

## DOCUMENT RESUME

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TITLE Student Educational Radio: Village Extension. Project S.E.R.V.E.

INSTITUTION Dillingham City School District, Alaska.

SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.

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IDENTIFIERS Alaska; Dillingham High School; Project SERVE; Student Education Radio; Village Extension

## ABSTRACT

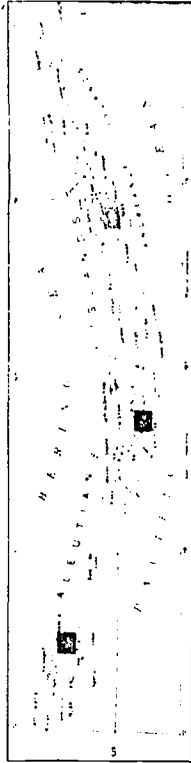
Dillingham High School, through Project SERVE (Student Education Radio: Village Extension), intends to bring 25 rural schools and villages in the Bristol Bay area of Alaska together utilizing educational radio. The objectives of the three-year project are to: (1) increase the number of graduating students choosing broadcasting as a vocation by 100%; (2) increase scores on standardized language achievement exams; and (3) to provide 75% of the target population with the opportunity to participate in a live and taped broadcast program. Students will work directly with language arts instructors and persons in media to improve language skills. Professionally-made taped broadcasts will be compared with local student efforts. During the second and third year of the program, an attempt will be made to bring into the village several professional radio personalities for workshops with students. During the third year, the program will be expanded to include a mobile broadcasting unit which will travel to all the villages in the area for a one to two week session of daily broadcasts, live from the elementary State-Operated Schools. Program material will be prepared by the local villages and school students. (WCM)

UNITED STATES DEPARTMENT OF THE INTERIOR  
 GEOLOGICAL SURVEY  
**ALASKA**  
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# PROJECTIVE REFLECTIONS



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PART I  
STATISTICAL DATA

**THIS PAGE WAS MISSING FROM THE DOCUMENT THAT WAS  
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	PREVIOUS DOE GRANT NUMBER	BEGINNING DATE (Month, Year)	ENDING DATE (Month, Year)	FUNDS REQUESTED
A. Initial Application or Resubmission		July 1, 1972	July 1, 1973	\$ 15,000.00
B. Application for First Continuation Grant		July 1, 1973	July 1, 1974	\$175,000.00* (estimated)
C. Application for Second Continuation Grant		July 1, 1974	July 1, 1975	\$ 75,000.00* (estimated)
D. Total Title III Funds				\$265,000.00
E. End of Budget Period Report				

Complete the following items only if this report includes acquisition, or leasing of facilities for which Title III funds are requested. Leave blank if not appropriate.

4. Type of function (Check applicable boxes)  
 LEASING OF FACILITIES     ACQUISITION OF BUILT-IN EQUIPMENT     ACQUISITION OF FACILITIES

5. TOTAL SQUARE FEET IN THE PROPOSED FACILITY    2. TOTAL SQUARE FEET IN THE FACILITY TO BE USED FOR TITLE III PROGRAMS

C. AMOUNT OF TITLE III FUNDS REQUESTED FOR FACILITY

\$

SECTION C - SCHOOL ENROLLMENT, PROJECT PARTICIPATION DATA AND STAFF MEMBERS ENGAGED



		PRE-KINDER-GARTEN	KINDER-GARTEN	GRADES 1-6	GRADES 7-12	ADULT	OTHER	TOTALS	STAFF MEMBERS ENGAGED IN IN-SERVICE TRAINING FOR PROJECT					
A	School Enrollment in Geographic Area Served			1038	330			1368						
										(1) Public	(1) Public	(1) Public		
										(2) Non-public	(2) Non-public	(2) Non-public		
1	Persons Served by Project			1038	330			1368	50					
										(1) Public	(1) Public	(1) Public		
										(2) Non-public	(2) Non-public	(2) Non-public		
C	Individuals Served by Service			14		3250		14						
										(1) Public	(1) Public	(1) Public		
										(2) Non-public	(2) Non-public	(2) Non-public		
TOTAL NUMBER OF PARTICIPANTS BY RACE (Applicable to Grades Given in Item 13 Above)		WHITE	1593	36	2933	AMERICAN INDIAN	OTHER NON-WHITE	70	TOTAL					
										1593	36	2933	70	4632

2. RURAL/URBAN DISTRIBUTION OF PARTICIPANTS SERVED OR TO BE SERVED BY PROJECT

	METROPOLITAN AREA		
	RURAL	CENTRAL-CITY	OTHER URBAN
PARTICIPANTS			
	FARM	NON-FARM	NON-CENTRAL-CITY
PERCENT OF TOTAL NUMBER SERVED	100		

SECTION D - PERSONNEL FOR ADMINISTRATION AND IMPLEMENTATION OF PROJECT

PERSONNEL PAID BY TITLE III FUNDS

TYPE OF PAID PERSONNEL	REGULAR STAFF ASSIGNED TO PROJECT			NEW STAFF HIRED FOR PROJECT		
	FULL-TIME 1	PART-TIME 2	FULL-TIME EQUIVALENT 3	FULL-TIME 4	PART-TIME 5	FULL-TIME EQUIVALENT 6
A. ADMINISTRATION/ SUPERVISION						
B. TEACHER:						
(1) PRE-KINDERGARTEN						
(2) KINDERGARTEN						
(3) GRADES 1-6						
(4) GRADES 7-12						
(5) OTHER						
C. PUPIL PERSONNEL SERVICES						
D. OTHER PROFESSIONAL						
E. ALL NON-PROFESSIONAL						

F. FOR ALL CONSULTANTS PAID BY TITLE III FUNDS (1) TOTAL NUMBER RETAINED (2) TOTAL CALENDAR DAYS RETAINED

PERSONNEL NOT PAID BY TITLE III FUNDS

TYPE OF UNPAID PERSONNEL	REGULAR STAFF ASSIGNED TO PROJECT			NEW STAFF HIRED FOR PROJECT		
	FULL-TIME 1	PART-TIME 2	FULL-TIME EQUIVALENT 3	FULL-TIME 4	PART-TIME 5	FULL-TIME EQUIVALENT 6
A. ADMINISTRATION/SUPERVISION			3			
B. TEACHER:						
(1) PRE-KINDERGARTEN						
(2) KINDERGARTEN						
(3) GRADES 1-6	2					
(4) GRADES 7-12	2					
(5) OTHER						
C. PUPIL PERSONNEL SERVICES						
D. OTHER PROFESSIONAL						
E. ALL NON-PROFESSIONAL						
F. FOR ALL CONSULTANTS NOT PAID BY TITLE III FUNDS						

(1) TOTAL NUMBER RETAINED

(2) TOTAL CALENDAR DAYS RETAINED



PART II

FINANCIAL: PROPOSED BUDGET SUMMARY



PART II

PROPOSED BUDGET SUMMARY/EXPENDITURE REPORT OF FEDERAL FUNDS

NAME AND ADDRESS OF AGENCY  
**Dillingham City School District**

PROJECT NUMBER

GRANT NUMBER

STATE  
**Alaska**

D. I - EXPENDITURES

(Check one)

PROPOSED BUDGET SUMMARY  
 (ATTACH DETAIL SCHEDULES)

ESTIMATED EXPENDITURE REPORT  
 FINAL EXPENDITURE REPORT

BUDGET PERIOD  
 BEG: July 1, 1972  
 END: July 1, 1973

FUNCTIONAL CLASSIFICATION	ACC'T NO.	EXPENSE CLASSIFICATION										TOTAL EXPENDITURE
		PROFESSIONAL SALARIES	NON-PROFESSIONAL	CONTRACTED SERVICES	MATERIALS AND SUPPLIES	TRAVEL	EQUIPMENT	OTHER EXPENSES	TOTAL			
		1	2	3	4	5	6	7	8	9	10	11
ADMINISTRATION	100		\$			\$ 3000	\$ 500	\$ 500	\$	\$	\$ 4000	
INSTRUCTION	200		5000				750	1250			7000	
ATTENDANCE SERVICES	300											
HEALTH SERVICES	400											
PEOPLE TRANSPORTATION SERVICES	500											
OPERATION OF PLANT	600		1500				500				2000	
MAINTENANCE OF PLANT	700		1000								1000	
FIELD CHARGES	800											
FOOD SERVICES	900											
LABORATORY BODY ACTIVITIES	1000							1000				
COMMUNITY SERVICES	1100											
CAPITAL OUTLAY (EXCEPT ONLY)	1200											
<b>TOTAL</b>			\$ 7500			\$ 3000	\$ 1750	\$ 2750	\$	\$	\$ 15,000	\$

EXPENDITURE ACCOUNT NO.

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary, Rental or Unit Cost	Budgeted Amount
		Full	Part			
100	Engineering and Consultant fees 30 days		X		\$100 per day	\$3000
100	Surveying supplies - F.C.C. Applica- tion fees for above				\$500	\$ 500
100	Travel for above - Round trip fares - Anchorage/Dillingham			4	\$115	\$ 500

EXPENDITURE ACCOUNT NO.

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary, Rental or Unit Cost	Budgeted Amount
		Full	Part			
200	Teacher Programming Co-ordinators		X	2	\$5000	\$5000
200	Tapes and expendable classroom supplies for development of broadcast materials - postage - etc.			150	\$ 5	\$ 750
200	Travel for above to village schools in project			25 fares	\$ 50 (average)	\$1250



Expense Class	Name & Title, Purpose, or item	Project Time		Quantity	Salary, Rental or Unit Cost	Budgeted Amount
		Full	Part			
600	Janitorial Service - electricity - heat		X			\$1500
600	Janitorial Supplies					\$ 500

EXPENDITURE ACCOUNT NO.

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary, Rental or Unit Cost	Budgeted Amount
		Full	Part			
700	Repair - preventive maintenance - alignment of recording equipment				\$1000	\$1000

EXPENDITURE ACCOUNT NO.

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary, Rental or Unit Cost	Budgeted Amount
		Full	Part			
1000	Travel for student program assistants to villages for taping sessions			20 round- trip	\$50 (average)	\$1000

## PROPOSED BUDGET SUMMARY

### EXPLANATION

During the first (planning) year of Project S.E.R.V.E., there are several contingencies which could make vast differences in the scope of necessary funding for the first operational (broadcasting) year. It is, therefore, not the purpose of this application to provide more than an estimated maximum amount for the operational years. A more accurate estimate of actual costs will follow at the end of the planning year.

Possibilities which may affect the funding are listed below in no particular priority:

1. A request now in from Governor Egan to the Alaska State Legislature for \$50,000 to cover equipment costs for an educational broadcasting station in Dillingham.
2. The possibility of a combined television and radio broadcasting capability. A television relay antennae is being erected in Dillingham to receive and re-transmit a signal from King Salmon Air Force Base to the local population.
3. The question of a possible A.M. and F.M. station instead of A.M. only.

Budget summaries for a 5 KW A.M. station at Kotzebue have been submitted for use as guidelines for Project S.E.R.V.E. by Mr. Bob Arnold, Executive Director of Alaska Educational Broadcasting Commission. Mr. Arnold suggests that a 10% to 15% increase in these figures would be a more accurate assessment of actual costs (see Pages 13 and 14).



