EVALUATION REPORT

THE SATELLITE COMMUNICATION PROGRAM OF THE UNIVERSITY OF THE SOUTH PACIFIC

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INTRODUCTION AND PURPOSE

This report was prepared by Robert Schenkkan USAID, Washington, Anne Stahmer, the Academy for Educational Development, Washington and Mostyn Habu, Interim Director, College for Higher Education, Solomon Islands Government. This evaluation report is prepared in partial fulfillment of USP's contractual requirements to USAID. The purpose of this evaluation report is twofold; first to assess the impact of two USAID grants to the Univereity within project number 879-0254 (one in 1978, Project 492-1510 for US$805,000 and in 1982, Project #879-2010 for U.S. $100,000) on the extension and outreach activities of USP: second, if the evaluation is positive, to recommend further action by USAID.

The report is based on visits to and discussions in Solomon Islands, Vanuatu, W. Samoa, Tonga and Fiji.

The report is organized into five following sections:

I. Executive Summary
II. Background
III. Objectives and AID input
IV. Description of the project
V. Assessment
VI. Recommendations

I. EXECUTIVE SUMMARY

1. USP, as a regional institution, has been using NASA's experimental ATS-1 satellite since the early 70's to reach students and other clients in the member countries. In two grants provided in 1978 and 1982 USAID contributed $905,000 to overall system upgrading effort by USP, totalling $2.5-million During this phase the following inputs were provided:

- the technical system was upgraded, including the earth stations, conferencing equipment, micro computers, video and radio studios and some experimental slow-scan and facsimile equipment.
- upgrading of buildings

- o staff and consulting support
- o training

The purpose of the AID grants was to assist the University in testing communication technologies to assess which ones would most appropriately meet the USP's long-term communication requirements, including assessment of staff, training and operational budgetary realities. In addition, it was to assist USP in drawing up plans to transfer the communication service to an alternative system from ATS-1. This objective has now become critical as the international carrier, FINTEL has raised serious objections to the present arrangement and proposed significant changes by December 1984. The goals of the grants and their degree of achievement can be summarized in the following way:

2.	GOAL	ACHIEVEMENT
1.	Provide pre-diploma level courses	Ongoing, with some improvements suggested
2.	Disseminate development - related information to key development personnel	Ongoing, particularly via audioconferencing. More concentrated activities desireble and more attention to tape products required.
3.	Improve effectiveness of outreach to development workers	Starting in a co-ordinated way-the Agriculture Liaison Officers (ALO), and some limited other user groups, e.g., nutrition. More concentrated attention desirable, particularly in the area of tape products.
2.	GOAL	ACHIEVEMENT
4.	Evaluate effectiveness of communication technologies	Audioconferencing and computer networking for Extension Services appropriate for work with Centers. Demand for local computer uses. Audio and video tapes suitable ! remote and rural learners given telecommunication infrastructures -needs more emphasis. Facsimile and slow-scan not determined due to very limited use so far microcomputers found to be very useful and giving promise of much greater use in the future.

5.	Identify regional communication requirements	A series of studies and assessments exist, but are not consolidated into an overall USP strategy. In particular no resolution was actively sought for the long-range interconnection.
6.	Training courses for in-country staff	Training courses have been undertaken but more support needed for further skills development and for support materials development, particularly tapes.
7.	Improve radio broadcast facilities and programming to extend learner access locally	Achieved to varying degrees in different countries; more directed action desireble.

3. The evaluation team concluded that:

   1. The Extension Services, as the visible presence of USP in the participating countries, may well be essential to the viability of the university in its present form.

   2. The satellite communication teleconferencing system has become crucial to carrying out the educational support activities of USP's Extension Services;

   3. Some remedial actions will be required to improve tutorials on the system;

   4. More concerted attention needs to be given to increasing the scope, access and regularity of regional outreach activities (as distinguished from the Extension Centres' national efforts);

   5. Staff support for the video unit is presently inadequate, although the University is planning remedial action.

   6. The immediate (by December 1984) issue of continued access to ATS-1 is critical;

   7. The longer-range issue of alternatives to ATS-1 within reasonable budgetary limits must also be faced.

4. The recommendations are as follows:

   1. Consolidate communication requirements of all USP activities, i.e., extension, research and outreach into a USP communication policy statement;

2. Provide support to USP in seeking both near-term and long-term solutions to the satellite access problem.

3. Emphasize staff support to outreach activities;

4. Rationalize and increase staff support in video production;

5. Develop a training structure;

6. Carry out limited equipment upgrading;

7. Increase output of video products and audio tapes by providing materials and upgraded facilities;

A continued role by USAID in the above areas is recommended; with a USAID budget is proposed below.

5. PROPOSED BUDGET

A.	Two Part Study:	
	1. University communication Policy 2. Development of short and long-term resolution of continuation of interconnection	27,500*
B.	Limited Equipment Upgrading:	
	1. Film chain Camera @ $5,000 2. VHS recorder @ 1,500 3. Computer Software @ 5,000	25,000
C.	Partial Support For Two Types of Personnel:	
	1. Video Technical and Producer @ 5,000 each: 10,000 2. Part-time extension outreach person at each center @ 1,500 each: 16,500	26,500
D.	Training support workshops for technicians and tutoriel staff @ 8,000 each:	16,000
E.	Video and graphics materials support (new audio and video tape stock, graphics materials, preparation of self-instructional tapes in support of (d) above	15,000
		110,000

*Assumes S&T/Ed will proved services of Principal Investigator at no cost to Mission.

II. BACKGROUND

1. Introduction

In order to assess the impact of the satellite communications project it is important to bear in mind the characteristics of the University and the region which it serves. (see background attachment 1 for details)

2. Budgetary Provisions

In 1984 the total budget for extension services, in Suva is $930,000 which is 9.2% of the total University budget of $10,100,000. In the same year the Institutes were allocated a total of $400,000 and the School of Agriculture at Alafua, Western Samoa was allocated a total of $380,000. From 1981 to 1984, while the total University budget increased at an average of 12.6% per annum, the Extension Services budget increased at an average of 11.8% per annum. The Regional Centres are funded under a separate item which for 1984 amounted to $120,000 in total.

3. Communication and Outreach Needs

3. Communication and Outreach Needs

3.1 To assist in providing appropriate educational, training and developmental services in this dispersed region the University established various flexible and outreach-oriented components to its organization. In particular the University did the following:

3.1.1 It established an extension centre in each of the member countries, whose main functions were:

(a) to administer the extension studies programme of the University;

(b) to initiate appropriate continuing education activities in a variety of fields;

(c) to facilitate consultancy and training activities of the University in the region;

(d) to liaise between the University and the Governments of the region. (see attachment 2 for organization chart of Extension Services)

The Extension Centres provide a visible presence of the University in each of the member countries and appear to have high credibility and stand in each country visited.

3.1.2 The University established the following Institutes:

(a) The Institute of Education
(b) The Institute of Social and Administrative Studies
(c) The Institute of Pacific Studies

(d) The Institute of Marine Resources
(e) The Institute of Natural Resources
(f) The Institute of Rural Development
(g) The Institute Agricultural Research, Education, Training and Extension

Among other things, the outreach functions of these institutes were to be carried out through:

- Limited applied research activities
- Appropriate training programmes
- Consultancies
- Publications
- Development of data banks
- Films, radio recordings etc.

3.2 In order to administer this wide ranging outreach effort, the University of the South Pacific has been using the experimental ATS-1 Satellite since 1972, initially as a member of the Peacesat Net but since 1974 through a separate network, USPNET, with one ground terminal at most of the University Extension Centres in the Region. The University shared the use of ATS 1 with three similar networks: Aussat, Peacesat and University of Hawaii Net. Beginning in 1978, the University received a grant from USAID to upgrade the technical facilities of the experimental system and to provide training in the technical operations and distance education aspects of the system as well as to provide support staff.

4. EMERGING EDUCATIONAL NEEDS

4.1 The Region served by the University of the South Pacific is not only diverse but is undergoing rapid change-economically, socially, politically and culturally. To maintain its function as a regional University, USP must not only meet a variety of service needs but must also cope with that rapid change.

