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20

# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF ADMINISTRATION

DIVISION OF TELECOMMUNICATIONS SERVICES

POUCH C  
JUNEAU, ALASKA 99811  
PHONE: (907) 465-2041

February 26, 1982

Honorable Vic Fischer, Chairman  
Senate Committee on State Affairs  
Alaska State Legislature  
Pouch V  
Juneau, AK 99811

Dear Mr. Chairman:

Re: Teleconference Equipment - Anchorage Pioneer's Home

With regards to placing teleconferencing equipment in the Anchorage Pioneer's Home, the following information provides equipment and installation costs as well as where the equipment can be purchased and how it is installed.

Teleconference Equipment: Audio conferencing equipment is manufactured by a variety of companies. For the purpose of installing equipment in the Anchorage Pioneer's Home, two equipment types are discussed which are well proven and in use.

Percision Components PC-50B: This is a widely used portable telephone and teleconference set providing hands free and two-way teleconferencing over the public telephone network. The unit includes a built in microphone plus the ability to tie in three desk top microphones. The microphones can be used singularly or in any combination. In addition the unit can be used as a telephone or as a public address system. The conference set is plugged into a standard telephone jack and 110 volt AV outlet. In the Pioneer's Home application, the conference set would be easily used, compact and flexible enough for a variety of applications. In addition, the PC-50B is available locally.

Darome Convener: Built in several models by the Darome Corporation of Harvard, Illinois, the Convener was developed jointly by the University of Wisconsin and Wisconsin Bell. It is probably the most widely used privately manufactured conference unit. The unit has a high quality speaker, one or multiple microphones and an amplifier. The unit also features recording, playback and additional speaker jacks, a volume control and a carrying case. The convener plugs directly into a modular phone jack accompanying an existing telephone and it also plugs into a standard 110 volt AC outlet. The Darome Convener is convenient to use, portable and easily set up.

Honorable Vic Fischer

-2-

February 26, 1982

Installation of teleconference equipment: The Anchorage Pioneer's Home has existing modular telephone jacks and 110 volt AC outlets in the conferencing location. Either teleconference unit described above can be set up in minutes by the staff. Essentially the conference unit employed is plugged into the phone and electrical outlet. The microphones are set up and plugged into the conference unit. To join a teleconference a phone call is either placed to, or received from, the teleconference network. Once the call is established and connected, the conference set is put into a conference mode and the speaker volume is adjusted. Conferencing can commence.

Costs of Equipment: The following costs are the purchase costs of the two units previously described. In addition, the tariffed costs of a one hour telephone call from Anchorage to Juneau is included.

|   |            |
|---|------------|
| Precision Component PC-50                       | \$1,250.00 |
| Darome Convener #610<br>(w/4 #491s microphones) | 750.00     |
| Long Distance Phone Call<br>(hourly rate)       | 51.00      |

Purchasing Equipment: The Precision Components PC-50B can be purchased locally. The Darome Convener must be purchased from Harvard, Illinois.

Precision Component PC-50B Teleconference Unit:

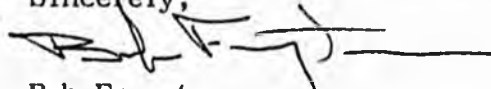
Telelink Communications, Inc.  
P.O. Box 1608  
Juneau, AK 99802  
(907) 586-6228  
Attention: Stuart P. Browne, President

Darome Convener Model 610 w/4 #491s microphones:

Darome Corporation  
711 E. Diggins St.  
Harvard, IL 60033  
(815) 943-5481  
Attention: Angela Mundo, Customer Services

If I can provide you with additional information or particulars on the described conference units, installation or use, please contact me at your convenience. Thank you.