ESTIMATED OPERATING EXPENSES  
 KOTZEBUE RADIO - 5 KW A.M. RADIO STATION  
 \$63,200  
 FY 1973

Personal Services

Station Manager/Chief Engineer	17.0 (in thousands)	
Program Director	16.0	
Other Boardmen	5.0	
Secretary	<u>3.5</u>	
Total	41.5	
Benefits	<u>6.0</u>	
Total		47.5

Travel and Per diem

Anchorage, NAEB Convention		1.0
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Contractual

Heat, water, electricity, rent Communications, etc.	Furnished by B.I.A. <u>9.2</u>	
Total		9.2

Supplies

Office	0.5	
Broadcasting + borrowed programs	<u>5.0</u>	
Total		<u>5.5</u>

<u>Total</u>		<u><u>63.2</u></u>
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PROPOSED GRANT  
TO  
KOTZEBUE BROADCASTING

Personal Services

Manager/engineer - 6 months	\$8,500	
Program director - 4 months	5,300	
Secretary	<u>900</u>	
 Total		 14,700
 Benefits @ 14%		 <u>1,600</u>
 Total		 16,300

Travel and Per diem

Board members (3 out of town/4 meetings @ \$250)	1,000	
Manager/director	<u>1,000</u>	
 Total		 2,000

Contractual Services

Legal Fees	1,000	
Engineering	1,700	
Bookkeeping	250	
Vehicle Insurance	<u>250</u>	
 Total		 3,200

Equipment

Antenna, transmitter, studio equipment (local share)	18,000	
Vehicle	5,500	
Office equipment	700	
Office furniture	<u>500</u>	
 Total		 24,700

Supplies

Office	500	
Broadcasting	<u>3,300</u>	
 Total		 <u>3,800</u>

<u>Total</u>		<u>\$50,000</u>
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PART III  
NARRATIVE REPORT

## INTRODUCTION

Ask any educator who has been in rural Alaskan schools for any length of time what are the most critical educational needs for his students and he will almost certainly include improved language skills, communications, and freedom of choice in a variety of educational experiences. It would seem obvious that techniques to meet these critical needs under one program would be in wide use in the rural areas. However, the fact remains that for the majority of the student population in rural Alaska, schools remain bound to traditions and programs which allow virtually no freedom of choice nor a chance to experience anything other than what is allocated for their "grade level."

Dillingham High School has sought to remedy this situation with its non-graded/trimester/mini-course curriculum. Project S.E.R.V.E. is intended to draw upon all the existing advantages of this program and utilizing educational broadcasting, bring this into some twenty-five rural schools and villages in the entire Bristol Bay area.

It is the feeling of the author that too often, educational radio is viewed only as a medium from which educational experiences are received. It is a basic premise of Project S.E.R.V.E. that an equal amount of learning experiences can be encountered from the broadcasting standpoint as well as from the receiving standpoint. Thus, it is planned that the radio station will be operated by the students themselves. A more detailed description of the actual operation of S.E.R.V.E. follows later in the narrative.

## EVOLUTION OF THE PROGRAM

### SCHOOL YEAR 1968-69

The basic concepts, which evolved into the non-graded/trimester/mini-course curriculum presently in operation at Dillingham High School, Dillingham, Alaska, were originated during the spring of 1969. It was felt at that time that many problems were occurring because of the inherent inflexibility of the curriculum then in operation.

This program (see Plate I) involved a traditional approach to high school curriculum, i.e., a rigid grade nine through grade twelve "class" system in most courses, utilizing a standard 55 minute, six period school day with all courses continuing for the full 180-day school year.

Seventh grade, eighth grade, and high school students were in separate courses but were taught by the same staff in the same building. This staff consisted of nine teachers for a total pupil population of 140 for grades seven through twelve.

Effective utilization of staff members was difficult under this organization as is evidenced by such situations as a single teacher during one class period being scheduled with some 60 students or roughly one-half the total student body in a study hall. Most of these students were in this situation simply because they could not schedule a course at that time. There were various reasons for this. Some students lacked the ability or prerequisites for some advanced courses offered during that time. Also, some teachers were not available to teach a class at that time because of their scheduled preparation period.

## SCHEDULE 1968-69

PERIOD I	PERIOD II	PERIOD III	PERIOD IV	PERIOD V	PERIOD VI
Algebra II (6)	Algebra I	Plane Geometry	Eighth Math	Seventh Math	
French I (7)	US History	Seventh Social (up)	Government (7)	Eighth Social (7)	World History (7)
Journalism (2)		Eighth English (5)	English II (5)	English I	English III
Band & Chorus (gym)		Vocational Home Economics (8)	Vocational Home Economics (8)	Home Economics II (3)	Home Economics I
Shop I (Shop)	Seventh English (up)	Shop II (Shop)	Mach. Drawing (Shop)		Art Physical Education
	English IV (4)	Guidance Study (4)	Health and P.E. I	Health and P.E. II	Shop I (Shop)
	Biology	Biology	Health and P.E. I	Health and P.E. II	Jr. High P.E.
Typing I	Business Math (3)	Office Prac. I (Shorthand)	Bookkeeping	Office Prac. II Typing II	General Business
Study Hall	Eighth Science	General Science	Seventh Science	Physics	

Obviously, very little studying was accomplished and the teacher was forced to use two separate classrooms to contain this group. There were numerous other difficulties in scheduling and teaching under this arrangement. In courses which were set up for just a single grade level, "overloading" occurred frequently and a 35 to 1 pupil-teacher ratio in English and Social Studies classes was common. Students and teachers had no voice in determining course offerings. That is, students had almost no choice in courses they could take and teachers had no choice in courses they could offer.

It was decided that something should be worked out for the school year 1969-70 as an experiment for more effective use of the limited staff and a less rigid curriculum. One objective was to establish a schedule and curriculum which provided students and teachers with an active voice in determining their educational experiences.

An inherent part of this program would be a continuous evaluation, revision, and up-dating so that the traditional problem of an inflexible curriculum would not occur.

Smaller units of learning would be necessary to break down the existing framework to a more flexible structure.

In effect, it would be much more than just a new way of scheduling. It would be an entirely new way of looking at how educational experiences were occurring.

For the experiment, the concentration was on two major problem areas; English and Social Studies classes. It was felt that for these two areas to become more flexible, that the traditional grade 9 through

12 scheduling would have to be altered. Traditional year long courses (180 days) were broken into smaller units, which teachers felt could be taught in one semester (90 day) sessions. Each course was given a brief description of the general content which would be attempted (see Plate II). A pre-requisite system was established for the advanced courses, but there was no "grade level" established for any English or Social Studies course. That is, any student in high school (grades 9-12) could sign up for any English or Social Studies course provided he displayed certain background preparation or was approved by the instructor.

There was an immediate problem in that with a very limited number of teachers in these two areas, all of the semester courses which teachers felt they were able to teach could still not be offered during the course of the year. For example, one teacher with two available periods for a year could only offer a possibility of four of the different courses (see Plate III--Schedule for 1969-70). The question was how to establish which of the 15 or 20 courses would be offered. The obvious answer was that the students themselves should decide which courses we should offer each semester determined by their needs. A student was not required to take any English or Social Studies course during a semester, or he might choose to take as many different ones as were offered. "Advisor/advisee" groups were established to make certain that students understood thoroughly the graduation requirements and how the new classes would work. The students were then given tally sheets on which they marked which courses they wanted to see offered at a given period and semester. The results were tabulated and the English and Social Studies classes for the 1969-70



## ENGLISH COURSES

Eng 100	Practical Writing and Speaking
Eng 101	Beginning English Grammar
Eng 102	Advanced English Grammar
Eng 201	Beginning Composition
Eng 202	Advanced Composition
Eng 203	Creative Writing
Eng 204	Research
Eng 301	The Short Story and Poetry
Eng 302	The Novel
Eng 303	Classic Theater
Eng 304	Modern Theater
Eng 305	The Spoken Language

## SOCIAL STUDIES

SS 200	Geography in History
SS 201	The History of Science
SS 202	Music Since the Renaissance
SS 203	Revolutions in History
SS 204	The American School and the Process of Education
SS 300	Participation in Democracy (Required)
SS 301	Economics and Politics in History
SS 302	American Bill of Rights
SS 303	The Development of Democratic Ideals
SS 304	Race in American History
SS 400	Conflict in History
SS 401	Current Events
SS 402	Dillingham Here and Now
SS 403	Psychology
SS 404	Research Projects

SCHEDULE 1969-70

PERIOD I	PERIOD II	PERIOD III	PERIOD IV	PERIOD V	PERIOD IV
	Algebra I	General Math	Algebra II	Eighth Math	Seventh Math
Chemistry	General Science		Biology	Seventh Science	Eighth Science
Ninth P.E.	Tenth P.E. boys	Biology	Seventh & Eighth P.E. - boys - MWF	Eighth Science	
Ninth P.E. girls	Tenth P.E. boys	English #1 102 English #2 204	Seventh & Eighth P.E. - girls - TTh	Elementary P.E.	
Seventh & Eighth Core Program					
			English #1 100	English #1 101	Journalism
			English #2 300	English #2 301	
			Social Studies #1 300	Soc. St. #J 202	Soc. St. #J 203
			Social Studies #2 300	Soc. St. #2 403	Soc. St. #2 204
Industrial Arts II	English #1 101 English #2 305	English #1 101 English #2 101	Not offered first semester General Shop II only	General Shop I only Not offered second semester	Industrial Arts I
Home Economics II	Advanced Home Economics	Home Economics II	Seventh & Eighth Home Economics boys - TTh girls - MWF		Home Economics I
Bookkeeping	Economics	Typing I	General Business #1 only	General Business #2 only	Typing II
			Reading Lab #1 & #2	Reading Lab #1 & #2	Reading Lab #1 & #2
No Class					
Assistant					
Secretary					
Office					

#1 - indicates first semester only  
#2 - indicates second semester only

school year were established by student "majority rule." The semester course concept was also tried in other classes but not on this same basis.

Another area which was causing considerable scheduling problems was the junior high classes. The entire curriculum had to be built around the fact that the staff had to be used not only for the high school (9-12) but for seventh and eighth grade as well. These two grades were totally independent of each other except in P.E. and in effect, the high school schedule worked somewhat around their schedule.

In an attempt to resolve this problem, these two grades were scheduled in a three-hour, non-graded "core" program in Language Development using two instructors and an aide. The objectives here were:

1. To try to correct language problems encountered at this age level.
2. To dissolve another rigid grade level distinction as much as possible.
3. To provide a transition stage for further development of an individualized program for junior high students.

#### SCHOOL YEAR 1969-70

The experiment with the English and Social Studies courses was accepted very well by both students and teachers. The objective of providing a non-graded curriculum in these two areas was successfully accomplished.

The flexibility of scheduling was immediately evident; and since a student did not feel forced to take a course in these two areas each semester, class loads could be equalized more easily. "Mixing" the grade levels in these two areas provided opportunities for students to be in classes with other students they had never before been in classes with.

Student and teacher morale was boosted by the feeling of having some choice in establishing at least a part of the curriculum.

The project gave impetus to a series of curriculum revision meetings throughout the school year which provided an opportunity for teachers in other areas to investigate the possibility of doing similar programs. A student curriculum committee submitted suggested course offerings in any area they chose. These ideas were then co-ordinated with courses which the staff felt it could successfully offer.

Experiences with the semester courses during this school year showed that the idea was worth pursuing further. Teachers and students responded very favorably to the idea of new course offerings in English and Social Studies twice a year rather than only at the start.

Upon further investigation of state requirements for allotting credits, it was discovered that by dividing the regular 180 school days into 60-day segments of "trimesters," and running classes 63 minutes per day, that the state minimum time requirements could be met for 1/2 credit courses. The 63-minute time block could further be broken down into three 21-minute "modules" of time allowing further flexibility. A teacher might then be able to offer a course using as many or as few of these modules as he chose over a 60, 120, or 180 day time. Some courses might need 5 modules per day for 60 days; others might need only 1 module but 180 days.

