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ABSTRACT

A second bimonthly report describes progress made on six tasks enumerated in earlier reports and specifically points out three new issues raised by the demonstration: the question of the use of telecommunication for other than educational purposes, the discrepancy between the project's concept and reality, and the usefulness of a project for native villages to urban adults. Also documented are historical events of the two-month period, steps taken to measure village involvement and television use, methods chosen to select four native villages for intensive study of the demonstration's impact, and a procedure for measuring the postdemonstration effects. The schedule for the next two months is listed. Appendixes include documentation methodology, the documentation filing system and an operator's training guide. (SK)

STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION - ALASKA

2nd BI-MONTHLY REPORT

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December 1, 1974

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SECTION I

INTRODUCTION

A. REPORT CONTENT

This second bi-monthly report chronicles PCI's efforts to gather and organize information that will allow us to assess ESCD's impact on people and organizations (Figure I-1). The first bi-monthly report enumerated the six tasks to be performed and the accomplishments of this period are discussed within their context:

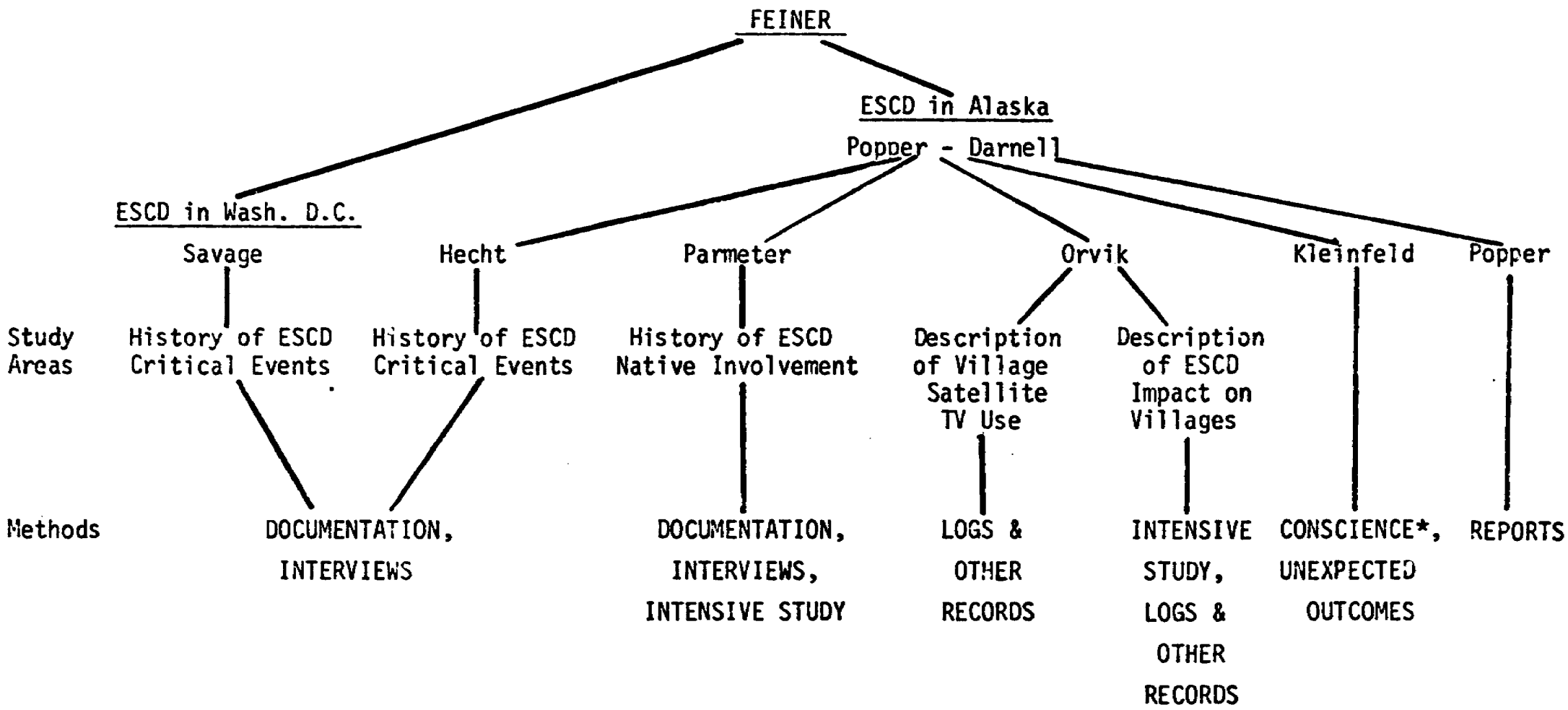
1. A history of critical events dealing with the demonstration, emphasizing the interrelationships among agencies, groups representing consumers and village residents;
2. A history and description of village involvement in the ESCD process;
3. A description of availability and utilization of satellite TV technology in the villages;
4. A description of the impact of the demonstration on village residents and on village institutions;
5. A description of post-demonstration effects;
6. A description of unforeseen effects, both positive and negative.

Section II of this report, "History of ESCD Critical Events", deals with the history gathering efforts of task 1 above, both in Alaska and in Washington, D. C. Accomplishments of this period are:

a. Ordering of Washington materials and interviews to structure a "First Cut Chronology of Critical Events (Decisions)";
b. Development of a filing system that ensures rapid access to documents and interview notes (Appendix B);
c. Listing of all contacts made to date, their association, and notation of documentation received;
d. Listing of all documents gathered and presently filed at CNER along with title, author, institution, etc. (Appendix B).

FIGURE I-1

MANAGEMENT SCHEME



* Dr. Judith Kleinfeld has the responsibility of making sure we do not overlook important issues and unexpected outcomes of the demonstration.

Section III, "Village Involvement in ESCD Process" refers to task 2 above. Major accomplishment in this area deals with attendance at Consumer Committee meetings. The material from these meetings are in the CNER file and will be reported in context when all relevant information has been gathered.

Section IV, "Description of Village Satellite TV Use", correlates with task 3 above. The major accomplishment of this period has been the arrangement with the Governor's Office of Telecommunications (GOT) to use their Utilization Aides to help gather information of interest to our effort, thus expanding our information input beyond the Case Villages.

Section V, "Description of ESCD Impact on Villages", refers to task 4 above and represents the area of major emphasis during this reporting period. Accomplishments are summarized below.

a. Planning of Intensive Study of Case Villages:

   . Selection criteria for Case Villages (comments and recommendations from NIE are encouraged and desired);

   . Selection of Case Villages and alternates;

   . Design of the intensive study to be conducted on Case Villages.

b. Actions Taken to Implement Intensive Study:

   . Identification and interview of students from Case Villages who could be used to perform systematic interviews;

   . Initiated actions necessary to establish "on-site" Native Alaskan interviewers in Case Villages -- Tanana interviewers on-board, remaining villages to be set by mid-December;

   . Arranged for extension of study to the Fairbanks Public Schools.

c. Observation of reception of "Programs" by students at the Tanana Community School.

Section VI, "Description of Post-Demonstration Effects", refers to task 5 above. The controversy between the State/State groups and RCA Alascom/ Globecom regarding the future of telecommunications in Alaska is raging hot and heavy and the ATS-6 and its experiments are involved. The story is presented by newspaper clippings -- an "unobtrusive" (unsolicited) technique which is a measure of true impact.

Section VII contains a statement of "Plans for the Next Two Months".

B. NEW HIGHLIGHTS

In the course of our contact with involved individuals and reviewing documentation gathered a number of issues have surfaced which will bear watching and may become important to pursue during this demonstration. They are:

1. Because the source of funding for the ESCD comes from NIE it is logical to look at communication in terms of educational needs. Telecommunications, however, can satisfy many other needs and is considered central to the issue of local control of the total life of the community. Consider that the social deficit of the villages due to lack of adequate communications may not permit local people to adequately define educational needs before the total social deficit is understood. Therefore, by providing educational telecommunications at this time are we fostering externalization and short-circuiting of the process of local control? Should village telecommunication needs be fulfilled first, and then the education requirements met along with other social needs in the process of totalizing village control over their lives?

2. According to a number of persons, the transformation of the educational program from conception and objectives into physical reality has become lost in the translation process. This information has been relayed by those hired to do the programming, and discussions at Consumer Committee meetings seem also to indicate this to be so. It appears to us to be important to determine first what happened to the original message and second, how did it happen and what can be done to avoid it?

3. The programming was designed for Native people in the context of village life. How useful is this programming for adults in urban settings?

C. POTENTIAL PROBLEM

The mass of information gathered both in document form and notes of contacts made has pointed up the complexity of the history. Even a cursory reading points up discrepancies in stories told. Further, the change in the State administration presages a change in the structure internal to Alaska. Both these factors will contribute to the difficulty of compiling an accurate history.

SECTION II

HISTORY OF ESCD CRITICAL EVENTS

The collection of historical documentation, both written and interviews, is essential to identify those factors that shaped the Educational Satellite Communication Demonstration (ESCD), determine its impact on people and organizations, and identify the issues that will guide future educational experiments involving telecommunications. The effort has been divided into an Alaskan and a Washington component with the Center for Northern Educational Research (CNER) and Mr. Adrian Parmeter assuming major operational responsibility for data gathering in Alaska. PCI retains direct (operational) responsibility for data collection in Washington as well as its responsibilities for overview.

Briefly, the procedure being followed at both Alaska and D.C. locations is:

1. Make initial contact with persons involved with the ESCD and others recommended by them, collecting documentation that they consider appears to be relevant;

2. Historically order these documents, merging the Washington and Alaskan components at some later time;

3. Initially identifying critical events (decision points) and align them chronologically;

4. Check for discrepancies between decisions and the documentation;

5. Identify gaps in knowledge and formulate a structured approach to follow-on interviews and the search for documents.

A more thorough explanation of the rationale for the Documentation-Interview Cycle is included (Appendix A).

This section contains a distillation of initial contacts and documents reviewed in the Washington sector. This information has been analyzed and presented as a listing of critical events (decision points). Detailed notes have been taken but are not included here nor have any conclusions

been drawn. It is too early in the cycle and could seriously damage the relationship established with key people contacted. The detailed information is available to the Educational Policy Research Center (EPRC) and NIE on request.

This section also contains a listing of all people contacted thus far -- the majority being in Alaska. From the list contained here it is obvious that a great deal of information and documentation has already been collected. The sorting, filing and historical ordering of the Alaska component represents a difficult and time consuming effort. Therefore, chronological ordering of critical events in this sector cannot be completed before the end of December. Information relative to this material is available to EPRC and NIE on request.

A. FIRST CUT CHRONOLOGY OF CRITICAL EVENTS (Washington Perspective):

1968	Alaska interest in satellites evident - initial contact with Messrs. Buck and Northrip.
9/70	First indication of an HEW commitment to support the preservation of satellite frequency for social experiments -- HEW Secretary Elliot Richardson letter to Dean Burch (Federal Communications Commissioner).
10/70	Tone and scope of Alaska Educational Broadcasting Commission (AEBC) interest in satellite communication set -- "A Plan for the Development of Educational Telecommunications in Alaska: Report of a Study Conducted by the National Association of Educational Broadcasters (NAEB) for the AEBC".
10/70	HEW commits to ATS-F demonstration by promising to provide the ground environment -- letter exchange between Secretary Richardson (HEW) and Mr. Macy, President of the Corporation for Public Broadcasting (CPB) and Dr. G. Lowe, Associate Administracor of NASA.
4/71	HEW and CPB submit proposal to NASA for social service delivery experiments on ATS-F -- written document by A. D. Little, Inc.
5/71	First contract awarded by Office of Education (USOE) to support planning for satellite experimentation (awarded to Federation of Rocky Mountain States [FRMS]).
6/71	World Administrative Radio Conference (WARC) agreement to allocate 2.5 GHz for broadcast via satellite.
7/71	Coordination with Alaska established.

1/72 Creation of the National Center for Educational Technology (NCET).

2/72 $35,000 grant awarded by USOE to Bob Arnold, AEBC -- letter from Marshall Lind, Alaska Commissioner of Education to Dr. Adolph Koenig, Education Program Specialist, Division of Educational Technology.

6/72 Department of Education, Alaska (DOE) looks to hire full time person to gather and organize input from educational activity -- letter from Marshall Lind to Adolph Koenig.

9/72 $50,000 contract to AEBC from Dr. Horley's office to develop plans for educational satellite experiment in Alaska.

12/72 AEBC plans submitted -- to HEW.

12/72 Revised proposal requested by NCET by mid-February 1973.

1/73 NCET requests an Alaska spokesman.

1/73 Governor of Alaska establishes the Office of Telecommunications (GOT).

2/73 Charles Northrip appointed satellite experiments coordinator for State of Alaska.

7/73 Alaska project funding transferred from NCET to the National Institute of Education (NIE).

8/73 New program plans submitted by GOT. Funds running low and need for programming urgent -- letter from Charles Northrip.

10/73 First site visit headed by Dr. Lawrence Grayson.

12/73 Contract awarded by NIE to GOT for $650,000 -- with conditions.

4/74 Second site visit lead by Grayson.

7/74 NIE awards additional contract funds (approx. $650,000) to GOT -- interview with Grayson.

B. CONTACTS MADE AND DOCUMENTS COLLECTED

1. Documents Collected

Recognizing that the first pass at document collection will be made before identification of all key issues, a filing system has been devised which will permit easy access to those documents. They are filed primarily by organization with key aspects as subheadings. This system will be reviewed periodically as issues are formulated and tested to ensure accessibility to appropriate back-up documentation. An outline of the filing system is included in Appendix B.

CNER is presently the repository of all documentation collected since the vast majority of pertinent material was gathered in Alaska. Dr. Kathryn Hecht has been assigned responsibility for the documents and joint responsibility with Roger Popper for the "History of Critical Events". In Washington, D.C. where the persons and files are within easy reach, few documents have been reproduced. The cooperation of those contacted has been excellent and their files are accessible at any time. A list of documents which have been read is kept at PCI headquarters. Documents which are required by Dr. Hecht will be requested and copies furnished.

A list of all documents stored at CNER and a list of documents collected thus far in Washington are contained in Appendix B.

2. Persons Contacted

The following table (Table II-1) indicates people contacted thus far by the PCI/CNER team. Systematic interviewing has not begun and can only be accomplished after gaps in present information are identified and specific questions formulated. The objectives of our contacts to date have been to:

a. Obtain readily available documents;

b. Gather background on ESCD, i.e., who has been most involved and therefore is most knowledgeable.

Where conversations have been substantive, extensive notes were made. In general, the notes are available to NIE and EPRC on request.

Because interviews of Native villagers, attendance at Consumer Committee meetings, etc. are considered of major importance, Adrian Parmeter has been assigned primary responsibility for this sector. He will compile and organize this information. Presenting the data and conclusions reached is a joint PCI/Parmeter task.

3. Viewing ATS-6 Alaska Educational Programs

The ability to intelligently talk with persons involved in the demonstration requires familiarity with the program material transmitted. One of the difficult tasks which confronts us is to attempt to obtain "true" feelings about the role of telecommunications in Alaskan education without content inserting a bias one way or the other. Therefore, PCI and CNER personnel have spent considerable time viewing programs from the KUAC video room and from classrooms in the ESCD villages. The following lists those who have been involved and the number of programs watched. PCI Washington-based personnel will be able to "watch" at NIE in the near future.

Team Members	# Programs Watched
Hecht	6
Popper	7
Orvik	4
Parmeter	4
Porter (EPRC)	6

TABLE II-1

INITIAL CONTACTS BY STUDY TEAM

Study Team Member: Adrian Parmeter

Person Contacted	Reason Contacted	Documentation
Norman Hamilton	NWREL, in charge of ATS-6 contract	Notes
Kelly Simeonoff	Native Project Coordinator for Indian Health Service	Notes
Glenn Stanley	University of Alaska expert on telecommunications	Notes
Robert Arnold	Early key participant in ESCD	None
Roger Lang	Alaska Federation of Natives expert on telecommunications	None

Meetings Attended	Location	Documentation
General Session, ATS-6 Consumer Committees	Juneau	Notes, Minutes
"Alaska Native Magazine" Consumer Committee Meeting	Fairbanks	Notes, Minutes
Hearings of Interim Committee on Problems of the Unorganized Borough, Topic: Satellite Communication	Anchorage	Notes, Written Testimony

Study Team Member: Roger Popper

Meetings Attended	Location	Documentation
Satellite Communication Seminar, Robert P. Merritt, Leader	University of Alaska, Fairbanks	Paper by Merritt

Table II-1 (Cont.)

Study Team Member: Kathryn Hecht

Person Contacted	Reason Contacted	Documentation
Duncan Read	Former ATS-1 Director	None
Robert Arnold	Former Alaska Educational Broadcasting Commission Director	Yes
Charles Northrip	Governor's Office of Telecommunications	Yes
Charles Buck	"	None
Rex Taylor	"	None
Catalino Barril	"	Yes
Dr. Carolyn Brown	Local evaluator for Stanford	No [see D. Foote below]
Dr. Martha Wilson	Head of Health Demo	Requested-not yet received
Kelly Simeonoff	Assistant to Dr. Wilson	"
Walt Parker	Evaluator - ATS-1	"
Marv Weatherly	Director, AEBC	None
Dorik Mechau	Anthropos - possible internal evaluator	Yes
Gary Holthaus	"	None
Ernest Polley	State Department of Education (ATS-6 Planner)	Yes
Mary Lou Madden	"	Yes
Norman Hamilton	NWREL, in charge of ATS-6 subcontract	Yes
Holly Bruggeman	NWREL - program designer	None
Bernadine Featherly	"	None
Jack Peterson	Project Wales evaluator	Yes

Table II-1 (Cont.)

Ralph Liddle	State Department of Education, producer of teacher inservice programs for ATS-6	Yes
Dennis Foote	Health Demo evaluator - Stanford	Yes
Glenn Stanley	University of Alaska, technical involvement in ATS-1 and ATS-6	None
Burt Cowlan	AID study on ATS-6	Yes
Karl Jack	Alaska Federation of Natives Health	Not yet received
Joe Notaro	Assistant to K. Jack	Not yet received
Sam Kito	Doyon Regional Corporation	None
Roger Lang	Alaska Federation of Natives	None
John Shively	"	None
Gordon Jackson	"	None
Emil Notti	"	None
Stanley Friese	State Operated Schools	None
Dave Osterback	"	None
Bob Van Houte (made by another CNER staff member)	National Educational Association	None

Study Team Members: Helen Savage and Al Feiner

Person Contacted	Reason Contacted	Documentation
Lawrence Grayson	National Institute of Education, Alaska Satellite Project Officer	Yes, access to files, notes
Kevin Arundel	NIE, Task Force on Technology and Productivity	"
Arthur Melmed	NIE, Chairman, Task Force on Technology & Productivity	"

Table II-1 (Cont.)

