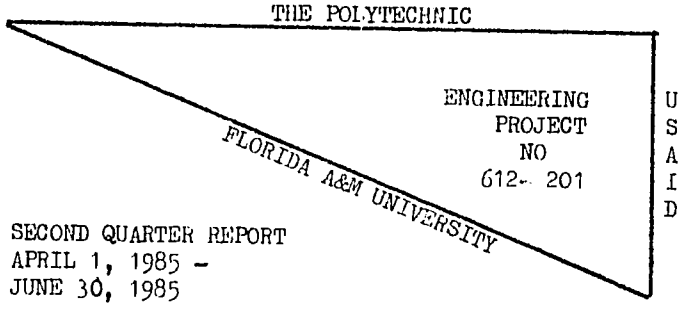
PDAAR 355



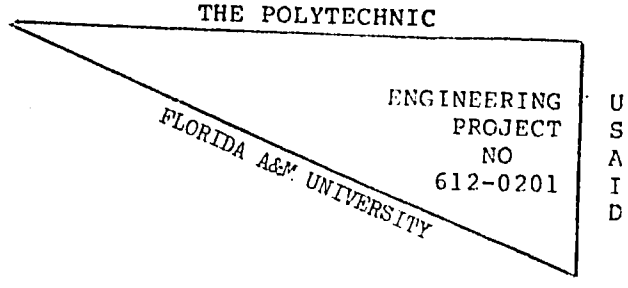
SECOND QUARTER REPORT
APRIL 1, 1985 -
JUNE 30, 1985

SECOND QUARTER REPORT:

APRIL 1, 1985 - JUNE 30, 1985;

CONTRACT NO AFR 021 C 00 3014 00;

UNIVERSITY OF MALAWI ENGINEERING PROGRAM



COLLEGE OF ENGINEERING SCIENCE & TECHNOLOGY

FLORIDA A&M UNIVERSITY

THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

UNIVERSITY OF MALAWI - THE POLYTECHNIC
FAMU/USAID POLYTECHNIC PROJECT

The Polytechnic
P/Bag 303
Chichiri
BLANTYRE 3

1st April, 1985

Mr. David Garms
Acting USAID Representative
NICO House
P.O. Box 30455
Capital City
LILONGWE 3

Dear Mr. Garms:

Herewith are copies of the 1985 Second Quarter Progress Report on FAMU/USAID Technical Assistance Team at the University of Malawi - The Polytechnic.

Technical Assistance Team Members involved in class-room instructions have just completed teaching assignment for the 1984 - 85 academic year; which also required designing and administering examinations. The Industrial Career Counselor's assignments are progressing in a satisfactory manner with several research activities in progress. Intensified efforts are jointly underway to carry out those other elements of the Technical Assistance Contract.

The fact that commodity lists had to be return to the field prior to submission for bids; some delays arose in our original time table for procurement activities. Otherwise, the FAMU/USAID Polytechnic Procurement Contract is being implemented. I am happy to report that elements of both contracts are progressing in a timely manner.

Sincerely

Vernal L. Taylor

VERNAL L. TAYLOR
CHIEF OF PARTY & INDUSTRIAL COUNSELOR

TABLE OF CONTENTS

APPENDIX:

I INTRODUCTION

Florida Agricultural and Mechanical University (FAMU) Technical Assistance Team has been assigned to the University of Malawi's Polytechnic to carry out an engineering project contract - agreement between FAMU and the United States Agency for International Development (USAID).

The objectives of the Technical Assistance services are to provide specialized expertise in engineering through classroom instruction and to assist the Principal and Department Chairmen of the Polytechnic in developing, reviewing assessing and, as necessary, modifying the Institute's existing curriculum.

The purpose of the Project is to improve and expand the institutional capability of the Polytechnic Institute to produce Malawian Engineering Manpower for Government, Industry and Private Sectors.

This is the Second Quarter Report, and it principally covers the period April 1, through June 30th, 1985.

II HIGHLIGHTS

Computer Seminars

Assistant Professor James McCloud of Florida A&M University while serving in the role of a consultant held a series of lectures on microprocessor fundamentals design and application.

Professor McCloud worked delegently with four different interest groups, (1) electronic student in their final year, (2) a general group of Polytechnic faculty and graduates, (3) Technical Assistance Team Members and (4) a small group of recent Malawian engineers graduates. Each of the general sessions were well attended. Mr. McCloud remained at the Polytechnic from 8th May through 25th.