The final result was a group of over 200 one-half credit "minicourses" in all areas which the staff of 10 teachers felt they could offer in a variety of time arrangements (see Plate IV--Course Listings). By means of a student "tally sheet," courses which were most in demand or needed

COURSES AVAILABLE  
1970-71

## AVIATION

Aviation History  
Aviation Geography  
Aviation Math  
Navigation  
Aviation Economics  
Meteorology  
Model Aircraft Theory  
and Construction  
Communications  
Aviation Physics  
Wilderness Survival

## VOCATIONAL PROGRAMS

Shop Math  
Drafting I  
Drafting II  
Drafting III  
Theory and Construction of  
Stringed Instruments  
Modern Building Practices  
Modern Metal Technology  
Aircraft Maintenance for  
the Pilot  
Aircraft Maintenance and  
Repair  
Advanced Power Mechanics  
Marine Propulsion Systems  
Basic Auto Systems  
Electronics I  
Electronics II  
Graphic Arts  
Engine Repair & Maintenance  
Boat Building  
General Shop I  
Machine Woodworking  
General Shop III  
Jewelry & Lapidary  
Aviation I - Private Pilots  
Ground School  
Aviation II - Flight Training  
Oxygen-Acetylene Welding  
Marine Propulsion Systems  
Sporting goods Construction  
Auto Mechanics

## SOCIAL STUDIES

Geography in History  
The History of Science  
Music Since the Renaissance  
Revolutions in History  
The American School and the  
Process of Education  
Participation in Democracy  
Economics and Politics in  
History  
The American Bill of Rights  
The Development of American  
Ideals  
Race in American History  
Conflict in History  
Current Events  
Dillingham Here and Now  
Psychology  
Research Project  
98.6 Seminar  
Council  
Film Making

## SCIENCE

Introduction to Matter  
Energy  
Earth Science (Sc 201)  
Earth Science (Sc 202)  
Physical Geology  
Mineralogy  
Geology Field Trip  
Practical Biology (Sc 206)  
Practical Biology (Sc 207)  
Chemistry I  
Chemistry II  
Physics I  
Physics II  
Science Seminar  
Oceanography  
Biology I  
Biology II  
Biological Studies

**MATH**

Basics of Mathematics  
Personal Mathematics  
Introduction to the Fundamentals of Geometry  
Beginning Algebra  
Math 202 (Higher Math)  
Math 300 (Laws governing systems of Numbers)  
Math 301 (Laws governing systems of numbers)  
Math 400 (Trigonometric functions and complex numbers)  
Math 401 (Progressions and binomial expansions)  
Business Math  
Math 107 (Slide Rule)  
Mathematics of Navigation  
Plane Geometry  
Solid Geometry  
Speed Math

**BUSINESS**

Economics 401 (Business Law and Communications)  
Consumer Economics 101  
Consumer Economics 102  
Typing 201  
Typing 202  
Typing 203 (Professional Typing)  
Typing 301  
Accounting 301  
Accounting 302  
Accounting 401  
Simulated Office Practice  
Legal & Medical Terminology for Secretaries  
Office Machines  
Salesmanship  
Retailing Fundamentals  
Merchandising and Advertising  
Economics 301  
Business Organization & Management  
Beginning Shorthand  
Intermediate Shorthand  
Advanced Shorthand

**VIDEO RECORDING**

**LEATHERCRAFT**

Leathercraft 100  
Leathercraft 101  
Leathercraft 301

**MUSIC**

Mixed Chorus  
Small Vocal Ensembles  
Operetta Workshop  
Allied Arts  
Band  
General Music

**LANGUAGE ARTS**

Asian Studies  
Journalism  
Practical Writing & Speaking  
Beginning English Grammar  
Advanced English Grammar  
Beginning Composition  
Advanced Composition  
Creative Writing  
Research  
Short Story & Poetry  
The Novel  
Classical Theater  
Modern Theater  
The Spoken Language  
Debate  
Basic English  
Yearbook Production  
Career Opportunities  
Reading Lab

PHYSICAL EDUCATION

Cross Country Skiing  
Introduction to Physical Education  
Folk & Square Dancing  
Softball, Track, and Field (Girls)  
Soccer, Speedball, & Field  
Hockey (Girls)  
Volleyball & Basketball (Girls)  
Modern Dance (Girls)  
Advanced Modern Dance (Girls)  
Body Mechanics (Girls)  
Ballroom Dancing (Co-ed)  
Roller & Ice Skating  
Tennis  
Drill Team (Girls)  
Recreational Activities  
Physical Fitness (Boys)  
Weight Lifting  
Soccer and Football (Boys)  
Elements of Track & Field (Boys)  
Wrestling (Boys)  
Tumbling, Gymnastics, Trampoline  
First Aid & Safety  
Basketball & Volleyball  
Hunter Safety  
Riflery  
Badminton & Table Tennis  
Archery  
Advanced Tumbling,  
Gymnastics, & Trampoline

HOME ECONOMICS

Beginning Sewing  
Needlework  
Upholstery & Wood Finishing  
Child Development  
Meal Planning and Preparation  
Food Preparation and Baking  
Making a Cloth Parka  
Beginning Skin Sewing  
Housing  
Boys Food Class  
Boys Sewing Class (Beginning)  
Boys Sewing Class (Advanced)  
Grooming & Health  
Orientation to Hospital  
Nursing Service  
Nurse's Aide  
Food Service  
Advanced Sewing  
Intermediate Sewing  
Management and Consumer  
Buying  
Child Development  
Orientation to Health Careers  
Nursery or Day Care Center

### COURSE DESCRIPTION EXAMPLES

The following are examples of course descriptions found in the  
Course Description Catalog:

AVIATION ECONOMICS - The impact of aviation on area economics will be discussed along with the employment possibilities of the industry. Bristol Bay aviation will be discussed in detail. Representatives of aviation industries will be guest speakers.

THEORY AND CONSTRUCTION OF STRINGED INSTRUMENTS - A study of the history and theory of the Guitar and other stringed instruments and the actual construction of a quality instrument by each student.

Prerequisite for Course: Advanced Woodworking  
General Science

COUNCIL - Students are elected to this course by the entire student body. One-half credit in Social Studies will be given for participation. Students who are elected to this course will determine what the class will study, when the course will meet, how grades (and/or IF grades) will be given, how the class will operate, and what the instructor will do to help.

Prerequisite for Course: Election to the Course  
by the Student Body

PHYSICS I - Matter and the laws governing the behavior of matter. Investigation into the laws of motion. A study of the different forms of energy and their relationship to each other.

Prerequisite for Course: Science 100

PERSONAL TYPING - An introductory typing course for students who have no typing experience. They will learn the basic typing techniques, how to write personal letters, themes, etc., but will not be required to attain more than 20 words per minute proficiency.

BASICS OF MATHEMATICS - Including a review of: fractions, decimals, and percent and measurement. For the student who needs further work in fundamentals.



FIRST TRIMESTER

8:45	9:06	9:27	9:51	10:12	10:33	10:57	11:18	11:39	12:00	12:21	12:42	1:03	1:24	1:48	2:09	2:30	2:54	3:15	3:36		
9:06	9:27	9:48	10:12	10:33	10:54	11:18	11:39	12:00	12:21	12:42	1:03	1:24	1:45	2:09	2:30	2:51	3:15	3:36	3:57		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Jewelry & Lapidary		Machine Woodworking		General Shop		Aviation															
Construction of Stringed Instruments		Electronics I		Drafting																	
Orientation to Nursing		Beginning Sewing																			
Library Service																					
Science 100		Science 200		Chemistry I		Junior High Science - Gr #3															
Math 102		Math 101		Math 200		Junior High Math - Gr #1															
Introduction to PE - boys		Basketball & Volleyball		Tumbling & Gymnastics		Hunter Safety															
Introduction to PE - girls		Modern Dance		Ballroom Dancing		Career Opportunities		Archery												Same as Above	
Elementary Music																					
Consumer Economics		Typing 201 Section 1		Typing 201 Section 2		Band		Elementary Music												General Music Jr.Hi - MWF	
Simulated Office Practice - 2 hour blocks of time to be scheduled by the instructor																					
Jr.Hi.Social Studies - Gr#2		Jr.Hi.Social Studies - Gr#1		Jr.Hi.Social Studies - Gr#3		Auto Mechanics															
Jr.Hi.English Group #1		Jr.Hi.English Group #3		Jr.Hi.English Group #2		English 203															
Social Studies 202		Social Studies 300		Social Studies 98.6		English 201															
Journalism Blizzard Production																					

for state graduation requirements were placed in the first trimester schedule. All courses were non-graded through the ninth grade level and the junior high students were divided into three non-graded groups and given several times during the day when they could schedule into regular high school courses. This was done as an experiment to see if non-grading for the entire seventh through twelfth grade could be accomplished.

#### SCHOOL YEAR 1970-71

The first trimester was attempted with an attitude of excitement and willingness to try a new approach to solving old problems of joyless drudgery in education. No one expected total success. A Japanese Study Program was also being attempted at the same time the total curriculum was being revamped. Twenty-eight junior and senior students would visit Japan on another experimental program to see what effect a visit to a foreign country would have on the motivation, sophistication, and entire lives of students from rural Alaska.\*

Teachers and students accustomed to full-year courses had to adjust their thinking to 60-day minicourses. Programs progressed with a livelier pace and in some cases, teachers found that a course planned for 60 days had to be extended to 120 days. Others felt that courses planned for two trimesters could be successfully completed in one. Priorities and prerequisites were scrutinized, and in general, the whole traditional system of teaching, learning, grading, scheduling, planning, etc., was

---

\*These students have completed a semester's work at the University of Alaska. From information available, it is quite evident that this is the highest percentage of any group from a rural Alaskan school in the history of the University to complete a semester's work. A full evaluation of this program may be obtained upon request.

analyzed for both its advantages and disadvantages.

During the first and second trimesters, student tally sheets were again used to determine which courses the students needed or desired to take the succeeding trimester. A problem in obtaining some sort of an accurate tabulation from students having unlimited choice (except where prerequisites prevented) was partially solved by asking students to indicate five course choices by using the number of the period desired. This unfortunately, eliminated some flexibility with the 21-minute modules, and this problem is still unresolved. It may be that some computer assistance with this type of scheduling may be necessary to fully realize its flexibility.

One very interesting and encouraging solution to conflicts in scheduling is being tried in several areas. "Seminar" courses in independent study have been working quite effectively. In these courses, students simply register for "Science," "Math," or any general subject area. They then pursue any topic in that area at their own pace toward a goal which they have set for themselves with the counselling of the instructor. This eliminates the problem of having to place a course, which is in demand, at any specific period of the day. The student is given credit in whatever area he concentrates in upon completion of his goal.

Independent study has much to offer and should be pursued further. It is the most effective way of breaking down the "six period" school day for those students who do not learn most effectively in the rigid, structured setting.

#### PROJECTIONS

The reaction to the programs at Dillingham High School appear to be

generally favorable from students, teachers, and "outside" evaluators.

Variations of the trimester, minicourse concept are being attempted elsewhere in the nation. Unfortunately, in most cases it has not been generally used as the primary vehicle for a curriculum. Too often it is merely tried on a two or three week basis as an "enrichment" program to the "regular" program which evidently has not provided youngsters what it should or it would not need "enriching." It lends itself well to the year-round school concept with very distinct possibilities for the voucher system and differentiated staffing.

The momentum generated by the programs this year at Dillingham High School should be taken advantage of with continuing innovation, experimentation, and evaluation; for in a world where existing knowledge doubles every five years, educators and education cannot afford to remain static. Students must learn how to learn, not just an accumulation of facts which will be obsolete when they leave the high school.

## ABSTRACT

### A. Objectives:

1. To increase by 100% the number of graduating students choosing some area of the broadcasting field for a vocation.
2. To increase by a significant degree scores on standardized language achievement exams for those students involved in the program either directly (broadcasting) or indirectly (receiving).
3. To provide an opportunity for 75% of the target student population to actually broadcast a live and a taped program.

### B. Activities for Attaining the Objectives Will Be:

1. Students will program 80% - 90% of all broadcasts.
2. Students will be involved during the first year in the planning program.
3. Students will be employed as assistants for actually setting up electronic equipment.
4. Students will be employed as assistants in the managerial process of station operation.
5. Students will be used as disc jockeys, newscasters, radio play actors and directors, advertising personnel, etc.

Students will be working directly with language arts instructors and persons in the media field to improve language deficiencies noted by themselves in broadcasts. Written communications will be taped for broadcast and scrutinized by students for language errors. Comparisons of professionally-made taped broadcasts with local student efforts will be done. An attempt will be made to bring into the village several professional radio personalities during the second and third year of the program for workshops with students.