4.2 In the Report of the Regional Conference on Future Directions for the University of the South Pacific, held in December 1983, Dr. S.R. Teasdale notes "There was equally strong consensus that USP was facing a turning point, and that the conference on Future Directions was a timely one. In particular,

people drew attention to changing political realities. When the University was established only two of its eleven member countries were independent, and its planning reflected the centralized and conservative approach of colonial authorities. Now that all countries had achieved some form of independence, and once more were thinking and acting for themselves, USP had to take into account emerging national identities, needs and aspirations."

4.3 Examples of these emerging national aspirations in education are the moves to establish National Institutes of Higher Education in two of eleven member countries and the proposal for a University in Western Somoa.

4.4 To cope with these changing realities it may be useful for USP to reconsider the scope and framework within which its outreach effort is currently being conducted and for which purpose the satellite communication project was initiated. For instance the University may wish to collaborate with these emerging national Institutes of Higher Education.

III. OBJECTIVES/TASKS OF THE AID GRANTS

1. Objectives

The objectives of grant number 492-1510, signed in 1978, were stated as:

"The University of the South Pacific will carry out a project using the NASA ATS-1 and ATS-6 communication satellites to link its campuses with its extension centers throughout the region for delivery of educational programming and to support development goals of the region. The objectives of the project are:

1.1 To further the university's goal of providing prediploma level courses to students using satellite communication for delivery of audio-visual course materials, tutorials and course management.

1.2 To disseminate development-related information from various university and development agency sources to key development personnel in member countries through specially developed audio-visual materials and seminars conducted by satellite

1.3 To improve the effectiveness of outreach development workers, e.g., extension workers, health paraprofessionals, primary teachers, community development workers, etc., by using satellite communication for coordination of outreach activities; in-service training/upgrading, consultation, delivery of development information for dissemination.

1.4 To evaluate the effectiveness of various communication technologies for accomplishing these objectives including multi-point interactive audio, motion video, slow-scan video, facsimile.

1.5 To identify the USP's regional communication requirements and plan for transition to operational service".

The objectives of grant number 879-0210, signed in 1982, were designed to ensure the effectiveness of the previous project and its regional operations by widening the range of expertise of in-country personnel. The following summarises the specific objectives:

1.6 To develop a training course for in-country staff to acquire skills in radio production and teleconferencing for adult and continuing education for students, particularly those in remote and outer island locations. Skills are to include evaluation, script development in local languages, management techniques development and exchange.

1.7 To improve audio broadcast facilities and programming to be aired on local broadcast stations in order to extend access of outer island students. To achieve the objectives of these two grants the following tasks were to be undertaken:

2. TASKS:

2.1 Technical tasks included to

(a) upgrading the audio conferencing equipment; (DONE)

(b) providing for hardcopy transmission- (initially facsimile equipment was purchased, after two experimental facsimile units had been acquired); (PROGRESS THUR MICRO COMPUTERS)

IV. SYSTEM DESCRIPTION

1. Technical

A description of the technical facility is provided in attachment #4.

2. MANAGEMENT

The management and staffing of the satellite project within Extension and Agriculture Services have undergone significant change over the life of the project. These appear now to have stabilised as follows:

The Director of Extension Services (Suva) has overall responsibility for the staff including the Centre Directors. Weekly staff meeting are conducted over the satellite. The meetings are reinforced with other daily contacts via mail and, increasingly, computer messages. The Head of Distance Education has direct responsibilities for the educational aspects such as tutorials and for the coordination of supporting activities, e.g., receipt of textbooks etc. A technical officer is in charge of overall system operation and maintenance (see organisation chart attachment #2). All these are based in Suva.

At the Alafua Campus one staff member has been charged with development of the agriculture program. At present Agricultural Liaison Officers are being posted to most member countries to serve as focal links between the campus and the national agricultural institutions.

At all centres satellite-related functions have been absorbed into regular staff positions, combining the functions of librarian, clerk and satellite operator into one. These individuals open facilities, relay messages, undertake basic maintenance and prepare or tape some radio programs for local broadcasting. They are assisted in equipment maintenance for up to three hours a month by a contractor, usually an employee of the telephone company. Any major repair is handled in Suva through equipment exchange.

3. APPLICATION

The USP has presently been allocated approximately four hours daily of satellite time on ATS-1. In 1983, 367 hours were used in roughly the following way:

Tutorials	181 hrs.
FAO Root crop	19 hrs. 15 mins.
IMR/ARU	8 hrs.
Adult Education	3 hrs. 15 mins.
Bible Society	6 hrs. 15 mins.
UNDAT	1 hr.
Infant nutrition	1 hr. 30 mins.
ASPESA conference	3 hrs.
ALO (Agricultural Liaison Officer) Session	6 hrs.
Food nutrition	1 hr. 30 mins.
Scholarship Officers USP Meeting	1 hr.
Staff meeting	42 hrs. 30 mins.
Extension Studies	23 hrs.
Continuing Education	19 hrs. 45 mins.
USP Administration (Messages, Point to point)	49 hrs. 45 mins.

In addition, time can be shared with the PEACESAT network, and PEACESAT participants can use USP Centre facilities.

Extension Services uses the system in a variety of ways which are all related to service and support of the educational needs of extension students taking courses for credit. It conducts weekly staff meetings with centre directors to coordinate student activities, schedule courses, carry out registration, etc. It handles problems with the delivery of textbooks, study guides etc. It is used for teaching and tutorials conducted by the course Director. One must understand that extension courses with enrollments of five or more students are customarily provided at the Extension Centres with a local tutor who carries the main burden of assisting the students, meeting with them bi-weekly. The satellite provided tutorials give the student the

opportunity for contact with the person who wrote thier course material and will grade their exams. Satellite tutorials are conducted generally every two to three weeks for a given course. Usually, two hours each evening are taken up by two tutorials of one hour each.

In 1983, there were tutorials in 29 subject areas totalling 181 hours, using about 80% of the time allocated. Student attendance, however, is erratic and varies significantly from centre to centre. Analysis of system-wide attendance for a period of 24 weeks in 1982/83 shows an average attendance of seven students. However, for each course enrolling five or more students a local tutor is provided. As local tutors vary widely in their level of sophistication and expertise the satellite tutorial provide them with significant support. All study materials are designed for self-instruction as many students are too far from the extension centers to participate in either local or satellite tutorials. For examples, in the Solomons 50 students out of 200, and in Vanuatu 46 of 112 are located in remote areas. Even on the main island of the Kingdom of Tonga (a small island, 30 km in length) many students cannot attend because of transport and scheduling problems. Through Extension Services, credit courses are being offered which count toward a USP degree. The full degree program is not available through extension. Most courses are offered out of Suva with the exception of Introduction to Language Studies which is offered from Vila.

In addition to the courses offered from Suva (or Vila) the individual centres are active in a wide variety of local initiative and continuing education activities, including such areas as arts and crafts training, local language instruction, English language for women, cooking, sewing or book production. Some of these courses generate limited funds which are then applied against the costs of local tutors.

The various courses offered by USP are written, prepared and tutored by USP faculty with assistance of Distance Learning's staff writers/editors, as a normal part of their employment contracts with USP. Their goal is to off the same course for three consecutive years so that materials are not out dated and production and logistics efforts are reduced. These efforts have hampered effective coordination of tutorial activities from Suva in the past. A few other support materials, e.g., video tapes, are part of the instructional package. Audio tapes related to courses are sometimes made

available, occasionally to as many as 50 individual students. In agriculture, the Agricultural Liaison Officers (ALO) have been meeting for one hour every two weeks with Alafua staff. The purpose is for the ALOs to relay local questions, problems or issues to Alafua staff, who then attempt to find solutions. 3.5 queries a week are already being relayed in this manner. The institutional bases of the ALOs vary from country to country: in Suva at the USP; in the Solomons, the ALO moved from the USP Centre to the Agricultural Research Office and is likely to move to the Ministry's Agricultural Extension Office; in Vanuatu the ALO is based at the Agricultural School; in Tonga at the Institute of Rural Development. Alafua also supports the ALO with a newsletter distributed to 50 or 60 recipients in each country. Each ALO contributes to the newsletter content. Neither video nor audio tapes are used at present but production capacity exists and their use will begin when on some planned staff appointments have been effected.