Vice Principal Visits U.S.A

Dr. George Mhango, Vice Principal, and Head of Mathematics and Science at the Polytechnic, returned to Malawi on 31st May, 1985 after having spent two weeks, at FAMU renewing, making decisions concerning procurement efforts, interviewing short term consultants, attending computer shows, and holding meetings with key faculty members of engineering and science. He also participated in Florida A&M University's commencement exercises.

Dr. Mhango worked days, nights, and week-ends; but he was happy to report that he successfully completed that which he set out to accomplish.

Another Step Designed to Improve Polytechnic - Industry - Relationship - Senior Member for the Student Section of Malawi Group of Professional Engineers, and Industria Counselor for the FAMU/USAID Polytechnic Project continues the search for ways to improve the Polytechnic - Industry - Relationship. The latest effort has been to help provide for scheduled visits of student to industrial firms. A total of five visits were made to the Kanjedza Earth Station - see appendix for letter of thanks by the Student Section Chairman.

Project Receives New Letter Quality Printer

Because of an apparent need to have a back-up printer in the field. Dr. Peter Hartmann, Director of International Programs at FAMU shipped out a second printer to be used for the heavy work that is required by the Project.

Job Placement Survey

A recent survey by the Industrial Counselor's office indicated that all 1983 and 1984 engineering graduates have been employed.

Very recently, a local Industrial Engineer called to inform the Industrial Counselor that two of the Polytechnic's graduate diplomatic were being employed by his firm. This show of interest on the part of industry is very encouraging.

III TECHNICAL ASSISTANCE TEAM ACTIVITIES

During the period April 1, 1985 through June 30, 1985, Technical Assistance Team Members continued teaching assignments that were distributed at the beginning of the academic year. Each course has a duration of one academic year.

The following are the individual team member's descriptions of his activities during the second quarter:

Mr. Vernal L. Taylor, Industrial Counselor and Chief of Party.

Dr. Ernest E. Erickson, Professor of Electrical Engineering.

Professor Ajit S. Gill, Professor of Civil Engineering.

Mr. Cornel J. Rigby, Associate Professor of Mechanical Engineering.

VERNAL L. TAYLOR - INDUSTRIAL COUNSELOR

As indicated in the following semi-log frame, the program for Industrial Counselling is well underway. Several major tasks have been completed and several other components are progressing satisfactorily. Except for up-dates, the following is essentially the same as the first quarter's report.

REVIEW OF INDUSTRIAL COUNSELOR'S PROGRESS REPORT
SECOND QUARTER - APRIL 1ST - JUNE 30TH, 1985

OUTPUTS	INDICATORS	ACTIVITIES
1. Establish a guidance Counselling System which will help define where students should work when doing practical training.	1. Files on all engineering students on computer. 2. File of all firms participating in Industrial Attachment Program. 3. Student evaluation of Industrial work experiences on file. 4. Industrial supervisor's evaluations of students work on file.	Operation of this system has been initiated. The student's academic and Industrial Attachment experiences are being filed on the computer. The first evaluation on the effectiveness of the Industrial Attachment Programs has just been completed - 1984 participants. The evaluation enables the Industrial Counselor to review comments by both the student and and his immediate supervisor as to how and what the student did while on Industrial Attachment. This information will be gathered on each group of student involved in Industrial Attachment experiences. The evaluations are passed on to relevant Department Heads and Dean of Engineering. Those unsual cases will warrent a follow-up conference by the Counsellor.
2. Established a records system capable of "Tracking" a student through the Polytechnic and monitoring the student's movement into the workforce or into post graduate work.	1. Computerized student record keeping system in operation. 2. Mechanism's in place for maintaining up dated information on Industrial Attachment activities for each student.	This system has been completed. The system satisfies the output requirements as stated for both students and graduates. The system accomodates both engineering and non engineering student. All student academic records are being computerized.
3. Service as Liason Officer between the Polytechnic and the users of its output.	1. Record of Industrial visits, and communication linkage with firms. 2. Evaluative remarks and/or reports-achieved through surveys, on file.	Operation of this program has been initiated, as indicated in the past reports. It is an on-going process. Evaluative remarks received through means of the Training and Job Analysis Survey have been compiled, and typed for distribution to the Principal and those who are concerned with curricula development. Provision for transportation of 45 engineering students to visit an industrial firm was provided by the Counselling service.