Sincerely,



Bob Frampton  
Telecommunications Planner

BF/bb  
Enclosure

THE LEGISLATURE OF THE STATE OF ALASKA  
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST

Bill/Resolution No. CS SR20

Title Requesting The Installation of Teleconference Facilities\*

Requested by Senator Vic Fischer Date 3/10/82

\*At The Anchorage Pioneers' Home

II. FISCAL DETAIL

Agency Affected Division of Pioneers' Benefits

Program Category Affected Social Services

BRU, Program, Or Subprogram(s) Affected Pioneers' Homes

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

|                          | FY 82 | FY 83 | FY 84 | FY 85 | FY 86 | FY 87 |
|--------------------------|-------|-------|-------|-------|-------|-------|
| 100 PERSONAL SERVICES    | 0     |       |       |       |       |       |
| 200 TRAVEL               | 0     |       |       |       |       |       |
| 300 CONTRACTUAL          | .6    | .65   | .7    | .75   | .8    | .85   |
| 400 COMMODITIES          | 0     |       |       |       |       |       |
| 500 EQUIPMENT            | .9    |       |       |       |       |       |
| 600 LAND & STRUCTURES    | 0     |       |       |       |       |       |
| 700 GRANTS, CLAIMS, ETC. | 0     |       |       |       |       |       |
| TOTAL                    | \$1.5 | .65   | .7    | .75   | .8    | .85   |

FUNDING (Thousands of Dollars)

|                        | FY 82 | FY 83 | FY 84 | FY 85 | FY 86 | FY 87 |
|------------------------|-------|-------|-------|-------|-------|-------|
| GENERAL FUND           | \$1.5 | .65   | .7    | .75   | .8    | .85   |
| FEDERAL FUNDS          | 0     |       |       |       |       |       |
| OTHER (Specify Source) | 0     |       |       |       |       |       |
|                        | \$1.5 | .65   | .7    | .75   | .8    | .85   |

POSITIONS

|           | FY 82 | FY 83 | FY 84 | FY 85 | FY 86 | FY 87 |
|-----------|-------|-------|-------|-------|-------|-------|
| FULL TIME | 0     |       |       |       |       |       |
| PART TIME | 0     |       |       |       |       |       |
| TEMPORARY | 0     |       |       |       |       |       |

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

This fiscal note is for the purchase, installation and operation of teleconference equipment in the Anchorage Pioneers' Home. Contractual monies are for long distant toll charges at \$51 per hour (Anchorage to Juneau).

*Alex Hills*

IV. DATE 3/11/82 PREPARED BY Alex Hills

AGENCY Administration

Original: Legislative Finance PHONE 465-2041

cc: Budget and Management

Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/81)

THE LEGISLATURE OF THE STATE OF ALASKA  
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST  
 Bill/Resolution No. SENATE RESOLUTION NO. 20  
 Title Requesting the installation of teleconference facilities at the  
Requested by Alaska Pioneers' Homes Date 1-21-82  
Requested by Senate State Affairs Committee

II. FISCAL DETAIL  
 Agency Affected Legislative Affairs Agency  
 Program Category Affected General Government  
 BRU, Program, Or Subprogram(s) Affected Public Services  
 (Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

|                          | FY 82 | FY 83        | FY 84 | FY 85 | FY 86 | FY 87 |
|--------------------------|-------|--------------|-------|-------|-------|-------|
| 100 PERSONAL SERVICES    |       | 63.5         |       |       |       |       |
| 200 TRAVEL               |       | 4.8          |       |       |       |       |
| 300 CONTRACTUAL          |       | 17.3         |       |       |       |       |
| 400 COMMODITIES          |       | 1.8          |       |       |       |       |
| 500 EQUIPMENT            |       | 19.6         |       |       |       |       |
| 600 LAND & STRUCTURES    |       | -0-          |       |       |       |       |
| 700 GRANTS, CLAIMS, ETC. |       | -0-          |       |       |       |       |
| <b>TOTAL</b>             |       | <b>107.0</b> |       |       |       |       |

FUNDING (Thousands of Dollars)

|                        | FY 82 | FY 83 | FY 84 | FY 85 | FY 86 | FY 87 |
|------------------------|-------|-------|-------|-------|-------|-------|
| GENERAL FUND           |       | 107.0 |       |       |       |       |
| FEDERAL FUNDS          |       |       |       |       |       |       |
| OTHER (Specify Source) |       |       |       |       |       |       |

POSITIONS

|           | FY 82 | FY 83 | FY 84 | FY 85 | FY 86 | FY 87 |
|-----------|-------|-------|-------|-------|-------|-------|
| FULL TIME |       |       |       |       |       |       |
| PART TIME |       |       |       |       |       |       |
| TEMPORARY |       |       |       |       |       |       |


