valenzuela, Metro Manila, was attended by 15 engineers: 1 came from Domsat, 5 from Phil. Long Distance Telephone Co. 7 from Bureau of Telecommunications, and 2 recruits.

This group of trainees learned much from the course and have developed satisfactory proficiency in the use and handling of new cables, tools, measuring instruments, and other paraphernalia connected with telecommunications which were all donations of the government of Japan to the Phil. government.

The same T.T.I. instructors on Outside Plant, who helped me previously in the first training, assisted me again with the help of Mr. Orlando Felarca. They did excellent job in their work which I was grateful indeed.


The duration of the training period was satisfactory. The trainees were very receptive to the various topics of the course. However, I would say that this batch of trainees should develop a closer and more harmonious relations with one another in order to accomplish a higher percentage of performance. This they should encourage among their co-workers who may be under their tutelage in their respective places of work.

With the termination of the training and the objectives of this program accomplish, it is hoped that the 30 engineers especially those with very satisfactory ratings can now act as instructors to the next training if there is a need for one in the future.

On my part, I would like to thank the JICA firstly, for giving me a chance to participate in this Butel-JICA Record of Discussion, and to share what little knowledge I know and learned on Outside Plant Engineering Course with Filipino telecommunication experts. Secondly, the JICA gave me an opportunity to gain friends from this country and be familiar with their culture.

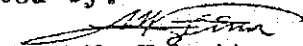
Thank you.

Sincerely yours,


Mr. K. Iwabuchi
Expert in Charge of
Engineering Course

c.c. Chairman: Mr. M. Casas
Members to National Steering Committee
Japanese Embassy
JICA, (TOKYO, MANILA)

Noted by:


Mr. M. Nakajima
Chief Advisor

Accomplishment Report on Outside Plant Engineering Course

1. Course Title

Outside Plant Engineering Course

2. Course Duration

7 (seven) weeks (Aug. 29 to Oct. 14/1983) 180 hrs.

3. Number of Trainees

Total	15
BUTEL (Headquarter)	4
BUTEL (Regional office)	2
TTI	1
Domsat	1
PLDT	5
Recruit	2

4. Age of Trainees

Average	27.8
Maximum	38
Minimum	23

5. Evaluation

Satisfactory	15
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6. Educational Qualification

B.S.E.E.	6
B.S.E.C.E.	4
B.S.R.E.E.	2
B.S.M.E.	3

7. Principle Subject

Designing
Construction method
Maintenance
Line transmission theory
Measurement
Optical fiber cable

8. Instructors

Mr. Kazuo Iwabuchi (JICA Expert)
Mr. Francisco de Guzman Sr. (TTI)
Mr. Juan Borja (TTI)
Mr. Apolinar Roa (TTI)
Mr. Orlando Felarca (TTI)

BRIEF COURSE DESCRIPTION

1. Course Title
Outside plant engineering course
2. For Whom
Engineers responsible for design, construction and maintenance of telecommunication outside plant
3. Course Duration
7 (seven) weeks (Aug. 29 - Oct. 14/83)
including a week non-technical course
4. Number of Trainees
15 (fifteen) trainees
5. Qualification Level of Trainees
College graduates who have basic knowledge of outside plant and have experience on the existing outside plant.
6. Course Objective
To enable trainees to understand the functions of outside plant and to perform efficient work on telecommunication outside plant.
7. Course Content
The content of this course is shown in ANNEX 1.
8. Documents and Materials
Text books
Cables
Splicing tools and materials
Measuring instruments
Outside plant model system

ANNEX 1

Course Content for Outside Plant Engineering Course (2)

1. Telecommunications Outside Plant Outline - 3 hrs.
 - 1.1 Introduction
 - 1.2 Outside Plant Classification
 - 1.3 Requirement for Outside Plant
 - 1.4 Kinds of Cable

2. Outline of Outside Plant Design - 33 hrs.
 - 2.1 General Description
 - 2.2 Aerial Line Construction Design
 - 2.3 Aerial Cable Distribution
 - 2.4 Toll PEF Cable
 - 2.5 PCM Cable
 - 2.6 Surveying