SECOND QUARTER - APRIL 1ST - JUNE 30TH, 1985

OUTPUT	INDICATOR	ACTIVITIES
6. Establish and maintain contact with public, Governmental and Private Sectors entities utilizing engineers and assist in further development of an information bank which can be used to advise Polytechnic students and graduates of employment opportunities.	1. Preview of firms manpower needs on file. 2. Copies of students applications for job on file. 3. Copies of students applications for Industrial Attachment experience. 4. Letters of inquires, and introduction on file	Training and Job Analysis Survey Forms have been returned from firms, and the data has been compiled and analyzed. Follow-up conferences with firms contact persons have been initiated on a small scale. The Counselling department is taking on increased responsibilities for providing placement service to both graduates and Industrial Attachment students. Follow-up study on 1994 graduates engineer completed.

SECOND QUARTER - APRIL 1ST - JUNE 30TH, 1985

OUTPUT	INDICATOR	ACTIVITIES
4. Ensure that proper administrative action is taken to train a counterpart so that this staff position becomes a permanent.	1. Name of counterpart of file. 2. Counterpart communication linkage established with Counselor. 3. Record of Counselor and counterparts visit to firms. 4. Record of scheduled meeting.	Four faculty members of the Polytechnic have been assigned to counterpart with the Industrial Counselor instead of one. This arrangement should prove functional and provide the necessary continuity; however, this arrangement does not provide definately for a permanent position for an Industrial Counselor as stipulated in contract. Mr. Chitani, could very well fullfill that requirement because of his heavy involvement in the Industrial Attachment Program.
5. Provide Industry - related Counselling to engineering students and others.	1. Record of Counselor - Counsellees conferences. 2. Record of communication with students (forms letters, etc) 3. Information bank established - feedback, and inputs students, graduates, and Industrial Personnel.	This part of the counselor's assignment has begun. Most of the counseling has been to engineering graduates. The mechanics is in place for providing this service.

PROGRESS REPORT
1ST APRIL, - JUNE 30TH, 1985
DR. E. E. ERICKSON

A. TEACHING ELECTRICAL ENGINEERING COURSES

Classes in D5 - Electrical Technology (Electronics) and D-6 Electronics (Digital) were completed on 24th May, 1985, and final examinations were held in the first week of June. Grading of examination papers and assembling of final grades should be completed on 10 June.

Mr. James McCloud, consultant from FAMU, lectured and answered questions about microprocessors in two meetings with D6 - Electronics students. In addition, these students attented some of the seminars conducted by Mr. McCloud. Thus, the D6 - Electronics students were exposed to a good overview of microprocessors.

I prepared and conducted two laboratory experiments in electronics for the D5 - Electrical Technology class. These experiments will be added to others being collected for a file to be maintained in the electronics laboratory.

B. DEVELOPING ELECTRICAL ENGINEERING CURRICULUM

The FAMU/USAID team has had several meetings concerning curriuclum evaluation and recommendations. In my own evaluation, I find that the current engineering curriculum contains too many subjects, too many class hours per week,

insufficient laboratory time, and much repitition of topics. The most sericus problems for students is that they have no text books and the library has so few engineering books. I have prepared first drafts of recommended 5 - year plan and 6 - year plan for electrical engineering curriculum.

Mr. Z. Jaworski, C. Chipofya, R. Kachilenga and I serve as a committee to revise the electronics syllabi of D5 and D6, incorporating some suggestions made by the external examiner, Dr. F. Arthur. We have had two meetings and should complete this work in one more meeting.

C. TRAINING TEACHING ASSISTANTS

Mr. James McCloud, FAMU Assistant Professor visited the Polytechnic as a consultant 8 - 25 May. He conducted a seminar on microprocessors in five sessions of two hours each session. Polytechnic faculty, staff and students were invited. The seminar was well received with about 20 in attendance each session. My counterpart, Charles Chipofya, and two new instructors in Electrical Engineering, Mr. B. Masamba and Mr. R. Kachilenga, attended the seminar and I am sure they learned much which will be of benefit in their future teaching assignments. Mr. McCloud also introduced Mr. Chipofya to the operation of the DEC Rainbow computer.

D. DIPLOMA CURRICULUM

I attended the two meetings of the college curriculum committee which were held during this period. Revision of all syllabi for D2 and D3 are in progress. I am not directly involved in the writing process but have the opportunity for some inputs. The final drafts of these syllabi should be completed by the end of June.