One example of significant use of the system by the agricultural research sector is the bi-monthly round table on root crops research, sponsored by an FAO regional research project. These sessions appear to have between one and three participants per site and in 1983 totalled over 19 hours of exchanges. Further, through the PEACESAT network agriculturalists can participate in exchanges of the Asia-Pacific Regional Information Network.

Aside from those two instructional areas, the network was used in 1983 for about 160 hours of educational support activities and occasional meetings, workshop preparations and other matters. Outreach activities such as primary health care worker support and in-service training for community development workers do not appear prominently in the 1983 time-use breakdown for the satellite system, except for 3 hours dedicated to nutrition. Within USP these outreach activities fall within the responsibility of the USP Institutes which are charged with assistance, consultation and appropriate research to member countries. By and large the Institutes have not been using the satellite conferencing capacity to any significant degree. Of course, there are some notable exceptions such as the Institute of Pacific Studies.

The computer messaging system is being used routinely among the extension centres, with about one or two messages received per day. The computer system has been operating satisfactorily since September 1983 with very few technical problems reported. To date, at the Suva campus the computer is being used for

word processing and to keep student records; at the extension centres, the computers are not yet used for administrative business, e.g., word processing, budgets, student records. There is interest in this application, buth computer capacity is not large enough and staff does not have the skills. Alafua is an exception; there the computer is being used for word processeing. No programmatic use of the facsimile or slow-scan equipment has been reported, although some point-to-point tests have been carried out.

Radio program and video tape production has proceeded, largely covering general interest areas. In the case of video, apart from a few excellent small films such as one on introduction to the Apple Computer, the productions do not seem to support the diploma or degree programs. A film done for WHO however, appears to have sparked their interest in using the video facility on an expanded basis. There is some uncertainty about tha advisability of entering into such an arrangement with some believing the proposal offers on outreach opportunity and others doubting that it is the University's responsibility. The limited audio tape production equipment at the centres themselves is occasionally being used to produce tapes for radio broadcasts on the national radio systems. There is substantial audio production and distribution _____ from Suva's radio studio. (see attachment #5).

4. OPERATIONS

The University presently has four hours of daily transmission time in three time slots; one early morning, one afternoon and one evening. The slots are roughly used in the following manner:

Morning:	Educational support and co-ordination
Afternoon:	Agricultural Liaison Officers, root crop conferences, ad hoc educational and research discussions.
Evening:	Tutorials.

Most centres keep a log identifying participating sites, quality of reception, subject matter, time and participants. These logs do not serve any particular purpose at present as they are not being reviewed and analyzed. They also do not differentiate between mode of transmisson, e.g., voice, computer. Reception and assessment forms were filled out by students and used in a special survey in July 1983 (reported in USP Report to USAID, December 1983). Further, a participant interaction analysis was conducted and is presently being analyzed. These latter two forms are geared toward improving the teaching/learning process of the tutorials. Early on in the project, when the Fulbright scholars were still at USP, a variety of logs were kept and used for analysis. They formed the basis for needs assessment work and evaluation of the first grant.

5. TRAINING

No significant training activities have recently been undertaken, either for USP Centre directors, for tutorial staff or for others who could have planned and carried out outreach programs. Training appears to be limited to some introductory sessions for USP faculty regarding the conduct of effecti tutorials. Last summer a very effective satellite operator workshop was carried out to introduce the staff to new computer software, to the audio and video equipment, and to go over system operation and maintenance.

A radio workshop was held by the radio staff on the use of audio equipment for the USP Centre Directors. A workshop is planned for the near

future which will bring ALOs together to discuss and plan the Agriculture Information Network and will introduce them to video and radio production and technologies.

6. PLANNING AND IMPLEMENTATION

6.1 Applications Program

It appears that a change in leadership shortly after receipt of the AID grant changed the basic premise of the program so that fewer staff resources were dedicated to its execution. Under new leadership, over the past few years, significant progress has been made through catch-up activities such as video tape preparation, student feedback assessment, work with staff in tutorial improvement and broadcast production.

During the period of little institutional interest, not only did applications planning suffer, but the finalization and debugging of the technical system was also postponed. Only during the last year has the system become fully operational.

6.2 ACQUISITION OF VIDEO FACILITY

The remodeling and equipping of the TV facility was a protracted process and, although there is a good deal of relevant data, it is not possible to state categorically what was the precise cause of all of the difficulties. Some clear conclusions can be drawn:

- The equipment selection and purchasing aspects of the project suffered from divided technical authority and a cumbersome authorization process.
- Failure to begin with a unified set of specifications for all aspects of equipment was a serious flaw (as Schulz and Frampton have pointed out). The unexpected loss of ATS-6, of course, caused a major re-evaluation.
- Failure to pursue waivers of the "Buy American" policy caused a delay of some months with some equipment.
- A turnkey commercial supplier contract might have obviated most of the difficulties but with complex electronic purchases the record on turnkey contracts is not perfect either. Such an approach would almost certainly have added to the cost.
- The major remaining flaw in the system, the video studio inadequacy, was identified as early as October 1979 but not

acted upon. (see Lane letter attachment).

- Despite these problems, what now exists, with some minor corrections (and the major one of the TV studio), is a very creditable production facility capable of handling the requirements of the system. (List of equipment purchased available).

V. ASSESSMENT

1. Summary

The AID/USP funded telecommunication project has enabled the university to carry out its work in these areas:

- It has made it possible to increase substantially the number of students who can be served in extension courses. All those interviewed agree that the satellite role is absolutely critical in logistics and coordination.
- In research support (and this, of course, effects the performance of upper level students as well), there is increasing and very effective use.
- In respect to outreach, in the sense of serving continuing education of the average consumer in remote areas, less has been accomplished but there is increasing interest and use.

Overall, shortly after the AID grant was received, USP Extension Services underwent a series of changes and suffered both a decrease in staff level allocated to the project, and delays in its implementation. Only in the last year has the satellite project received support from vigorous leadership which has put it back on the right track to achieve overall project goals.

However, to be effective in outreach and broad support to development programs and institutions in the Pacific, the project will need significant involvement and support from USP Institutes. It will need additional resources, in particular human resources, some of which must be located at the Centres. The specific tasks for such additional support will include planning, promotion and implementation of educational, outreach and agricultural support activities thus strengthening USP's role in the islands, a move which would be welcomed.

2. Technical Areas

The audio conferencing system performs satisfactorily, with reasonable voice quality (very much improved over the quality available prior to the grants) and few problems. The table top microphones are a significant improvement over the earlier hand-held microphones and allow small groups to participate comfortably. The computer system, after initial problems, has been working well since September 1983. The associated TV monitors, as well as the printers, have been working well over the last year. The messaging capacity of the computer system has proven to be a popular feature. However, this traffic is still limited, with most messages still being passed on verbally. (Present use 1-10 pp per day; 1 page = 10 - 15 min. of voice).

Familiarity with the computer facilities has raised interest at all centres in learning more about computer technology so as to use the equipment for local activities.

The slow-scan TV and facsimile are still in the technical debugging phase their potential value to teaching, research and outreach thus still remains to be explored. Some slow-scan trials have been carried out but the quality of the picture is not presently acceptable. Further technical work is needed.

The tape decks at the centres appear to function without problems.

There appear to be some problems with the video-tape playback units in some islands. For the most part, however, they operate well and an effective maintenance program exists. Usage varies from slight to moderate. Since the emergence of VHS as the dominant, less expensive, less bulky and more easily maintainable technology it would be advisable, if possible, to move to the VHS standard.

The University has requested consultation on the advisability of merging video equipment and staff of the Extension and Education Services, a proposal which seems to have the support of both units. This would provide a staff nearly adequate for effective operation. A technical officer, a producer some modest production support would still be needed.