3. Line Construction Method - 42 hrs.
 - 3.1 Telephone Pole and Guy
 - 3.2 Installing and Splicing CCP Cable
 - 3.3 Installing, Laying and Splicing Toll PEF Cable

4. Outside Plant Maintenance - 18 hrs.
 - 4.1 General Description
 - 4.2 Preliminary Arrangement for Fault Recovery
 - 4.3 Plant Record
 - 4.4 Protection against Environmental Degradation
 - 4.5 Field Trip

5. Line Transmission Theory - 30 hrs.
 - 5.1 Uniform Line
 - 5.2 Composite Line
 - 5.3 Loaded Line
 - 5.4 Crosstalk

6. Outside Plant Measurement - 27 hrs.
 - 6.1 Final Test
 - 6.2 Trouble Measurement
 - 6.3 Insulation Resistance Measurement

- 6.4 Measurement of Faulty Conductors with No. 3 Portable Tester
- 6.5 Conductor Resistance and Conductor Unbalance Measurement
- 6.6 Measurement of Faulty Conductors with a Cable Fault Locator
- 6.7 Cable Trouble Shooting Method
- 6.8 Burried Cable Location Method
- 6.9 Earth Resistance Tester
- 6.10 Electrostatic Coupling Measurement Method

- 7. Outline of Optical Fiber Cable - 6 hrs.
 - 7.1 Optical Fiber
 - 7.2 Optical Fiber Cable
 - 7.3 Techniques Related to Optical Fiber Cable
 - 7.4 Optical Fiber Cable Transmission System
 - 7.5 Introduction of Optical Transmission System for Telecommunication Network

- 8. Others (Orientation, Discussion, Review, Graduation) - 21 hr

Total : 180 hrs.

TIME TABLE (Outside Plant Engineering Course)

Sep.	Day	Morning		Afternoon	
		Orientation (F)	Examination (I)	Examination (I)	Outside Plant Outline (G)
5	M	Orientation (F)	Examination (I)	Examination (I)	Outside Plant Outline (G)
6	T	Designing (I)	ditto	ditto	ditto
7	W	ditto	ditto	ditto	ditto
8	T	ditto	ditto	ditto	ditto
9	F	Examination (I)	ditto	Line Construction Method (E)	
10	S				
11	S				
12	M	ditto	ditto	ditto	ditto
13	T	Cable Splicing Practice (all O/P)		ditto	ditto
14	W	ditto	ditto	ditto	ditto
15	T	ditto	ditto	ditto	ditto
16	F	ditto	ditto	ditto	ditto
17	S				
18	S				
19	M	ditto	ditto	ditto	ditto
20	T	Examination (G)	ditto	Maintenance (I)	ditto
21	W	Surveying (G&B)	ditto	Maintenance (I)	ditto
22	T	Surveying (G&B)	ditto	Maintenance (I)	ditto
23	F	Field Trip (all O/P)	ditto	ditto	ditto
24	S				
25	S				

Mornning

Afternoon

Sep. 26	M	Examination (I)	ditto	Line Transmission Theory (I)	ditto
27	T	Surveying (G&B)	Line Transmission Theory (I)	Line Transmission Theory (I)	ditto
28	W	Surveying (G&B)	Line Transmission Theory (I)	Line Transmission Theory (I)	ditto
29	T	Surveying (G&B)	Line Transmission Theory (I)	Line Transmission Theory (I)	ditto
30	F	Surveying (G&B)	Line Transmission Theory (I)	Line Transmission Theory (I)	ditto
Oct. 1	S				
2	S				
3	M	Measurement (G)	Line Transmission Theory (I)	Line Transmission Theory (I)	ditto
4	T	Measurement (G)	Line Transmission Theory (I)	Line Transmission Theory (I)	ditto
5	W	Measurement (G)	ditto	ditto	ditto
6	T	ditto	ditto	ditto	ditto
7	F	ditto	ditto	Optical Fiber Cable (I)	ditto
8	S				
9	S				
10	M	Measurement (G)	ditto	ditto	ditto
11	T	Examination (I&G)	ditto	ditto	ditto
12	W	Review (all O/P)	ditto	Discussion (all O/P)	ditto
13	T	Review (all O/P)	ditto	Discussion (all O/P)	ditto
14	F	Graduation	ditto	ditto	ditto