Mr. A. Chadwick, C. Chipofya, B. Masamba, and I serve on a committee chaired by Mr. Chris Gould to prepare draft curriculum for a one - year full-time course leading to a Higher Diploma in Electrical Engineering. Entry to this course would be by completion of the three - year Diploma. Such course would give the Diploma graduate the specialization now lacking in the present Diploma curriculum. The committee held three meetings and forwarded its recommendations to the E. E. Department Chairman, Mr. John Myers.

TO: Mr. V. L. Taylor, Chief of Party,
FAMU/USAID Technical Project

FROM: Professor A. S. Gill,
Technical Assistance Team Member

SUBJECT: QUARTERLY PROGRESS REPORT FOR PERIOD APRIL - JUNE, 1985

This memorandum furnishes a Progress Report of the writer as member of the FAMU/USAID Technical Assistance Team to the Polytechnic. This covers the period April to June, 1985.

1.0 GENERAL

Instruction of Engineering Diploma and Degree classes for the academic year 1984 - 85 was completed at the Polytechnic by the end of May, 1985. Final examinations were held during the first week of June. Currently, two external examiners from U.K. are on a visit to the Polytechnic for assessing the quality of instruction at the Polytechnic. The quarter under report is the culmination of academic work of the students and of contribution of faculty thereto during the current academic year.

2.0 PROJECT OBJECTIVES AND PROGRESS

2.1 Teach Assigned Courses

The courses assigned to me for teaching during 1984 - 85 session were reported by me previously. Consequently, I had

to set final examination papers and grade the performance of the students (as assessed by final examination scripts, assignments for tutorials, homework and reports on laboratory work performed) in the following subjects:

D6C :	i	Transportation ii) Part - Geotechnics
	iii	Part - Hydraulics and Hydrology
	iv	Technical Projects of two students
D5C		Part - Geology
D3C		Part - Vocational Studies
D2C		Surveying

It is a standard practice at the Polytechnic that final examination papers for D6 and D3, together with their solutions, as prepared by the instructors of the respective courses, are sent to the designated external examiners in U.K. for moderation. Professor I. A. Macleod of University of Strathclyde is the external examiner for the Department of Civil Engineering. No significant comments were made by him to my question papers. Professor Macleod, who is currently on a visit here, participated in the oral examinationa of my two D6C students who worked on their Technical Projects under my supervision.

Following an invitation by Professor J. Harris, Head Department of Mechanical Engineering, I joined the Technical

Project oral examination team on June 11th for one D6 student of Mechanical Engineering.

Topics for Technical Projects for 1985 - 86 academic year were suggested by the Civil Engineering faculty members. Of a total of five students of current D5C, who will be in final year during the 1985 - 86 session, two have indicated interest in working on projects suggested by me. I have had meetings with these students and advised them on commencing work on their respective projects.

2.2 Make Recommendations for Improving the Curricula for Diploma and Degree Programs

The Technical Assistance Team Members have, for some weeks past, been holding frequent meetings for purpose of making recommendations in respect of the current curricula. Considerable progress has been achieved in this direction. It is expected that a preliminary report would be furnished before long.

In addition to the above, I have regularly participated in the work of the Polytechnic Curriculum Revision Committee. During the last two months I prepared for this committee revised syllabii for surveying for D2 and D3C. Also, I collaborated with a colleague of mine for preparation of revised syllabus for D3C Geotechnics. Syllabii for D6C

Transportation, D3C Vocational Studies and D5C Geology were prepared by me last year and these were followed by me for instruction during the current 1984 - 85 academic year.

2.3 In Service Training to Counterparts

Mr. Chikoko is the designated counterpart for me. He and I jointly inspected a suitable site for obtaining soil samples for use on one research oriented Technical Project by a D6C student during 1985 - 86. Mr. Chikoko is undertaking laboratory tests on this soil to establish its feasibility for use for the intended Project.

TO: Mr. V. L. Taylor,
Chief of Party

FROM: Mr. C. J. Rigby, Mechanical Engineer,
FAMU/USAID Polytechnic Technical Assistance
Team Member

SUB: PROGRESS REPORT FOR THE PERIOD APRIL 1 - JUNE 30, 1985

A. Teachers Classroom and Laboratory

The third term ended with final examinations on June 7th. During this reporting period, I completed the academic year teaching the degree courses: D6/Process Engineers (PE) and D6/Solid Mechanics (SM). This was a very rewarding and challenging academic year for me. A considerable amount my time was spent researching and developing instruction materials for those classes. I made a request through a letter to the Dean of Engineering (dated May 30th, 1985) that I be allowed to teach these courses again next academic year.