If an adequate studio were developed, a reasonable number of technically and programatically fine programmes could be produced.

The maintenance service system, as implemented by USP, works well, with

no problems reported from the field. Spare parts were provided from the second grant and are now available at the maintenance centre - they were not included in the initial procurement.

2. Management

The project is understaffed to carry out the broader functions of outreach as identified in project goals. A project of this scope with the additional outreach mandate requires at least an additonal full-time senior staff member with appropriate experience to do planning and implementation at the campus and to promote and direct the use of the project facilities and capabilities in other sectors, e.g., Institutes of the University.

Additional staff at the centres would also be required to work with the relevant government institutions in each country so that they can effectively draw on USP resources.

An excellent model for this structure is provided by the Alafua Extension/Agriculure Liaison Officers relationship.

It is encouraging to see the degree to which Extension Services has integrated the satellite project into its ongoing operations and staffing. As a matter of fact, Extension management is based on this communication system. With continued support, existing problems, mostly related to tutorials, will be overcome. However, if the other broader goals are to be pursued, additional resources are required.

3. Applications

3.1 Attitudes toward and assessment of usefulness of the audio conferencing system provided by ATS-1 and the AID inputs were very favorable across the board. The availability of this link and its use, for example for staff meetings, enables Centre Directors, Associate Lecturers and students to view themselves as part of USP, and contributes significantly to building a cohesive institution.

3.2 The link is invaluable also in supporting the management and logistics of the extension courses offered, since mail and local activities in the different countries often require complex arrangements. The absence of this

link would likely reduce by about 50% the number of extension students which can be served per course and would reduce the effectiveness of the University Extension Services programs.

The growth in the number of students enrolled in extension from 1975 through Semester I, 1984 is graphically illustrated in the accompanying chart. We may safely project a 2-Semester 1984 total of 6500 students. What one must bear in mind to appreciate the significance of these figures are three facts:

a) Five Extension Course enrollments are equal to one Full Time Equivalent (FTE) at the Suva campus.

b) The cost of 2 semesters FTE at Suva equals $5835*.

c) The cost per FTE student through the Extension Centres is estimated to average $834**.

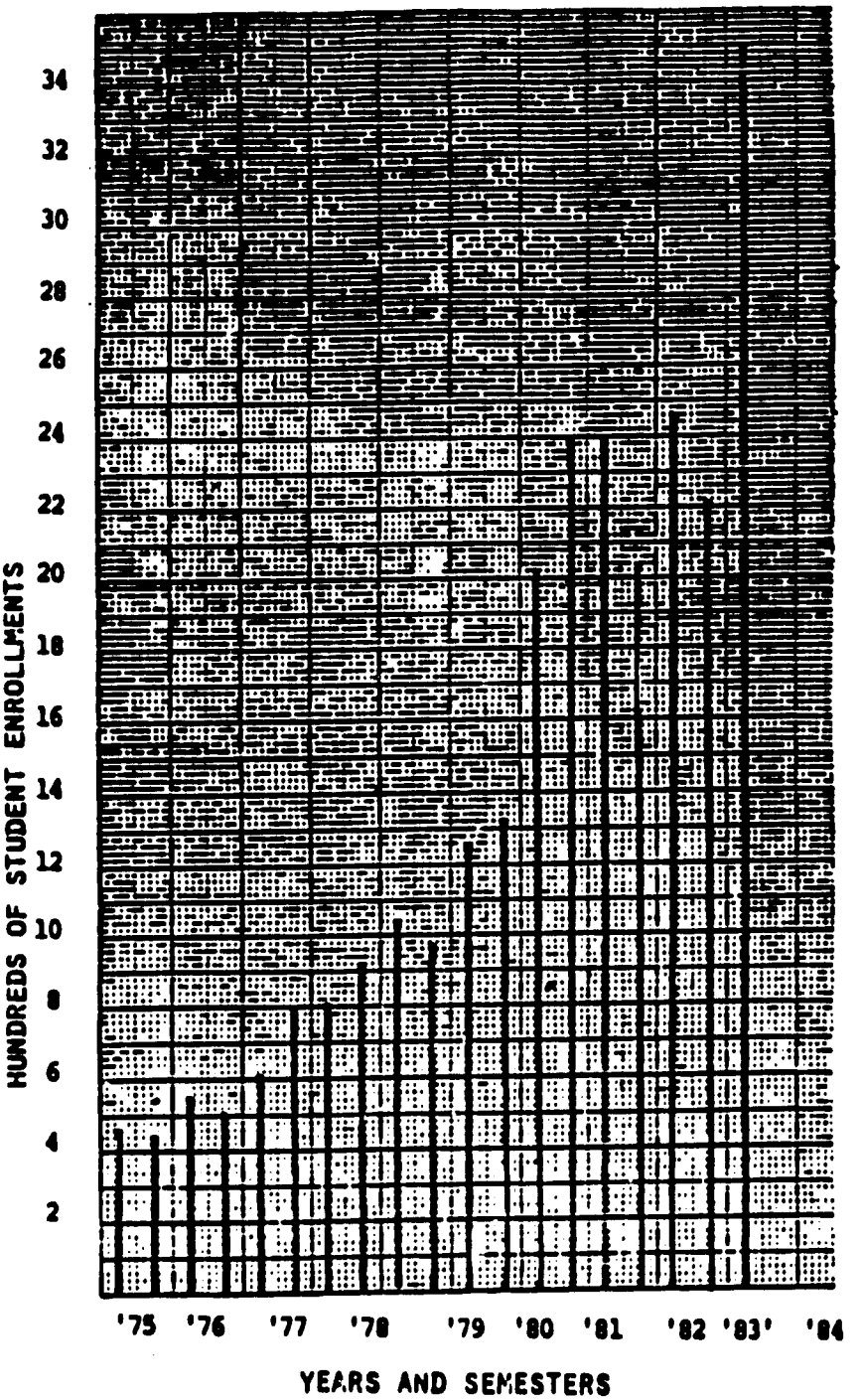
In 1984 the number of FTE students in Extension courses will be approximately 1300. The cost of these courses to governments/students come to $1,084,200. If the same number of students enrolled full-time at the Suva campus of USP would cost $7,585,500. These dollar amounts appear even more dramatic in light of the University's total annual budget of $10,100,00.

According to Extension Services the enrollment increases could not have been managed without the satellite teleconferencing link. Even so, the demand is greater than can presently be accommodated.

* For staff comments see attachments 4-8 on technical matters and attachment 3 and 9 on use of the system.

** Sources for these figures are the USP Calender 1984 Vol.1 and figures provided by the Head of Distance Education, Mr. I. Williams.

ALL CENTRES EXTENSION STUDIES ENROLLMENTS



FULL-TIME STUDENT FEES

ITEM	SPONSORED STUDENT	PRIVATE STUDENT
Tuition Fee	4,500.00	3,500.00
Board	1,565.00	1,565.00 (optional)
Book Fee	225.00	225.00
Student Union	25.00	25.00
Caution & Lab Deposit	20.00	20.00
	6,335.00	5,335.00

EXTENSION STUDENT COSTS

2-Semesters, (W. Samoa) 5 courses per semester (x)

ITEM	SOCIAL SCIENCE	SCIENCE
Tuition	690.00	750.00
Tutor Travel	114.50	114.50
	804.50	864.50

834

(x) Fees for subjects vary; figure represent an average.

3.3 The value of the satellite tutorials is more ambiguous. Those students who do attend find them useful but as indicated earlier most students do not attend. A link between non-attendance and course failure could not be made but is not likely to exist. Reasons for the scant attendance at the satellite tutorials are manifold - ranging from the one-way communication styles used by tutors, to problems of transportation home after a late evening satellite tutorial. A critical factor remains the fact that a significant number of students cannot come to the satellite tutorials because they are scattered geographically. Other factors include the fact that not all Centres work with the same text units at the same time, so that one island group may be on unit 2 while the rest are on unit 4. Furthermore, a transmission at any hour is received in three separate time zones and on two different days of the week (International Date Line cuts across the USP area). The satellite tutorials are very useful, however, to the local tutors who represent a wide diversity in qualifications.