Albert Horley	HEW, Director of Telecommunications Policy	Yes, access to files, notes
Phil Balazs	HEW, Office of Telecommunications Policy	"

SECTION III

VILLAGE INVOLVEMENT IN ESCD PROCESS

Information on village involvement in the ESCD process is extremely important because of the insight it can provide relative to the Federal and public cooperation so essential to the success of any experiment and/or demonstration.

During this trip to Alaska, Mr. Parmeter attended the last general session meeting of all the Consumer Committees on October 31. In addition he was able to attend a meeting of the Alaska Native Magazine Consumer Committee (November 13) and conduct interviews with various Consumer Committee members.

Many notes were taken. However, because of the sensitive nature of subjects discussed and the unpolished form in which the notes were taken, they cannot be reported at this time but have been filed. The information they contain must be incorporated with that from other sources before the results can be reported. The rough notes are, in general, available to NIE and EPRC staff for inspection on PCI's premises. Some of the sensitive issues addressed were:

1. The wisdom of discussing Native Regional Corporation affairs "on-the-air";

2. The difficulty of getting "grassroots" Natives to participate on the Alaska Native Magazine.

SECTION IV

DESCRIPTION OF VILLAGE SATELLITE TV USE

Work on village use of satellite TV did not begin until November. Technical difficulties until last month have precluded sufficient usage to gather even preliminary data. During that time however, we have been discussing with the Governor's Office of Telecommunications ways to use their Utilization Aides to meet both the objectives of GOT and of the demonstration study. The description of this task contained in our first bi-monthly report shows that there are a number of common data elements. Therefore this information can be obtained by the Utilization Aides with minor revision of their job description. These revisions have been arranged with GOT and information should start coming in shortly. We are arranging for the Utilization Aides to collect Native vs. non-Native attendance for the Alaska Native Magazine. Unlogged information, such as language choice, is recorded centrally and is available. This arrangement has minimized the amount of information which must be collected independently in the case villages.

Figure IV-1 shows the ATS-6 Daily Log used by the Utilization Aides. The "Operations Training Guide" given to the Utilization Aides contains information and instructions for minimal understanding and maintenance of the equipment [Appendix C].

Log information gathered will be summarized and presented in accordance with the study are "specifications".

At this early date we know that the ATS-1 "interaction channel" is received poorly so that village questions for the Alaska Native Magazine are understood only part of the time. This deficiency is being studied and it is hoped that it will soon be corrected.

FIGURE IV-1

ATS-6 DAILY LOG

Community________________ Location________________

Operators (Persons filling out this form) ________________
____
____
____

Date	Time On	Program Received (1)	Meter Reading (2)	TV Picture Quality (3)	TV Sound Quality (4)	Radio Quality (4)	Audience (5)		Additional Comments (6)	Operator Initials
							Adults	Students		

Notes:

(1) Yes or No

(2) Front Panel Meter On HP Receiver 0-30

(3)
1. Excellent
2. Not Perfect But Still O.K.
3. Not Good But Can Watch
4. Hard To Watch
5. Unuseable*

(4)
1. Good
2. Slightly Noisy Or Distorted
3. Noisy Or Distorted But Can Understand
4. Hard To Understand
5. Cannot Understand

(5) Number Of Each Watching

(6) Equipment Problems, Antenna Adjustments Made, More Detailed Description Of T.V. Or Sound If Required. Use Back of Form If More Room 's Needed For Comments.

SECTION V

DESCRIPTION OF ESCD IMPACT ON VILLAGES

The most intensive efforts during November were concentrated on assessing ESCD impact on villages. During this report period PCI/CNER planned the intensive study of Case Villages. We set up the mechanisms for gathering information from the Case Villages (and as many other villages as time and funds would permit) and for sampling reaction to programs within the Case Villages. These items are covered in Roger Popper and Adrian Parmeter's trip report included here.

A. SELECTION OF VILLAGES FOR INTENSIVE STUDY

It is not possible to pick a sample of ESCD Alaskan Native villages which would be representative in any formal sense of Alaskan Native villages in general, or of the villages in the demonstration. Therefore villages will be picked that can provide answers to important educational issues. As of this writing, the Case Villages selected are those listed below:

1. Tanana

   Chosen because of its status as a center for villages in the vicinity, particularly with regard to education. Services offered by Tanana are:

   a. A Regional High School;

   b. A Survival School which teaches traditional Native skills as an alternative to conventional, white-oriented high school;

   c. A "Center for Cross-Cultural Education" run by Mr. Howard Van Ness, which offers various programs for surrounding villages;

   d. A Regional Hospital.

2,3 Aniak and Chauthbaluk (Little Russian Mission)

   Chosen because they are near the town of Bethel, where there is already a locally controlled TV network serving villages similar to Aniak and Chauthbaluk. We suspect that proximity

to Bethel may represent a model for using communication systems like the one in the demonstration. Therefore, reaction to satellite TV and ideas about using it may be particularly valuable.

4. Angoon

Chosen because it represents Southeast Alaska. In this area the median educational level is high relative to Native Alaska (see Figure V-1). We suspect, therefore, that Natives of Southeast Alaska are sophisticated about education, and may have good ideas about how Native Alaskans can use satellite TV to good educational advantage.

5,6 Petersburg and Fairbanks

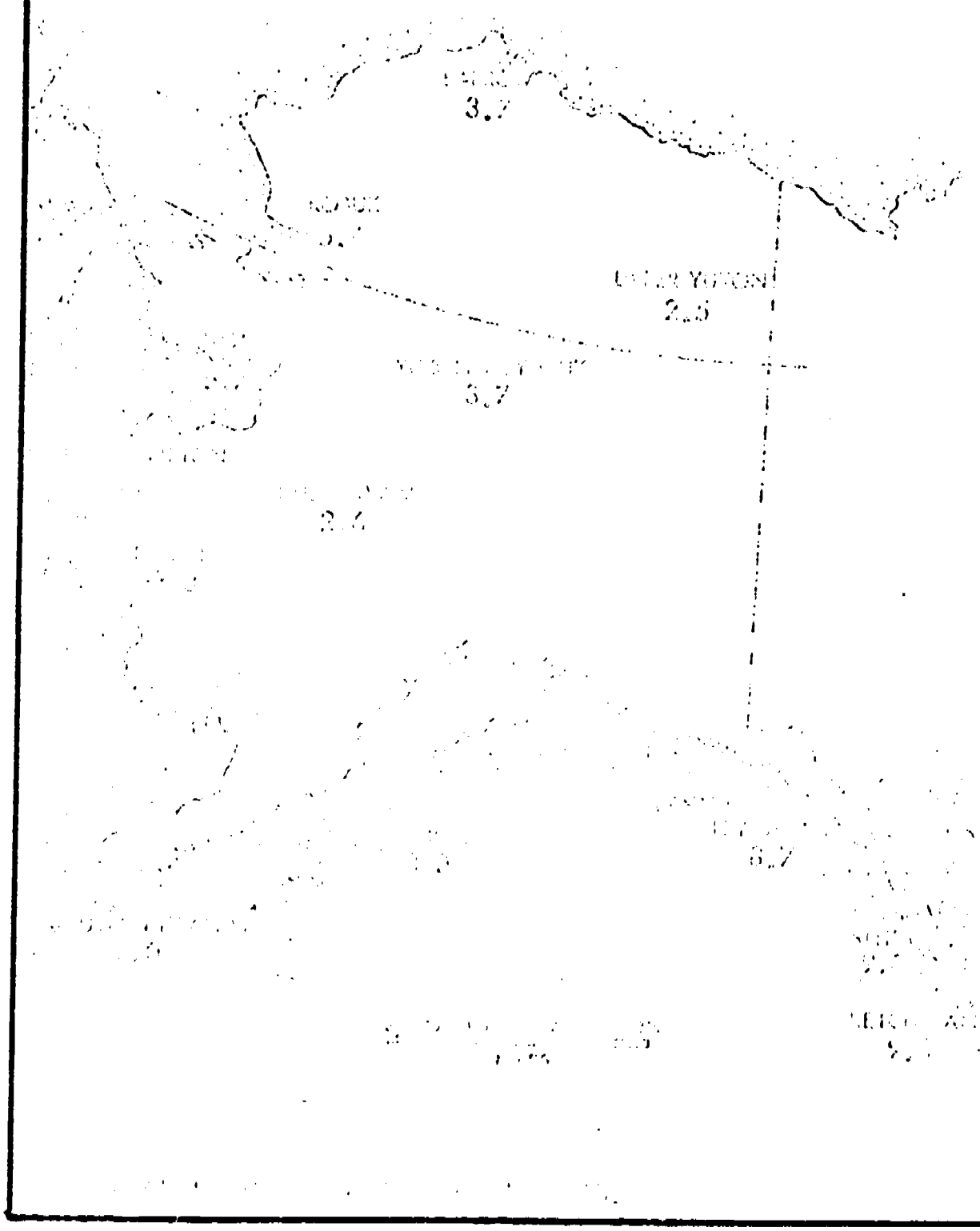
Chosen because they represent medium and large-size Alaskan towns with relatively large white populations. White reactions to, and ideas about, satellite TV are important, because future systems will serve all Alaska.

Additional possible Case Villages, for a variety of reasons, are Allakaket, Craig and Klawok. We are considering additional Case Villages at this point so that we will not be caught short if one or more of our original choices do not work out. Appendix D presents brief profiles of all actual and potential Case Villages.

B. INTENSIVE STUDY APPROACH

Concentration on four villages to represent a cross-section of populations and environments which can be generalized for a majority of the Native populations in Alaska is tricky. Choice of the observation methodology is equally critical and improperly performed can result in zero or wrong information. It was concluded that the most acceptable approaches were first, to hire competent Alaskan Native residents of the Case Villages to record reaction to the demonstration within the villages and second, to hire students at the University of Alaska in Fairbanks who come from the Case Villages to make periodic trips and perform systematic interviewing. Details of the job description for the preferred (first) approach are presented later in this section. The preferred approach has already been instituted in Tanana and similar arrangements are being made in other Case Villages as of this writing. Comments are invited from NIE as to the selection criteria. Villages presently included as Case Villages were based on these criteria.

FIGURE V-1



Both Popper and Parmeter visited Tanana, a procedure which is contrary to our normal policy. However, it was deemed necessary on this first village visit in order to attempt a design approach which was applicable to all Case Villages. The following documents present in detail the selected approach to "Intensive Study". The first is a letter from Popper to the local women hired as interviewers in Tanana and the second is a report of Popper and Parmeter's trip, describing how the arrangement specified in the letter was determined.

UNIVERSITY OF ALASKA
FAIRBANKS, ALASKA 99701

November 18, 1974

Miss Shirley Wheeler
Miss Ruth Folger
Tanana, Alaska

Dear Shirley and Ruth:

In this letter I have tried to write down the agreement we made when we talked on November 12. If my understanding is different from yours please say so. I will tell you how I can be reached at the end of this letter.

First things first: You will each receive $500 for work done between now and the end of the Satellite TV Demonstration on May 14. It is probable that your final write-up will take place after the end of the demonstration, in which case the work period would extend to June 1 or so. You may divide the work between you however you wish.

In general terms, the assignment I gave you was to record the reaction among residents of Tanana to the satellite TV demonstration. If satellite TV is to meet the needs of people in the bush - and of Native Alaskans in particular - then we have got to know what people in places like Tanana think about the demonstration; and about satellite TV in general.

Your job, then, is to find out what parents, children, the community in general and teachers are saying and thinking about:

- The "Right On" health program
- The Basic Oral Language Development program
- The Alaskan Native Magazine
- Satellite Television in general.

In addition we are interested in how the people of Tanana would like to see satellite TV used, or how they would use it themselves.

Basic ways to find out the above are:

- Keep your eyes and ears open and jot down things people say
- Actively talk to parents, children, the community in general, and teachers

The extent to which you actively ask people for opinions is up to you. My guess is that once people find out you are interested in reactions to the demonstration, and in ideas for how to use satellite TV, you will have no trouble finding out what people think. You should make sure the opinions and ideas of children, parents, old people, young people, and all the important sectors of Tanana are represented.

During the course of the demonstration, we will be able to make the above assignment more specific if we communicate regularly. That way I will learn what is and is not possible in Tanana, you will know what I expect from you.

I think we decided on a monthly progress report, which I will respond to immediately. I would expect the progress report to include:

1. How is the work proceeding? For example: are people talking a lot about the demonstration, or does it look like you will have to actively ask questions?

2. Important events. For example: The village had a meeting concerning satellite TV, or someone threw the TV in the river, etc.

3. Problems and questions you have with the work.

4. Notes on conversations you have had, or comments you have heard concerning satellite TV, the demonstration, etc.

If you do the above regularly, then the final report will only require summarizing and interpreting.

The first progress report is due on December 20. I will understand if the first report is sketchy, since getting started will probably be slow. Please do not spend too much time on the progress reports. They need not be fancy or particularly neat.

I will visit you at least twice during the demonstration. Once in January or February, and then again near the end.

Remember, if there is anything in this letter you do not understand or agree with, write me.

Best Regards,

Roger Popper
c/o Center for Northern Educational Research
(907) 479-7184

RP/pt

TANANA TRIP REPORT

Parmeter - November 10-11
Popper - November 10-13

The sequence of tasks reported here are, as of this writing, being repeated in Petersburg and Angoon by Adrian Parmeter, and will be repeated in several days time by Roger Popper in Aniak and Chauthbaluk.

TASKS:

- Identify and hire Natives to record village reactions to the demonstration;
- Design job of recording village reaction to the demonstration;
- Check data logs of the Utilization Aide;
- Watch the Health, English Language, and Alaskan Native Magazine programs on-site;
- Talk to residents of Tanana and teachers to get a feel for how the demonstration is perceived.

For a brief profile of Tanana, see Appendix D. Special features of Tanana are: a Regional High School, a Survival School which teaches traditional Native skills as an alternative to conventional high school, and a college level program in "Cross-Cultural Education".

Sunday, November 10

We left Fairbanks at 1:30 p.m., and upon arriving in Tanana went to visit Howard Van Ness who runs a program in "Cross-Cultural Education". Some of Van Ness's students end up playing a crucial role in our work in Tanana.

From the Van Ness's we called the Tanana Utilization Aide, Helene Carlo, and asked for a meeting. We tried to talk to her that afternoon, but as it turned out we had to wait until the following morning.

Monday, November 11

Early Monday morning Popper went to visit Bob Carnahan, principal of the Tanana Community School which also includes the Regional High School.

The purpose of the visit was to ask permission to watch the Basic Oral Language Development program, and the "Right On!" health program, which were to start at 10:30 a.m. in the 1st-2nd grade classroom.

Mr. Carnahan explained how he video-taped all programs (unless the machine was in use elsewhere) to accommodate his scheduling and to save programs for later use.

At 9:00 a.m. Popper and Parmeter met with Helene Carlo, the Utilization Aide. She was accompanied by Shirley Wheeler who is one of Van Ness's students and was a Native member of the Consumer Committee for the now defunct Early Childhood program. We explained our general interest in hiring someone to record Tanana residents' reactions to the demonstration.

We learned that the Alaska Native Magazine had started with only 3 or 4 in attendance and had mushroomed to 50 the previous Tuesday night. They said part of the reason was that a sign had been put up in the Northern Commercial store announcing "Live TV". Either Helene Carlo or her sister Eileen, who is Van Ness's secretary, put up the sign.

At 10:30 a.m. Parmeter and Popper entered the 1st-2nd grade classroom of the Tanana Community School to find that the room was also full of 3rd graders. The 1st-2nd grade teacher, by the way, is Mrs. Carnahan, the principal's wife.

The following are Popper's notes on the children's reactions to the programs:

- During "Tune-up" the set was receiving Alistair Cooke's "America";
- About 2/3 Native and 1/3 white children were present;
- "Right On!" health program --
  - At the end of the opening song some children raised their fists and shouted "Right On!" along with the children on-screen;
  - They are very attentive to the puppets (Rex the Moose and Charlie the Beaver, etc.), and jump at every chance to answer back to the TV set;

- They all cheered, or booed maybe, at the appearance of the "Germ" puppet, a pink-orange ball with a mouth and stringy things hanging all over it;

- There was lots of movement, of course, but no signs of boredom until a human nurse started giving health advice. One topic was how to compute a wind-chill factor.

. Basic Oral Language Development --

- A 5-10 minute exercise-break between programs;

- The third graders didn't stay because the program had proven too easy for them. In other villages where English is spoken less, this may not be true;

- B.O.L.D. is videotaped to use with kindergartners;

- The eagerness of children to answer back and sing along was even more pronounced than for "Right On!".

Tuesday, November 12

Parmeter left for Fairbanks to attend the last Consumer Committee meeting for the Alaska Native Magazine, and Popper stayed to set up the Intensive Study of several Case Villages, and to view the Alaska Native Magazine in-situ. Popper talked with several people about hiring interviewers, and soon realized that his best bet was to:

. Design the work in such a way that Howard Van Ness could give credit for it;

. Hire two people instead of just one.

To make a long story short, Shirley Wheeler (an Eskimo) and Ruth Folger (an Athabaskan), both students of Van Ness, were hired. A letter which describes the agreement reached in Tanana has already been presented.

On Tuesday evening Popper viewed the Alaska Native Magazine at the community school. There were about 25 in attendance, including 6 or 7 children. Popper checked with the Utilization Aide to see how the records were kept and found them in order.

Wednesday, November 13

Popper met with Sandy Hamilton, an ex-bush school teacher living in Allakaket, a village to the north of Tanana. Sandy's wife, Stella, is an Eskimo, and is the Utilization Aide in Allakaket. She is keeping a diary of the demonstration and we are looking into the possibility of paying her for it.

STUDY OF ESCD IN FAIRBANKS PUBLIC SCHOOLS

On November 21, Jim Orvik and Roger Popper met with Marlin Hulett, Director of Education for the Fairbanks, North Star Borough School District to talk about extending our study to schools in Fairbanks. Issues raised were:

1. If there is a communications satellite broadcasting educational programs to rural schools, urban schools should be able to take advantage of the technology and programs also;

2. It is important that we assess white student reactions to programs designed for Native children in the bush;

3. It is important that we find out whether programs designed for Native children in the bush are also appropriate for Native children in an urban setting.