On the part of the students, the challenge was to learn the elements of vector and tensor analysis, and to learn how to apply these and other mathematical tools of analysis to formulate and solve standard engineering problems. All students passed with grading categories ranging from "PASS" to "Near Distingtion".

I have also met with and discussed my examinations and grading with the new external examiner for the Department of Mechanical Engineering. On June 17th, I participated in the final examination meeting held by the Dean and the Faculty of Engineering.

B. Counterparts, Training

I continued working with Mr. Chawawa on learning to use the Rainbow 100 Computer for developing classroom instructional material. Our main interest is to develope a library of FORTRAN programs of mathematical and mechanical engineering applications.

During this reporting period, at least five other Malawian lecturers in mechanical and electrical engineering have either expressed interest or begun practice with the Rainbow 100 Computer. Most are interested in using FORTRAN or BASIC languages.

C. Assist in Developing a Relevant Curriculum Basic to Obtaining a B.Sc and MA Degrees in Mechanical Engineering and:

D. Recommend Practical Changes in the Current Curriculum for the Diploma I spent many hours during this reporting period participating in working group meetings called by the COP to

determine a recommended degree and diploma curriculum. Our major contribution was to construct a draft of a list of common core courses for the first year through the fifth year of the engineering program. We also laid out guidlines for developing/improving the curriculum. Many hours were spent evaluating the present Polytechnic curriculum interm of those other engineering Colleges and Universities, in the U.S.A. and U.K. Our decisions are also being by information collected from the Training and Job Analysis Survey.

For my part, I completed a draft of specialized courses for mechanical engineering students. I took a top down approach to construct a lattice of related courses having the necessary pre-requisite and co-requisite courses to support the final year program. In short we are attempting to consolidate, rearrange and restructure as necessary to arrive at a more standardized engineering curriculum.

IV RECOMMENDATIONS

The following are recommendations believed necessary to help the Technical Assistance Team, and also to assist the total USAID Polytechnic Project more nearly realize the expected end results The following recommendations are the same as those presented in the last two reports.

1. That a team of American Engineering Educators visit the Polytechnic for the purpose of consulting with Team Members, and reviewing the individual and collective progress of the team. Such a team would consist of active members of the American Society of Engineering Education (ASEE). Each area of engineering, - civil, mechanical, electrical, and Industrial Counselling would be represented. An estimated figure of $22,000.00 should be adequate to provide for such a service.

2. That planning for the initial meeting of the Project's Advisory Council get underway. It has been proposed that the Council should hold its initial meeting in Malawi, and then follow-up with a second meeting in the U.S.A.

3. That plans begin for the mid-way-project evaluation. Because of the delayed, and modified staggering beginning dates for each segment of the project, evaluation procedure as planned must have become more complicated.

VI FIELD EXPENDITURES

FIELD ACCOUNT BY CODE

CHECK #	DATE	VENDOR	ITEM	PURPOSE	AMOUNT K
* BUDGET CODE 1					
136712	24/05/85	MR. G. MAWECHA	MONTHLY PAY	ASSISTING IN SURVEY FORMS	325.50
136713	24/05/85	MS. S. V. KHAMISA	MONTHLY PAY	SECRETARY	258.00
162392	25/04/85	MR. G. MAWECHA	MONTHLY PAY	ASSISTING IN SURVEY FORMS	325.50
162394	25/04/85	MS. S. V. KHAMISA	MONTHLY PAY	SECRETARY	258.00
136726	25/06/85	MS. G. MAWECHA	MONTHLY PAY	ASSISTING IN SURVEY FORMS	325.50
136727	25/06/85	MS. S. V. KHAMISA	MONTHLY PAY	SECRETARY	258.00
** SUBTOTAL **					1750.50

FIELD ACCOUNT BY CODE

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* BUDGET CODE 3					
162391	19/0485	AIR MALAWI	AIR TICKET TO U.S.A.	FOR DR. MHANGO TO U.S.A	4198.00
** SUBTOTAL **					4198.00