Using audio and video tapes could help to overcome the real time problem for students who can use the center for distance learning support, and could make the tutorial available to students who are remote from the extension centres. Centre directors and others have suggested that audio playback units are available in provincial towns and video units are becoming increasingly available, although their use would require a move to the VHS standard. Some centres are already beginning to move toward using audio tapes in this way. There is also some use of audio tapes through local radio stations to achieve the widest possible distribution at the least possible cost. An increasing number of tapes is being produced in, or translated into local languages. Whether it would prove possible to identify the dates and times of impending broadcasts for interested students remains to be seen. It is also true that the interaction aspect of the tutorial would be lost in tape playback, although a single question recorded on a tape can be a surrogate questioner for many students listening to the tape.

3.4 The satellite service of USP appears in general to be known and appreciated by domestic government officials. Many see the network as useful to their own activities and long-term plans. However, at the same time there is no evidence that the availability of this service is integrated into development of their own plans.

During our brief visits we interviewed Directors of Education and Agriculture and without exception they praised the satellite communication services of USP. However, officials in some countries also identified needs which are not being met by USP. For instance it was said that the School of Agriculture at Alafua should contribute appropriate agriculture courses through the distance learning system of USP for field staff in Vanuatu.

4. Operation

The operational aspects of the project are under control with some occasional slip-ups which are to be unexpected in a geographically widely dispersed organisation.

Delays in mail service, students showing up for tutorials on wrong days, the key to the satellite room disappearing, etc., are all matters that can be expected to occur and certainly in this project have not overshadowed the undisputed achievements.

5. Training

Staff training has not received the attention it could have. On the technical and operational side, last summer's satellite operator workshop achieved a great deal. In addition, training plan could be prepared for two areas. First, training is needed to satisfy the increasing interests of centre technicians and directors in learning how to use the computers for local requirements.

Second, a training package (possibly including a video tape) could be prepared highlighting basic maintenance and operating principles for new staff, particularly at the centres. However, the grant agreements themselves do not specify any significant training activities.

Training for three areas of applications would be useful at this time. The first areas in training for staff who are preparing courses and tutor[illegible] for Extension Services. There appears to be agreement that existing tut[illegible] need to be improved. This is a particularly difficult area since the [illegible] materials have to be self-instructional so that students unable to attend satellite tutorials can follow their content. Satellite tutorials should be designed so as to attract a larger number of those students who could

attend. This matter warrants further study of the structure of these offerings. It is likely that an underlying problem here is that the course directors are not adequately motivated and consequently do not give the tutorials their best effort. A solution may be simply to provide the course directors better audio and video support materials. Among other suggestions are to hold fewer tutorials, or use them only to discuss specific matters such as grading.

Second, the present configuration of the satellite system lends itself to supporting educational services for groups physically located near the centres, such as National Institutes of Education, as opposed to dispersed populations, such as remote Extension students. If USP were to take on a more direct support role to the National Institutes, training would be required to equip faculty for a teaching role quite different from that of the satellite tutorial.

Third, training of key individuals from other sectors in planning and implementing outreach programs would be desirable. This would help USP and the satellite project to be seen as more of a resource to member nations. Provision of this kind of service is the responsibility of the eight University Institutes, which unfortunately, with a few exceptions, have made limited use of the satellite for this purpose.

6. Planning and Implementation

As is not uncommon with this type of project, original goals have changed as the project has become a living part of the institution. Implementation timelines have also, inevitably, slipped.

One of the project goals which has yet to be realised is the use of the full range of University resources for the service of outreach activities. These resources are abundant. What appears to be needed to tap these resources and coordinate them to meet regional needs is a single senior staff appointment. This person could serve not only to coordinate but to encourage participation and elicit new applications.

Extension Services has excellent leadership in the Head of Distance Education who deals with outreach activities from that unit, but there is a need to coordinate these activities with the seven specialised Institutes of

USP. Also, the staffing of the Regional Centres will need to be increased to assist with additional activities arising from centrally initiated activities as well as developing locally initiated programmes.

7. The Satellite Service

The present satellite service, although occasionally cumbersome and of lower quality than telephone service, serves the needs of the university reasonably well. Operational issues such as different time slots, more time, more interactivity, dual transmission modes, etc., cannot all be solved but progress can continue within the existing framework given capable managerial and technical staff.

However, a real problem is the demand by FINTEL, the Fiji International Telecommunication carrier, for the University to transfer to operational services to be provided by FINTEL at a cost initially proposed as $350,000 per year. In December of 1983 FINTEL granted an extension of one more "experimental" year to the present system. This demand, together with the uncertainty of the useful remaining life span of ATS-1, has convinced the University that it should muster all its resources to concentrate on using AST-1 as long as possible. This problem clearly must be addressed. But it is also critical to begin planning now for the event that ATS is no longer available, at some future date. Dealing with this problem will involve all of the national telecommunications agencies and the international carriers. It will probably only be resolved at the highest political level.

The grant agreement did specify that the project "identify USP's regional communication requirements." This has not been done. For the long-term communication requirements of USP to be an integral part of the regional infrastructure development, it is critical that a study of this kind be carried out soon.

VI. RECOMMENDATIONS

1. Study

In order to achieve its mission, the University should carry out a two-part study, the first part of which will enable it to develop a clear university communications policy and will establish a coordinated approach to

communication requirements for its extension, research and outreach activities.

Part two of the study would address the specific technical question of an operational satellite system. The South Pacific Bureau of Economic Cooperation (SPEC) in undertaking a much larger general communication study for the Pacific area and there should be coordination between the two studies.

INTELSAT's recent introduction of the VISTA service and the D-1 Low Density Earth Station appears to offer an excellent solution to the fragile existence of the ATS-1 and its irreducible service limitations. Substantial regulatory, political and technical questions need to be resolved, however, and we believe the study should focus on telecommunication service requirements, system options and economic and tariff issues. The study should also explore funding sources and cooperative arrangements. It should be a basic tool for the university and the member nations' discussions with the responsible telecommunication authorities regarding the Univerity's long-term needs. It would be desirable for the principal investigator to advise the University and its constituents in discussions with these authorities.

2. Staffing

a) In order to deliver a significant outreach service to the region, provision must be made for additional staff support both at the main campus and at the various regional centres.

b) In order to make full use of a generally excellent video facility there will have to be staff increases of a video producer and a video technician. These are two critical positions. If they are not created and filled our judgment is that the video investment already made will be wasted, to a certain extent.

c) The University should proceed to merge the two existing video operations on campus. Such a merger, combined with the proposed positions described above, would provide the staff required to serve the University's objectives, including Extension Services' needs. Neither video unit is now capable of an effective effort. The University does not have the resources to duplicate staff. However, in any such transfer there should be clear assurance that competition for resources will not jeopardize Extension Services pre-eminent access to the resources provided by AID specifically for support in that area.

3. Training

There are additional training needs for staff personnel some of which will be recurrent and might best be satisfied with video tapes. Training in the following areas is necessary:

- Satellite tutors in the effective use of the system and radio/video tapes for distance teaching.
- Outreach personnel from University Institutes and regional agencies in effective telecommunication planning and use.
- Technicians, satellite operators, video crews in system options and production techniques.
- Extension staff at the Extension centres in computer use and in the creation and utilization of radio and video products.

4. Equipment

Some further upgrading should be undertaken as follows:

- Upgrade remainder of computers
- Replace camera in film chain
- Replace U-Matic tape recorders with VHS
- Determine whether it is possible to remodel existing TV studio. If not, locate another space.

5. Video Production

Additional budget should be sought to provide a minimum of production and material support. (See budget attached as Appendix - for example of costs). Production target should be for an initial 30 instructional support video tape productions per year.

6. Tutorials

The University should seriously examine the role of satellite tutorials in support of extension courses and seek ways to motivate, train and assist course directors to use the satellite effectively. Extension Services should seek innovative ways to improve accessibility of the tutorials for rural students.