Mr. Hulett said he would be happy to cooperate in our efforts to address the above issues, and gave us the name of a Mr. Albert Ivy, a Native administrative intern with whom Popper had already been in contact. Mr. Hulett said he would instruct Mr. Ivy to help us. The first step is making the rounds of Fairbanks schools to explain our intentions to school principals. Our efforts in Fairbanks will probably consist of interviews with teachers and observations of student reactions to ESCD programming.

SECTION VI

DESCRIPTION OF POST-DEMONSTRATION EFFECTS

The potential importance of satellite communications to the State of Alaska has been noted in PCI's reports and in its proposal to NIE earlier this year. In the Statement of Work included in the first bi-monthly report, great care was taken to detail important issues in this area. It was recognized that this might be an area where major impact would be felt -- not only in education but also state-wide. Included under the specifications for "Description of Post-Demonstration Effects" were the following:

1. What is the impact of the demonstration on planning relative to satellite communication in Alaska?

2. What is the impact of the demonstration on planning relative to non-satellite media?

As a rule, such high level impact would be expected after the demonstration rather than during it. However, the communications controversy in Alaska has been going on for many years and the confluence of events has been such that the ATS-6 might well be the proverbial "straw that broke the camel's back".

1. RCA was chosen by the State of Alaska as their "carrier of record" because they promised extensive "bush" communications;

2. Only 47 of some 142 villages have been provided telephone service to date;

3. RCA is late and considerably overrun relative to the plan originally submitted to Alaska and the FCC;

4. Alaska Native Land Claims Act has made the Native voice very loud;

5. Comsat Corporation has demonstrated reception of commercial TV in Alaska with relatively small earth stations;

6. 1974 is an election year;

7. ATS-6 is in-orbit and working.

The importance of the issues mentioned earlier can best be measured by what is said and written spontaneously (not under questioning by involved parties). The following articles taken from the Anchorage Daily Times, Anchorage Daily News and Fairbanks News Miner speak very adequately to the heat generated by the communications question and indicate the role ATS-6 and its experiments are already playing -- primarily as a club against RCA Alascom/Globecom.

The articles stand on their own, giving background as well as addressing current issues. They make very interesting reading and those portions which specifically speak to the ATS-6 and the demonstration are bracketed for easy identification. Also bracketed are options presently being discussed by influential parties as to the ultimate remedy to the communications problem. These include:

1. Opening up Alaska to many satellite telecommunications companies, thus providing RCA with powerful competition;
2. Putting Alaska into the communications business and leasing channels to interested users;
3. Buying the backup satellite to ATS-6 from Fairchild.

RCA Unveils $100 Million Plan

By CHERYL PROPST
Times Staff Writer

A picture of a state dotted with ground stations is painted in a $100 million satellite communications plan unveiled yesterday by RCA Alaska Communications, Inc.

By 1980, RCA plans to have more than 90 earth stations scattered throughout the state, and says the plan, when implemented, will bring the most modern communications to Alaskans.

The plan, demanded by the Federal Communications Commission, also was presented to the State of Alaska and the Alaska Public Utilities Commission.

RCA Alascom President Stephen D. Heller said the plan presents "a veritable explosion of satellite technology ... These new satellite facilities will provide greatly expanded long lines circuits for telephone service throughout Alaska."

He also said that the new facilities, when approved by regulatory bodies, "will provide Alaskans with a dramatic and unparalleled advance in communications facilities throughout the state."

The firm's two-inch thick report and accompanying seven-page summary hint the RCA's investment won't stop here. With more than $100 million invested since it took over in 1971, RCA says its investment by 1980 could reach $270 million.

The plan concentrates heavily on bringing telephone and television communications to the bush, where more than 100 villages still do not have telephones.

RCA is currently under fire from the public utilities commission which is conducting an investigation into RCA's failure to complete its bush telephone system program on schedule.

RCA estimates that by 1980 Alaskans will be making and receiving 48 million telephone calls, a substantial increase over the 18.2 million calls forecast for 1975.

The state's only long lines carrier has four earth stations, at Valdez, Prudhoe bay, Talkeetna and Juneau, in operation now, and two, at Nome and Bethel, under construction.

It proposes to have six additional major stations and 38 small bush stations on line by the end of 1975, with another 23 major stations to be built in the next five years. Another 29 major earth stations are proposed to replace, and negate the need for, the Air Force's White Alice communications system, constructed 20 years ago and considered obsolete in the satellite age.

The earth stations will range in cost from $65,000 to $1.25 million.

RCA says that 176 communities or 17 per cent of the state's population are currently without television.

Of the earth stations proposed, 69 will have the ability to receive television signals with additions to the earth stations, while the other stations will be constructed to television reception only. It places the cost of television programs at $5 million.

RCA stated that VHF telephone facilities are under construction in 27 of the 106 villages now without telephones. It said the facilities will be completed this

(See Page 2, Col. 6)

Anchorage Daily Times

2—Anchorage Daily News, Tuesday, September 24, 1974

Natives examine RCA plan closely

By DONN LISTON

Daily News Staff Writer

Some Native leaders say a satellite overhead may be worth more than $100 million in ground communications facilities proposed for the bush by RCA Alaska Communications.

Although they say they have not taken the plan to enough expert sources to establish what it really represents, AFN President Roger Lang and Doyon Regional Corporation Executive Director Sam Kito, say it looks like what they expected.

A THICK BOOK-in size and format, the plan was nearly three weeks late from the date established for it to be submitted to the Federal Communications Commission. It was requested after RCA proposed satellite ground stations for Kivalina and Noorvik near Kotzebue.

"This appears to be a plan for terrestrial communications with a smattering of satellite technology," said Kito. "For quite a bit less than $100 million they could put up a sophisticated satellite that would allow very simple ground receiver facilities."

Ground facilities could be relatively inexpensive with a satellite having long-range capabilities, according to Kito, who worked nine years for RCA previous to his present position. He says the plan should address the needs of not only rural areas but urban Alaska as well

"THERE IS NO intent on our part to circumvent or delay any part of the program to bring statewide communications," Kito said. "But we want to be assured that we in fact have all the information that this system is the most efficient, most economic and the best for Alaska with the technology now available."

Lang indicated he was interested in better communication statewide because it represented the only levels at which Alaska could be in the same situation as the rest of the United States.

"We're already in the worst economic situation in the U.S. and we accept that as a standard of living for ourselves," Lang said. "In all other fields of resource development we have no direct influence but in communications we have a chance."

RCA ALASCOM now provides long distance telephone service to approximately 181 cities, villages and military establishments. At present there are 25 communities under consideration for local telephone exchange systems.

"The question in my mind is not the cost to each consumer because we could lick that with a sufficient satellite," Lang said "It should not be predicated on local cost or need but on being able to provide the communications for catching up with the rest of the U.S. and the world."

Native representatives are expecting to meet with RCA representatives sometime soon to discuss the system and what it represents to Alaska. Lang says with the country's bi-centennial coming up, a communi[illegible] allows Alaska to [illegible] of the country would be [illegible] could be done.

RCA ACQUIRED [illegible] munication System [illegible] from the military [illegible] tern con[illegible] toll [illegible] ited radio and [illegible] RCA is the only long [illegible] state.

The Alaska Public [illegible] mission (APUC) [illegible] sued a 12-page [illegible] investigate whether RCA's [illegible] convenience and [illegible] should be modified, suspended [illegible] for "willfully failing to [illegible] term, condition or [illegible]" an order.

Under the original [illegible] of the sale of ACS, RCA was to [illegible] brought telephone service to 142 [illegible] communities by the end of [illegible] the commission reports [illegible] into only 47 villages [illegible]

Anchorage Daily Times

September 29, 1974

RCA Bush Plan Gets Blast

Marvin Weatherly, director of the Alaska Educational Broadcasting Commission, blasted RCA Alaska Communications for its bush communications system, or lack thereof, in a 45-minute appearance yesterday before the interim legislative committee on problems of the unorganized borough.

"RCA is doing a very bad job, a lousy job," Weatherly said.

Weatherly said commission experts are now going over a $100 million satellite communications plan RCA released last week. "Our experts who have seen the plan say its a rehash of old RCA plans," Weatherly said, adding the plan does not meet the needs of rural Alaska.

He said the plan should be evaluated against the needs of Alaska, but such an evaluation does not exist at the present time.

Weatherly said he was told by representatives of Fairchild Industries who visited Alaska earlier this month that a "crash" needs assessment could be made in 30 to 60 days at an approximate cost of [illegible] about the future of Alaska."

Weatherly said 12 Alaskans would be attending a symposium on the state's communications needs next week at Fairchild's Maryland plant. He said he expected those attending "will come back more critical of RCA and more intelligent in their criticisms."

RCA, he further charged, is interested only in high density money making routes, with the result that "rural Alaskans getting the short end of the stick in the communications picture."

Anchorage, Juneau and Fairbanks are getting live television, he commented, "but go to a place like Emmonak ... what are they getting? They're getting whatever RCA wants to foist on them."

He said he has learned that Iran is going to get a satellite communications system that will serve 26,000 villages with the most modern communications. "But in Alaska you can spend a day, a week trying to call Dillingham ... I'm getting impatient because I can't call Dillingham ... Are our needs so much different than Iran's?"

Weatherly said he would prefer to wait a year or two longer to get a really good satellite plan, "rather than be stuck with RCA's."

RCA currently has a domestic satellite plan pending before the Federal Communications Commission.

Representatives from native groups at the meeting also indicated they were unhappy with RCA's plan. "If the FCC signs off on the RCA satellite, it will be in hot water with the Tanana Chiefs," Dan Slaby, research - developer for Tanana Chiefs said, because RCA has not given them any information on how it will meet emergency medical communications needs.

Weatherly greatly criticized the Alaska Public Utilities Commission for their role in RCA's bush communications [illegible] to say the least.

Anchorage Daily News

State will reject RCA phone plan

By DONN LISTON
Daily News Staff Writer

The State of Alaska Thursday informed Native leaders it expects to again reject the RCA statewide communications plan which it last turned down in September.

In a Sept. 20 letter to the Federal Communications Commission (FCC), Gov. William A. Egan said that after studying the preliminary draft (of the now public plan), he had determined that elaborate terrestial facilities and a satellite such as that proposed by RCA Alaska Communications, didn't reflect understood needs and past promises made by the company.

"IT APPEARS that RCA is designing a satellite plan that will provide maximum domestic service to the Lower 48 and will carry Alaska as a stepchild," said Warren W. Wiley, special assistant to the governor. "The state could have long ago settled for an inadequate system but in all good conscience we would not do it — we will continue to press for an economical system of statewide satellite communications."

Wiley indicated that the state has been negotiating for a system since at least 1970 but RCA is determined to submit plans without critical cost and design factors. In the September letter, Egan encouraged Walter B. Hinchman, chief of the Common Carrier Bureau of the FCC, to invite other qualified domestic satellite carriers to offer proposals.

"We aren't [illegible] total [illegible] needs of Alaska," Wiley said. "The state wants to work with RCA; we're just asking that if they want to be the long-lines carrier, then they provide an economical system throughout the state."

WILEY SENT a copy of Egan's letter, together with a request to speak with representatives of the Native community to Roger Lang, president of the Alaska Federation of Natives. Wiley indicated a concern that AFN may feel the state is not doing all it can to promote a modern communications system.

Egan's letter suggests that RCA is not attempting to recognize special needs of Alaska but is "attempting to adapt a system designed for heavy duty or high density traffic to meet the needs of a village of 100 souls."

The letter expressed hope that "RCA was designing a system which optimized the full potentials of serving the conterminous United States as well as Alaska.

"IN MY LETTER of April 13, 1974, I urged RCA to proceed with what appeared to be such a system," Egan said in the correspondence. "RCA has indicated that it is financially impractical to do so. But my conviction is that it was the State of Alaska's communications needs that played a large part in RCA's receiving favorable consideration in its desire to get into the domestic satellite communications business."

The most recent Alaska Communications Plan submitted by RCA was available three weeks after the deadline set for submission to the FCC. The plan was [illegible] on Sept. 13 [illegible] determine the exact course of RCA's "bush telephone" plan. RCA's agreement to deliver service was a determin-

(Continued on Page 2)

State will reject

(Continued from Page 1)

ng factor in the sale of the Alas Communications System to RCA Dec. 31, 1970.

The commission instituted the i vestigation as a result of RCA's a parent failure to comply with a requir ment to provide 24-hour telepho service to 142 rural Alaska commun

ties by Dec. 31, 1973.

Three years after its takeover the ACS system, RCA appears to h initiated telephone service in only communities, according to the APU order. In its order, the commission al required RCA to respond with spec answers to a number of questions wi in 30 days.

BEST COPY AVAILABLE

State challenges RCA plan for satellite communication

JUNEAU (AP) — The State of Alaska appears to hold a key to a plan by the giant RCA Corp. to institute [illegible] satellite communications in the United States.

An aide to Gov. William A. Egan said Friday the Federal Communications Commission had told RCA it would not approve its entry into the domestic satellite field unless the plan met approval of the Alaska Public Utilities Commission.

RCA and its affiliate, RCA Alaska Communications, plan to launch a satellite next year capable of transmitting signals from the East Coast to Alaska. It already is using a Canadian satellite, Anik II, to bring live television and telephone service to the state.

The nation's first domestic satellite, Westar I, was sent up this summer by Western Union, launching what may be heavy competition with American Telephone & Telegraph for a share of its control over ground-based telephone communications in the lower 48.

The Bell system also has announced plans to join General Telephone & Electronics in leasing circuits on three other satellites due for launching in 1976 and 1976.

Egan's aide said the FCC had notified RCA in July that due to its communications monopoly in Alaska, any satellite program would first need state acceptance. RCA Alascom is Alaska's only long-distance telephone carrier.

Meanwhile, Egan has suggested the FCC re-examine its designation of RCA as the "carrier of record" for Alaska, a request that could lead to hearings on the company's operating certificate.

In a letter released Thursday, Egan on Sept. 20 renewed his opposition to RCA's plan for orbiting a satellite he believes will be incompatible with ground stations erected in Alaska. The same concern prompted Sen. Ted Stevens, R-Alaska to request earlier this year that RCA delay the scheduled mid-1975 launch.

Egan, Stevens and other officials proposed RCA [illegible] transponders in its satellite in order that adequate signals could be transmitted to smaller, portable ground stations in far-flung villages.

Instead the company unveiled a plan last month for erecting more than 40 antenna dishes of 15 feet in diameter throughout the state. They would be supplemented by about 80 more expensive 33-foot stations in 1976.

The conflict stems from both the cost and effectiveness of the satellite dishes and the relatively small market in Alaska.

In the lower 48, RCA would have to erect only [illegible] dishes in major cities to provide a communications network. It estimates the cost of each [illegible]

(See STATE, page 3)

STATE...

(Continued from page 1)

antenna at between $1 million and $1.5 million.

The state, however, already installed 19 portable dishes measuring 16 feet in diameter to receive signals from NASA's experimental ATS-6 satellite launched in May. Each 16-foot dish cost less than $70,000.

Rather than creating larger dishes at a higher cost to Alaskans, the [illegible] jeopardize the satellite before it is launched to provide [illegible] [illegible].

"In effect," one official said, "We are being asked to [illegible] shoe that won't fit."

In addition, due to the proposed orbit of RCA's satellite, it may take [illegible] to bring service to communities in the Aleutian chain. The company's [illegible] Sept. 21 [illegible] at least one [illegible]-foot dish at [illegible].

The governor's Office of Telecommunications [illegible] [illegible] provided to nearly every city and village.

The [illegible] dishes can provide 12 voice [illegible] and [illegible] television, while the [illegible] offer only five voice circuits and no television, the official said.

RCA has started tests to discover whether its planned satellite circuitry can bring [illegible] grade signals to the smaller antennas, but while the experiments show it may be feasible, [illegible] is expensive.

The matter was complicated this spring when the company [illegible] [illegible] for its 1971 operating [illegible] with the state.

Fairbanks News Miner

October 5, 1974

Anchorage Daily News

Editorial

October 8, 1974

Our views

Public plan needed

The satellite communications controversy between RCA Alaska Communications Inc. and the State of Alaska appears to have reached the point that neither really wanted: public exposure. But that's what has happened.

In the three years since the U.S. Air Force sold its statewide communications system to RCA, the company has been dragging its feet in its promise to meet the state's needs. For instance, only 47 villages have received 24-hour long-distance telephone service — not the 142 villages required under agreement terms. Moreover, RCA Alaska was three weeks late in submitting its satellite plans and did so only after a stern ruling by the Alaska Public Utilities Commission.

Until recently, the state government has not exhibited the kind of leadership needed to spur RCA Alaska — a virtual communications monopoly — in meeting its public requirements. The eventual $100 million plan which RCA Alaska submitted was rejected by the state because of its economics and its inability to meet Alaska's rural communications objectives.

All this is not to say that RCA Alaska hasn't had its share of problems in developing a system. It has. To be sure, the old Air Force system was in poor shape, and improving it has been a slow and costly process. In addition, the past three years have been revolutionary ones; technology literally has changed Alaska's communications picture from the mountain tops to satellites.

But now is the time for the state and RCA Alaska to insert something that quietly has been avoided: greater public participation in a master communications plan.

The natural tendency for a private company is to [illegible] product on a profit motive basis. In this case, the majority is where [illegible] the cities. Unfortunately, the real need is in the villages, where communications means a link to deal with emergencies, education and health care.

Natives Suggest State Satellite To Benefit Bush

Anchorage Daily Times

October 9, 1974

By CATHY ALLEN
Times Staff Writer

Alaska natives have a plan to bring comprehensive communication to the Bush and to the heart of the urban centers. It's simply to have the state and federal subsidies put toward buying Alaska's own satellite.

Roger Lang, president of the Alaska Federation of Natives, Inc., and John Shively, executive vice president, have come up with a blueprint for communication expansion that would combine live television from the Lower 48, three or four educational channels for teaching in the Bush, medical stations that would allow doctors to consult with urban medical centers and a host of frequencies to accommodate business, legal and land transactions.

"Instead of feeding money into a system that will allow for one telephone in each Bush village," said Lang in reference to recent RCA Communications plans, "why don't we move toward a system that allows for us to grow and get on the same par with the Lower 48?"