6. The first year will be devoted to planning, F.C.C. applications, equipment installation, and student programming courses.
7. The second year will be involved with local (Dillingham High School) broadcasting only. Local High School students and Boarding Students from surrounding villages will be involved in this at the Dillingham Broadcasting Station. Elementary students in 25 villages will receive daily educational broadcasts from Dillingham during the second year of the project. Taped programs will be submitted from the village schools for broadcast from Dillingham.

8. During the third year, the program will be expanded to include a mobile broadcasting unit which will travel to all the villages in the area for a one to two week session of daily broadcasts, live from the elementary State-Operated Schools. This mobile unit will transmit signals back to the centrally-located transmitter in Dillingham to be relayed to all other schools in the area. Program material will be prepared by the local villages and school students.

## EVALUATION

1. Records will be kept after each year of operation on selection of professions by graduating seniors.
2. The California Achievement Tests will be utilized as a pre-test and post-test for this objective. Scores from the planning year (non-broadcast year) will be compared to scores during broadcast years for gains in language skills.
3. A simple tally of student population will provide information as to percentage of actual student population who are involved in broadcasting live and taped programs.

## DISSEMINATION

Dissemination of information about Project S.F.R.V.E. will be done exclusively via live broadcasts over the radio station and written news releases to other stations, newspapers, and schools.

## OPERATION OF PROJECT S.E.R.V.E.

Project S.E.R.V.E. can only be successful if there is adequate participation by students in the planning of program material. Thus, the first year of the program, a planning year, will be devoted exclusively to the following areas:

1. Student Programming Courses - Under the trimester system, special courses will be established for school year 1972-73 in which all available information will be utilized in establishing what types of educational programs will be broadcast during the first year (1973-74) of actual broadcasting.

Virtually every major supplier of prepared broadcasting materials has been contacted and catalogues received.

Students will also be preparing tapes during the planning year for broadcast the first year of operation. It is expected that some type of actual broadcast material will come from each mini-course in all subject areas offered during school year 1972-73 and not just from the special classes offered for organizing programs. The special classes will serve as co-ordinating sessions to bring together all materials submitted from the entire school and organize them into available broadcasting devices.

Utilization of bi-lingual programming is planned as an integral part of each day's broadcasting.

2. Installation of Equipment - Of major importance to the first year's operation of S.E.R.V.E. is obviously the successful installation



and alignment of the radio broadcasting equipment. The Alaska Educational Broadcasting Commission through Mr. Bob Arnold, Executive Director, is actively supporting this project and has promised engineering assistance for installation of equipment and F.C.C. applications. As a further indication of his interest and support of Project S.E.R.V.E., Mr. Arnold has through Governor Egan requested that the Legislature provide necessary funding for equipment costs for a 5000-watt A.M. station in Dillingham. Should this request be funded, costs for the project would be a co-operative venture between State and Federal funds. Notification of State funding would come during the summer of 1972 before the first planning year.

It is planned that students enrolled in the electronics courses at Dillingham High School during the planning year will be directly involved in the installation and alignment of the radio broadcasting equipment. There will also be some remodeling necessary for the area being considered for a studio. Students in the carpentry classes at Dillingham High School will be directly responsible for the design and re-modeling of the studio.

#### SECOND YEAR - 1973-74

The second year of the program will be the first year of actual broadcasting. Utilizing all of the programming prepared during the first planning year, broadcasting will take place from Dillingham reaching schools (some 500-1000 students) and communities as far away as Port Heiden. Students from Dillingham as well as some 80-100 boarding students, representing virtually all of the villages receiving the broadcasts, will be in charge of the daily broadcasts.

It is also planned that during the first year of broadcasting taped programs from all of the various rural schools will be a regular feature of the programming. Much of this material will be broadcast in the native language.

### THIRD YEAR - 1974-75

During the third year, the program will be expanded to include a mobile broadcasting/recording unit which will travel to all the villages served in the area for a one to two week session of daily broadcasts. These broadcasts will be transmitted back to the centrally-located transmitter when possible to be relayed to all other schools in the target area. Program material will be prepared by the local villages and school students and if live broadcasting is prohibitive because of distance from the central transmitter, the roving unit will tape the programs and return them to the Dillingham studio as soon as possible for broadcast. Students from Dillingham High School will be involved in the roving unit with an adult program supervisor. Major responsibility for programs transmitted live or taped in the village schools will be borne by the students from Dillingham High School.

### CONTINUATION OF THE PROGRAM

There are three possibilities for a continuation of Project S.E.R.V.E. following termination of federal funding.

1. The local school district will be able to continue the cost of operation through regular school programs.
2. The State of Alaska through the Educational Broadcasting Commission

could bear the cost of operation as is being done elsewhere in the state.

3. A combination of local and state funding for the operation of the station could be utilized.

RELATED CORRESPONDENCE

AND

SUPPORTIVE DATA



UNIVERSITY OF ALASKA  
COLLEGE ALASKA 99701

May 17, 1971

Mr. Bob Cherry, Dist. Principal  
Dillingham City Schools  
P.O. Box 202  
Dillingham, Alaska 99576

Dear Bob:

I have received a copy of your letter of April 5 to Ron Bedard at the State Department of Education. In that letter, you indicated your desire to request Title III ESEA funds to assist in the construction and operation of an AM radio station for the Dillingham area, operated from the school.

I'll be happy to do whatever I can to assist you in the above endeavor. As you may know, I have recently resigned from my position with the Educational Broadcasting Commission and will shortly assume duties as Director of Media Services for the University of Alaska. In that capacity I am responsible for both the radio and television activities of the University as well as its audio-visual communications center. On our staff there are a number of competent professionals in the areas of programming, production, engineering, and broadcast administration. If there is any way they can be of help to you, please let us know. Needless to say, we would need some financial assistance if face-to-face meetings were necessary, but we might be able to accomplish a good deal through correspondence.

Best of luck to you in trying to get an AM radio station for the Dillingham area.

Cordially,

Charles M. Northrip

cc: Dan Turner  
Roland Lynn  
Ron Bedard  
Ken Grieser  
W. Russell Jones, Jr.  
Joe McGill  
Jay Hammond  
Nick Begich  
Mike Gravel  
Ted Stevens

## UNIVERSITY OF ALASKA

COLLEGE, ALASKA 99735

TO: Bob Arnold  
AEBC Exec. Director  
650 International Airport Rd.  
Anchorage, Alaska 99502

DATE: July 10, 197

Dear Bob:

I know you were as surprised and delighted as I to learn of the broadcast plans of Dillingham in Mr. Cherry's recent letter to me which he copied to you.

I hope we can put Mr. Cherry's letter and the questions it poses before the AEBC at our next meeting.

Best regards

---

PLY: Lee H. Salisbury

CC: Mr. Cherry, Dillingham Alaska

*Don*  
If we meet in Anchorage or Bethel, perhaps  
you could fly in to talk to the group? Alas,  
we have no funds to do this ourselves.  
Best to Dan and group  
Lee

# STATE OF ALASKA

## DEPARTMENT OF EDUCATION

ALASKA EDUCATIONAL BROADCASTING COMMISSION

WILLIAM A. EGAN, GOVERNOR

650 International Airport Bldg.  
Anchorage, Alaska 99502  
(907) 272-9418

February 24, 1972

Mr. Bob Cherry  
District Principal  
Dillingham City School District  
P.O. Box 202  
Dillingham, Alaska 99576

Dear Bob:

Thanks for sending your Title III proposal. I have reviewed it and hope it will be approved.

As you know, there is a prospect of limited State financial support to assist your project, but such funding would not be adequate to cover such matters as student programming courses.

Please know that this office supports your proposal and will provide whatever assistance that we can. Because I will be traveling for the next eight days, we'll have to talk of travel to Dillingham in early March.

Good luck.

Sincerely yours,

*Bob Arnold*  
by J.M.C.

Bob Arnold  
Executive Director

BA:jc

DEPARTMENT OF EDUCATION

ALASKA EDUCATIONAL BROADCASTING COMMISSION

550 International Airport Road  
Anchorage, Alaska 99502  
(907) 272-9418

October 14, 1971

Mr. Dan Turner  
Superintendent  
Dillingham City School District  
P.O. Box 202  
Dillingham, Alaska 99576

Dear Mr. Turner:

Thank you for your letter of October 5, in which you set out the case for a radio station to be located in Dillingham rather than Naknek. It will interest you to know that I agree with all five points you make.

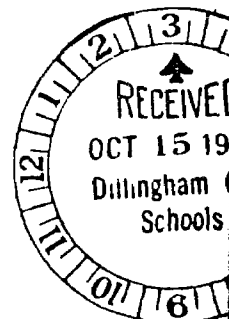
I had the opportunity to talk with Bob Cherry today about the question also, and I told him that I thought Dillingham a better location from the standpoint of program origination, even though it might not be from a technical standpoint. The Commission has, so far, requested funds in a budget for a radio station in the Dillingham-Naknek area, not in Naknek.

Frank Butte, facilities planner, and I will be coming to Dillingham - if our request makes progress. I look forward to meeting you.

Sincerely yours,

*Bob Arnold*

Bob Arnold  
Executive Director





CITY OF DILLINGHAM

RESOLUTION # 69

BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE CITY OF DILLINGHAM THAT THE SAID DISTRICT IS A MUNICIPALITY DULY ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF ALASKA, AND FULLY AUTHORIZED TO ENTER INTO THE FOLLOWING RESOLUTION:

BE IT RESOLVED; that WHEREAS, there is a critical need for language development among rural students in the Dillingham area; and

WHEREAS there is a critical need for an expansion of the communications media in the area; and

WHEREAS, a radio station programed and operated by students to develop saleable skills and provide an invaluable service to the communities served;

NOW, THEREFORE BE IT RESOLVED that the Alaska Department of Education be requested to support the Dillingham City Schools application for Title III ESEA funds to develop a Student Educational Radio-Village Extension Project.

APPROVED AND ADOPTED this 20<sup>th</sup> day of January 1972.

SEAL:

B. K. Coffman  
Mayor

ATTEST:

Marjorie J. Jackson  
City Clerk

HENRY M. JACKSON, WASH., CHAIRMAN  
CLINTON P. ANDERSON, N. MEX.  
ALAN BIBLE, NEV.  
FRANK CHURCH, IDAHO  
FRANK E. MOSS, UTAH  
QUENTIN N. BURDICK, N. DAK.  
GEORGE MCGOVERN, S. DAK.  
GAYLORD NELSON, WIS.  
LEE METCALF, MONT.  
MIKE GRAVEL, ALASKA  
GORDON ALLOTT, COLO.  
LEN B. JORDAN, IDAHO  
PAUL J. FANNIN, ARIZ.  
CLIFFORD P. HANSEN, WYO.  
MARK O. HATFIELD, OREG.  
TED STEVENS, ALASKA  
HENRY BELLMON, OKLA.

JERRY T. VERKLER, STAFF DIRECTOR

## United States Senate

COMMITTEE ON  
INTERIOR AND INSULAR AFFAIRS  
WASHINGTON, D.C. 20510

November 24, 1970

Mr. Bob Cherry  
District Principal  
Dillingham City School District  
P. O. Box 202  
Dillingham, Alaska 99576

Dear Bob:

The General Services Administration reports there is no government surplus broadcast equipment at this time which could be used at Dillingham. Enclosed is a report from GSA Administrator Bob Kunzig that indicates preparatory action to be taken in case equipment does become available.

My staff has also been in touch with Dr. Charles Northrip of the Alaska Educational Broadcast Commission and Mr. Charles Buck of the Alaska Division of Communications to offer the assistance of my office to your project.

Federal Communications Commission Chairman Dean Burch advises me you have been contacted by the Commission's Broadcast Bureau, which provided pertinent application information.

Please write again when I may be of further help.