III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

|   |              |
|---|--------------|
| 100 - Personal Services - 4.5 months time; six sites at the 1982 Salary Schedule with 17% employer costs. | 63.5         |
| 200 - Travel - Travel and per diem for orientation and training for six sites.                            | 4.8          |
| 300 - Contractual - Installation costs - one time   | 1.4          |
| LTN circuit charges - annual  | 10.8         |
| Freight - twice yearly @\$50x6 sites  | .6           |
| (Annual) Telephone line charges - 6 sites -   | 2.1          |
| Postage, advertising, etc.  | 2.4          |
| 400 - Commodities - F.Y. 83 impact for 6 sites  | 1.8          |
| 500 - Equipment - Ont-time charge:  |              |
| Teleconference sets and microphones for six sites   | 7.3          |
| Xerox 400 Telecopiers for six sites   | 12.3         |
| <b>TOTAL</b>  | <b>107.0</b> |

IV. DATE 1-26-82 PREPARED BY M. R. Charney, Executive Director  
 AGENCY: Legislative Affairs Agency  
 Original: Legislative Finance PHONE 465-3800  
 cc: Budget and Management  
Prime Sponsor (First Legislator Named)  
 33-001 (Rev. 12/81)

# MAUNELUK ASSOCIATION

P. O. Box 256  
Kotzebue, Alaska 99752

  
Phone  
(907) 442-3311  
or  
(907) 442-3313

February 08, 1982

Mr. Vic Fischer, Senator  
Fouch V  
Juneau, Alaska 99811.

Dear Senator Fischer,

Thank you for your letter regarding Senate Resolution 20, to establish teleconference hookups in all Pioneer Homes or Senior Center's.

The intent of Resolution 20 most certainly has merit, however, at this time our community is small enough that the Legislative Affairs Office is readily accessible and available when the need arises.

Perhaps some of Alaska's larger communities such as Anchorage, Fairbanks, Ketchikan, etc would benefit from such teleconference facilities. At this particular time I feel I can safely say that the Legislative Affairs Office fills our needs.

Thank you for your time and consideration.

Sincerely,

Marie Schwind, President

  
Chuck Greene, Director  
Kotzebue Senior Citizens Cultural Center

cc: Senator Ferguson  
Representative Adams

CJG/sn



## MEMBER VILLAGES

Ambler, Buckland, Deering, Kiana, Kivalina, Kobuk, Kotzebue, Noatak, Noorvik, Selawik, Shungnak

**STATE OF ALASKA**  
**THE LEGISLATURE**  
**LEGISLATIVE AFFAIRS AGENCY**

POUCH V - STATE CAPITOL  
JUNEAU, ALASKA 99811  
(907) 465-4980

February 8, 1982

Senator Victor Fischer, Chairman  
Alaska State Legislature  
Senate State Affairs Committee  
Pouch V  
Juneau, Alaska 99811

Dear Mr. Chairman:

As requested, I have summarized the alternatives available to include the Pioneer Homes in the Legislative Teleconference Network as proposed in SR 20. I have discussed other teleconferencing alternatives with Sioux Plummer and Robert Frampton of the Division of Telecommunication Services. They will be submitting their recommendations under separate cover.

Options One and Two are those I discussed during the committee hearing last week. They are summarized on page two. Other alternatives are those which were raised during the hearing.

If you have any questions, I am available at 465-3836. I would be happy to discuss this further with the committee.

Respectfully,



Kathleen R. Baltes  
Teleconference Coordinator

cc: M. R. Charney  
C. B. Kadow

Option 1. Pioneer Homes included as part of teleconference circuit

Fiscal impact on Division of Public Services budget remains as stated in fiscal note.

|                            |                |
|----------------------------|----------------|
| 100 - Personal Services    | \$ 63.5        |
| 200 - Travel & Per Deim    | 4.8            |
| 300 - Contractual Services | 17.3           |
| 400 - Commodities          | 1.8            |
| 500 - Equipment            | 19.6           |
| TOTAL                      | <u>\$107.0</u> |

(in thousands of dollars)

Advantages

1. Higher quality connection
2. Insensitive to heavy use because connected 24 hours per day

Disadvantages

1. Recurring cost unnecessary if there is little use
2. Prorated disconnect charge (\$3.2 thousand maximum per location) if equipment is removed within five years of installation

Option 2. Pioneer Homes included on a "dial-up" basis

Fiscal impact remains the same in all categories except contractual services.

|                            |                |
|----------------------------|----------------|
| 100 - Personal Services    | \$ 63.5        |
| 200 - Travel & Per Diem    | 4.8            |
| 300 - Contractual Services | 10.7*          |
| 400 - Commodities          | 1.8            |
| 500 - Equipment            | 19.6           |
| TOTAL                      | <u>\$103.0</u> |

- \* Although the monthly payment to Alascom would be deleted, the amount budgeted for long distance telephone would have to be increased. The \$10.7 includes \$5.1 for long distance charges and assumes that each site would be included for two hours each month for six months and assumes an added amount for bridge charges. Use can be allocated among sites on demand.