7. AID Role

USAID/Suva may wish to review above recommendation with USP and consider two avenues.

1) Provide funding for training as well as materials and some equipment for the near future to ensure that initial grant investment will be brought to full fruition.

2) Jointly with the AID/Washington, S&T Rural Satellite Program fund the communication policy study. Initiate discussions with other donors in the context of SPEC deliberations and the USP telecommunication study to pool all donor resources and to ensure that public service, i.e., USP's requirements, are integrated into donor support.

LIST OF ATTACHMENTS

1. Background notes
2. Extension Services organization chart
3. Satellite Communications, Video and Audio Studios, a submission from Mr. I. Williams, Head of Distance Education.
4. Technical Facility
5. Satellite and Computer Component, M. Esau, Technical Manager
6. Radio Production Report-Audio Studios, Jeanne E. Crandall, Radio Producer.
7. Letter from Billy D. Lane, Engineering Development Manager to Larry Birch, Technical Manager on studio designs.
8. Memorandum from Arno Schuls, Technical Officer (Video) to Head of Distance Education on video material costs.
9. Submission from M. Esau, Technical Manager to Director, Extension Services on slow-scan TV experiment.
10. Communication Needs of Distance Education of USP, A.I. Williams, Head of Distance Education.
11. List of equipment purchased available upon request.

ATTACHMENT 1

BACKGROUND NOTES

1. The USP Region

1.1 In order to effectively assess the impact of the Satellite Communications Project of the University at this stage, it is important to bear in mind the characteristics of the region for which the University is supposed to be providing services.

1.2 Geographically the region is characterized by a large expanse of ocean covering 50 degrees of latitude and 27 degrees of longitude, sparsely dotted by scattered pieces of volcanic cones and raised atolls amounting to a total of 6A,000 km^2 of land, holding about 1.5 million people.

1.3 Culturally the region encompasses three main culture stocks-the Melanesians to the west, the Micronesians to the north and the Polynesians to the east and south.

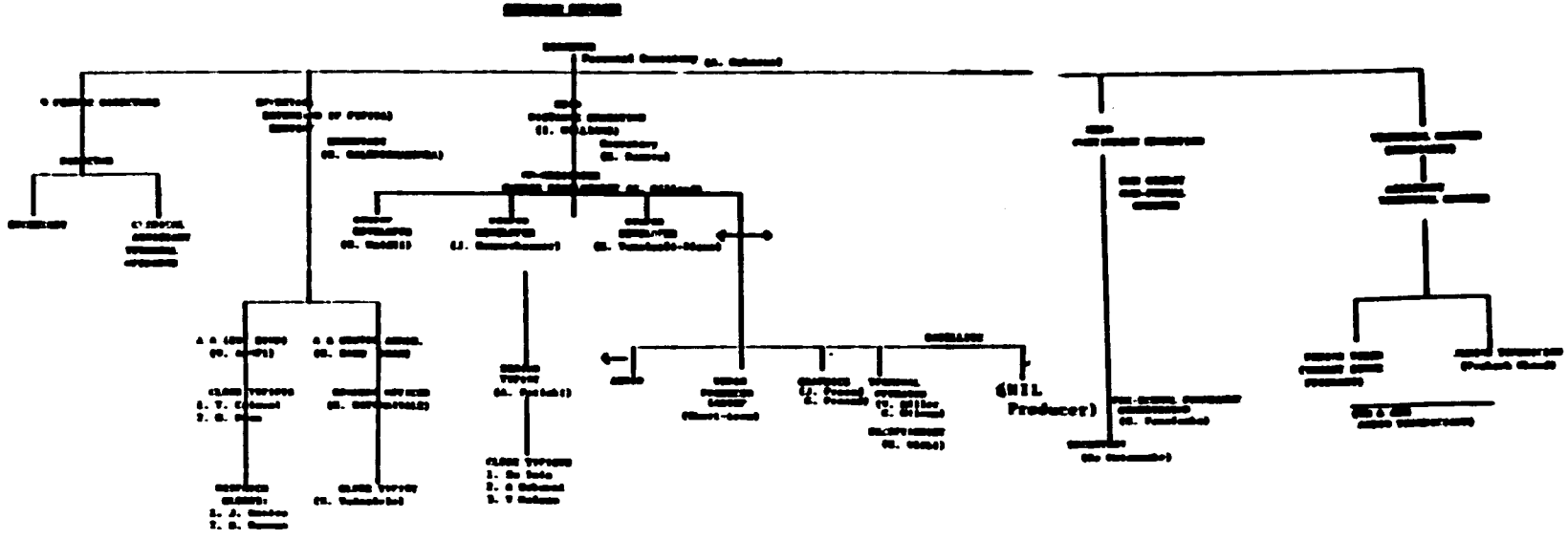
1.4 Economically the region is characterized by differences, not only in current economic development, but, more significantly, differences in terms of their natural economic resource bases. The economic base of each of the countries in the region vary from that of Tuvalu, limited to the resources of the sea, to that of Fiji which has economic resources both from its surrounding ocean as well as the land.

1.5 There are also political differences. What may be politically acceptable in Tonga may not necessarily be acceptable in the Solomon Island or in Fiji and vice versa. While Tonga has a strong central authority through the King, the Solomon Islands Government cannot act in matters of national importance without the cooperation of the seven provinces, which are governed by the Provincial Assemblies whose members are elected representatives of the people.

1.6 Educationally, the region is also characterized by wide differences, with

countries of the Western sector. Within each country there are also differences; these tend to be between urban areas and the scattered rural settlements.

1.7 In terms of settlement and population distribution there are also great differences. While the nearly 100,000 people in Tonga can be found within a dry land area of 400 sq. miles; the 10,000 people of Santa Isabel in the Solomon Islands are scattered around a dry land mass approximately 15,000 sq. miles or twice the size of Massachusetts.


(Bil
Producer)

ATTACHMENT 3

SATELLITE COMMUNICATIONS, VIDEO AND AUDIO STUDIOS

Problems and Needs

1. Satellite Communications

1.1 Problems and needs are well met by present system for administrative functions of Extension Services (facsimile transmission would be great asset.)

1.2 Problems of Extension Studies

a. The major problem is that most students cannot get to the satellite terminals. Both time and distance are factors in this.

b. The scheduling of satellite tutorials has been difficult. What times are available are often unsuitable for students who must travel some distance to attend. The five time zones and international date line factor in the South Pacific region serve to exacerbate this problem.

c. Tutorial problems are similar to those in face-to-face situations: insufficient planning and preparation by both tutors and students; lack of tutor skills in stimulation of student initiations and response.

d. Weighing cost and effort of satellite communications improvement against those of improving multi-media study materials via postal service.

e. Data communications are not yet available as a medium between tutor and student.

1.3 Needs of Extension studies

a. Many more terminals (or other linkages with the few terminals).

b. Investigation of possibility of increasing satellite tutorials time and the effectiveness.

c. Improvement of tutor performance.

d. Diversification of communication modes, adding to speech, computer print-out, slow-scan and facsimile transmissions, and electronic blackboard.

e. Duplex system.

2. Video Unit

2.1 Problems

a. Staffing

b. Weighing investment in video production expansion against other media development for learning in terms of learning impact.

c. Funding

2.2 Needs

a. A staff of three at minimum.

b. Production of video cassettes of 20-30 minutes viewing time for:

- enhancing Extension Studies course materials
- providing information about the USP for orientation of student and general public relations
- general continuing/liberal/adult/non-formal education

c. Development of a production team for these productions from all sections of education media - video, audio, graphics (a start has been made with this).

d. Investigation of commercial possiblilities of marketing video products.

3. Audio Unit

3.1 Problems

a. Staffing: will a second person be available in the Unit when Mrs. Crandell leaves? Can/should a second position be established (amalgamation with SOE Unit may make this necessary)

b. The noise problems of the present studio

c. System wiring needs attention, according to Technical Manager

3.2 Needs

a. More audio-tapes to enhance study materials

b. Experimentation with audio-tapes for student-tutor interection (e.g., some assignments may be composed and submitted orally; and some tutor comments on submitted exercises might be on tape).