Lang, head of the statewide native lobby, said such a venture could cost anywhere from $15 million to $50 million. "But with the surplus money the state will be receiving from the oil off the slope, isn't it time now to start looking to what the needs of the citizens are in relation to that surplus?"

Lang said if comprehensive plans aren't made now to decide the state's direction in communications, transportation and in several business fronts, "the time will come when the money from the people's oil -- and that's exactly what it is -- will be pork-barreled to death in the state legislature with everyone wanting a little piece of the action to bring home to his constituency."

In line with this thinking Shively met with Fairchild Industries while [illegible] to look at a satellite the company may have for sale.

"Right now it doesn't work and resembles the back of my TV set," said Shively. "It's the satellite that was to be Nasa's National Aeronautics and Space Administration back-up to the nine-month experimental satellite serving Alaskan Bush communities now."

The first satellite worked and there was little need to complete the second, but Fairchild is interested. "What we need is to have the satellite launched, which would cost about $30 million to get a rocket and all," said Shively. "But, if the military could rig some crucial experimental instrument upon it, there is a chance the launching would be free with them launching it."

A flap has been generated recently regarding RCA Communications plans to expand their Bush service. The private enterprise has applied for federal subsidies which the state has not backed, due prominently to the ruckus native leaders have made over the RCA plans.

"The beauty about such a plan would be that it would serve the urban and Bush communities. Where the villages are in dire need of health, education and social service communications, the urban communities would have access to the most sophisticated computer equipment where land transactions and legal problems entailed in waiting for the mail system to lease it.

"What we are looking at now is a scope that is more than a glorified Bush radio system that handles emergency calls. What those planning the communications system now are doing is just touching the surface and working one step in front of the dire needs," said Lang.

"When you talk about this new satellite idea, you talk about more than a Bush system; you're talking live TV football plus symphonies from the Boston Pops -- you're talking about meeting the needs of everyone tomorrow -- not just covering your own work would be eliminated. Telephone problems in Fairbanks are another crucial problem," said Lang.

He said that with the recent capital move vote, Alaskans are going to have to realize that it is too expensive to move the capital everytime the population shifts and this could happen often in Alaska, he said. "What we need is to be able to work our own totally-Alaska satellite."

This move would not necessarily close out ownership of RCA Communications, as Lang and Shively see a plan where the company could buy the satellite and the state could

RCA a target at hearings

By HOWARD WEAVER
Daily News Staff Writer

Alaska leaders continued to chip away Monday at RCA Alascom for plans to serve rural areas by satellite, as several persons urged the state to operate or subsidize the system.

Persons testifying at a public hearing on satellite communications before the Interim Committee on Problems of the Unorganized Borough, chaired by Sen. George Hohman, D-Bethel, urged an alternative service be used.

"I ADVOCATE setting up a system for establishing telecommunication operations in the state of Alaska," former Speaker of the House Gene Guess told the committee. "But because of the size of the state and the remoteness, I think we have to face the reality that such a system, if it's going to be completely effective, is going to have to be subsidized by the state. But I feel that subsidy will not be that high, if all of the users, including the state of Alaska, the federal government and private industry go together under the same roof and use the same system."

Marv Weatherly, executive director of the Alaska Educational Broadcasting Commission, strongly criticized RCA and called for a non-profit corporation to handle [illegible] communications.

Weatherly detailed state-supported radio and mini-TV stations in outlying areas, but said, "What we don't have is a delivery system from the point of origin for programming and the broadcast outlets.

"RCA IS INTERESTED in the high-density areas, like Anchorage, Fairbanks and Juneau," he said. "They have labeled the bush a loser. The governor very wisely rejected the so-called RCA Alaska Plan. I think most Alaskans also have rejected RCA."

The president of RCA Global Communications, Inc., proposed a meeting with top state officials on the company's satellite communications program for Alaska. Spokesmen for Gov. William A. Egan say the governor has accepted the proposal but as yet no date has been set for the conference between Egan and Howard Hawkins of RCA.

The request followed a letter Egan sent to the Federal Communications Commission asking it to block construction permits for the satellite program. Egan claims the RCA satellite plan will not meet the state's needs.

Egan said he will ask Native leaders to sit in on the meeting.

WEATHERLY CALLED for establishment of a non-profit corporation made up of rural communication system users to run the satellite plan, with serv-

ice going to cities as well. "A friend once told me 'you don't get nothing for the bush unless you give something to the cities,' and we have that to offer. This service for the bush also would allow [illegible] live sports and network newscasts for the cities," he said.

Hilary Hilscher, communications assistant to Sen. Ted Stevens, presented testimony on his behalf. "When satellites began to look like a real possibility, it seems to me as though they had been specifically designed to solve Alaska's communication problems," the testimony said.

"I could see the type and scope of the service our state required would hardly be attractive to a common carrier — it would be just too expensive," his statement said. "So, I suggested a state-owned satellite, one specifically designed for Alaska, to serve our special needs."

The hearing resumes this morning, with Sen. Mike Gravel, D-Alaska, scheduled as the first speaker at 10 a.m. Sam Kito of Doyon Ltd. will follow and Charles Buck of the governor's Office of Telecommunications will speak at 11:15 a.m. Following a lunch break, Steven Heller of RCA and Erick Bergaust of Fairchild Industries will answer questions.

Anchorage Daily Times

October 29, 1974

[illegible]

Gov. William A. [illegible] has asked the National Aeronautics And Space Administration not to [illegible] the ATS-7, a [illegible] million satellite, until Alaska has had a chance to evaluate its purchase for a total statewide public communications [illegible].

In a letter [illegible] to Dr. James C. Fletcher, administrator of the space agency, [illegible] satellite to which [illegible] Also, I would like to [illegible] Alaska's telecommunications [illegible] needs be given [illegible] consideration [illegible] regards to any [illegible] plans affecting its future disposition."

[illegible] followed up the letter with a [illegible] Erik Bergaust, special [illegible] Fairchild Industries corporate representative. Fairchild is hoping to interest an Alaskan agency [illegible] probably a research [illegible]

[illegible] for the back-up system, according to Bergaust. There are [illegible] have been [illegible] satellite in a [illegible] condition. Six countries, including Iran and [illegible] have [illegible] to buy [illegible].

"What if we don't sell it to another country? [illegible] it could be cut up [illegible] laboratory experimentation [illegible] the country's [illegible]," Bergaust said.

[illegible] would want to sell the [illegible] Alaska [illegible] emergency [illegible]

The Fairchild's satellite [illegible] Alaska Communications [illegible]

ment project (the ATS-6). We're (Fairchild Industries) not in here to knock out RCA.

"But, it's important to note that RCA is a common carrier communications system. It's not in the business of health, education and other delivery services."

[illegible] come up with a total project proposal by Nov. 11, at which time he will [illegible] that time, Fairchild [illegible] with the new project proposal [illegible].

Fairchild is [illegible] formation of a [illegible] company, federal, state, health and other [illegible].

The satellite would cost about $20 million to [illegible]

[illegible]

[illegible] would be [illegible]

covered [illegible]

[illegible]

SECTION VII

PLANS FOR THE NEXT TWO MONTHS

If all goes according to plan, the next bi-monthly report will include:

- A preliminary historical ordering of events leading up to ESCD at the Alaska end;
- A preliminary historical ordering of events with regard to Native involvement in ESCD decisions, with a focus on the Consumer Committees;
- A monthly report from each of the Case Villages describing village reactions to satellite TV, and ESCD events in the villages;
- Log information on attendance, etc. from all the villages in the demonstration;
- A progress report on our study of ESCD in Fairbanks public schools.

APPENDIX A. DOCUMENTATION METHODOLOGY

APPENDIX A

DOCUMENTATION METHODOLOGY

The documentation activity of the ATS-6 PCI/CNER study is geared to yield an output described as a

> " ...chronology of critical events dealing with the demonstration, emphasizing the interrelationships among agencies, groups representing consumers, village residents." [August 1974 draft]

The documentation activity is also designed to collect information which might not otherwise be preserved or available for study purposes concerning issues which may or may not have been identified at this time.

Given there is: (1) an almost infinite amount of paper which could be collected on ATS-6; (2) limits on time and manpower; and (3) the expected sensitivity of participating agencies, PCI and CNER staff have agreed upon a methodology to achieve the above described output. The reasoning behind this methodology is to make what seemed at first to be an unrealistic task manageable. It is therefore important that all involved in the study understand the steps as outlined in the first bi-monthly report, so that: (1) progress can be made in a systematic, efficient manner; (2) neither time nor manpower will be wasted; and (3) valuable contacts will not be bothered unnecessarily.

The methodology for documentation can be described by the following steps:*

1. Initial contacts are made with those agencies, organizations, and persons known to be involved or likely to be interested parties in the Alaska ATS-6 educational demonstration and related activities. At this time, the purpose of the PCI/CNER study will be described. The purpose of this step is to

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* The methodology is a cycle which is repeated. Not included in the cyclical approach is the necessary step of setting up a system to receive and retrieve the documentation, which will be done by CNER in agreement with PCI and revised as found necessary.

foster understanding of the study's intent and secure cooperation. Also, this step will allow staff to alert those persons likely to have significant documents to save them at the earliest possible time, hopefully keeping loss of information at a minimum.

2. Collection of readily available written material begins as soon as possible, often at the same time the initial contact is made in step 1. Often this information is supplied at the choice of the informing agency, those documents such as proposals and reports already in circulation, reported or published. Also, this step includes the gathering of those documents at hand within CNER and PCI.

3. The first effort is made at a historical ordering of events from the documents collected in step 2.

4. From the historical ordering of events in step 3, information in the documents themselves, and the general knowledge the staff has acquired, a preliminary identification of decision points (critical events) is attempted.

5. The first discrepancy check compares the documentation collected to the decision points outlined in step 4, to determine which decision points are backed by information and which are not, and where documentation is available, its adequacy for documenting the identified decision points.

6. For those gaps between the critical events and documentation as identified in step 5, a collection of written documentation to fill discrepancies is undertaken.

7. Following the additional collection effort in step 6, a second discrepancy check is made.

8. The preliminary decision point identification begun in steps 3 and 4 are reviewed with project staff by involved persons (those contacted in step 1) as a validity check.

9. Interviews to fill remaining gaps in the chronology; i.e., those critical events for which documentation does not exist, is inadequate or contradictory, are conducted in a structured manner and recorded. The validity check, step 8, is used as a neutral entree to begin interviews.

10. New contacts are made as necessary and the process continued until the chronology of critical events is brought up to date.

11. The chronology is then kept current.

It should be stressed that the methodology is meant to systematize the documentation process and keep the task within manageable bounds. However, it is not meant to be rigidly applied and "opportunities of the moment" are to be expected and judiciously used.

APPENDIX B. DOCUMENTATION FILING SYSTEM

APPENDIX B

DOCUMENTATION FILING SYSTEM

This Appendix contains an outline of the filing system which has been developed and implemented at CNER by Kathryn Hecht. Documents are filed primarily by originating organization/agency, with a separate section maintained for literature/research related to ATS-6. The study team feels this system will allow easy information retrieval. The system is adaptable, however, and can be revised as necessary. It will be reviewed periodically as issues are identified, and tested to insure accessibility to appropriate documentation.

A similar filing system has been adopted by PCI for documents collected thus far in Washington.

Also included in this Appendix is a list of documents stored at CNER and those on file at PCI.

FILING SYSTEM OUTLINE

1. Alaska Educational Broadcasting Commission (AEBC)
   - 1.1 Letters
   - 1.2 Program Plan

2. Consumer Committees
   - 2.1 Letters
   - 2.2 Membership
   - 2.3 Summary of Meetings

3. Department of Education (Alaska State)
   - 3.1 Letters
   - 3.2 Planning Statements

4. GOT - Office of Telecommunications, Office of the Governor
   - 4.1 ATS-6: Internal Evaluation
     - 4.1.1 Request for Proposals
     - 4.1.2 Anthropos
   - 4.2 Contact List
   - 4.3 Letters
   - 4.4 Program Plans
   - 4.5 Public Information
   - 4.6 Site Visit: Preparation and Reaction
   - 4.7 Utilization Aides

5. Health Demonstration
   - 5.1 Alaska Native Health Board
   - 5.2 Evaluation

6. KUAC
   - 6.1 Contract
   - 6.2 Public Information

7. National Aeronautics & Space Administration (NASA)
   - 7.1 Coordination Meetings
   - 7.2 Public Information

8. National Institute of Education (NIE)
   - 8.1 Letters
   - 8.2 Site Visit

9. Northwest Regional Educational Laboratory (NWREL)
   - 9.1 Consumer Committee: Preparation for, etc.
   - 9.2 Contracts and Agreements
   - 9.3 Information File
   - 9.4 Letters

10. Office of Education/National Center for Educational Technology (NCET)
    - 10.1 Letters

11. Practical Concepts Incorporated (PCI)
    - 11.1 Documentation
    - 11.2 Letters
    - 11.3 Memo's
    - 11.4 Proposal and Planning Reports
    - 11.5 Subcontracts

12. Programs
    - 12.1 Alaska Native Magazine
      - 12.1.1 Letters
    - 12.2 Basic Oral Language Development (BOLD)
      - 12.2.1 Programs
      - 12.2.2 Teacher's Manual
      - 12.2.3 Teacher's Materials
    - 12.3 Early Childhood Education
      - 12.3.1 Teacher's Materials
    - 12.4 Right On!
      - 12.4.1 Programs
      - 12.4.2 Teacher's Manual
      - 12.4.3 Teacher's Materials

13. Syracuse University
    13.1 Contract

14. Miscellaneous
    14.1 News Releases

Related Literature/Research

100. ATS-1
     100.1 Evaluation
           100.1.1 Health Evaluation

101. Battelle

102. Boeing

103. Conferences

104. Department of Education

105. Literature

106. Press Clippings

107. Project Wales

108. Research
     108.1 Agency for International Development (AID)
     108.2 ISGER

DOCUMENTS ON FILE AT CNER

1. Alaska Educational Broadcasting Commission

Letter from Bob Arnold to Robert Filep, January 24, 1974

Memo from Bob Arnold to Members, Alaska Educational Broadcasting Commission, Subject: First NASA Coordinating Meeting for ATS-F Planning, October 2, 1972

Memo from Bob Arnold to Charles Buck, Subject: ATS-F Planning: Information/Actions Required, February 8, 1973

Letter from Bob Arnold to Michael Neben plus attachment of letter from Neben dated February 13, 1973; February 15, 1973

Alaska/ATS-F Health/Education Telecommunications Experiment -- Program Plans, December 1972

Principal Objectives of the ATS-F Experiments

2. Consumer Committees

Lists of Consumer Committee Members: Thlinget Haida Central Council's Region, Association of Village Council President's Region and Tanana Chief's Conference Region, from Northwest Regional Educational Lab, May 23, 1974

List of Committee Members On: Basic Oral Language Development, Early Childhood Development, Health Education, from Northwest Regional Educational Lab

Letter from Charles Northrip to All Consumer Committee Members, May 17, 1974

Letter from Glenn Fredericks to Melvin Charlie, Subject: People Attenting ATS-F Meeting, December 7, 1974

Health Education, from Northwest Regional Educational Lab, May 9, 1974

Consumer Committee for Health Education, from Northwest Regional Educational Lab, April 23, 1974

Basic Oral Language Development Report - Consumer Committee Meeting: April 18 -19, 1974, from Northwest Regional Educational Lab, May 8, 1974

Early Childhood Education Report - Consumer Committee Meeting: April 18-19, 1974, from Northwest Regional Educational Lab, May 8, 1974

Memo from Rex Taylor to all Consumer Committee Members, May 22, 1974

Minutes - Consumer Committee Meeting, February 19-21, 1974

First Educational Programs Consumer Committee Meeting, Rex Taylor, Education Experiment Manager, February 19-21, 1974

Summary of Activity - Consumer Committee Meeting, Juneau, Alaska, February 19-21, 1974

Consumer Committee Meeting - ATS-F Satellite Project, Office of Telecommunications, Juneau, Alaska, February 19-21, 1974

Memorandum of Understanding between GOT, NWREL, University of Alaska Division of Media Regarding Consumer Committees, February 11, 1974

Resolutions by Early Childhood Education Consumer Committee

Minutes of the Consumer Committee Meeting, Early Childhood Education, September 5-6, 1974

Minutes - B.O.L.D. Consumer Committee, September 5, 1974

Summary of the Health Education Consumer Meeting, Holly Bruggeman (author)

Staff Debriefing - June 6, 1974

Minutes of Consumer Committee Large Group Meeting, June 6, 1974

Minutes of Consumer Committee Large Group Meeting, from Northwest Regional Educational Lab, June 6, 1974

Minutes of Health Education Meeting June 5-6, 1974, Holly Bruggeman (author)

Minutes of Early Childhood Education Consumer Committee Meeting June 5-6, 1974, Walt Featherly (author)

Minutes of Early Childhood Education Consumer Committee Meeting June 5, 1974, Walt Featherly (author)

Minutes of Basic Oral Language Development Consumer Committee, June 5, 1974, Northwest Regional Education Lab

3. Department of Education (Alaska State)

Note from Ernie Polley to Jim Orvik, September 6, 1974

Letter from Ralph Liddle to "Dear Teacher", September 13, 1974

Letter from Ralph Liddle to "Dear Teacher", August 23, 1974

Telex from Ernest Polley to NIE, October 2, 1974 plus following attachments: telex to Ray Wormwood, NIE from K.M. Rae, 7/12/74; memo to Northrip from E. Polley, Subject - ATS-6 Evaluation, 8/23/74; telex to E. Polley from Ray Wormwood, 7/25/74

ATS/F and Educational Usage - Alaska: Phase I Planning Statement, February 1, 1974

4. GOT - Office of Telecommunications, Office of the Governor

Request for Proposals for Evaluation of Alaska Educational ATS-F Satellite Project

Letter from Gary H. Holthaus (Alaska Humanities Forum) to Charles Northrip, August 12, 1974

Letter from D. V. Mechau (Anthropos) to Charles Northrip, September 16, 1974

A Proposal for the Evaluation of the Alaska/ATS-F Health/Education Telecommunications Experiment, from Anthropos, June 24, 1974

Contact List - Consumer Committee Members

Letter from Charles Northrip to Dr. Lawrence P. Grayson, Subject - GOT report on milestones prior to site visit, March 18, 1974

Letter from Office of Telecommunications to Dr. Lawrence P. Grayson, Subject - Criteria for Judging ... Programs, July 1, 1974

Alaska/ATS-F Health/Education Telecommunications Experiment - Program Plan Revisions - February, 1973

Summary - ATS-F Health/Education Telecommunications Experiment, pre-March 1974

Summary - ATS-F Health/Education Telecommunications Experiment, March 1974

Alaska, ATS-F Health/Education Telecommunications Experiment - Program Plan, March 1974

Alaska ATS-6 Project Responses, Responses to NIE Second Site Visit, June 18, 1974

Memo from Catalino Barril to Utilization Aides, September 6, 1974

Operator's Training Guide for Alaska ATS-6 Educational Experiment Stations, August 1974

5. Health Demonstration

Letter of Resolution of the Alaska Native Health Board, plus attachments, from Lillie McGarvey (Alaska Federation of Natives, Inc.)