Advantages

1. Sensitive to amount of use. If low use, little cost.
2. Rapid implementation.

(Option 2 continued)

Disadvantages

1. Poorer quality connection.
2. Sensitive to amount of use. If heavy use, cost increases dramatically.

Other Alternatives

One suggestion was made to have each Pioneer Home use a speaker phone and establish a call to their local Information Office. The Information Office would also have a speaker phone available to pick up the hearing on the teleconference circuit. It has been my experience that similar arrangements have produced very poor sound quality. Individuals with hearing problems would have a difficult time participating.

The Department of Administration may include the Pioneer Homes in the state telecommunication plan. If they do so and if they provide staff, equipment and telephone lines, the essential elements will be in place to enable residents of the Pioneer Homes to participate in legislative teleconferences. Even in this case, I anticipate that the long distance charges to include the Pioneer Homes in those legislative teleconferences requested would be borne by the Division of Public Services. If each site were included for two hours each month for six months, an increase of \$5.1 thousand dollars to the Division of Public Services budget would be necessary to offset increased participation costs.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT

# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF ADMINISTRATION

DIVISION OF TELECOMMUNICATIONS SERVICES

POUCH C  
JUNEAU, ALASKA 99811  
PHONE: (907) 465-2186

February 9, 1982

Honorable Vic Fischer  
Chairman  
Senate State Affairs and Finance Committee  
Pouch V  
Juneau, AK 99811

Dear Mr. Chairman:

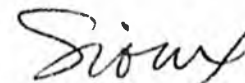
Re: Teleconference Facilities for Pioneers' Homes, SR 20

As requested, please note the attached recommendation from the Department of Administration, Division of Telecommunications Services regarding the installation of teleconference facilities to the Pioneers' Homes in Alaska.

Enclosed as well, is the just-completed draft report on teleconferencing for State Government, as prepared by Bob Frampton of this division. It offers more comprehensive information that may be helpful in your effort to provide teleconference facilities in the Pioneers' Homes. This report will remain in the draft stage, and should be considered as such, until hearings have been held to include public input for the final recommended plan.

I hope all this is useful. We will be happy to assist further; please call if you have any questions.

Sincerely,



Sioux Plummer  
Director

SP/bh  
Enclosure  
cc: Alex Hills  
Deputy Commissioner for Telecommunications



## PROVIDING TELECONFERENCE SERVICES TO THE PIONEER HOMES

### INTRODUCTION

Senate Resolution 20, introduced January 14, 1982 in the Senate State Affairs Committee, requests the Alaska Legislative Council to direct the Legislative Affairs Agency to provide teleconference facilities at each Pioneer's Home site.

The Department of Administration, which administers the Pioneer Homes program, is currently developing a statewide teleconference plan including facilities for use by State government and other agencies (AS 44.21.230(e)).

### AVAILABILITY OF TELECONFERENCE SERVICES

Presently two teleconference networks are operational in Alaska which are funded by State government. A third privately owned teleconference service also provides teleconferencing capabilities statewide. Both the Legislative Teleconference Network and the LEARN/Alaska Audio Conference Network are accessible from remote locations by telephone. The privately owned teleconference service, Telelink, Inc., is also accessible from any location in the state by telephone.

Currently, the Pioneers' Homes can access any of the three teleconference services using the telephone and public telephone system. Though convenient, this method of accessing teleconference networks has certain limitations without adding special conferencing handsets at the local conference site (i.e. Pioneers' Homes).

The main limitation associated with using the telephone handset is that only one person can communicate from a telephone at a time. By adding conference sets at each location the participants can hear conference discussions from a loud speaker and can converse interactively through microphones. Thus, a group at the local level can equally participate in a teleconference.