FIELD ACCOUNT BY CODE

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* BUDGET CODE 5					
136701	03/05/85	BLANTYRE WATER BOARD	WATER BILL	UTILITIES/WATER	148.98
136702	03/05/85	MALAWI POST OFFICE	TELEPHONE BILL	COMMUNICATION	469.55
136703	03/05/85	ESCOM	ELECTRICITY BILL	UTILITIES ELECTRICITY	398.47
136705	10/05/85	DHL INTERNATIONAL	COURIER DR. GILL	DOCUMENTS FOR INSURANCE	52.00
136706	15/05/85	DESIGNATED SCHOOLS	ADDITIONAL FEES	FOR MR. RIGBY'S SON	65.00
136707	17/05/85	J. S. KANABAR	FLASH BULBS	FOR WATCHMAN	15.69
136708	17/05/85	PPS	STATIONARY	OFFICE SUPPLIES	18.84
136711	23/05/85	GLENS (MW) LTD	CLEARANCE ITEMS	FOR DR. ERICKSON	55.00
136715	24/05/85	MR. MCCLOUD	CASH FOR $500 .5678	CHECK TO FAMU/GOM ACCOUNT	875.76 *
136716	27/05/85	BLANTYRE WATER BOARD	WATER BILL	UTILITIES/WATER	150.38
136717	27/05/85	ESCOM	ELECTRICITY BILL	UTILITIES/ELECTRICITY	375.06
136718	28/05/85	AMI RENNIE PRESS	RIBBONS	CLEARANCE CHARGE FOR RIBBONS	37.65
136719	29/05/85	MALAWI POST OFFICE	TELEPHONE BILL	COMMUNICATION TO USA	898.75
162382	02/04/85	MALAWI POST OFFICE	TELEPHONE BILL	COMMUNICATION	498.45
162383	02/04/85	BLANTYRE WATER BOARD	WATER BILL	UTILITIES/WATER	154.59
162384	02/04/85	ESCOM	ELECTRICITY BILL	UTILITIES/ELECTRICITY	389.79
162385	03/04/85	MALAWI POST OFFICE	TELEPHONE BILL	ADDITION TO LATE PAYMENT	5.00
162386	09/04/85	INSPECTOR OF TAXES	TAX PAYMENT	MS. KHAMISA & MR. MAHECHA	111.00
162387	10/04/85	MALAWI POST OFFICE	TELEPHONE BILL	COMMUNICATION OFFICE	48.02
162388	11/04/85	V. L. TAYLOR	PETTY CASH	WATCHMAN PAY WEEKLY/K12	120.00
162389	11/04/85	V. L. TAYLOR	PETTY CASH	OFFICE USE	100.00
162393	24/04/85	PPS	STATIONARY	OFFICE SUPPLIES	87.74
162396	26/04/85	DESIGNATED SCHOOLS	SCHOOLS FEES	FOR MR. RIGBY'S SON	585.00
162397	26/04/85	PPS	STATIONARY	OFFICE SUPPLIES	35.27

FIELD ACCOUNT BY CODE

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136721	06/06/85	DHL INTERNATIONAL	INVOICES	FOR PROJECT EXPENDITURES	69.00
136724	19/06/85	PPS	STATIONARY	OFFICE SUPPLIES	12.83
136725	21/06/85	PAPER PRINTING SUPPLIES	PAPER COVERS	FOR REPORT	138.79
136728	27/06/85	MALAWI POST OFFICE	TELEPHONE BILL	COMMUNICATION TO USA	1045.40
136729	27/06/85	MALAWI POST OFFICE	TELEPHONE BILL	OFFICE USE	112.15
136730	28/06/85	V. L. TAYLOR	PETTY CASH	FOR TRAVEL PROJECT CAR	150.00
136731	28/06/85	V. L. TAYLOR	PETTY CASH	FOR WATCHMAN WEEKLY PAY/K12	120.00
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FIELD ACCOUNT BY CODE

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136710	20/05/85	CITY MOTORS	REPAIRS PAYMENT	REPAIRS ON PROJECT CAR	400.00
136722	12/06/85	CITY MOTORS THIS CHECK COVERS K353.91 WAS DUE TO CITY MOTORS BUT WAS MADE TO PROJECT			353.91
** SUBTOTAL **					2114.71

FIELD ACCOUNT BY CODE

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136720	31/05/85	UNIVERSITY OF MALAWI	POLYTECHNIC	TEAM ASST.	28.53
162381	01/04/85	DR. A. S. GILL	REIMBURSEMENT	BUSINESS TRAVEL TO LILONGWE	163.80
162399	01/04/85	UNIVERSITY OF MALAWI	POLYTECHNIC	PAYMENT FOR FUNCTION AID REP.	55.00
162400	02/05/85	UNIVERSITY OF MALAWI	POLYTECHNIC	BOOKSTORE,FUEL,STANSFIELD ETC	1435.32
136723	17/06/85	DR. A. S. GILL	REIMBURSEMENT	PHONE CHARGES TO DR. HARTMANN	237.50
** SUBTOTAL **					2088.45
** TOTAL **					K17495.82