With best wishes,

Cordially,



TED STEVENS  
United States Senator

JOHN L. MCCLELLAN, ARK., CHAIRMAN

HENRY M. JACKSON, WASH.  
SAM J. ERVIN, JR., N.C.  
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KARL E. MUNDT, S. DAK.  
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CHARLES H. PERCY, ILL.  
TED STEVENS, ALASKA  
EDWARD J. GURNEY, FLA.  
CHARLES MCC. MATHIAS, JR., MD.

## United States Senate

COMMITTEE ON  
GOVERNMENT OPERATIONS  
WASHINGTON, D.C. 20510

JAMES R. CALLOWAY  
CHIEF COUNSEL AND STAFF DIRECTOR

October 30, 1970

Mr. Bob Cherry  
District Principal  
Dillingham City School District  
P.O. Box 202  
Dillingham, Alaska 99576

Dear Mr. Cherry:

Senator Stevens is presently in Alaska, so I am taking the liberty of writing you concerning your desire to establish a radio station at Dillingham. The Senator has written to the Chairman of the Federal Communications Commission and asked him to supply you with the necessary information concerning requirements for the Dillingham area.

We are also contacting the General Services Administration to see if we can locate surplus equipment for the facility. We will write you again as soon as we hear from GSA.

With all good wishes,

Cordially,



Robert R. Rickett  
Legislative Assistant to  
TED STEVENS  
United States Senator

UNITED STATES OF AMERICA  
GENERAL SERVICES ADMINISTRATION  
WASHINGTON, D.C. 20405



NOV 19 1970

Honorable Ted Stevens  
United States Senate  
Washington, D. C. 20510

Dear Senator Stevens:

Thank you for your letter of November 3 regarding the interest of the city of Dillingham, Alaska, in obtaining surplus broadcast equipment to be used for emergency broadcast purposes and by the local high school. It seems that the city would be eligible to receive surplus items for either educational or civil defense purposes through our donation program.

We have been advised by our regional office in Auburn, Washington, that no surplus broadcasting equipment is currently available in Region 10 (Washington, Montana, Idaho, Oregon, and Alaska). Further more, we checked with the other nine regions and regrettably found in each case that no such equipment is presently available.

However, in the event that such equipment does become available for donation for educational and civil defense purposes, I suggest the following contacts be made.

First, to establish or confirm its eligibility to acquire surplus property for civil defense purposes, a city official should contact Mr. James H. Isbell, Director, Alaska Disaster Office, 1111 East Fifth Avenue, Anchorage, Alaska 99501. The city must be assigned a civil defense mission in accordance with a State approved plan, and must meet all other eligibility requirements before it can acquire surplus property for civil defense purposes.

Second, to make its interests known to the State agency responsible for the distribution of surplus property when it does become available, the city should contact Mr. Thomas E. Main, Area Supervisor, Department of Administration, Alaska Surplus Supply Service, 610 MacKay Building 338 Denali Street, Anchorage, Alaska 99501.

*Keep Freedom in Your Future With U.S. Savings Bonds*

2.

I hope this information is helpful and am enclosing a pamphlet, "Donation of Federal Surplus Personal Property," which provides more detailed information about eligible donees.

With warm regards,

Sincerely,

Robert D. Kinzig  
Administrator

2 Enclosures

## United States Senate

WASHINGTON, D.C. 20510

December 14, 1976

Mr. Bob Cherry, District Principal  
Dillingham City School District  
Post Office Box 202  
Dillingham, Alaska 99576

Dear Mr. Cherry:

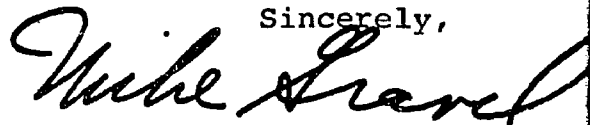
I have been reviewing the regulations related to acquiring a public radio station for Dillingham as you have been discussing in your exchange of letters with the Alaska Educational Broadcasting Commission.

The FCC application is a step that can be taken in parallel to an application for Federal matching funds; steps similar to those taken for Bethel radio and College television. The important first step is local (state) funding for the local participation needed in requesting federal funds.

Just as soon as your community is ready, I will do all I can to expedite the license and the grant application.

I hope this holiday season is a joyful one for you and those close to you.

Sincerely,



Mike Gravel

CONGRESSMAN NICK BEGICH

ALASKA

HOUSE OF REPRESENTATIVES

WASHINGTON, D.C. 20515

April 14, 1971

Mr. Bob Cherry  
District Principal  
Dillingham City School District  
Post Office Box 202  
Dillingham, Alaska 99576

Dear Bob:


Thank you for keeping me informed about your applications for a Title I S.E.E.D. proposal.

Your entire A.M. broadcast proposal appears to be challenging and rewarding. Reaching out to the other seven or eight villages will also be very helpful.

I wish to commend you for your aggressiveness in achieving this wonderful objective. My congratulations go to you and to all those who helped you.

With best wishes.

Sincerely,

  
NICK BEGICH

**J. B. HATFIELD**  
CONSULTING RADIO ENGINEER  
906 36TH AVENUE  
SEATTLE, WASHINGTON 98122  
December 26, 1970

Bob Cherry  
District Principal  
Dillingham City School District  
P.O. Box 202  
Dillingham, Alaska 99576

Dear Mr. Cherry:

This is in reply to your letter of December 21st regarding your interest in establishing a new FM station for your school district. I will be glad to assist you in any way that I can in this work.

The educational FM band is not available for use in Alaska and all FM stations must operate above 100 MHz. The FCC has under Rule 73.202 a table of FM assignments for Alaska but unfortunately there is no frequency listed for Dillingham. The procedure in this case is to first apply to the FCC for Rule Making to assign a given frequency to your city. After it is assigned, about six months to a year being required, then you can make application for the FM station. My charge is \$200 for the engineering report to accompany the application for Rule Making. An additional charge of \$600 covers the engineering report required by the FCC application for the station. I assume that the station would have a power of 250 watts to 1,000 watts, but the power is not important as far as the application is concerned.

You may wish to consider the installation of an AM station, rather than FM, as the FCC is expediting the granting of AM applications in Alaska at this time, about six months being required after filing. My charge for the engineering report required with a 1,000 watt AM application is \$1,000. A more elaborate antenna system is required for AM, whereas the antenna system for FM can be mounted on a high building. Some comparison figures are given below:

1,000 watts AM and FM

<u>Type</u>	<u>Primary coverage</u>	<u>Secondary coverage</u>	<u>Tower height</u>	<u>Property size</u>
AM 670 kHz	$\frac{500 \text{ UV/M}}{33.5 \text{ miles}}$	$\frac{100 \text{ UV/M}}{70 \text{ miles}}$	300'	730' X 730'
AM 1180 kHz	18.7 "	40 "	200'	410' X 410'
FM	$\frac{1,000 \text{ UV/M}}{9.0 \text{ miles}}$	$\frac{50 \text{ UV/M}}{35 \text{ miles}}$	200' above surrounding area	May be on top of building

In order for the FM station to produce the coverage given above, the antenna site should not have high mountains in the desired directions.



If you wish to obtain some prices on broadcast equipment, I suggest at this time that you contact Neil Arveschoug, Gates Radio Co., P.O. Box 849, Vancouver, Washington 98660.

Please drop me a line after you have received this letter, letting me know how you wish to proceed.

Sincerely yours,

*Jim Hayfield*

PACIFIC WESTERN ENGINEERING CORPORATION

17 Northrup Building  
13256 Northrup Way  
Bellevue, Washington 98004  
SH 6-3110

Radio

CONSULTING ENGINEERS

January 27, 1971

Mr. Bob Cherry  
Principal  
Dillingham High School  
Dillingham, Alaska 99576

Dear Mr. Cherry:

This is in response to your inquiry relating to a proposed non-commercial educational F.M. station at the Dillingham High School. Also included are answers to questions about the differences between high and low power stations and the contents of the FCC application, which were raised during your discussion with Mr. Taylor.

Stations of ten watts are frequently specified for the following reasons:

1. Lower initial and operating costs.
2. Less stringent frequency and modulation monitoring requirements.
3. Less stringent operator qualifications.
4. Required distance between certain classes of station.
5. A desire to reach only a limited audience.

A station in Dillingham would serve not only the City, but also the surrounding villages. For this reason we advise obtaining a 100 to 1000 watt station even though the cost is higher and the equipment and operator requirements are more stringent.

The FCC application consists of several parts, some of which must be completed by the applicant, and others which may be completed by legal and engineering consultants. The applicant must complete the certification on Page 2 of Section I of FCC Form 340. Questions 1c, 1d, and 2 of Section III and all of Section IV of Form 340 should also be completed by the applicant since he normally has the best knowledge of these areas. Persons other than the applicant who have the necessary information can assist in the completion of the remainder of the form.

In preparing the application, the applicant must establish basic policy as to what type of programming he is going to do and what audience he is trying to reach. This policy must be explained in detail in Section III of FCC Form 340 in the form of a one week program log. The type of programming will also determine the types of equipment which will be required, for instance, fixed and portable tape recorder, microphones, studio furniture, console(s), turntables, remote equipment for ballgames and special events, leased telephone line requirements, etc.

Mr. Bob Cherry  
January 27, 1971

Page Two

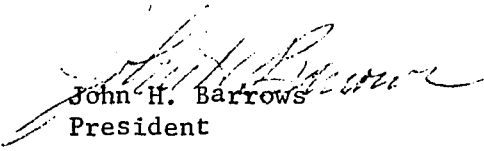
Section V of Form 340 requires, among other things, a series of aerial photographs to be taken of the area in the vicinity of the proposed transmitter site. These photographs could be taken by us but they could be done at a lower cost by someone from the Dillingham area who is good with a camera. If someone locally does the photographs, we can supply the necessary instructions.

Pacific Western Engineering Corporation proposes to provide all necessary engineering data and exhibits and answer all questions required by Section V of FCC Form 340 with the exception of the aerial photographs discussed above, for the sum of \$750.00. We will also provide assistance in completing the rest of the form, especially Section III, questions 1a and 1b relating to installed cost of equipment.

Should you desire, we can also provide complete design and inspection of installation services for the studio and equipment. This work includes preparation of plans, specifications, and contract documents, inspection of installation, and acceptance of the completed system for the owner. Exact arrangements and agreements for this work can be the subject of future discussions.

We certainly appreciate this opportunity to be of service to you and hope we will have the pleasure of working with you on this project.

Very truly yours,

  
John H. Barrows  
President

JHB:jmh

PACIFIC WESTERN ENGINEERING CORPORATION

17 Northrup Building  
13256 Northrup Way  
Bellevue, Washington 98004  
SH 6-3110

CONSULTING ENGINEERS  
February 5, 1971

Mr. Bob Cherry  
Principal, Dillingham High School  
P.O. Box 202  
Dillingham, Alaska 99576

Dear Mr. Cherry:

Thank you for your letter of February 1. Concerning your questions on availability of frequencies and requirements on broadcast schedules, our information shows the following:

FCC Rules and Regulations, Part 73.501(b), concerning frequencies available for educational stations says in part "... however, the frequencies 100.1 - 107.9 Mc/ (channels 261 through 300, inclusive) are available for such use". We interpret this to mean that educational stations are not restricted to certain frequencies as they are in the lower 48 states, but can apply for any of the channels 261 through 300. An application for an educational station would be approved on the same basis as would an application for a commercial station. No petitions or exceptions would have to be filed. No provision for petitions was made in determining the fee.

FCC Rules and Regulations, Part 73.561 concerning scheduling says in part, "Non commercial educational FM broadcast stations are not required to operate on a regular schedule and no minimum number of hours of operation is specified; but the hours of actual operation during a license period shall be taken into consideration in considering the renewal of noncommercial education FM broadcast licenses whenever it appears that the channels available for such stations are insufficient to meet the demand." Question #2 of Section IV of FCC Form 340 (Application for Authority to Construct or Make Changes in a Noncommercial Educational TV, FM, or Standard Broadcast Station) requires that a proposed weekly schedule of programs be submitted with the application. This section goes on to say, "It is not expected that the licensee will or can adhere inflexibly in day-to-day operation to the representation made here. . .". We interpret this to mean that considerable flexibility exists both as to hours of operation and content of programs. We can find no reference to requirements for programming being dependent on transmitted power.