4. GENERAL

Understeffing of Extension Services denies us the time to evaluate, research, reflect, consult, with a view to improving our present operations and launching experiments for future improvements. We need time also to encourage our teaching colleagues to be more imaginative and to utilise the multi-media available.

ATTACHMENT 4

1. Technical

The audioconferencing network works in simplex mode, that is, it is essentially a one-way-at-a-time audio circuit connecting 10 earth station in 9 countries. Western Samoa has two earth stations, one at the Apia Extension Centre and one at the Alafua Agriculture campus. The Fiji and Alafua campuses have operator-activated network control consoles mounted on conference tables, plus a push-to-talk microphone for individual discussions, plus four operator controlled microphones on the conference table. The extension centres have provision for level controls and for selection of transmit/receive modes. The main input device at the centres is the push-to-talk microphone, which is used for small groups who can meet in the satellite rooms themselves. In Apia a second conference room has been established for large groups with two overhead microphones and two wall-mounted loudspeakers. Such a permanent additional facility does not exist in Alafua, Vanuatu, Tonga or the Solomons where loudspeakers are posted in adjacent rooms to accommodate the needs of larger groups. As the numbers of participants at a single site is small, it is the incremental effect of the number of sites which provides substantial totals. The audioconferencing mode can be switched to computer messaging among all centres. A new software package allows addressing so that only the addressee(s) will receive a printout of the message. However, all messages can be read on the TV monitors at all centres.

In addition, the communication mode can be switched to handle slow-scan TV and facsimile. To date, however, only two facsimile units exist in the system, at the Alafua campus in Western Samoa and a the Laucala Campus in Fiji; slow-scan exists at those two campuses and in Tonga.

At each centre an outlet for a public telephone is located in the satellite room. In Vanuatu provision has been made to patch the public telephone into the experimental system. Each centre is equipped with a TV monitor and videotape playback equipment as well as an Apple Computer and radio tape playback equipment. The Alafua and Fiji campuses have radio and video production studios which are located in the vicinity of the satellite rooms. The size of the satellite operating rooms at the Extension Centres ranges from 9 x 15 ft. to 12 x 24 ft. On the Suva and Alafua campuses they

are substantially larger to accommodate conference tables. All rooms are air-conditioned. Power for the equipment, air-conditioning and earth stations is taken from the commercial power grid.

The TV studio at Suva is a simple, air-conditioned space with wooden floors, perhaps 30 x 36 ft. There is no sound proofing of the outside walls and what lighting there is would be adequate for only the simplest studio production. There are 2 video studio cameras capable of excellent resolution and good color. In addition there is an excellent portable camera unit complete with all the necessary associated equipment to permit shooting in the field. A single film chain is available. The film chain camera, however, is sub-par. Recording is done on U-matic format tape. Tape editing and dubbing is convenient (5 copies at a time) and quality is good. The control room is well designed with perhaps more switching capacity than is required. All is well-maintained and in operating order. The facilities as they stand would permit (and have provided) adequate production at the level which appears to be required to meet limited objectives, except for the studio space.

The video recording studio at Alafua has modern sound proofing and air-conditioning. Equipment consists of one 3-color camera, a 2-microphone portable sound system, 4-cassette video recorders, in VHS format and 1-U-matic recorder, and 4-TV monitors. There are also a reel-to-reel audio recorder, a slow-scan TV camera and monitor, and a dark room, with enlarger and 35 mm camera. There is no video editing equipment.

South Pacific
EXTENSION SERVICES

internal memorandum

From: Acting Technical Manager

Date: 24 August 1983

To: Director of Extension Services

Our ref: Ext/11/16

Subject: Report on Terminal Operators Workshop (11th - 19th August 1983) (N.Esau, Technical Manager).

Your ref:

ATTACHMENT 5

SATELLITE AND COMPUTER COMPONENT

(A) Revision of Operating Procedures.

With the view of improving the efficiency of the system operation in mind, the operators were taken through the use of international codes to communicate with, instead of using long and time consuming sentences. These codes are applied mainly during roll call and message transfers, including acknowledgement of receipt of messages, whether by computer or by voice.

The objective of this exercise is to allow for as much as possible, the amount of two-way traffic being passed during each session.

(B) Computer Send/Receive Program.

A new program which was written by Mr Allen Rosten and based on our requirements was introduced to the operators. By linking the two computers, the operators were given a demonstration on the operation of the program prior to their familiarisation exercise which took one whole day. I am very confident that the operators have fully learned how to handle this new program. The distinct advantage of the program is that each terminal computer is automatically instructed to ignore all messages not destined for it. As a result a great saving in computer paper is achieved. This paper is a special type and therefore expensive.

May I also ask that an effort be made to computerize most of the materials being passed over the network. It is my strong opinion that most of the verbal queries and requests on things like course materials etc can be computerized. This will make extra time available for matters that required discussion. I notice that we are constantly under pressure for time during discussions and yet we could avoid this by computerizing most of our traffic.

May I also express my gratitude to Allen Rosten for his effort in writing the new program. It was entirely due to his expertise in programming that we are able to have this new program.

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Using the Apple Writer II Word Processor.

This session was conducted by Dr Ping Sun Leung from the University of Hawaii who was at Alafua to look at up-grading the Alafua Apple II computer. Initially, Dr Leung was programmed to spend one whole day with the operators talking about Computer Networking. However, in view of the irrelevancy of the topic to the operators, Dr Leung was advised to devote most of his workshop time to the use of the Word Processor.

Prior to this, Dr Leung talked briefly about computer networking. To all except one of the operators, this was the first opportunity to learn how to use the word processor, let alone hearing about it for the first time. Most of the day was spent on practising the use of this software. We are all grateful for Dr Leung's time with the operators.

Computer Programming Course

All workshop participants were given the opportunity to go through the step-by-step course on BASIC computer programming. Judging from the interest shown throughout the whole day, everyone appeared to have at least received some knowledge on how to read and write simple programs.

I consider this course to be of great value to Extension Services especially with the view of computerizing our work. I would therefore like to invite interested members of staff to try out this course as I am sure it will help to acquaint us more closely with this relatively new facility.

.....

S. Nemaia Esau

ATTACHMENT 6

RADIO PRODUCTION REPORT — AUDIO STUDIOS, Nov '82/Oct '83

The following is a summary of the radio production activities of Naomi Rakuita and myself over the past year:

I. BROADCAST PROGRAMME PRODUCTION (ENGLISH)

- University Bookshelf of the Air series. Scripts written, narrated and produced in our studios with Extension Services staff as cast members:
  a) Pacific Profiles; 6-programme series. DURATION: 15' max.
  b) Tales of the Tikongs; 7-programme series. DURATION: 15' max.
  c) Music & Stories of Papua New Guinea; 3-programme series. DURATION: 15' max.

- Fiji Centre Magazine series: 18 programmes have been produced in this fortnightly series for local broadcast on Radio Fiji — alternates on Sundays with the University Bookshelf series; DURATION: 15' max.

- Special Bookshelf and other University programmes:
  a) 1982 Pacific Press Seminar
  b) Girmit Special
  c) Solomon Islands, Vanuatu & Wantok specials
  d) Options to a Regional University (2-part special)

II. BROADCAST PROGRAMME PRODUCTION (FRENCH & VERNACULAR LANGUAGES).

- Pilot programme: Pacific Profiles, script 1, translated into French and produced in Audio Studio (EMISSION UNIVERSITAIRE "LA BIBLIOTHEQUE DES ONDES") French Lecturer, Mr. Pascal Treguer, translator.