V ACCOUNTING

	A	B	C	D	E	F	G	H	I
DATE	BAL. FORWARD (KWACHA)	DEPOSIT (US. $)	EXCHANGE RATE (US. TO K)	GAIN IN (KWACHA)	TOTAL (A+B+D) (KWACHA)	LESS PAYMENT (KWACHA)	BAL (KWACHA)	EXPI CODE	CHEQUE NO.
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03/04/85	11517.86	-	-	-	11517.86	5.00	11512.86	5	162385
09/04/85	11512.86	-	-	-	11512.86	111.00	11401.86	5	162386
10/04/85	11401.86	-	-	-	11401.86	48.02	11353.84	5	162387
11/04/85	11353.84	-	-	-	11353.84	120.00	11233.84	5	162388
11/04/85	11233.84	-	-	-	11233.84	100.00	11133.84	5	162389
19/04/85	11133.84	-	-	-	11133.84	4198.00	6935.84	3	162391
25/04/85	6935.84	-	-	-	6935.84	325.50	6610.34	1	162392
24/04/85	6610.34	-	-	-	6610.34	87.74	6522.60	5	162393
25/04/85	6522.60	-	-	-	6522.60	258.00	6264.60	1	162394
26/04/85	6264.60	-	-	-	6264.60	585.00	5679.60	5	162396

FLORIDA A & M UNIVERSITY/USAID
POLYTECHNIC PROJECT

Vernal Taylor

CHIEF OF PARTY

CODE

1. Salaries
2. Consultants
3. Travel & Transportation
4. Allowance
5. Other Direct Cost
6. Equipment, Vehicle Material
7. Reimbursement
8. Per - Diem

	A	B	C	D	E	F	G	H	I
DATE	BAL. FORWARD (KWACHA)	DEPOSIT (US. $)	EXCHANGE RATE (US. TO K)	GAIN IN (KWACHA)	TOTAL (A+B+D) (KWACHA)	LESS PAYMENT (KWACHA)	BAL (KWACHA)	EXPI CODE	CHEQUE NO.
26/04/85	5679.60	-	-	-	5679.60	35.27	5644.33	5	162397
01/05/85	5644.33	-	-	-	5644.33	55.00	5589.33	5	162399
02/05/85	5589.33	-	-	-	5589.33	1435.32	4154.01	7	162400
03/05/85	4154.01	-	-	-	4154.01	148.98	4005.03	5	136701
03/05/85	4005.03	-	-	-	4005.03	469.55	3535.48	5	136702
03/05/85	3535.48	-	-	-	3535.48	398.47	3137.01	5	136703
09/05/85	3137.01	-	-	-	3137.01	168.30	2968.71	7	136704
10/05/85	2968.71	-	-	-	2968.71	52.00	2916.71	5	136705
15/05/85	2916.71	-	-	-	2916.71	65.00	2851.71	5	136706
16/05/85	2851.71	$3041.33	.5670	2322.56	8215.60	27.28	8188.32		Bank Charges
16/05/85	8188.32	$ 295.40	.5670	225.58	8709.30	3.03	8706.27		Bank Charges
17/05/85	8706.27	-	-	-	8706.27	15.69	8690.58	5	136707
17/05/85	8690.58	-	-	-	8690.58	18.84	8671.74	5	136708
20/05/85	8671.74	-	-	-	8671.74	1360.80	7310.94	6	136709

FLORIDA A & M UNIVERSITY/USAID
POLYTECHNIC PROJECT

CHIEF OF PARTY

CODE

1. Salaries
2. Consultants
3. Travel & Transportation
4. Allowance
5. Other Direct Cost
6. Equipment, Vehicle Material
7. Reimbursement
8. Per - Diem