Mr. Bob Cherry  
February 5, 1971

Page Two

Possible sources of information on programming which may be helpful to you are existing educational stations. Two such stations in the Seattle area are indicated below. KUOW operates with an effective radiated power of 89 kilowatts, KMIH operates with an effective radiated power of 12 watts.

Radio Station KUOW  
Room 325 Communications Building  
Mail Stop DS40  
University of Washington  
Seattle, Washington 98105

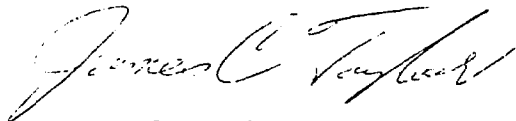
Attention: Mr. Donald Wirtz

Radio Station KMIH  
Mercer Island High School  
9100 S. E. 42nd  
Mercer Island, Washington 98040

Attention: Mr. Ralph E. Cromwell

I hope this information will be helpful in your planning. Please let me know if you should require further data.

Sincerely yours,



James C. Taylor, P.E.  
Project Engineer

JCT:jmh

# STATE OF ALASKA

WILLIAM A. EGAN, GOVERNOR

## ALASKA EDUCATIONAL BROADCASTING COMMISSION

UNIVERSITY OF ALASKA  
COLLEGE, ALASKA 99701

March 15, 1971

Rep. Nick Begich  
U.S. House of Representatives  
1210 Longworth House Office Bldg.  
Washington, D. C. 20515

Dear Nick:

Thank you for your letter of March 1, in which you inquire into the progress of bringing educational radio to Dillingham. Due to an unfortunate set of circumstances, I have only just returned from a visit to Dillingham, but I'm happy to report that some progress has been, and I'm sure will continue to be, made.

Things do not look nearly as optimistic, however, as I had hoped they would last November and December. The new call for fiscal austerity on the part of the State government in the coming budget year will mean that the Educational Broadcasting Commission will be forced to continue at its current level. Its current level, I'm sure you will recall, only allows for the administrative operation of the Commission and the support of the Bethel radio station. Since this year's budget was a start-up budget, no program funds were included, and the Bethel station, as you have already pointed out, came along almost as an afterthought. I had proposed a sizeable increase in the Commission budget--all of the increase being devoted to increased service by the Commission in the area of programs and new stations. The combination of the Governor's call for austerity and cutbacks within the Department of Education (which administers the AEBC budget) has resulted in all of the increases being cut back and a decision to proceed at this year's level. I testified before the House Finance Committee last week that it would be better for the State not to finance the Commission at all and to provide operational support directly to Bethel--and thereby save the money spent on Commission administrative expense--than to continue at the present low operating level.

The above facts make much AEBC assistance to the Dillingham station an impossibility in the coming year, unless the financial situation changes drastically. I certainly hope that it does, and will do all in my power to convince those in the decision-making places that it should. In addition to the requests for a radio station at Dillingham, the Commission has also received similar requests from Kodiak and from Kotzebue. Other

expressions of interest have also been received. In the television area, I have been working with a planning group in Anchorage to begin the organization that could operate an educational television station in that city. Again, AEBC financial assistance will be a necessity.

As for Dillingham, thanks to the aggressive program being carried out through the Dillingham schools by Superintendent Dan Turner and Principal Bob Cherry, some closed-circuit video equipment is already available, and they have a great desire to begin a low-power FM broadcast station. I hope that the Commission will be able to provide some technical assistance to them in the form of a consulting engineer and some program advice and cooperation from the University of Alaska's stations. I'm concerned, however, that the Dillingham schools' limited financial resources will enable them to do something that will only serve the local community of Dillingham and will not reach the surrounding area, as an open-circuit AM broadcast station could do. Nevertheless, their efforts are certainly commendable, and you can be assured that I'll do all that I can to assist them in achieving their goals.

Thank you for your interest in educational broadcasting activities in Alaska. Your help in the past has been more than appreciated, and I look forward to continued assistance from you now that you're in Washington. Returning to the Commission's financial predicament for the last time, I must also say that if current projected levels for the Commission budget for next year remain the same, Alaska will not be able to avail itself of any of the federal funds available through the Educational Broadcasting Facilities Program. You will recall that these funds were instrumental in getting the Bethel station on-the-air, and also the University of Alaska ETV operation.

Cordially,

*Charlie*

Charles M. Northrip  
Executive Director

cc: Dan Turner  
Bob Cherry ✓  
Roland Lynn  
Sen. Mike Gravel  
Sen. Ted Stevens  
Gov. William A. Egan  
House Finance Committee Members  
Senate Finance Committee Members  
AEBC Members

UNIVERSITY OF ALASKA  
COLLEGE, ALASKA 99701

May 17, 1971

Mr. Bob Cherry, Dist. Principal  
Dillingham City Schools  
P.O. Box 202  
Dillingham, Alaska 99576

Dear Bob:

I have received a copy of your letter of April 5 to Ron Bedard at the State Department of Education. In that letter, you indicated your desire to request Title III ESEA funds to assist in the construction and operation of an AM radio station for the Dillingham area, operated from the school.

I'll be happy to do whatever I can to assist you in the above endeavor. As you may know, I have recently resigned from my position with the Educational Broadcasting Commission and will shortly assume duties as Director of Media Services for the University of Alaska. In that capacity I am responsible for both the radio and television activities of the University as well as its audio-visual communications center. On our staff there are a number of competent professionals in the areas of programming, production, engineering, and broadcast administration. If there is any way they can be of help to you, please let us know. Needless to say, we would need some financial assistance if face-to-face meetings were necessary, but we might be able to accomplish a good deal through correspondence.

Best of luck to you in trying to get an AM radio station for the Dillingham area.

Cordially,



Charles M. Northrip

cc: Dan Turner  
Roland Lynn  
Ron Bedard  
Ken Grieser  
W. Russell Jones, Jr.  
Joe McGill  
Jay Hammond  
Nick Begich  
Mike Gravel  
Ted Stevens



FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

November 6, 1970

IN REPLY REFER TO:

8832

AIRMAIL

Mr. Bob Cherry, Principal  
Dillingham City School District  
P. O. Box 202  
Dillingham, Alaska 99576

Dear Mr. Cherry:

This is in reply to your letter of October 21, 1970, forwarded to this office by Senator Ted Stevens, indicating your interest in establishing either an AM or FM broadcast station in Alaska.

The frequency band extending from 100.1 to 107.9 megahertz is available for use by both educational and commercial FM broadcast stations in Alaska. The Commission has developed a table of FM assignments in which specific channels are assigned to cities; however, in this table, no channels have been assigned to Dillingham. In such a case, it will be necessary to submit a petition for rule making to have a channel assigned there. The petition should be specific as to the particular channel to be assigned. If favorable action is taken on the petition, then an application for a station can be filed. Enclosed is a release concerning the Commission's policy on additional FM assignments.

There is enclosed a release on educational radio, and a release on how to apply for a broadcast station. The complete rules and technical standards for all classes of broadcast stations are contained in Volume III of the Commission's rules, which can be obtained from the Superintendent of Documents in accordance with the enclosed list. An educational FM station, in addition to transmitting educational programs, can also broadcast cultural and entertainment programs to the public and apparently could provide all the services you desire. The enclosed Forms 340 are to be used in requesting a construction permit for an educational station.

Standard broadcast (AM) allocation is not on a predetermined channel basis. Accordingly, prospective applicants usually find it necessary to engage the services of an experienced engineer to make a feasibility study to determine whether a station could be established on any frequency and meet the requirements of the Commission's rules. Such studies are usually complex because of the number of stations already on the band, and the probability of electrical interference with established facilities. The

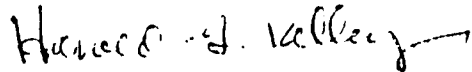
Mr. Bob Cherry

2.

Commission's workload does not enable it to make such studies for prospective applicants. Engineers experienced in standard broadcast allocation may be found in various trade publications including "Broadcasting" magazine which is published at 1735 DeSales Street, N.W., Washington, D.C. 20036. I should add that no part of the standard broadcast band is set aside for non-commercial educational stations such as on the FM band. In other words, all stations on this band are governed by the same rules.

I am enclosing a copy of FCC Form 301 which is used in applying for a standard broadcast station. Additional copies of this form are available upon request.

Sincerely yours,



Harold G. Kelley, Acting Chief  
Broadcast Facilities Division  
Broadcast Bureau

Enclosures - 9

# STATE OF ALASKA

KEITH W. MILLER, GOVERNOR

## ALASKA EDUCATIONAL BROADCASTING COMMISSION

BOX 3177  
FAIRBANKS, ALASKA 99701

November 10, 1970

Mr. Roland D. Lynn  
City Manager  
Box 191  
Dillingham, Alaska 99576

Dear Mr. Lynn:

I have received your letter of October 28, 1970, in which you inquire about the possibility of beginning a radio station in Dillingham. I also received a similar letter, dated October 21, from Bob Cherry, the District Principal for the Dillingham schools.

I recently had an opportunity to speak with Mr. Terry Nidiffer of the Alaska Disaster Office, and he informed me of his visit to your community and of the need for local communication in your area. I reported that conversation to a meeting of the Alaska Educational Broadcasting Commission in Anchorage on October 22 and 23. At the same time, I reported on requests for radio stations that I had received from other communities in Alaska. The Commission expressed great interest in expanding the educational radio effort that it had begun with the station in Bethel, but also expressed some concern that whatever educational radio development the Commission encourages be orderly and efficient. The group directed me to make contact with those communities interested in establishing radio stations, and asked that I draw up some suggested guidelines for the establishment of stations in the various areas. The guidelines were to include such things as, amount of coverage necessary, amount of capital equipment necessary, ability of the local area to support such a facility, and willingness of local agencies to contribute to the ongoing operation of such a facility.

I'm going to be out of the State through the middle of November, but upon my return, I would like to arrange for a visit to Dillingham, so that I might discuss with you, Bob Cherry, and others how we might get some sort of project going. Please let me know if there are particular times that would be better for you and others in Dillingham.

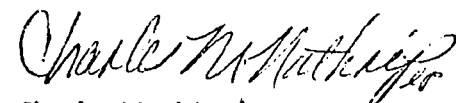
Mr. Roland D. Lynn

-2-

November 10, 1970

I'm looking forward to working with you in what seems to be a very exciting project.

Sincerely,



Charles M. Northrip  
Executive Director

CMN/lp

cc: AEBC Members  
Bob Cherry  
Terry Nidiffer  
N. Roy Goodman  
Ted Stevens  
Mike Gravel  
Nick Begich  
Jay S. Hammond  
Joe McGill

# STATE OF ALASKA

## DEPARTMENT OF MILITARY AFFAIRS

KEITH H. MILLER, Governor

ALASKA DISASTER OFFICE  
JAMES H. ISBELL  
Director

1111 EAST 5th AVENUE—ANCHORAGE 995

October 12, 1970

Mr. Bob Cherry  
District Principal  
Dillingham City School District  
P. O. Box 202  
Dillingham, Alaska 99576

Dear Mr. Cherry:

I wish to thank you for your interest and support of the local civil defense program. The use of the school facilities as expedient shelter and as a media for personal and family survival instruction will be very beneficial to the community.

I have made a thorough search for a surplus transmitter for you but without success so far. Unfortunately, we missed an AM transmitter which was available about four months ago. The military is continuing the search and hopefully, something will turn up. I enlisted the help of Mr. Motz, Division of State Operated Schools and of Doctor Charles Northrip, University of Alaska, who heads the Alaska Educational Broadcast Commission. Doctor Northrip helped to get the Bethel radio station going and asked that you and Roland Lynn develop your requirements (with appropriate justification) and forward them to him. He feels that he can help to initiate an official program for Dillingham. His address is:

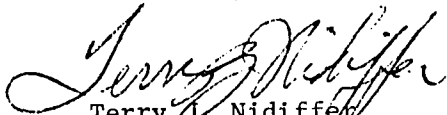
Alaska Educational Broadcast Commission  
P. O. Box 3177  
Fairbanks, Alaska 99701

Mr. Bob Cherry  
October 12, 1970

In the meantime we will continue to search for surplus transmitting equipment.