### COMMUNICATIONS NETWORKING

There are basic network configurations capable of bringing remote locations together into a teleconference network. These configurations include dedicated circuits (leased from the local and long lines telephone companies); dial-up access (using the existing public telephone system); and, a combination of dedicated circuits with a dial-up capability.

Presently the Legislative Teleconference Network is a dedicated teleconference circuit (similar to a party line) with dial-up capabilities. The LEARN/Alaska conference network is only accessible on

Seoux  
1/20/91

a dial-up basis. Dedicated circuits are expensive with monthly recurring charges for the leased private circuits. However, extensive use of a teleconference network often justifies dedicated circuits as dialed-up toll charges can exceed the cost of dedicated lines. Justification of a dedicated circuit over a dial-up access system depends on the amount teleconference traffic anticipated.

RECOMMENDATION

If the Pioneers' Homes are to benefit from teleconference services, it is recommended that the services be provided on a dial-up basis. This option is selected as we currently do not know the amount of teleconference traffic anticipated from the Home sites; dial-up capabilities will allow the Homes to access other teleconference networks including the proposed State government teleconference network; the initial one-time capital expense would be minimal (the cost of teleconference handsets and local phone drops); and the system would be flexible to allow future expansion without considerable network configurations.

COSTS

The following costs include one-time capital expenses and estimated monthly recurring operational costs:

| <u>ITEM</u>                          | <u>Recurring Monthly</u> | <u>Capital</u> |
|--------------------------------------|--------------------------|----------------|
| Teleconference Handsets<br>(6 units) |                          | \$6,000        |
| Local Phone Drops<br>(6 sites)       |                          | 500            |
| Toll Charges*                        | \$1,500                  |                |
| <u>Total</u>                         | <u>\$1,500</u>           | <u>\$6,500</u> |

\*Toll charges assume one hour of conferencing per week per site with calls terminating in Juneau plus occasional network access charges. This is not an absolute call pattern as variations do and will exist. For example, to access the LTN, the LTN conference center will call the Pioneers' Home and tie it into the LTN. For legislative applications (e.g. hearings) LTN assumes the toll charges. If the Pioneers' Home in Anchorage wanted to access the LEARN/Alaska Audio Conference Network to participate in an educational/instructional teleconference, no toll charges would be levied as LEARN/Alaska is centered in Anchorage. There are other variations, but for the basic toll charges illustrated, \$1,500 is a reasonable monthly average.

**PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.**

**DEPARTMENT OF ADMINISTRATION**

OFFICE OF THE COMMISSIONER

POUCH C

JUNEAU, ALASKA 99811

465-2200

January 28, 1982

Honorable Vic Fischer, Chairman  
Senate Committee on State Affairs  
Alaska State Legislature  
Pouch V  
Juneau, Alaska 99811

Dear Mr. Chairman:

Re: Senate Resolution 20

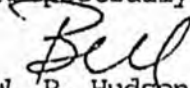
The Department of Administration, Division of Telecommunications Services is presently studying the feasibility of developing and implementing a Statewide teleconference network to serve the needs of State government as well as nonprofit agencies associated with State government services.

The plan is addressing several approaches for developing State teleconference facilities ranging from dedicated audio circuits to a Statewide dial-up network whereby anybody with a telephone could dial into a teleconference bridge. Considering that the Pioneers' Homes are currently under the management of the Department of Administration, it would seem appropriate that the Division of Telecommunications Services include the Homes into the Statewide plan currently under study.

Local hook-ups to the Pioneers' Homes would be fairly inexpensive and the conference sets required would take up very little space. Initial review of this proposed service would indicate that the Pioneers' Homes could easily dial into the proposed State teleconference network or the Legislative Teleconference Network could easily "call up" the Home sites and include them into a legislative teleconference.

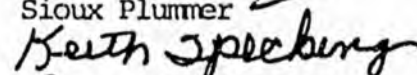
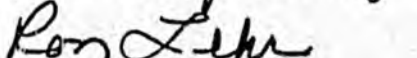
If you have any questions about the current teleconference plan for State government use, please feel free to contact Sioux Plummer, Director, Division of Telecommunications Services at 465-2041. Thank you.