Evaluation Plan for the Alaska Health Care Delivery Experiment, Institute for Communication Research, Stanford University, January 9, 1974

Applications Technology Satellite ATS-6, Part I - Attitudinal Survey of Primary Health Care Providers Prior to ATS-F Satellite Implementation, Carolyn V. Brown (author)

6. KUAC

Work Statement, Univ. of Alaska, Division of Media Services for Production of ATS-6 Programming, June 14, 1974

Agreement between Office of the Governor, Telecommunications and Univ. of Alaska, Division of Media Services

Letter from Charles Buck to Don Dafoe, Ref. Acct. # 265-2902, June 20, 1974

Alaska ATS-F Experiment Production Budget, April 3, 1974

7. National Aeronautics & Space Administration (NASA)

Fourth Working Coordination Meeting of the NASA/HEW/CPB HET Experiment, ECE/Chief, Systems, Communications Programs (author), February 8, 1973

NASA News - Press Kit, Howard Allaway and Donale E. Witten (authors), May 21, 1974

Applications Technology Satellite-F, New NASA Communications Spacecraft to be Launched May 30, May 1974

8. National Institute of Education (NIE)

Letter from Dick Holt to Frank Darnell, July 19, 1974

Composite Review: Site Visit April-May, 1974

Composite Review: Site Visit October 1973

9. Northwest Regional Educational Laboratory (NWREL)

Survey of Needs of Children by the Consumer Committees, February 1, 1974

Proposed Method of Presenting Alternatives to the Consumer Committee

Flow Chart of Consumer Committee's Villages

Topics for the Discussion of the Consumer Committees, January 28, 1974

Role and Responsibilities of Consumer Committee

Agreement with State of Alaska, Office of Governor, Office of Telecommunications and NWREL, signed December 18, 1973

Contract Information: Alaska Telecommunications Project, January 21, 1974

Information File, Northwest Regional Educational Lab

Letter from Norman Hamilton to Charles Northrip, March 5, 1974

10. Office of Education/National Center for Educational Technology (NCET)

Letter from Michael Neben to Bob Arnold plus attachment of letter from Bob Arnold dated 2/15/73, February 13, 1973

Letter from Michael Neben to Charles Northrip, Subject: Field Reviews of February '73 Proposal

11. Practical Concepts Incorporated (PCI)

Letter from Helen Savage to Kathryn Hecht, Subject: Documentation, October 18, 1974

Memo from Al Feiner to Roger Popper, July 18, 1974

Memo from Al Feiner to Jim Orvik, October 10, 1974

Memo from Al Feiner to Jim Orvik and Kathryn Hecht, October 15, 1974

Memo from Al Feiner to Roger Popper, Subject: Notes on NIE Contract, July 9, 1974

Memo from Al Feiner to Roger Popper, Subject: Policy Analysis Questions Suggested by NIE, July 9, 1974

Cost Proposal -- Intensive Evaluation of Satellite TV Impact on Four Alaskan Villages, PCI, May 17, 1974

Intensive Evaluation of Satellite Television Impact on Alaskan Villages: Sociological and Technological Implications of Educational Telecommunications, PCI, June 17, 1974

Design for an Analysis and Assessment of the Education Satellite Communications Demonstration: Final Report, PCI, May 17, 1974

Copy of Practical Concepts Incorporated Subcontract - amended August 13, 1974

Copy of Practical Concepts Incorporated Subcontract, revised July 12, 1974

Letter from E. Dean Coon, CNER, plus proposal, July 18, 1974

12. Programs

Letter from Catalino Barril to Cecil Barnes, Subject: Introduction for Alaska Native Magazine and Staff, September 5, 1974

BOLD - Programs I through XXIV, Northwest Regional Educational Lab

Teacher's Manual for Amy and the Astros, BOLD, Bernadine Featherly (author), NWREL, September 19, 1974

Teacher's Overview for Oral Language Development in English, Bernadine Featherly (author), NWREL, March 8, 1974

Teacher's Overview for Early Childhood Education, Walter T. Featherly (author), NWREL

Right On! (Health Education) - Programs 1-53, plus some obsolete programs, NWREL

Teacher's Manual for Right On! Elementary Health Education, Holly Bruggeman (author), NWREL, September 19, 1974

Teacher's Overview for Health Education, Holly Bruggeman (author), NWREL

13. Syracuse University

Design for the Assessment and Policy Analysis of the Education Satellite Communications Demonstration: Phase II Final Report, Educational Policy Research Center, May 20, 1974

Design for Documenting the History, Consequences, and Implications of the Education Satellite Communications Demonstration, Phase II Addendum, Educational Policy Research Center, June 17, 1974

14. Miscellaneous

News Release, Subject: Educational Satellite Communications Demonstration, University of Alaska, September 6, 1974

News Release, Subject: KUAC ATS-6 Satellite Project, September 5, 1974

News Release, Subject: ATS-6 Television Programs, University of Alaska, September 12, 1974

News Release, Subject: Premier Week of ATS-6 Satellite Project, University of Alaska, September 18, 1974

News Release, Subject: State School Board Meets in Juneau, Department of Education, August 16, 1974

Related Literature/Research

100. ATS-1

Village Satellite: An Evaluation of Some Educational Uses of ATS-1 in Alaska, Walter B. Parker (author), July 25, 1974

Health Care and Satellite Radio Communication in Village Alaska. Final Report of the ATS-1 Biomedical Satellite Experiment Evaluation, Osvaldo Kreimer, Heather Hudson, Dennis Foote (authors), June 1974

101. Battelle

Proposed Research Program (Part B: Statement of Qualifications) on Assessment and Analysis of Education Satellite Communications Demonstration Phase III, Battelle Columbus Lab., May 21, 1974

Proposed Research Program (Part A: Technical Narrative) on Assessment and Analysis of Education Satellite Communications Demonstration Phase III, Battelle Columbus Lab., May 21, 1974

102. Boeing

Telecommunication User Alternatives Study - State of Alaska, E. M. Gardiner (author), August 31, 1974

103. Conferences

Northern Communications Conference Record, Yellowknife, N.W.T. September 9-11, 1970

104. Department of Education

State Department of Education - outline of proposal (for future instructional system using telecommunication)

105. Literature

An Educator's Guide to Communication Satellite Technology, Kenneth A. Polcyn (author), Academy for Educational Development, Inc., September 1973

106. Press Clippings

Educational TV Program to Air, Anchorage Daily News, September 20, 1974

RCA Unveils $100 Million Plan, Anchorage Daily Times, Sept. 21, 1974

$100 Million Bush Satellite Plan Unveiled, Anchorage Daily News, September 21, 1974

Space expert urges Alaskans to build communications system, Anchorage Daily News, September 21, 1974

UA medical students learn their craft by television, Fairbanks News-Miner, September 21, 1974

In National Study -- CNER and Satellite, Tundra Times, September 8, 1974

Egan says there's no satellite plan, Anchorage Daily News, September 5, 1974

Education Satellites Block Radio Astronomy, Education Daily, page 6, September 30, 1974

Reporters Peek at Satellite Users and Find them Staring Back, Education Daily, page 6, September 26, 1974

107. Project Wales

Television and Social Change on the Bering Strait, R. J. Madigan and W. Jack Peterson (authors), University of Alaska, April 1974

Project Wales, August 1974

108. Research

Broadcast Satellites for Educational Development: The Experiments in Brazil, India, and the United States; Bert Cowlan, Dean Jamison, Kenneth Polcyn, Jai Singh, Delbert Smith and Laurence Wolff (authors), Academy for Educational Development, April 1974

Flow of Communication Between Government Agencies and Eskimo Villages, Gordon S. Harrison, Spring 1972

DOCUMENTS ON FILE AT PCI, WASHINGTON

1. Alaska Educational Broadcasting Commission (AEBC)

A Plan for the Development of Educational Telecommunications in Alaska: Report of a Study Conducted by the National Association of Educational Broadcasters for the Alaska Educational Broadcasting Commission, George L. Hall and Frank Norwood (authors), October 21, 1970

3. Department of Education (Alaska State)

Letter from Marshall Lind to Adolph Koenig, February 24, 1972

Letter from Marshall Lind to Adolph Koenig, June 30, 1974

4. GOT - Office of Telecommunications, Office of the Governor

Letter from Charles Buck to Dr. Lawrence Grayson with proposal from Anthropos, July 12, 1974

Letter from Charles Northrip to Michael Neben with proposal, "Integration of ATS-F and CTS Facilities and Educational Technology for Alaskan Satellite Experiment", April 13, 1973

Letter from Charles Northrip to Lewis Walker, May 18, 1973

Letter from Charles Northrip to Al Horley, June 21, 1973

Letter from Charles Northrip to Robert Filep, June 25, 1973

Alaska ATS-F Planned Activities, July 1, 1973 - June 30, 1974, August 1973

8. National Institute of Education (NIE)

Memo to File from Ray Wormwood, October 31, 1973

Memo from Jerry Sandler to Lawrence Grayson, Subject: Criteria for TV Program Design, July 2, 1974

Memo from Kevin Arundel to Lawrence Grayson, Subject: Review Criteria for Alask Satellite Component, July 2, 1974

Letter from Lawrence Grayson to Charles Buck, July 19, 1974

10. Office of Education/National Center for Educational Technology (NCET)

Memo from Michael Neben to Robert Filep, Subject: Status Report on Alaska Education Telecommunications Project, January 5, 1973

Letter from Robert Filep to William McLaughlin, Regional Commissioner, U.S. Office of Education, Seattle, Washington, January 8, 1973

Letter from Marshall Lind to Robert Filep, January 24, 1973

Letter from Michael Neben to Bob Arnold, February 13, 1973

Memo from Robert Filep to ATS-F User Committee, Subject: Status of Alaska ATS-F Component, February 22, 1973

14. Miscellaneous

Two documents from Al Horley's office regarding the Health/ Education Telecommunications Experiments Technical Fund

APPENDIX C. OPERATOR'S TRAINING GUIDE

OPERATOR'S TRAINING GUIDE

FOR ALASKA ATS-6 EDUCATIONAL

EXPERIMENT STATIONS

State of Alaska
Office of the Governor
Office of Telecommunications
Pouch AC
Juneau, Alaska 99801

August 1974

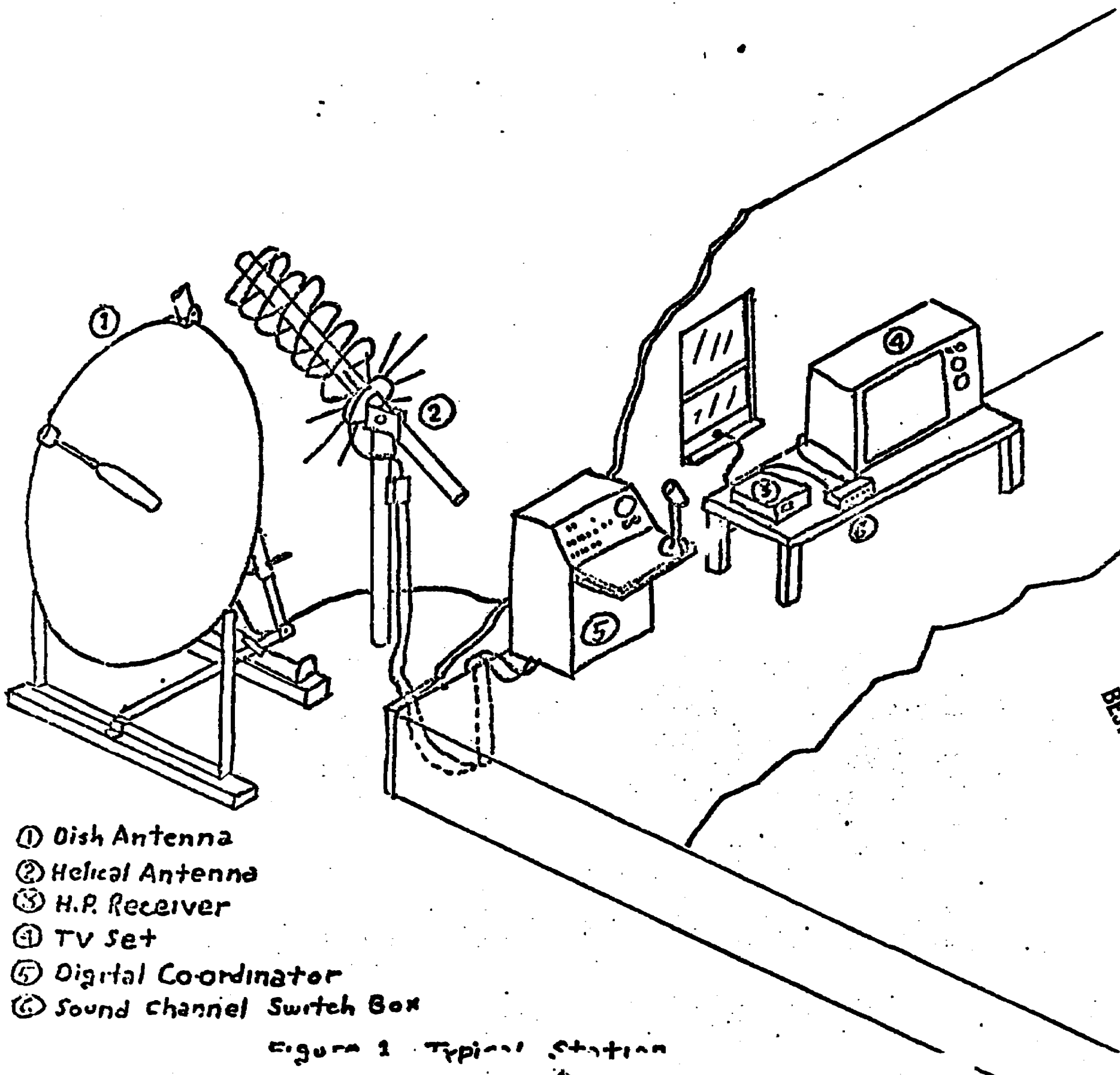
ATS-6 TERMINAL OPERATOR'S GUIDE

General

The nineteen ATS-6 ground stations in Alaska are provided by federal funds as part of an experiment in providing instructional television to remote areas in Alaska, the Rocky Mountain States and the Appalachian region.

The satellite being used in this experiment is called the ATS-6. ATS stands for "Applications Technology Satellite," the 6 means that it is number 6 in the ATS series. Actually, two satellites are being used for this experiment; the ATS-6, which transmits the T.V. programs, and the ATS-1, which is used for two-way voice communications between the remote stations and control centers. The ATS-6 is quite different from other communications satellites. Most communications satellites have low-power transmitters so that it takes huge antennas on the ground to receive the signals. The ATS-6 has a very powerful transmitter so that signals can be received by small antennas like the ten-foot dish antenna at your site. Another characteristic of the ATS-6 is that it sends out its signals in a narrow beam which can only cover a small part of the earth at one time. This is the reason that television can only be received a few hours each week. When the satellite is not pointed toward Alaska, it is pointed at other states which are conducting experiments similar to ours.

The ground stations such as the one you will be operating, are designed to be inexpensive and simple to operate. However, it is important that the operators learn their procedures well and follow them closely if the system is to operate satisfactorily.



① Dish Antenna
② Helical Antenna
③ H.P. Receiver
④ TV Set
⑤ Digital Co-ordinator
⑥ Sound Channel Switch Box

Figure 1 Typical Station

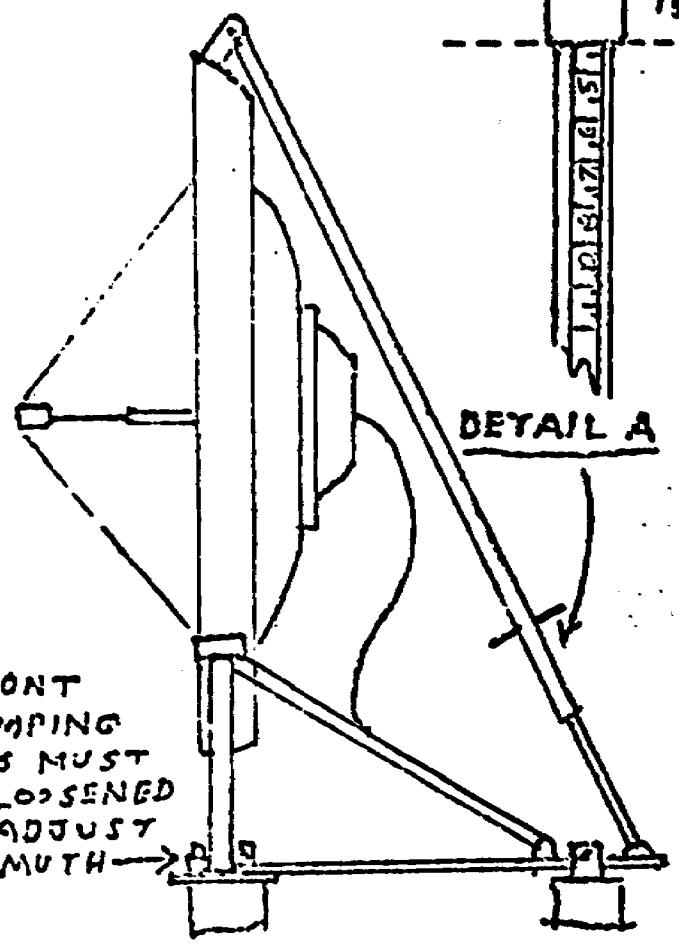
Each station consists of a ten-foot dish antenna for receiving the television signals, a helical antenna which looks something like a long corkscrew, a small receiving unit, a T.V. set, and a 2-way voice radio which is called the digital coordinator. Figure 1 shows a typical ground station.