The copy of your letter to the commander of the Scout Battalion at Bethel was turned over to Colonel Steele of the Adjutant General's Office for investigation. I hope the matter was resolved to your satisfaction.

Sincerely,



Terry J. Nidiffer  
Community Shelter Planning Officer, State

TJN/mp

# STATE OF ALASKA

KEITH H. MILLER, GOVERNOR

## ALASKA EDUCATIONAL BROADCASTING COMMISSION

BOX 3177  
FAIRBANKS, ALASKA 99701

November 11, 1970

Mr. Bob Cherry  
District Principal  
Dillingham City Schools  
P.O. Box 202  
Dillingham, Alaska 99576

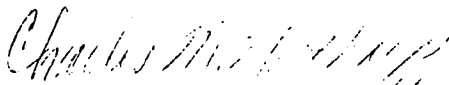
Dear Mr. Cherry:

I am including in this letter a response to a letter I received from Dillingham City Manager Roland D. Lynn, of October 28. In that letter I believe I answer many of the questions raised by him and also by you in your letter to me of October 21.

I really don't have any idea of where surplus equipment might be available for beginning the use of an AM or FM facility in Dillingham. There are other alternatives, however, that are fairly low cost and might be worth exploring. With a sufficient amount of antenna height, a 10 watt FM radio transmitter would probably cover your area. Such an installation could cost under \$5,000 to purchase, including some studio equipment. Some sort of carrier current system might also be explored for those portions of the community that are supplied with electric power. I really can't make any more suggestions than that until I've had an opportunity to look at your situation and talk with you and others in Dillingham directly, as I proposed to do in my letter to Roland Lynn.

Your idea of utilizing the station in your high school curriculum is an excellent one, and I look forward to discussing that and other matters with you, if we can find a mutually agreeable time.

Sincerely,



Charles M. Northrip  
Executive Director

CMN/lp  
encl.

To Whom It May Concern

We are fully endorsing the Student Educational Radio Title Program in all respects. We feel that it will be a great benefit to students and teachers alike. We hope it will improve language development and communicative skills for the students and will keep the teachers better informed concerning what is taking place in Dillingham City Schools.



Ron Klemm  
Area Administrator  
State-Operated Schools



Aleknagik, Alaska 99555  
January 16, 1972

Mr. Bob Cherry, District Prinsipal  
Dillingham City School District  
Post Office Box 202  
Dillingham, Alaska 99576

Dear Mr. Cherry:

This is an answer to your letter of December 16, 1971,  
regarding project S.E.R.V.E. which will be a Student Educational  
Radio-Village Extension program (under Title III E.S.E.A.)

The chance to make suggestions during the planning stage of  
S.E.R.V.E. is appreciated.

Having the radio station should stimulate the desire of students to  
learn as it creates a "market" for their skills. Preparing the  
material for programs and making the tapes also opens new educational  
opportunities in a rural setting such as Aleknagik.

I have some comments to make under Section I - Procedures: Item 3.

Concerning part b: It seems to me that taped programs  
submitted from the village schools for broadcasting  
from Dillingham, scheduled for the second year of  
operation, is a practical approach.

1. A short orientation for teachers would be helpful.
2. Central planning and scheduling would help the  
rural teachers co-ordinate their efforts.

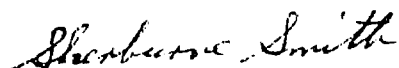
Part c: Planned for the third year involves us even more  
directly.

1. An opportunity to broadcast a live program would  
be good for the children, and would let them see  
what all is involved and how it works.
2. It seems a block of time involving one or two  
weeks of live broadcasting would possibly place  
too great a burden on grade school children.  
Quite a bit of material and practicing would be  
necessary and I doubt if they could handle it  
successfully. I have the feeling that they would  
get too wound up and frustrated.
3. For this reason I would like to see "tapes" carry  
the main load on the elementary level during the  
third year with some live broadcasting to let the  
children see how it works.

The radio station should have the side benefit of increased interest in education on the part of the villagers. Also the services rendered to the communities in the form of news, weather reports, swap shops, announcements and increased communication in general will be valuable to the area.

The Aleknagik Elementary School students would benefit from the chance to participate in S.E.R.V.E. It is hoped they will have the opportunity. If I can be of further help please contact me.

Sincerely,



Sherburne Smith,  
Principal-Teacher

Twin Hills School  
via Togiak, AK. 99

January 14, 1972

Mr. Bob Cherry

Dear Mr. Cherry:

I have looked over your Title III prospectus for S.E.R.V.E. I can only give hearty approval at this time - it seems an excellent idea. There are a couple technical questions that come to mind, however.

You say you expect some "local funds." Do you expect money from the village? Will the program utilize existing radio installations? At present, our reception is sporadic, and there is much interference. Specifically what type of programs do you see? Local village news, etc. or the actual preparation of classroom "teaching" materials?

Tying these kids together will doubtless take a lot of time - perhaps by the end of a school year the contacts may become quite meaningful. I believe you are wise to put the program in motion right there in Dillingham, to get the bugs out.

Good luck,  
Jim Baenen

Chgsenakale School  
Portage Creek, Ak. 99576  
January 16, 1972

Dear Mr. Cherry,

Sorry to take so long in commenting on your Student Radio Proposal but I just returned from Christmas vacation.

I really like the idea of a student operated radio station. Getting the students involved in the programming should be an excellent means of motivating the children to improve their language - which, as you know so well, is one of the Eskimo children's major handicaps at present- and that is not even mentioning the creative experience and the satisfaction they would get from organizing and doing live broadcasts. I'm sure that my students would be quite enthusiastic about broadcasting such a program.

I have no real criticism of the proposal but I would like to know if this would be a regular A.M. radio station which would broadcast to all the local area or would it be received only in the schools? Half the thrill for the kids would be knowing that their parents would be listening. (In this case, it might mean that some of the programming might have to be done in Eskimo for the older people- which would be really interesting.)

Good luck on getting the proposal through; let me know what happens.

Yours sincerely,

*E. Kevin Daley*

E. Kevin Daley  
Principal Teacher  
Chgsenakale School

Levelock School  
Levelock, Alaska 99625  
January 12, 1972

Mr. Bob Cherry  
District Principal  
Dillingham City School District  
Dillingham, Alaska 99576

Dear Mr. Cherry:

Thank you for telling me about your prospectus for Project S.E.R.V.E.

As a teacher of a one-room school in the remote Alaska bush, and with many years experience as such, I can certainly see the value and appreciate your purpose for this Project: "to give students in the rural area of Alaska the opportunity to improve all educational skills through actual radio broadcasting."

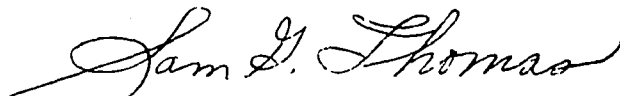
We teachers who have had to work alone for so many years will welcome any help to improve "all educational skills" and especially one that holds so many obvious interests and benefits as this Project.

I'm sure you realize that our native people from all the villages listed in your prospectus know each other very well and many are related. Thus, the interest to be hearing students taking part in this program would be very high not only for the school children, but for the adults as well. I am sure the native adults would want to listen to these broadcasts, too, and in doing so, there would be a small adult education program going without anyone realizing it. And getting language and understanding into the native homes is one of our greatest needs.

As for your third year operation plans, the Levelock School would be happy and proud to work with a mobile broadcasting unit to produce something of value as our share of the total program.

I certainly endorse your prospectus for Project S.E.R.V.E. Thank you again for letting me know about it.

Sincerely yours,



Sam G. Thomas  
Principal-Teacher  
Levelock School  
Levelock, Alaska 99625

**MEMORANDUM****State of Alaska****TO:** 

Mr. Bob Cherry  
District Principal  
Dillingham City School District  
Dillingham, Alaska 99576

**DATE :** 1/31/72

**FROM:** Ben Cherry  
Principal Teacher  
Togiak School  
Togiak, Alaska 99678

**SUBJECT:** Title III Project Application  
Project S.E.R.V.E

The Title III project S.E.R.V.E. prospectus has been reviewed favorable by the Togiak staff. We believe that a project such as this has unlimited possibilities for improving communicative skills and for developing a feeling of unity between isolated villages in this area.

One of the most obvious deficiencies of rural students in this area is in oral communications. A project such as S.E.R.V.E. will help students understand the need for better communication in Alaska and motivate them to work in this vital area.

The children of Togiak come from Eskimo speaking homes with little English used outside of school. Radio broadcasts are seldom received in their homes and when they are received they offer very little to these people.

With relevant programing and an awareness of village life, broadcasts that originate from villages could be an effective way of educating children as well as adults.

EDUCATIONAL COMMUNICATIONS  
IN ALASKA

Prepared for the  
Alaska Educational Broadcasting Commission  
and  
The Ford Foundation

July 15, 1971

Hammett & Edison  
Consulting Engineers  
San Francisco

## APPENDIX A

### RADIO

#### 1. AM versus FM

The differing characteristics of AM and FM broadcasting which are pertinent to Alaska warrant discussion. Each system has advantages and drawbacks. An FM broadcast station can provide consistent coverage to distances as great as 150 miles, both day and night, whereas an AM broadcast station can provide consistent coverage to a similar distance during the day with greatly expanded intermittent coverage at night due to "skywave" signals.

In northern Alaska, skywave service would be available virtually full-time during the winter, and only rarely during the summer. Skywave propagation permits reasonably consistent reception at distances from 300 to 1,500 miles from the station if the interference level is satisfactorily low from other stations using the channel. The interference level on any standard broadcast channel depends upon the distance to other stations, their power, and ionospheric conditions which vary considerably, depending upon time of day, season and sunspot activity. Detailed analysis of anticipated skywave service on specific broadcast channels is beyond the scope of this report. However, because each of the less than 20 broadcast stations in Alaska is on a separate channel and approximately 60 additional separate channels are available for possible assignment in Alaska, substantial nighttime skywave service should be possible for many years before duplication of channel assignments raises interference to significant levels.

Nighttime radio service in Alaska is adversely affected by solar radiation more often than at low latitudes. Service is significantly affected about 10% of the time; even when not completely lost, signals may be expected to fade or suffer distortion. Nevertheless, the more extensive nighttime service that can be provided by AM broadcast stations is a definite advantage over FM stations.

The site requirements for AM and FM broadcast stations are quite different. FM broadcast stations (like television stations) need high transmitting sites atop tall towers or mountains to maximize their coverage area, but access to the tops of mountains is very limited in Alaska. On the other hand, AM broadcast stations perform most efficiently if their sites are located on low, wet, marshy ground. Such sites pose fewer problems of accessibility. AM broadcast coverage is hampered to some extent because Alaska generally has very poor ground conductivity. Alaskan stations thus usually serve a substantially smaller area by groundwave transmission than stations of comparable power in other portions of the



United States. Stations utilizing channels toward the higher-frequency end of the AM broadcast band suffer the most.

One obvious advantage to AM broadcasting is that the Alaskan public presently has many more AM receivers than FM. On balance, a network of AM broadcast stations would now reach a greater number of Alaskans at less cost than would a network of FM stations.

## 2. High-Power Radio versus Low-Power Radio

The poor soil conductivity throughout Alaska and the high cost of electrical power make it impractical to provide statewide AM radio service during the daytime from a small number of very high-power AM broadcast stations. An interconnected network of smaller transmitters could provide a statewide service. Five-kilowatt stations could be constructed to serve the major population centers, while numerous smaller groups of villages beyond the range of the five-kilowatt transmitters could be most economically served by one-kilowatt stations. Isolated single villages might be served by small 10-watt AM transmitters. Present FCC radio broadcasting rules do not specifically provide for licensed stations to operate at transmitter powers lower than 250 watts. It would be necessary to obtain a waiver or rule change to utilize such low-power transmitters, but technically they are quite feasible.