I - Iwabuchi

G - de Guzman

B - Borja

F - Felarca

Name List of Trainees

Outside Plant Engineering Course

Aug. 29 to Oct. 14/83

<u>NAME</u>	<u>AGE</u>	<u>EDCU. QUAL.</u>	<u>DESIGNATION</u>	<u>STATION</u>
1. BACTOL, FELINO	34	B.S.E.E.	Jr. Telecom. Engr.	T.T.I.
2. CANTO, JULIUS CAESAR	27	B.S.E.E.	Telecom. Lineman	Reg. VI Iloilo City
3. DIMDIMAN, VIRGILIO	27	B.S.R.E.E.	I & R Helper	PLDT - SFLU
4. GALIPOT, GERARDO	23	B.S.E.C.E.		Recruit
5. GARABILES, MARTIN	38	B.S.M.E.	Staff Engr.	Gentex/Telex
6. GARCIA, DANILLO	26	B.S.E.E.	Switchman I	PLDT-Baguio
7. LABRADOR, NAPOLEON	26	B.S.E.C.E.	Switchman	PLDT-Tuguegarao
8. LORENZO, DELFIN	27	B.S.E.C.E.	Jr. Techn.	Domsat
9. PALARA, NICASIO	25	B.S.E.C.E.	Switchman JG-3	PLDT-Tarlac
10. PARAAAN, ANTONIO	24	B.S.M.E.	Jr. Telecom. Engr.	Reg. III Malolos, Bul.
11. RODIL, CLODUALDO	24	B.S.E.E.	Jr. Telecom Engr.	R.T.D.P.
12. SANTOS, DANILLO	31	B.S.R.E.E.	Jr. Telecom Engr.	L.L.S.
13. SANTOS, NELSON	29	B.S.M.E.		Recruit
14. SARMIENTO, GIL	26	B.S.E.E.	Plan Clerk I JG-2	PLDT
15. VALENCIA, REBEN	30	B.S.E.E.	Jr. Telecom. Engr.	P.E.E.S.

GRADES OF TRAINEES ON OUTSIDE PLANT ENGINEERING COURSE

NAME	part1 (30.9)	Part2 (45.0)	Part3 (31.9)	Part4	Mean
BACTOL, Felino	75.9	70.0	76.9	60.0	70.7
CANTO, Julius Caesar	77.0	77.0	93.8	70.5	79.6
DIMDIMAN, Virgilio	82.4	88.5	92.5	70.0	83.4
GALIPOT, Gerardo	84.2	90.0	95.0	77.5	86.7
GARABILES, Martin	73.9	74.5	75.1	69.0	73.1
GARCIA, Danilo	84.8	93.5	95.0	73.0	86.6
LABRADOR, Napoleon	79.8	92.5	86.3	78.0	84.2
LORENZO, Delfin	83.1	94.0	93.8	77.0	87.0
PALARA, Nicasio, Jr	89.9	92.5	86.3	84.0	88.2
PARAAN, Antonio	90.9	92.0	91.3	84.5	89.7
RODIL, Clodualdo	88.8	93.0	87.5	84.5	88.5
SANTOS, Danilo	69.9	80.5	88.8	83.0	80.6
SANTOS, Nelson	84.5	87.0	90.0	86.0	86.9
SARMIENTO, Gil	87.4	81.5	87.5	79.0	83.9
VALENCIA, Ruben	84.8	92.5	91.3	72.5	85.3

NOTE : Part 1 - Outside plant outline
 Outside plant design
 Part 2 - Line Construction method
 Part 3 - Outside plant maintenance
 Part 4 - Line transmission theory
 Outside plant measurement
 Optical fiber cable
 () - Intermediate grade

JICA