- USPSA Radio programmes in Regional Languages:

a)	Vanuatu	11	programmes produced
b)	Tonga.....	10	" "
c)	Cook Islands....	10	" "
d)	Kiribati.....	7	" "
e)	Niue.....	4	" "
f)	Solomon Islands.	3	" "

III. COURSE TAPES

- 284 cassettes dubbed = English Foundation B
- 255 " " = Poetry for English, Intro B
- 12 " " = EDL, School Librarianship
- 165 " " = SE 161, Administration
- 80 " " = SE 103, Land Tenure
- 101 " " = ED 113, Maths

- Continuing Education Courses:
  a) Several sessions were spent in the Audio Studio dubbing music & sound effects for the Adults' and Children's Dance and Keep Fit classes.
  b) Dubbed 14 cassettes for French for the Pacific; also dubbed 21 De Vive Voix lessons for the French Unit, and dubbed 7 French music tapes.

- Extension Services Regional Staff Meeting; 19 - 27 May, 1983
  a) Conducted sessions for Centre Directors on radio script-writing, production techniques, narration and use of microphones — as well as sessions on first-line maintenance of audio equipment. (*report of 30 May '83)
  b) Assisted in video workshop with scripting and audio production for slide/video demonstration with Centre Directors.

- Satellite Operators' Media Workshop; 11 - 19 August, 1983
  a) Conducted sessions for operators on technical facilities, care and maintenance, use of microphones and gave time for "hands-on" equipment practice for participants. (*report of 26 August '83)

- School of Natural Resources teaching staff toured Audio Studio on 16 September 1983

V. IN-HOUSE RECORDINGS AND ACTIVITIES:

a) Sound recording of narration for "Bili bili" (Video).
b) " " " " " "Alive & Well" (Video).
c) " " " " " "How To Make Contact Prints" (Graphics)
d) Sample recordings of our distance education radio programmes were assembled for Arlene Griffen (SOE) to take to Australia as an educational resource/example.
e) Island music of Fiji, Niue & Vanuatu was dubbed and sent to Tonga Centre. Also recorded an interview with the Centre Director from Tonga and the USPSA Student Representative on campus. (vernacular)
f) Dubbed and despatched copies of the new Vice-Chancellor's speech for all regional centres to broadcast locally.
g) Co-ordinated with the Graphics Studio in the updating and reprinting of the booklet: Audio Studio — Some Guidelines for making Course Tapes; and four illustrative posters for the audio studios.

VI. AUDIO STUDIO LIBRARY COLLECTION:

a) Island Music of the South Pacific; David Fanshawe; dubbed to cassette.
b) Cook Islands Music; Marjorie Crocombe; 3 records dubbed to reels.
c) Traditional Papua New Guinea music; 5 records presented to Extension Services Audio Studio by the Institute of Pacific Studies as a gift from the Institute of Papua New Guinea Studies in Port Moresby.
d) Purchased 25 regional island long-playing records; [illegible]mental and vocal — traditional & contemporary.
e) Purchased 36 regional books and pamphlets from the Institute of Pacific Studies for use in the preparation of radio programmes. (Includes 12 separate volumes of Mana)

VII. IN-PROCESS:

- Scriptwriting/recording of new Bookshelf of the Air series based on Mi Mere, a newly published book of poetry and prose by Solomon Islands women writers.

ATTACHMENT 7

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October 19, 1979

Mr. Larry Birch, Technical Manager
USP Satellite Project
University of South Pacific
Extension Services
P.O. Box 1168
Suva, Fiji

Dear Larry:

Subsequent to my recent visit to your facility, I have been troubled about your proposed studio location.

My concerns are:

1. The location selected for your video production studio is far to small. Your set selection and design will be severely limited. Also, camera movement will be restricted.

2. Studio lighting will be a major effort due to restricted ceiling height. Heat and glare from studio lights will be severe.

3. Flooring is not adequate to support studio cameras. Camera movement will be difficult.

4. Acoustics are horrendous.

5. Equipment environment will not be adequately controlled.

6. Extreme isolation and distance from the existing audio production unit will create communications and interface problems.

7. Tape storage area is not adequate, both in area and temperature and humidity control.

8. Your proposed film chain location just will not work. Film chains require a very substantial base, preferably concrete. The requirements for the optical system simply precludes any vibration.

I am cognizant of the fact you have agonized over these concerns much more than I, but I would be remiss if I failed to voice my doubts. If you desire, I will be happy to discuss these concerns in greater detail. Please let me know.

Warmest Regards,

Billy D. Lane

Billy D. Lane
Engineering Development Manager

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EXTENSION SERVICES

ATTACHMENT 8

File Ext/11/16

MEMORANDUM

from Technical Officer (Video)

to Head, Distance Education

subject SERIES OF VIDEO PROGRAMMES FOR EXTENSION STUDIES, 1984, COSTING.
Your Memo 19/1/84

The following calculation is based on a productions type "John Hailey". Studio, Synched voice
Necessary time for research of production and script is not included.
Duration of each programme 25/30 min.

A. Field Recording 3 - 5 days

includes Field Production

- interviews
- shooting in offices or
- classrooms
- shooting somewhere in Suva or USP campus

and Studio Production

- presentation
- interview
- models
- graphics

B. Audio recording of narration in studio ½ day

C. Post Production 10 days
~~in~~ video studio

D. Dubbing ½ day
10 copies U-Matic

E. Costs for Material
10 x copies for Centres
KCA 30 @ A$14.05 A$140.50

Camera-Master tapes (cut ratio 1:8 based on 25/30 min programme).

10 tapes BCS 20 @ A$14.30 A$143.00

Post Production
1 tape BCA30 A$16.26

A$ 299.76

C. Transport has to be provided.

D. Miscellaneous (spare parts) $ 200.00

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ATTACHMENT 9

To: Director of Extension Services

From: Technical Manager

Subject: Slow Scan Experiments For Information of Evaluation Team.

Attached please find the first prints obtained from the first SSTV trial runs with AX82 station.

As I mentioned during our discussion, the picuture quality is not acceptable for tutorial application.

The problem has been identified to be due to the following reasons:

1. the quality of the signal on the satellite link.

2. The machine at AX82 is not electronically identical to our machine in Suva.
3. A suspected memory fault inour machine which has to be straightened up.

Proble m (1) will be solved by the channel-splitting development we are presently experimenting on.
AX82 will have to purhhase an identical machine to solve problem (2)
Problem three has been brought to the notice of Colorado Video and they have sent us a new memory board free of charge as I mentioned in my PTC84 report. We have already received this board.

I will keep you infommed of further progress of this experime

Nemaia Esau
13.3.84

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ATTACHMENT 10

COMMUNICATION NEEDS OF DISTANCE EDUCATION OF THE USP

1. Most important of all is an efficient, rapid, and reliable air mailing system. Even the once-weekly mail-bag arrangement currently used can mean a 'dead' two-weeks for some unfortunate items e.g. a student's assignment which just misses a mail-bag coming from his home country to Suva and then just misses a mail-bag when the marked assignment is being returned by the lecturer. Increasing the frequency of mail-bags where possible and/or using ordinary air-mail and air-freight services would improve matters.

2. For Planning and administrative purposes it is essential to have clear audio communication between all Centres and the Extension Services headquarters for at least one hour each working day.

3. For those same purposes and because voice traffic is often too heavy and sometimes inaudible, it is very desirable to have facilities for message-in-print communication in real- or in store-and-send time for one half-hour each day.

4. To promote teaching/learning in the Region it is desirable that (a) lecturers at any Centre/Campus should be able to communicate orally with Local Tutors and/or students in all other Centres,
(b) teleconferencing for tutorial, seminar, or discussion purposes is possible, linking all Centres, sub-Centres, and other terminals,
(c) information in textual or pictorial form can be transmitted.

   For these teaching/learning functions, two hours per working day are required.

5. Thus, in summary, the following table shows our communication needs for our distance education work.

	Function	Mode and Time
1.	Planning and Administration	Audio and computer print-out-message, 1½ hours per day, Monday to Friday
2.	(a) Tutorials, (b) seminars, (c) conferences, (d) discussions, (e) lectures	Audio, text print-out and facsimile transmission, and electronic black-board transmission within the same 3 hours per day. N.B. These facilities are for formal and non-formal credit and non-credit course.