Respectfully,

  
W. R. Hudson  
Commissioner

WRH/mjc

cc: Frederick B. Muller  
Vernon L. Perry  
Sioux Plummer ✓

FEB 1 1982

Introduced: 1/14/82  
Referred: State Affairs and  
Finance

1 IN THE SENATE

BY FISCHER

2 SENATE RESOLUTION NO. 20

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TWELFTH LEGISLATURE - SECOND SESSION

5 Requesting the installation of tele-  
6 conference facilities at the Alaska  
7 Pioneers' Homes.

8 BE IT RESOLVED BY THE SENATE:

9 WHEREAS the operation of teleconference facilities greatly enhances the  
10 opportunity for the people of Alaska to participate in the processes of state  
11 government; and

12 WHEREAS the persons living in the Pioneers' Homes have been residents of  
13 the state for many years and have unique and valuable perspectives and con-  
14 tributions to make to Alaska; and

15 WHEREAS many of the persons who reside in the Alaska Pioneers' Homes are  
16 among those least able to actively participate in state government; and

17 WHEREAS the installation of teleconference facilities in each Pioneers'  
18 Home will provide many of our most experienced Alaskans an opportunity to  
19 participate in many aspects of state government otherwise not available to  
20 them;

21 BE IT RESOLVED that the Alaska Senate requests the Alaska Legislative  
22 Council to direct the Legislative Affairs Agency to provide teleconference  
23 facilities at each Pioneers' Home site.

24  
25 *Promote the*  
26 *the promotion*  
27 *of the teleconference*  
28 *facility*  
29 *to include*  
*Dept of Admin in*  
*the resolves*

**STATE OF ALASKA**  
**THE LEGISLATURE**  
**LEGISLATIVE AFFAIRS AGENCY**

POUCH Y - STATE CAPITOL  
JUNEAU, ALASKA 99811  
(907) 465-4640

January 27, 1982

TO: M. R. Charney,  
Executive Director

FROM: Charity B. Kadow *CBK*  
Director

RE: SR 20 Fiscal Note

The following information has been compiled at your request and reflects the FY 83 budget impact of SR 20. If this Resolution is put into effect in FY 82, adjustments will be made in certain areas such as equipment and other items.

|                       |                |                    |
|-----------------------|----------------|--------------------|
| 100 Personal Services | \$ 54.3        | Wages              |
|                       | <u>9.2</u>     | 17% Employer Costs |
|                       | <u>\$ 63.5</u> | TOTAL              |

This represents 4.5 months times 6 sites (27 man-hour months) at the reserve position schedule presented in the FY 83 budget. As Ketchikan is a session-only office with one position it is necessary to budget extra reserve hours. Sitka and Palmer would be effected in the same manner but are year-round offices. If teleconferences are multiple sites in these areas then the impact of additional positions must be considered. Anchorage and Fairbanks would need increase in reserve hours as multiple sites would have to be covered with existing staff. FY 83 budget has requested an upgrade in Wasilla and Fairbanks LTN staff from session to full time. If these are denied, SR 20 will have a definite impact on personnel needs.

200 Travel \$ 4.8

This figure represents travel/per diem for orientation and training for 6 sites.

|                 |                |   |
|-----------------|----------------|---|
| 300 Contractual | \$ .9          | One time installation<br>6 sites                  |
|                 | 10.8           | Annual LTN circuit costs<br>for 6 sites           |
|                 | .6             | Freight 2/year at \$50 x<br>6 sites               |
|                 | .5             | Local telco install/service                       |
|                 | 2.1            | Annual local telco costs<br>for 6 sites           |
|                 | 2.4            | Postage, advertising, etc.,<br>extra FY 83 impact |
|                 | <u>\$ 17.3</u> | TOTAL   |

As space within a Pioneer Home would be available, we are assuming that there would be no rent or space charge or any charge for the impact such as janitorial, furniture move, etc.

If the established Off-Net capability is used we would still have the above charges for local business lines and equipment plus the cost for bridges at \$140 per hour, as well as a substantial increase in toll charges. Moderator costs would also remain in effect.

|                 |          |   |
|-----------------|----------|---|
| 400 Commodities | \$ 1.8   | FY 83 impact for 6 sites  |
| 500 Equipment   | \$ 7.3   | Telcon. sets for 6 sites  |
|                 | \$ 12.24 | Xerox 400 Telecopier for<br>6 sites. These are stan-<br>dard at all telecon. sites. |

Under positions in fiscal note, it would be appropriate to use language from fiscal note personnel category to indicate time is requested and not 4.5 new positions. However, it is correct to assume that positions may have to be added.