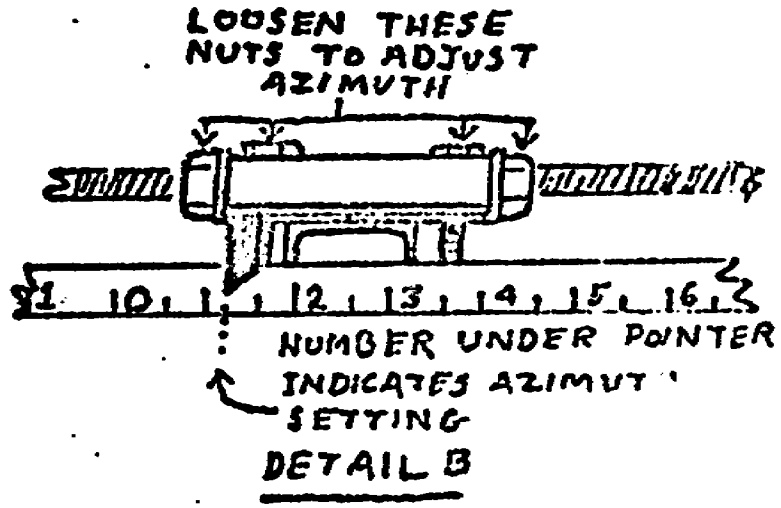
The Dish Antenna

The dish antenna is used to receive T.V. signals from the ATS-6 satellite. The antenna itself is shaped like a shallow bowl, ten-feet in diameter. Signals from the satellite bounce off the dish and are received by a pick-up device which is mounted on a rod mounted in the center of the antenna. It is important that the antenna be pointed directly at the satellite. If it is pointed too high or too low it will receive weakly or not at all. There are two adjustments on the antenna mount. A handle on the top support (or elevating pole) can be rotated to tilt the antenna up and down, and by loosening four nuts on the rear mounting plate, the antenna can be pivoted from left to right. The site operator or utilization aide will have to make elevation (up or down) adjustments occassionally to compensate for slight changes in the satellite position. It may also be necessary to make antenna adjustments if ground freezing or thawing causes the antenna to move.

Helical Antenna

The helical antenna is used to send and receive voice signals from the ATS-1 satellite. Since the ATS-1 is in a different location than the ATS-6, this antenna is pointed in a different direction than the dish antenna. Unless the helical antenna is tampered with or is accidentally moved, it should not require pointing once it has been installed.





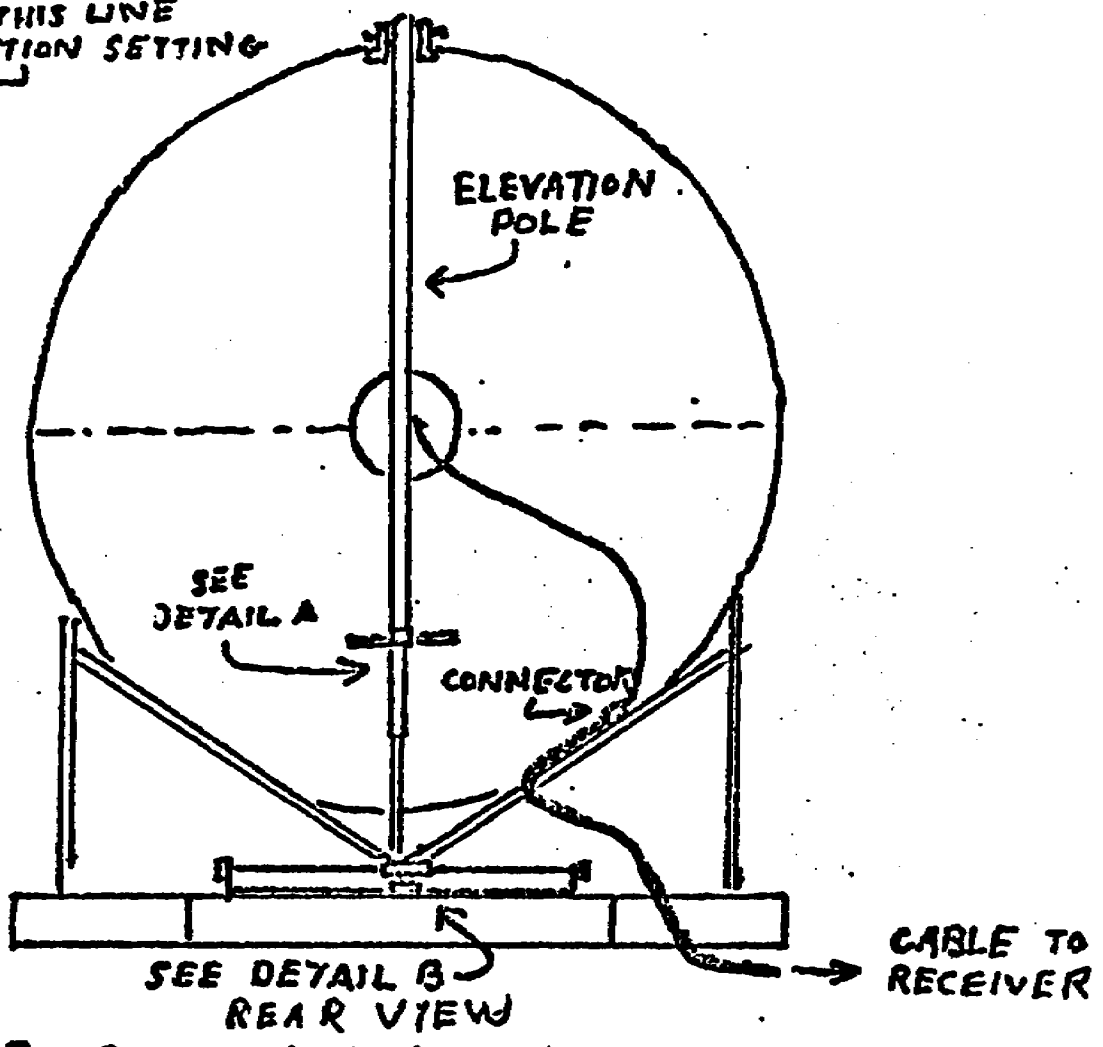


Fig. 2 Dish Antenna

H.P. Receiver

H.P. stands for Hewlitt Packard, the name of the company which makes this receiver. The H.P. receiver takes the signal from the dish antenna and converts it to video for the T.V. set. On the front of the H.P. receiver is the ON-OFF switch and a signal strength meter.

The signal strength meter shows how strong a signal is reaching the receiver. When the satellite is beaming signals to Alaska this meter should read above 10. The better the signal is, the higher the meter will read. The operator should write down the meter reading during each broadcast. That way the operator can tell if signals are getting better or worse over a period of time. A lower than normal reading might mean that the antenna pointing needs to be adjusted.

T.V. Set

The T.V. set is an RCA 25-inch color monitor receiver. This set is similar to a regular home-type T.V. except that it has several additional connectors and controls at the rear of the set. This set will be hooked up and adjusted for proper operation when installed, however, operators should become familiar with the connections and rear switch settings in case the set should be tampered with or disconnected. Operating controls are covered under EQUIPMENT OPERATION.

Audio Switchbox

Since four sound channels can be transmitted with the television picture, the audio switchbox is used to select the channel you want to listen to. There are six push button switches on the box; one for each sound channel and two

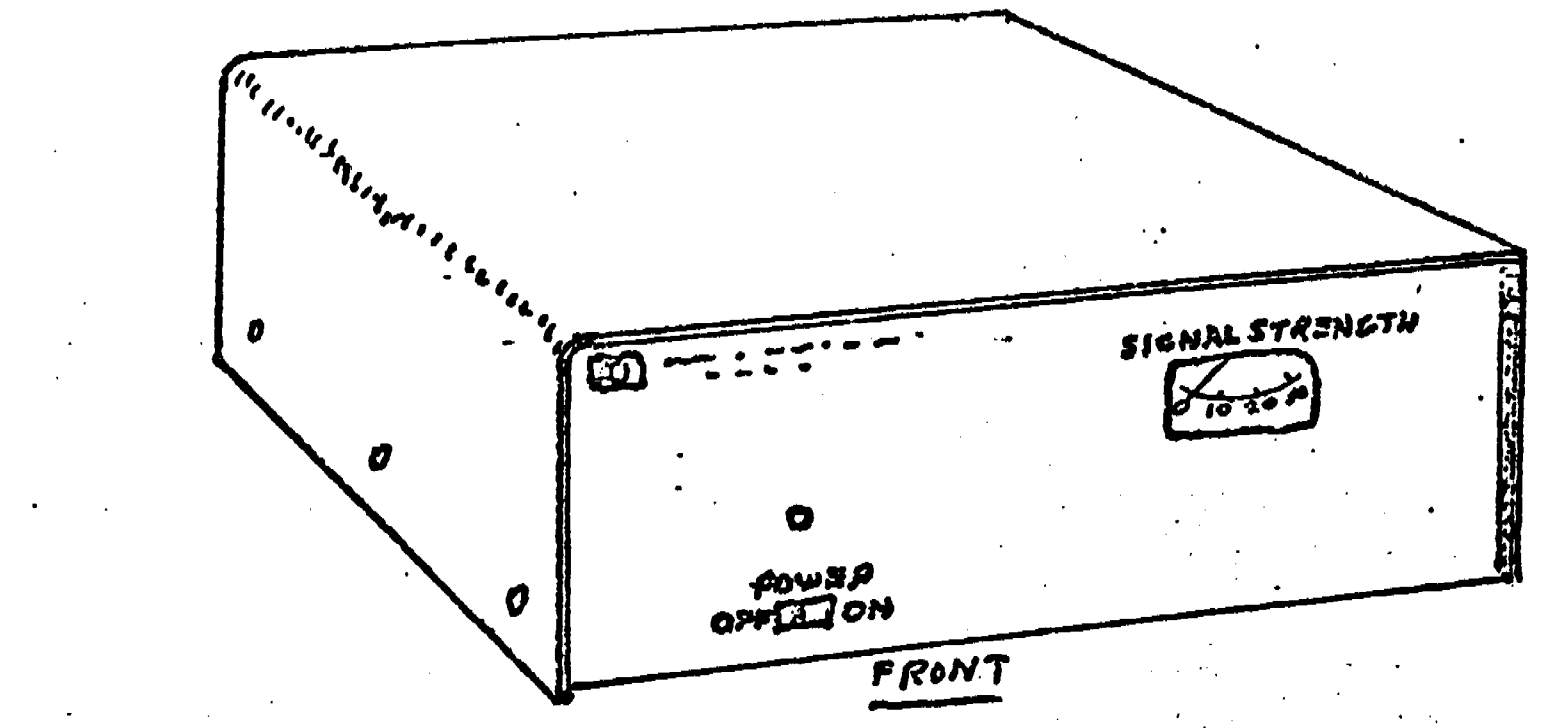


Figure 3. H.P. Receiver

spares. The spares are not used. The sound channels to be used will be listed in the program schedules, or you will be notified over the two-way radio system.

Two-Way Radio (Digital Coordinator)

The proper name for the voice transmitter-receiver is digital coordinator, however we will refer to it here as the radio, or the voice terminal. What makes this different from ordinary 2-way radio systems is that the transmitter in this one can be turned off and on from the Network Control Center in Denver, Colorado. Another thing is; whenever you transmit from this terminal a coded signal is automatically sent out to let the control center know which station is transmitting. That way if anyone is transmitting when they shouldn't, or operating improperly, the control center can turn that station off. There are many lights, push-buttons and switches on the front panel of the voice radio unit, but there are only a few controls which you must be concerned about. These are explained in the equipment operation section.

Equipment Operation

Each day before broadcasting begins the equipment should be checked to make sure that it is ready. The equipment check and turn-on should start at least 1/2 hour before the program is scheduled to start. The following paragraphs describe how each unit is checked out and adjusted. If any trouble shows up, see the "Equipment Trouble" section on page 15.

Antenna

Check the dish antenna for damage. Check to make sure the feed is O.K., f the feed is bent or damaged, the system may not work. Tighten any nuts

or bolts which are loose. Check the numbers on the elevation pole and rear plate to see if the antenna pointing adjustments have been tampered with. Snow should be cleared away from the antenna and swept out of the dish, being careful not to damage or bend the feed. Check the cable for damage and make sure the connection is allright. If you have to adjust the antenna or if you notice anything wrong, make a note of it on the daily log.

Helical Antenna

Make a visual inspection of the antenna checking the cables and connectors, and looking for other signs of damage.

H.P. Receiver

Check to make sure all the wires on the rear are connected, and that it is plugged in. Turn the switch on. The little red light above the switch should come on and the meter should come up above zero. When the T.V. broadcast begins the meter reading should increase. If you have been keeping a record of the meter reading during each broadcast you will be able to tell if the system is operating normally. If the reading is lower than normal, antenna adjustment may be required.

Dish Antenna Adjustment

This adjustment is easier with two people; one watching the HP receiver meter while the other adjusts the antenna. (See Figure 2) Before adjusting the antenna, mark down the number just showing under the elevation adjuster, and the number under the pointer on the base plate. Turn the elevation handle to tilt antenna one degree higher (higher number showing under the elevation adjuster). Check the HP receiver meter. If the meter reading has increased,

continue adjusting in the same direction until no further increase can be obtained. If the meter reading decreases, change tilt in the opposite direction until maximum meter reading is obtained.

T.V. Set

Check the rear connections and switches. If these are O.K., turn the T.V. on by pulling the volume control knob out. After about 30 seconds turn the brightness control up. If every thing is O.K. so far, you should see black and white speckles all over the picture tube. This speckling is noise coming from the antenna. For a check, you can turn off the HP receiver momentarily. With the receiver off, the picture tube should go blank. Turn the receiver on again. You can now turn down the brightness and volume so the class will not be disturbed while waiting for the program to begin.

Before the regular program starts, a still picture and music or voice will be transmitted to give you a chance to set the T.V. controls for the best picture and sound. Start out with the COLOR control all the way down. Adjust the CONTRAST for the best picture. Move the COLOR control up until you see colors, then adjust TINT control for the most natural colors, paying particular attention to the skin tones in the test picture. The COLOR control may be used to make the colors brighter but it is best if the colors look a little bit pale. If the T.V. is not working properly, perform the trouble shooting checklist on page 17.

Digital Coordinator

The digital coordinator is turned on by a key, this key should be kept in a safe place so that unauthorized persons cannot turn the set on. Perform the

items on the checklist which is fastened to the desk shelf on the coordinator. A copy of this checklist is also included on page 14 of this manual.

WARNING

DO NOT PRESS "CALL" BUTTON OR

MICROPHONE BAR DURING CHECK

During the 15-minute period before the T.V. program is scheduled to begin, one of the control centers (Fairbanks, Juneau, or Denver) will make announcements concerning the time, program, sound channel to be used, and other necessary information. Details on operating procedures are described in the section entitled "Protocol and Interaction."

Protocol and Interaction

General

This section describes how the 2-way radio in the digital coordinator is to be used. Since there are sixteen Alaska schools using this system it is very important that the rules of operation be followed strictly.

WARNING

ANY STATION TRANSMITTING AT

UNAUTHORIZED TIMES OR OPERATING

IMPROPERLY WILL BE TURNED OFF

The voice transmitter will not operate until it has been turned on by the Denver Network Control Center. However, if the CALL button is pressed, the transmitter will turn on for about a half-second and automatically send out your station identification code. This signal will cause a light on a map of Alaska in Denver to turn on showing which station transmitted the signal.

During periods that voice transmission is authorized, Denver will send out the turn-on signal and the green ENABLE lamp on the digital coordinator will light.

Roll Call

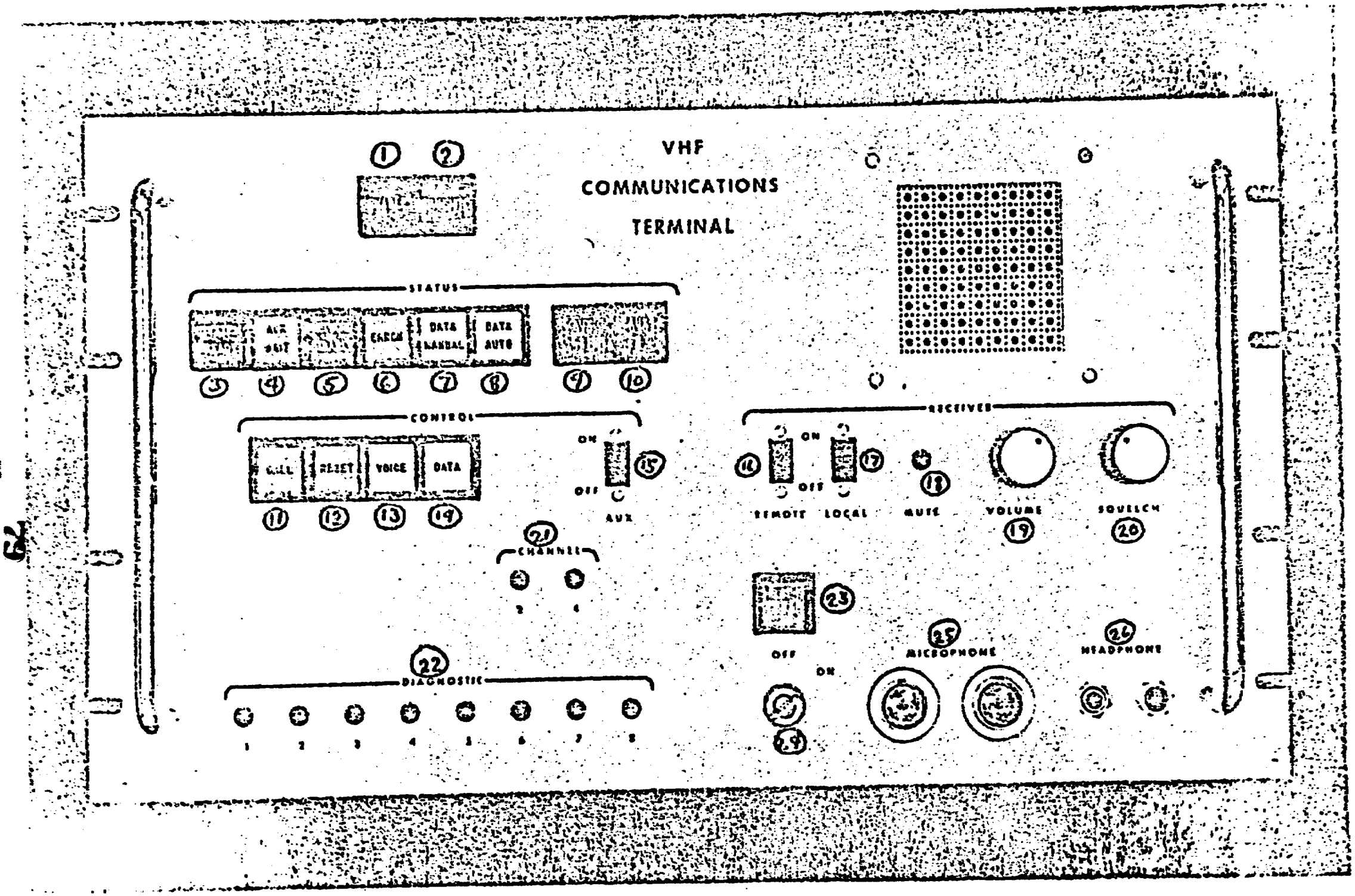
During the 15-minute period before the regular program starts, a roll call will be taken. Certain stations called "Truth Sites" will be called first and requested to report their HP receiver meter reading. When it is time for roll call, the ENABLE lamp will come on and one of the control points (Fairbanks, Juneau or Denver) will call the roll of receiving stations. When it is time for roll call, press the VOICE button to turn the VOICE lamp on and stand by until your station is called. When your station is called, press the microphone bar and say "(station name) ready" if everything is O.K.; "(station name) trouble" if only partially operating; and "(station name) no-go" if not working.