## 3. Possible Radio Network

Based on the above considerations we have synthesized a radio network that would provide one channel of day-and-night groundwave radio service to all Alaskans except those living in some areas north of the Arctic Circle or on the Aleutian Chain. These remaining areas would receive only nighttime skywave service. A combination of five-kilowatt and one-kilowatt stations could be established at the cities shown below and on the map, Figure A-1.

### 5-Kilowatt Stations

Anchorage  
Bethel (on the air)  
Fairbanks  
McGrath  
Naknek\*  
Nome

### 1-Kilowatt Stations

Barrow            Kodiak  
Cordova            Kotzebue  
Ft. Yukon           Petersburg  
Galena            Seward  
Glennallen           Sitka  
Juneau            Tok  
Ketchikan           Valdez

**\*Note - The Alaska Educational Broadcast Commission, through Executive Director Bob Arnold, has shifted emphasis for this station from Naknek to the**

**proposed site in Dillingham for Project S.E.R.V.E.**

The Bethel station is situated so that it can become part of an eventual statewide AM radio network. Priorities for constructing the remainder of the network could be determined on the basis of need, cost, number of persons served, and demonstrated local interest.

#### 4. Cost Estimates

As shown in the following table, the cost of a 1-kilowatt broadcast station, including transmitter tower, and appropriate studio facilities and building (but excluding network interconnection, tapes, records, programming and operating costs) would be approximately \$40,000. The corresponding capital cost for a 5-kilowatt station would be approximately \$57,000.

The capital cost for the 6 five-kilowatt stations and the 14 one-kilowatt stations shown in the configuration of Figure A-1 is estimated to be \$880,000. Operating costs for all 20 stations, including power, tubes, maintenance, and licensed operators (but excluding program costs, tapes, records, and network interconnections) would be approximately \$650,000.

#### BUDGETARY COST ESTIMATES

##### Typical 1-Kilowatt AM Broadcast Station

##### Facilities to include:

Transmitter		
Transmission line and antenna coupler		
Tower		
Frequency and modulation monitors		
Limiting amplifier		
Audio console, small, dual-channel		
Turntables, tone arms and cartridges		
Tape recorders, reel-to-reel		
Tape playback, cartridge		
Assortment of tape and cartridges		
Microphones and stands		
Communications receiver		
Audio jack field and patch cords		
Equipment rack		
Desk for console/turntable/tapes		
Engineering, freight, installation and testing	Total	\$40,000
Annual equipment operating cost, 16 hours per day (power, tubes, parts, maintenance)		4,100

### Typical 5-Kilowatt AM Broadcast Station

#### Facilities to include:

Same facilities as above but with larger transmitter and separate small production studio with additional turntable and tape recorder

Total \$57,000

Annual equipment operating cost, 16 hours per day (power, tubes, parts, maintenance)

\$10,200

#### 5. FCC Considerations

The FCC Rules relative to the performance and operation of radio broadcasting facilities have evolved over many years to meet the needs of the lower 48 states, but have lagged available technology. Examples and suggestions follow which identify the principal ways in which FCC Rules are not totally compatible with existing Alaskan radio broadcasting needs and suggest how the Rules might be modified.

Technological progress would now permit all FCC technical performance standards for radio stations to be met with a fully automatic broadcast transmitter operated by a person completely unskilled in radio technology and maintenance. Such a transmitter could not be over-modulated, could not operate off-frequency, and could meet all present performance criteria with a high degree of reliability if checked only three or four times a year by a competent technician. It is not suggested that FCC Rules concerning transmitter operator requirements be relaxed without compensating changes in rules concerning the technical performance, stability, and reliability of the associated equipment, but that a new class of station be permitted, utilizing new transmitters especially designed for unattended operation. What is envisioned as best fitting Alaska's needs would be the operation of small radio and television broadcasting stations with Rules similar to those for the operation of two-way radio base and mobile stations so that technically unskilled operators could be employed and adequately supported through occasional visits by competent licensed technicians who would provide scheduled and emergency maintenance.

In addition to the need for changed operator and equipment performance requirements to best fit the Alaskan situation, the provision for very low-power, "wired" radio stations can be expected to find substantial application in both urban and rural Alaska. This need has been recognized by the FCC and is the subject of a current rulemaking proceeding. Regardless of whether Alaska decides to undertake the construction of a state-wide radio network, the State should file comments with the FCC supporting the principle of low-power AM stations so that their potential would be available to other organizations in Alaska.

A third area in which the present FCC radio broadcasting rules do not fully meet the needs of Alaska relates to the assignment of broadcasting stations to the 106 radio channels in the standard broadcast band. To date there has been no scarcity of available radio channels within Alaska, although with the continued growth of the State such shortages will some day be experienced. The "demand" approach to the allocation of radio channels has worked well in the lower 48 states as broadcasters perceived and sought frequency assignments from the available channels. In Alaska, the need for rural service is acute, and the poor soil conductivity so restricts coverage, that low-frequency channels should not be wasted on low-power stations. It is not possible to predict Alaska's radio needs with enough accuracy to justify the creation of a rigid table of channel assignments for standard broadcasting stations. However, simple changes made now in the manner of assignment of radio channels could yield considerably better radio service to rural Alaskans in the future. Specifically, recognition should be given to the extreme differences in coverage obtainable with high-power transmitters on the lower radio channels and with low-power transmitters on the higher channels. There are obvious needs for both types of service within Alaska.

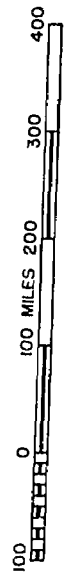
The Armed Forces Radio Service presently operates 38 stations within Alaska at power levels from 10 watts to 250 watts. These were established principally to provide radio programming to servicemen living on or near Alaskan military establishments. Six of the seven licensed AFRS stations are on channels below 1000 kHz and will eventually preclude higher-powered operations from sharing these channels. There are commercial and educational interests in Alaska whose needs for radio broadcast channels parallel those of the AFRS. If low-power "automatic" radio stations intended for highly local service could be authorized to Alaska, and assigned in sequence to the highest-frequency channels available (commencing with 1,600 kHz and building down in accordance with present FCC allocation rules concerning prohibited contour overlaps), the proliferation of low-powered stations would have no adverse impact on the addition of higher-powered stations at the low end of the broadcast band.

The assignment of low-powered stations to the highest available channels would effectively meet the needs for limited-coverage radio service, and the needs for broad-area radio service would be met on the lower frequency channels. This could be reinforced by establishing minimum power requirements for the lowest-frequency channels at higher levels than the minimums in the lower 48 states. It is suggested that this approach to Alaska radio allocations would ultimately provide the greatest possible service. Such a procedure could be established within the framework of FCC regulations by establishing a separate "Alaskan Standard Broadcast Service" category so as to avoid conflicts and precedents with the first-come, first-served Rules which, while effective in the lower 48 states, are not the best fit to the needs in Alaska.

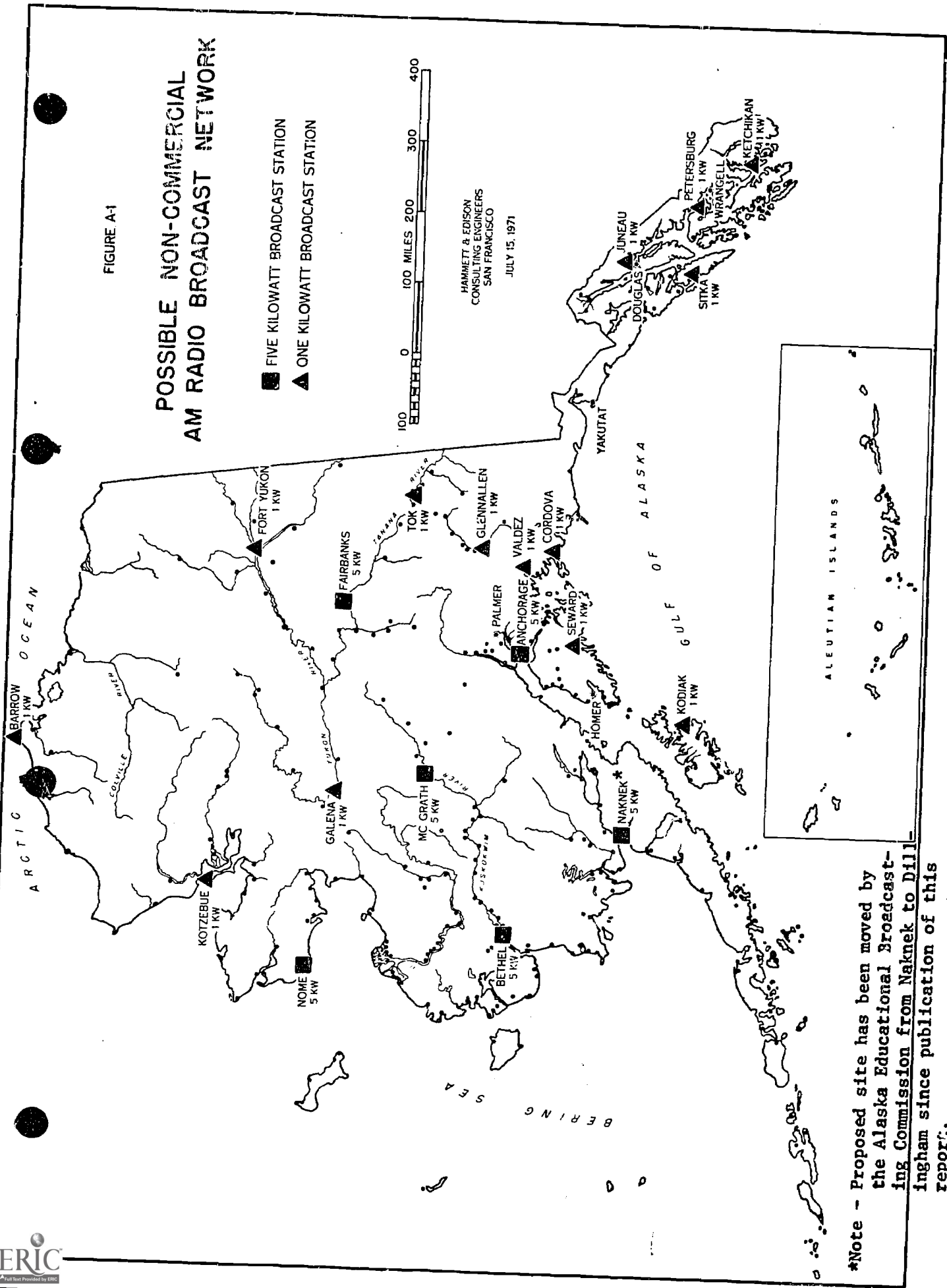
FIGURE A-1

# POSSIBLE NON-COMMERCIAL AM RADIO BROADCAST NETWORK

- FIVE KILOWATT BROADCAST STATION
- ▲ ONE KILOWATT BROADCAST STATION



HAMMETT & EDISON  
CONSULTING ENGINEERS  
SAN FRANCISCO  
JULY 15, 1971



\*Note - Proposed site has been moved by the Alaska Educational Broadcasting Commission from Naknek to Dillingham since publication of this report.

**PART IV**  
**ASSURANCE**

I, Bob Cherry, do hereby certify that all of the facts, figures, and representations made in this application, including all exhibits and attachments hereto made a part of this application, are true and correct to the best of my knowledge and belief.

DATED: March 15, 1972

Dillingham City School District

(Legal name of applicant)

BY

Bob Cherry

(Signature of authorized representative)

District Principal

(Representative's title)

NOTARY PUBLIC: Subscribed to before me this

March 14, 1972

Dillingham, Alaska

(City)

(State)



SIGNATURE OF NOTARY PUBLIC

Kay E. Larson

DATE NOTARY'S COMMISSION EXPIRES November 15, 1975