	A	B	C	D	E	F	G	H	I
DATE	BAL. FORWARD (KWACHA)	DEPOSIT (US. $)	EXCHANGE RATE (US. TO K)	GAIN IN (KWACHA)	TOTAL (A+B+D) (KWACHA)	LESS PAYMENT (KWACHA)	BAL (KWACHA)	EXPI CODE	CHEQUE NO.
20/05/85	7310.94	-	-	-	7310.94	400.00	6910.94	6	136710
23/05/85	6910.94	-	-	-	6910.94	55.00	6855.94	5	136711
24/05/85	6855.94	-	-	-	6855.94	325.50	6530.44	1	136712
24/05/85	6530.44	-	-	-	6530.44	258.00	6272.44	1	136713
24/05/85	6272.44	-	-	-	6272.44	875.76	5396.68	5	136715
24/05/85	5396.68	$500.00	.5678	K380.59	6277.27	4.83	6272.44	*	Bank Charges
27/05/85	6272.44	-	-	-	6272.44	150.38	6122.06	5	136716
27/05/85	6122.06	-	-	-	6122.06	375.06	5747.00	5	136717
28/05/85	5747.00	-	-	-	5747.00	37.65	5709.35	5	136718
29/05/85	5709.35	-	-	-	5709.35	898.75	4810.60	5	136719
31/05/85	4810.60	-	-	-	4810.60	28.53	4782.07	5	136720
06/06/85	4782.07	-	-	-	4782.07	69.00	4713.07	5	136721
12/06/85	4713.07	-	-	-	4713.07	353.91	4359.16	6	136722
14/06/85	4359.16			K353.91	4713.07				

FLORIDA A & M UNIVERSITY/USAID
POLYTECHNIC PROJECT

Vernal Hayles

CHIEF OF PARTY

CODE

1. Salaries
2. Consultants
3. Travel & Transportation
4. Allowance
5. Other Direct Cost
6. Equipment, Vehicle Material
7. Reimbursement
8. Per - Diem

	A	B	C	D	E	F	G	H	I
DATE	BAL. FORWARD (KWACHA)	DEPOSIT (US. $)	EXCHANGE RATE (US. TO K)	GAIN IN (KWACHA)	TOTAL (A+B+D) (KWACHA)	LESS PAYMENT (KWACHA)	BAL (KWACHA)	EXPI CODE	CHEQUE NO.
17/06/85	4713.07	-	-	-	4713.07	237.50	4475.57	7	136723
19/06/85	4475.57	-	-	-	4475.57	12.83	4462.74	5	136724
21/06/85	4462.74	-	-	-	4462.74	138.79	4323.95	5	136725
25/06/85	4323.95	-	-	-	4323.95	325.50	3998.45	1	136726
25/06/85	3998.45	-	-	-	3998.45	258.00	3740.45	1	136727
27/06/85	3740.45	-	-	-	3740.45	1045.40	2695.05	5	136728
27/06/85	2695.05	-	-	-	2695.05	112.15	2582.90	5	136729
28/06/85	2582.90	-	-	-	2582.90	150.00	2432.90	5	136730
28/06/85	2432.90	-	-	-	2432.90	120.00	2312.90	5	136731

FLORIDA A & M UNIVERSITY/USAID
POLYTECHNIC PROJECT

Vernal Naylor

CHIEF OF PARTY

CODE

1. Salaries
2. Consultants
3. Travel & Transportation
4. Allowance
5. Other Direct Cost
6. Equipment, Vehicle Material
7. Reimbursement
8. Per - Diem

APPENDIX A

LETTER OF THANKS BY THE STUDENT SECTION CHAIRMAN

THE INSTITUTION OF CIVIL ENGINEERS — THE INSTITUTION OF ELECTRICAL ENGINEERS

THE INSTITUTION OF MECHANICAL ENGINEERS

MALAWI GROUP
OF PROFESSIONAL ENGINEERS

YOUR REF:

PLEASE ADDRESS REPLY TO:-

OUR REF:

STUDENT SECTION

The Student Secretary
The Polytechnic
Private Bag 303
Chichiri
BLANTYRE 3

28 May 1985

The Senior Member
Student Section

Dear Sir

I wish to extend my gratitude for providing the student section with transport on the five trips to Kanjedza Earth Station, Blantyre.

Groups of 9 students visited the station on the following dates:

11th March, 1985

13th March, 1985

15th March, 1985

25th April, 1985

1st May, 1985

The trip fulfilled one of the objectives of our constitution viz: to arrange visits to places of engineering interest. Students now appreciate the complexity of the Earth Station and the coordination that must have existed during design and construction periods.

It was also encouraging to note that the station is being manned by young Malawian Engineers. No doubt some students from the Polytechnic have been motivated to do telecommunications after graduation.

Yours faithfully

H.M. MTHINDA