NOTE: You cannot transmit or receive unless the VOICE lamp is lighted.

Do not say anything more unless asked. If you have reported "trouble" or "no-go" and there is time after the roll call, the controller may call you back for more information. If you miss answering when the roll is first called, the controller will repeat missed stations after the first roll call. Do not break-in before your station is called again.

When the roll call and all other traffic has been completed, the controller will make necessary announcements concerning the program, and will announce when the T.V. transmitter is turned on. At that time you should make the necessary adjustments to the T.V. set. When the regular program begins, press the VOICE button to turn the VOICE lamp off.

FIGURE 8: DIGITAL COORDINATOR



No.	Type	Function
1	Lamp	Indicates transmitter can be used
2	Lamp	Indicates unit is transmitting
3	Lamp	Indicates unit is ready for operation
4	Lamp	Indicates CALL signal has been received by Network Control Center
5	Lamp	Indicates Network Control Center has turned off all transmitters
6	Lamp	Indicates error in received control signals (No significance to operator unless on continuously)
7	Lamp	Indicates unit is in data transmit mode (Not used for Alaska education stations)
8	Lamp	Same as above except mode has been selected by Network Control
9	Lamp	Indicates auxiliary function has been selected by Network Control (Not used for Alaska education stations)
10	Lamp	Same as above
11	Switch	Push button to request permission to transmit. (Sends out coded signal)
12	Switch	Push button to switch back to normal after CALL has been pushed (CALL light must be off to transmit voice)
13	Switch	Push button to enable voice transmit and receive (VOICE lamp must be lighted)
14	Switch	Push button to enable data transmission and reception (Not used by Alaska education statio
15	Switch	Controls auxiliary functions (Not used by Alas education stations)
16	Switch	Controls remote speaker (when remote speaker is used)
17	Switch	Controls front panel speaker
18	Lamp	Indicates when speaker is muted such as durin voice transmit and data reception
19	Knob	Controls speaker volume
20	Knob	Controls squelch point. Should be adjusted slowly from full-right, to left until noise stops
21	Lamps	Indicates transmit channel in use. "4" lights during voice transmit, "2" lights when CALL is pushed.
22	Lamps	Indicate operation of various internal circuits (Significant only when reporting trouble)
23	Lamp	Indicates unit is turned on
24	Switch	Operated by key to turn unit on
25	Jacks	For microphone plug(s)
26	Jacks	For headphone plug(s) (when supplied)

Interaction

When the program calls for interaction, or talk-back from your community, the host teacher or program moderator will tell you how the interaction is to be handled. In some cases the moderator may simply call a particular station for questions or comments. If your station is called, press the TALK button to turn the TALK lamp on, then press the talk-bar on the microphone to answer. In another case, the moderator may ask any station, wishing to call in, to push the CALL button. In this case when your station wishes to respond, simply push the CALL button. This causes your station code to be sent out automatically to the Network Control Center. Shortly after this the ACK WAIT lamp should light to indicate that your CALL has been received. Press the RESET button. If you do not get an ACK WAIT light after about 30 seconds, press RESET and then press CALL again. When you receive the ACK WAIT signal, press the TALK button to turn the TALK lamp on and stand by until your station is requested to transmit.

You may be requested to transmit either by the moderator or host teacher on T.V., or by the controller calling through the digital coordinator. In some cases responses from your station will be written by the controller and handed to the host teacher or moderator, in other cases, responses will be re-broadcast directly over the T.V. In either case you will be notified as to how to proceed. Whenever possible, questions or comments should be written out before calling in. This will prevent people from forgetting parts of their questions or getting mixed-up.

When you are through with talk-back from your station, press the TALK button to turn the TALK lamp off. Sometimes time will be available, after the

T.V. program is off, for additional talk-back. In this case you will be informed either during the program or during the pre-program announcement period. Here again you must follow directions exactly and not transmit until instructed to do so.

Daily Log

Each day that broadcasts are scheduled the daily log sheet must be filled out. The log sheet is very important to the success of the experiment as it gives an indication of how the equipment is operating and may enable maintenance personnel to see troubles developing so that they can be corrected before they become serious.

A sample log sheet is shown on page 20. The notes on the log form should make the form self-explanatory. The date and time columns indicate the time the broadcast begins. On days when there are more than one broadcast, a separate entry for each one should be shown in the log. The completed log forms should be sent in to the Office of Telecommunications in Juneau every two weeks. The comments column and the back of the form may be used to add additional comments on the quality of the broadcasts or equipment condition.

Equipment Troubles

Since it is very expensive to send repairmen out to remote areas, it is very important that the operators and utilization aides at the sites make certain that a real problem exists and that the trouble is not being caused by a plug being pulled out, or a switch in the wrong position. If trouble developes, perform the checks listed on the checklist sheets for the various items of equipment (see pages 17,18,19). Additional checklist sheets are provided in the operators kit.

If, after performing all the checks and tests listed, you have not been able to correct the trouble, fill out the trouble report form for the defective unit. A sample trouble report form is shown on page 20. If you have a telephone, call the trouble in to one of the maintenance centers listed below. If a telephone is not available, mail the form to the center as soon as possible. If the problem is not in the digital coordinator, you may be allowed to report failures during the next roll call period. However, all trouble report forms should be mailed in even if you were able to report by phone or radio.

It is possible the maintenance center will determine that whatever is causing the trouble can be corrected by the site operators. In this case you may be sent a replacement item such as an HP receiver, switch box, or cable. If replacement items are sent, complete installation instructions for installation will also be provided. When replacement items are furnished, the defective unit should be returned immediately for repairs. A return address label will be provided so that the defective unit can be returned in the same container that the replacement arrived in.

Questions on the operation of the equipment, maintenance forms, and trouble reports should be addressed to: Terminal Maintenance, Office of Telecommunications, Pouch AC, Juneau, Alaska 99801.

If you have a problem which makes it impossible for your station to operate, you may call collect to: Juneau #465-3552. Ask for the installation and maintenance section.

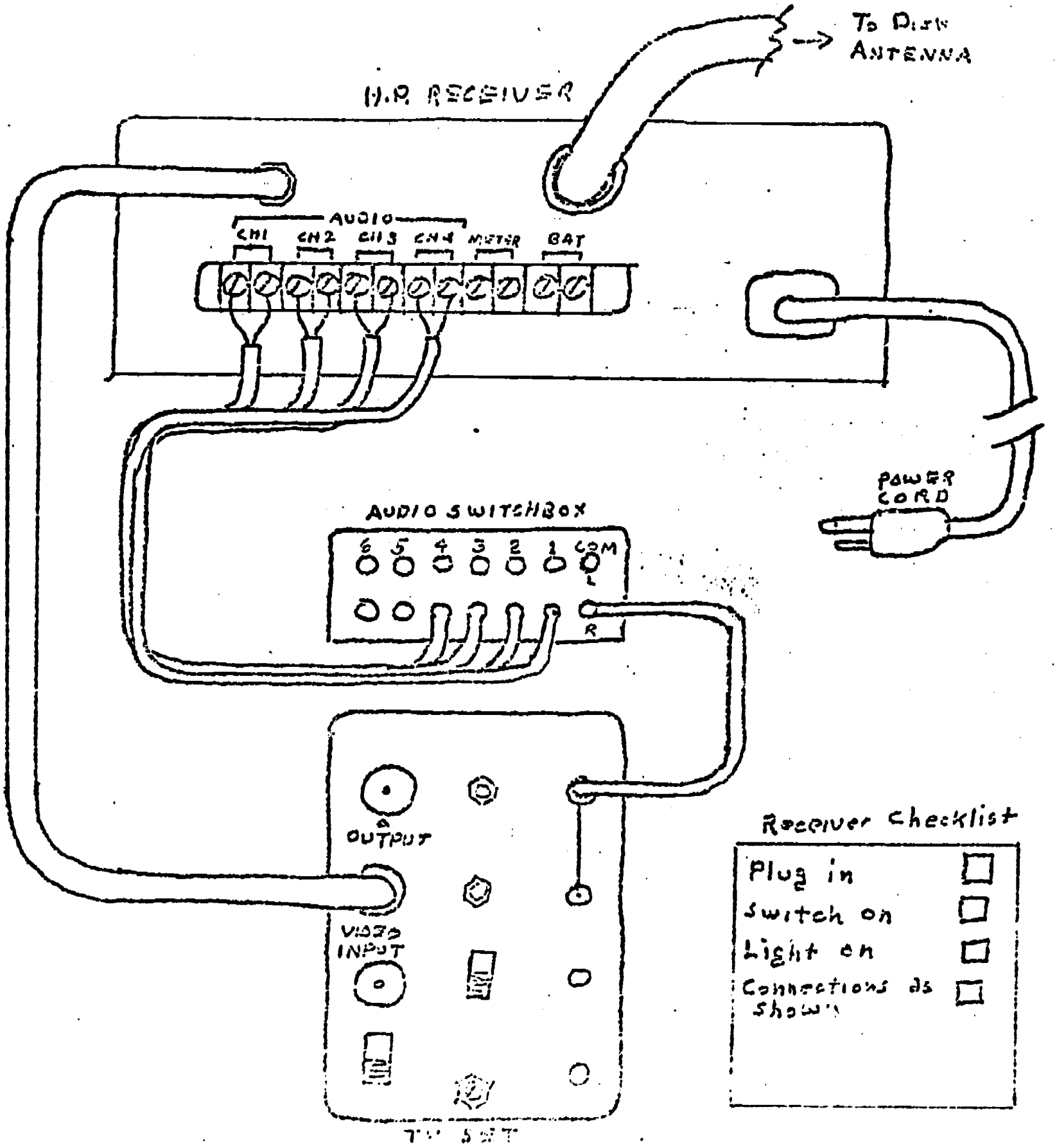


Figure 5

H.R RECEIVER CHECKLIST

TWO-WAY RADIO CHECKLIST

BEFORE TRANSMITTING:

POWER on

VOLUME up

SQUELCH: turn right, then back until noise just stops

LOCAL switch ON

VOICE depressed and lighted

CHANNEL 4 lighted

SYSTEM READY lighted

DIAGNOSTIC LAMPS except 5 and 7 lighted

WHEN TRANSMITTING:

ENABLE lighted*

TRANSMIT lighted when microphone bar is pressed

DIAGNOSTIC 5 lighted when microphone bar is pressed

CHANNEL 2 lights momentarily when CALL button is pressed

* Transmitter will not operate unless enabled by the Network Control Center.

Figure 6.

ATS-6 DAILY LOG

Community_____ Location_____

Operators (Persons filling out this form) _____ _____ _____ _____

ate	Time On	Program Received (1)	Meter Reading (2)	TV Picture Quality (3)	TV Sound Quality (4)	Radio Quality (4)	Audience (5)		Additional Comments (6)	Operator Initials
							Adults	Students		

Notes:

(1) Yes or No

(2) Front Panel Meter On HP Receiver 0-30

(3) 1. Excellent
2. Not Perfect But Still O.K.
3. Not Good But Can Watch
4. Hard To Watch
5. Unuseable

(4) 1. Good
2. Slightly Noisy Or Distorted
3. Noisy Or Distorted But Can Understand
4. Hard To Understand
5. Cannot Understand

(5) Number Of Each Watching

(6) Equipment Problems, Antenna Adjustments Made, More Detailed Description Of T.V. Or Sound If Required. Use Back of Form If More Room Is Needed For Comments.

APPENDIX D. COMMUNITY PROFILES FOR CANDIDATE CASE VILLAGES

APPENDIX D

COMMUNITY PROFILES FOR CANDIDATE CASE VILLAGES

The source for the following Village Profiles is:

> "Community Profiles in Alaska for the Joint Federal-State Land Use Planning Commission", by Art Patterson, Resource Planning Team, October 1973.

A source of confusion may be the "Native Enrollment" entry. It refers to the number of Native Alaskans who claimed the site as their residence for rights and benefits under the Land Claims Act.

ALLAKAKET

Doyon Limited
Native Corporation

LOCATION AND REGION

Lat. 66° 24'N Long. 152° 39'W
Twp. [illegible] Rge. [illegible] Mer. Fairbanks

On S. bank of Koyukuk River SW of its junction with Alatna River. Kanuti Flats. See Alatna

POPULATION

1950 79 1960 115 1970 174
Total Native, 1970 168

Native Enrollment: April 1973
Enumerated 13[illegible] Claimed 164

GOVERNMENT

Including Alatna
Local Traditional
Borough [illegible]

Townsite Surveyed 7/28/72
Elec. Dist: Old 18 New 15
Census Division Yukon-Koyukuk

EDUCATION

Including Alatna:
Administration State Operated
Grades offered 1-8
Enrolled (1971-72) 42

COMMUNITY UTILITIES-FACILITIES

Water source/system/quality anal: Surface - river, and community well -- drilled in 1963, since frozen and not in use.
Sewerage system/disposal: Privies.

Power: Community power; State school has its own generator.

Community Bldg. Yes Churches 1
Episcopal

Housing: USPHS Premise and Home Environmental Health Survey available on 28 houses.

One council and one school serves both communities; their social life is intermingled.

TRANSPORTATION-COMMUNICATION

Fairbanks approx. 200 mi. to the SE.
Airport: Loc/community Adj. SW
Class Civ. Elev 643 Beacon/Ltg
Lgth & Surf 3,000 Gravel
Bush plane based/community NO

Land: Road/trail/rail/connections Winter trails to Hughes and Huslia, and to Bettles.

Water: Barge/ferry/harbor/dock Barge service in open season. A single barge trip is made timed to take advantage of the high water during June.

Radio Trans. call ltr:

Telephone-statewide NO

STATE/FED. AGCY. & MILITARY

State school, Post Office

COMMERCIAL-INDUSTRIAL

General (community) Store.
William's store

ALLAKAKET

MANPOWER-- Employment -- mining at Hog River.

GENERAL-- Hazards: Flood hazard is high; stream overflow, permafrost, erosion.

Historical: Episcopal mission established in 1906. A Post Office was established in 1925.

A flood occurred in 1964, when the water reached a peak of three feet above the boardwalk.

Declared eligible, Native Claims Settlement Ac, 12/18/71.

MINERALS--

Metallic: None reported or considered likely to be found.

Nonmetallic: None reported or considered likely to be found.

Coal: None reported or considered likely to be found.

Petroleum: None known; in eastern Kobuk Cretaceous province; not evaluated.

FISHERIES-- Subsistence: Grayling, pike, salmon, sucker, sheefish, whitefish.

WILDLIFE-- Subsistence: Black/brown bear, beaver, caribou, red fox, hare, land otter, lynx, marten, moose, muskrat, porcupine, weasel, wolf, wolverine, Dall sheep, ducks, geese, ptarmigan/spruce hen.

FORESTS--VEGETATION-- Subsistence: Berries (blue, cran, [illegible]), [illegible], wild rhubarb. [illegible] used for fuel, housing, and home utility.

LOCATION AND REGION

Lat. 57°30'N, Long. 134°35'W
Twn. [illegible] Rnge. [illegible] Mer. Copper R.
On W coast of Admiralty Island, 41 mi. NE of Sitka, Alex. Arch

POPULATION

1950 [illegible] 1960 [illegible] 1970 400
Total Native, 1970 [illegible]

Native Enrollment: 1-1-74
Enumerated 434 Claimed 625

GOVERNMENT

IRA, [illegible]
Local 2nd Class City, 1963
Borough [illegible]

Townsite Approved 10/13/31
Elec. Dist: Old 3 New 2
Census Division [illegible]

EDUCATION

Administration State Operated
Grades offered K-8
Enrolled (1971-72) 1[illegible]

COMMUNITY UTILITIES-FACILITIES

Water source/system/quality anal: System to [illegible] of homes, Source from lake & Stranger Creek

Sewerage system/disposal: Community system--outlying areas use privies

Power: [illegible] diesel generators [illegible] 1-75 KW; 1-275 KW
Available to all homes.

Community Bldg.____ Churches____

HOUSING: USPHS Premise and environmental health survey available on 63 houses.

Ten houses completed in 1970-71, BIA Improvement Program.

Declared eligible, Native Claims Settlement Act 12/18/71.

TRANSPORTATION-COMMUNICATION

Airport: Loc/community (Seaplane)
Class____ Elev____ Beacon/Ltg____
Lgth & Surf Under 10,000, Water
Bush plane based/community____

Land: Road/trail/rail/connections

Water: Barge/ferry/harbor/dock
On Alaska marine Highway System.

Radio Trans. call ltr:____

Telephone-statewide Yes

STATE/FED. AGEN. & MILITARY

Post Office, State School

COMMERCIAL-INDUSTRIAL

MANPOWER--

Employment, commercial fishing and sea food processing.

GENERAL--Tlingit Indian village listed as "Angoon" with a population of 420 in the 10th Census, in 1880. The population was reduced in the late 1880's when Killisnoo was established with a fish reduction plant. Population was 114 in 1920; 342 in 1939. A post office was established in 1928.

MINERALS--

Metallic: None reported or considered likely to be found.

Nonmetallic: None reported.

Coal: None reported or considered likely to be found.

Petroleum: None known; geologically not favorable.

FISHERIES--Commercial fishing.

WILDLIFE--

FORESTS--VEGETATION--

BEST COPY AVAILABLE

ANIAK — Calista Corporation

ANIAK

LOCATION AND REGION

Lat. 61°35'N Long. 159°32'W
Twn. 17N Rngs. 52W Mer. Seward

On S bank of Kuskokwim River at head of Aniak Slough, 59 miles SW of [illegible] Mission, Yukon-Kuskokwim Delta.

POPULATION

[illegible] 1970 335
[illegible] 170

Pub. Enrollment: April 1973
Enumerated 175 Claimed 266

GOVERNMENT

Local Second Class, 1972
Borough Unorganized

Townsite Approved 10/13/52
Elec. Dist: [illegible] 17 Rep. 15
Census Division Kuskokwim

EDUCATION

Administration State Operated
Grades offered K-8
Enrolled (1971-72) 70
(1972-73) 72

COMMUNITY UTILITIES-FACILITIES

Water source/system/quality anal: Wells

Sewerage system/disposal: Privies

Power: Supplied to several households (H. Clark).

Churches: Yes Churches

HOUSING

Housing: USPHS Premise and Home Environmental Health Survey available on 22 houses.

TRANSPORTATION-COMMUNICATION

Airport: Loc/community Adj.
Class Civ. Elev 86 Beacon/Ltg Both
Lgth & Surf 5,000 Gravel
Bush plane based/community Yes

Land: Road/trail/rail/connections

Water: Barge/ferry/harbor/dock
Barge service

Radio Trans. call ltr:

Telephone-statewide Yes

STATE/FED. AGEN. & MILITARY

State school, Post Office, FAA, USAF, DOT.

COMMERCIAL-INDUSTRIAL

Charter service (3)
N.C. Store
Kuskokwim Sales
Aniak Lodge

MANPOWER —

ANIAK

Category	Primary Occupations, Surveyed Population		
	Total	Employed	Unemployed
Total	36	22	14
Prof/Tech/Mgt.	6	6	0
Cler. & Sales	4	3	1
Service	4	2	2
Farm/Fish/Forest	2	0	2
Processing	2	0	2
Machine Trades	1	1	1
Bench Work			
Structural	9	5	4
Miscellaneous	5	4	1
Not Identified	1	0	1

Age Distribution, Surveyed Population		
Range	Total	
Total	36	
16-17		
18-21	10	
22-35	9	
36-49	10	
50-65	6	
65- +	1	
Unknown		

Years of School Completed	
Range	Total
Total	36
1- 4	5
5- 6	5
7- 8	6
9-12	16
13-16	3
16- +	2
Unknown	1

GENERAL: Historical: Founded about 1910 when a trading store was located here to supply the mining operations at Tuluksak and Aniak Rivers. A Post Office was established in 1914.

Hazards: Flooding high; ice jams, stream overflow; permafrost.

Declared eligible, Native Claims Settlement Act, 12/18/71.

MINERALS --

Metallic: None reported.

Nonmetallic: None reported.

Coal: None reported or considered likely to be found.

Petroleum: None known; geologically not favorable.

FISHERIES -- Subsistence — Grayling, pike, salmon, sheefish, trout, whitefish.

WILDLIFE -- Subsistence -- Black/brown bear, beaver, caribou, red fox, hare, land otter, lynx, marten, moose, mink, muskrat, porcupine, weasel, wolverine, wolf; ducks, geese, ptarmigan, spruce hen/grouse.

FORESTS -- VEGETATION -- Subsistence Berries (blue, black, cran, salmon), wild vegetables.

LOCATION AND REGION

Lat. 61°[illegible]N Long. 159°3[illegible]W
Twn. 12[illegible] 55W Ner. Seward

On S bank of Kuskokwim River, 9.5 mile[illegible] of Aniak, Kilbuck-Kuskokwim Mountains.
Vast [illegible] flat

POPULATION

[illegible] 1970 94
[illegible] 90

[illegible]: April 1973
[illegible] 121 Claimed 108

GOVERNMENT

Local Traditional
Borough [illegible]

Township
Elec. Dist: Old 17 New 15
Census Division Kuskokwim

EDUCATION

Administration: State Operated
Grades offered: K-8
Enrolled (1971-72) 36
(1972-73) 33

COMMUNITY FACILITIES-UTILITIES

Water source/system/quality anal: Surface, spring, creek

Sewerage system/disposal: Honey bucket

Power: None

Community Bldg. ___ Churches ___

Housing: USPHS Premise and Home Environmental Health Survey available on 10 houses.

Housing: BIA Improvement Program, 10 houses in 1970.

TRANSPORTATION-COMMUNICATION

No airstrip
Airport: Loc/community ___
Class ___ Elev ___ Beacon/Ltg ___
Lgth & Surf ___ ___
Bush plane based/community ___

Land: Road/trail/tall/connections

Water: Barge/ferry/harbor/dock
Berge service

Radio Trans. call ltr: KXF-67

Telephone-statewide 543-2102

STATE/FED. AGEN. & MILITARY

State School, Post Office

COMMERCIAL-INDUSTRIAL

MANPOWER--

CHAUTHBALUK
(RUSSIAN MISSION - KUSKOKWIM)

GENERAL-- Historical: Russian Mission founded here in 1891.

Hazards: Ice jam, coastal flooding; permafrost.

Declared eligible, Native Claims Settlement Act, 12/18/71.

MINERALS--

Metallic: Copper prospects; lead, silver, uranium minerals also present.

Nonmetallic: None reported.

Coal: None reported or considered likely to be found.

Petroleum: None known; geologically not favorable.

FISHERIES-- Subsistence -- Blackfish, pike, grayling, salmon, sheefish, trout, whitefish.

WILDLIFE-- Subsistence -- Black bear, beaver, red fox, hare, land otter, lynx, mink, moose, muskrat, crane, ducks, geese, swan, harvest eggs, ptarmigan.

FORESTS--VEGETATION-- Subsistence -- berries (blue, black, cran, salmon), greens/roots, wild vegetables.

CRAIG — Sealaska Native Region

LOCATION AND REGION

Lat. 55°29'N Long. 133°09'W
Twn. [illegible] Rge. [illegible] Mer. Copper R.
On Craig and Prince of Wales Is. at S end of [illegible] Inlet, 60 mi. SW of Ketchikan, Alex. Arch.

POPULATION

1950 ____ 1960 273 1970 272
Total Native, 1970 [illegible]

Native Enrollment: 1-1-74
Enumerated [illegible] Claimed 204

GOVERNMENT

IRA, [illegible]
Local 2nd Class City 1922
Borough [illegible]

Townsite [illegible] 1922
Elec. Dist: Old 1 New 2
Census Division Prince of Wales

EDUCATION

Administration City operated
Grades offered [illegible]
Enroll. (1971-72) [illegible]
Included H.S. Students from Klawock

COMMUNITY UTILITIES-FACILITIES

Water source/system/quality anal: Surface source. A system serves about one half of the community.

Sewerage system/disposal: [illegible] serves a part of the community. The remainder utilize [illegible].

Power: Municipal Elec. Co.

Community Bldg. ____ Churches 2

Medical/dental. Public Health doctors and dentists visit on a regular basis. A registered nurse is permanently located in town.

Local Police Department.

Local Fire Department (volunteer)

TRANSPORTATION-COMMUNICATION

Airport: Loc/community Seaplane
Class ____ Elev ____ [illegible]
Lgth & Surf [illegible] 10,000 Water
Fish plane base/community ____
Scheduled service.
Land: Road/trail/rail/connections
Local road to Klawock, 8 mi.

Water: Barge/ferry/harbor/dock
On Marine (state) Highway System.
The City Float-Dock has unloading space and covered storage for large freight boats.

Radio Trans. call ltr: [illegible] Ketchikan radio station.

Telephone-statewide No

STATE/FED. AGCY. & MILITARY

Post office, City School & Magistrate

COMMERCIAL-INDUSTRIAL

Craigs economy is based largely on the fishing and wood products industry.

Lodging available.

CRAIG

MANPOWER-- Estimate Employment

Construction	24
Government	8
Mfg./Processing	135
Trade	14
Trans./comm.	5
Other	13
	199

GENERAL--Originally named "Fish Egg" for nearby Fish Island, the name was changed to "Craig Millar" for a cannery owner. A post office was established in 1912. Population in 1939 was 231.

Declared eligible, Native Claims Settlement Act 12/18/71

MINERALS--

Metallic: None reported.

Nonmetallic: None reported or considered likely to be found.

Coal: None reported or considered likely to be found.

Petroleum: None known, geologically not favorable.

FISHERIES--Commercial fishing and sea food processing.

WILDLIFE--

FORESTS--VEGETATION--

FAIRBANKS

Doyon Limited
Native Corporation

LOCATION AND REGION

Lat. [illegible] Long. [illegible]
Twn. [illegible] Rnge. [illegible] Mer. Fairbanks

[illegible] River, Tanana Low, at [illegible] end of the Alaska [illegible].

POPULATION

[illegible]
Native Enrollment:
[illegible] Claimed 1,048

GOVERNMENT

[illegible] 1902
[illegible]

[illegible]
[illegible] Dist: [illegible] 19 [illegible] 16
Census Division [illegible]

EDUCATION

Administration [illegible] Borough Operated
Grades offered [illegible]
Enrolled (1971-72) [illegible]

COMMUNITY UTILITIES-FACILITIES

Water source/system/quality [illegible]
[illegible] Utilities System.
[illegible] water, processed [illegible] 6 and 12
[illegible] disposal:
[illegible] Utilities System.
[illegible] sewer lines, 8
[illegible] Utilities
[illegible] outside [illegible]
[illegible] Utilities [illegible]

Fairbanks is Alaska's second largest city -- a financial, transportation, governmental, and cultural center for the interior. The city and area provide a year-round variety of recreational facilities and opportunities.

COMMUNITY FACILITIES: Hospital, recently completed, four clinics; libraries, 30 churches, daily and weekly newspapers; police and fire departments. Alaskaland exposition.

The University of Alaska's main campus is located near Fairbanks.

TRANSPORTATION-COMMUNICATION

Airport: Loc/community 3.5 mi. SSW
Class Civ. Elev 434 Beacon/Ltg B/L
Lgth & Surf 10,300 Asphalt
Bush plane [illegible]/community Yes
Also, Metro, and Phillips Field.
Land: Road/trail/tail/connections

Highways: Alaska, Elliott, Steese, Anchorage, and Fairbanks.

Railroad: Alaska RR to Anchorage - Seward. The railroad and a variety of trucking and airline firms provide adequate shipping and private warehouses have facilities available.

RADIO/TV: Four radio and three T.V. stations.

STATE/FED. AGEN. & MILITARY

A variety of State and Federal agencies service the area. Ft. Wainwright is adjacent. Ft. Eielson is 20 mi. from the city.

COMMERCIAL-INDUSTRIAL

Major employment is in non-manufacturing military and civilian support; ed.; research; hwy. const. and maintenance; trans., retail trade; personal services, communication. Principal manufacturing is in small mining operations, food processing, const. products.

FAIRBANKS

MANPOWER--

Labor Market Population and Area

Estimated Employment	Percent
Agriculture	01
Mining	03
Construction	06
Manufacturing Process	02
Transportation, Communication, and Utilities	12
Trade	16
Finance	04
Services	11
Government	45
	100

GENERAL-- Historical: Founded in 1901 when a trading post was established by E.T. Barnette. The town began as a supply center for the mining region to the north after gold was discovered by Felix Pedro in 1902, and [illegible] became the commercial and transportation hub of north and central Alaska. A Post Office was established in 1903.

MINERALS--

Metallic:

Nonmetallic:

Coal:

Petroleum:

FISHERIES--

WILDLIFE--

FORESTS--VEGETATION--

BEST COPY AVAILABLE

KLAWOCK — Sealaska Native Region

LOCATION AND REGION

Lat. 55°33'N. Long. 133°06'W
Twn. [illegible] Rnge. [illegible] Mer. Copper R.
Con. W coast of Prince of Wales I. [illegible] 5 mi. [illegible] Craig, Alex. Arch, 215 air mi. from Juneau.

POPULATION

1950 [illegible] 1960 251 1970 213
Total [illegible], 1970 [illegible]

Native Enrollment: 1-1-74
Enumerated [illegible] Claimed 511

GOVERNMENT

[illegible]
Local [illegible]
Borough [illegible]

Townsite Approved 1949
Elec. Dist: Old 1 New 1
Census Division Prince of Wales

EDUCATION

Administration City operated
Grades offered [illegible]
Enrolled (1973-74) [illegible]
HS students attend Craig

COMMUNITY UTILITIES-FACILITIES

Water source/system/quality anal: [illegible] surface water, and through distribution system

Sewerage system/disposal: Sewerage system. Some use privies

Power: Available from cannery.

Community Bld. Yes Churches Yes
[illegible]

Declared eligible Native Claims Settlement Act, 12/13/71

Medical/Dental. PHS doctors and dentists visit on a regular basis.

TRANSPORTATION-COMMUNICATION

Airport: Loc/community Adj. W
Class ____ Elev -0- Length/Ltg. ____
Lgth & Surf [illegible] ____ Other ____
Bush plane based/community [illegible]

Land: Road/trail/rail/connections
Connected to Hollis and Craig by local roads

Water: Barge/ferry/harbor/dock
Available dock space at cannery operation.

Radio Trans. call ltr: Reception from Ketchikan.
Telephone-statewide Yes

STATE/FED. AGEN. & MILITARY

Post office, City School, USPHS Clinic

COMMERCIAL-INDUSTRIAL

The economy is based primarily on the fishing and wood products industry.

MANPOWER—Estimated Employment

Construction	10
Government	1
Mfg./processing	150
Trade	2
Trans./ comm.	2
	165

KLAWOCK

GENERAL—Tlingit Indian village reported in 1853, applied to a location on the west side of Shinaku Inlet. A cannery was established at the present site in 1878. The population was 261 in 1890; 19 in 1920; 455 in 1939. A post office was established in 1882.

MINERALS—

Metallic: None reported

Nonmetallic: Much high calcium limestone in area.

Coal: None reported or considered likely to be found.

Petroleum: None known; geologically not favorable.

FISHERIES— Commercial fishing and seafood processing

WILDLIFE—

FORESTS—VEGETATION—

TANANA

Doyon Limited
Native Corporation

LOCATION AND REGION

Lat. 65°10'N Lone. 152°04'
Twn. 4N Rnge. 23W Mer. Fairbanks

Near junction of Tanana-Yukon Rivers, Koyukuk-Nodzana high.

POPULATION

1950 328 1960 349 1970 411
Total Native, 1970 [illegible]

Native Enrollment: April 1973
Enumerated 319 Claimed 572

GOVERNMENT

IRA, 1947
Local Second Class City, 1961
Borough [illegible]

Townsite surveyed July/Aug. 1955
Elec. Dist: Cit 12 Nov 15
Census Division Yukon-Koyukuk

EDUCATION

Administration State/operated
Grades offered K-12
Enrolled (1971-72) 120

COMMUNITY UTILITIES-FACILITIES

Water source/system/quality anal: [illegible] well. water hard and silty but reasonably suitable for drinking. Other wells are of poor quality.

Sewerage system/disposal:

Privies and septic tanks at individual homes.

Power: Available to all homes through a private source

Community Fac.: Yes Churches 2
Community library, hospital

Housing: USPHS Premise and Home Environmental Health Survey available on 55 houses.

Declared eligible, Native Claims Settlement Act, 12/18/71.

TRANSPORTATION-COMMUNICATION

Airport: Loc/community .9W
Class Civ Elev 228 Beacon/Ltg Both
Lgth & Surf 4,000 Gravel
Bush plane based/community Yes
Six scheduled air stops per week
Land: Road/trail/rail/connections

A limited road network connects miscellaneous local sub areas; including the defense installation.

Water: Boat e/ferry/harbor/dock

Barge service (Yutana)

Radio Trans. call ltr:

Telephone-statewide Yes

STATE/FED. AGEN. & MILITARY

State School, Armory, Post Office, USPHS Hospital, FAA, White Alice

COMMERCIAL-INDUSTRIAL

Four business places
Motel
Wien Airlines
N.C. Store
Cafe

MANPOWER --

TANANA

Category	Primary Occupations, Surveyed Population		
	Total	Em-ployed	Unem-ployed
Total	91	50	41
Prof/Tech/Mgt.	[illegible]	22	4
Cler. & Sales	[illegible]	5	[illegible]
Service	[illegible]	10	[illegible]
Farm/Fish/Forest	[illegible]	1	9
Processing	[illegible]	[illegible]	[illegible]
Machine Trades	[illegible]	1	[illegible]
Bench Work	[illegible]	[illegible]	[illegible]
Structural	[illegible]	6	10
Miscellaneous	1	2	1
Not Identified	7	0	7

Age Distribution, Surveyed Population		
Range	Total	
Total	91	
16-17	4	
18-21	8	
22-35	47	
36-49	16	
50-65	15	
65- +	1	
Unknown		

Years of School Completed	
Range	Total
Total	91
1- 4	11
5- 6	1
7- 8	1
9-12	35
13-16	14
16- +	14
Unknown	3

GENERAL: Hazards: Stream overflow and permafrost.

Historical: The junction of the Yukon and Tanana Rivers had been a long established Indian trading locality before the coming of the fur [illegible]. (1839) Alaska Commercial Company established. (1891) Episcopal Mission founded. (1897) N.C. Company established. (1898) Post Office established. (1899) U.S. Army built, Fort Gibbon.

MINERALS --

Metallic: None reported.

Nonmetallic: None reported or considered likely to be found.

Coal: None reported or considered likely to be found.

Petroleum: None known; in Lower Tanana Basin.

FISHERIES -- Subsistence -- Grayling, pike, salmon, sheefish, whitefish, sucker.

WILDLIFE -- Subsistence -- Black bear, beaver, caribou, red fox, hare, land otter, lynx, marten, mink, moose, muskrat, porcupine, weasel, wolverine, wolf; ducks, geese, ptarmigan, spruce hen/grouse.

FORESTS -- VEGETATION -- Subsistence -- Blueberries, cranberries, timber is used for fuel and house construction.