In the analysis section, I would like to show that some costs are one-time, recurring, and should SR 20 come into effect in FY 82 the fiscal note totals would have to be adjusted for FY 83.

STATE OF ALASKA  
THE LEGISLATURE  
LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL  
JUNEAU, ALASKA 99811  
907-465-3800

MEMORANDUM

November 12, 1981

SUBJECT: Teleconferencing in Pioneers' Homes  
(~~Work Order No. 12-1955~~)

TO: Senator Vic Fischer

FROM: David T. Walker *DTW*  
Co-Revisor of Statutes

I eliminated the "copies clause" in the review process because it is generally reserved for mailings out-of-state. For example, there would not be a copies clause in a resolution requesting the Governor to perform but there would be a copies clause (copies to our congressional delegation and appropriate federal officials) if the resolution requested congressional action.

The Executive Director of this agency will automatically receive a copy of this resolution.

DTW:ljb

Enclosure

*ok  
but maybe  
a Senate  
would do  
love*

*Resol.*

12-1955  
Sofa

*Please transpose  
these paragraphs!*

1 IN THE SENATE

BY FISCHER

2 SENATE CONCURRENT RESOLUTION NO.

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TWELFTH LEGISLATURE - SECOND SESSION

5 Requesting the installation of  
6 teleconference facilities at the  
7 Alaska Pioneers' Home.

8 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 ① WHEREAS the operation of teleconference facilities greatly enhances the  
10 opportunity for the people of Alaska to participate in the processes of  
11 government; and

12 ③ WHEREAS ~~due to age, economic hardship, or disability,~~ *many of* persons who  
13 in the Alaska Pioneers' Home are among those least able to actively parti-  
14 pate in state government ~~without some form of assistance;~~ and

15 ② WHEREAS the persons living in the Pioneers' Home have been residents of  
16 the state for many years and have unique and valuable perspectives and con-  
17 tributions to make to Alaska; and

18 ④ WHEREAS the installation of teleconference facilities in each Pioneers'  
19 Home will provide many of our most experienced Alaskans an opportunity to  
20 participate in many aspects of state government otherwise not available to  
21 them;

22 ⑤ BE IT RESOLVED that the Alaska State Legislature requests the Alaska  
23 Legislative Council to direct the Legislative Affairs Agency to provide  
24 teleconference facilities at each Pioneers' Home site.

25 ⑥ COPIES of this resolution shall be sent to M.R. Charney, Executive  
26 Director of the Legislative Affairs Agency and Charity B. Kadow, Director of  
27 the Division of Public Services of the Legislative Affairs Agency.

# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF ADMINISTRATION

OFFICE OF THE COMMISSIONER

POUCH C

JUNEAU, ALASKA 99811

465-2200

January 28, 1982

Honorable Vic Fischer, Chairman  
Senate Committee on State Affairs  
Alaska State Legislature  
Pouch V  
Juneau, Alaska 99811

Dear Mr. Chairman:

Re: Senate Resolution 20


The Department of Administration, Division of Telecommunications Services is presently studying the feasibility of developing and implementing a Statewide teleconference network to serve the needs of State government as well as nonprofit agencies associated with State government services.

The plan is addressing several approaches for developing State teleconference facilities ranging from dedicated audio circuits to a Statewide dial-up network whereby anybody with a telephone could dial into a teleconference bridge. Considering that the Pioneers' Homes are currently under the management of the Department of Administration, it would seem appropriate that the Division of Telecommunications Services include the Homes into the Statewide plan currently under study.

Local hook-ups to the Pioneers' Homes would be fairly inexpensive and the conference sets required would take up very little space. Initial review of this proposed service would indicate that the Pioneers' Homes could easily dial into the proposed State teleconference network or the Legislative Teleconference Network could easily "call up" the Home sites and include them into a legislative teleconference.

If you have any questions about the current teleconference plan for State government use, please feel free to contact Sioux Plummer, Director, Division of Telecommunications Services at 465-2041. Thank you.

Respectfully,

  
W. R. Hudson  
Commissioner

WRH/mjc  
cc: Frederick B. Muller  
Vernon L. Perry  
Sioux Plummer

# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF ADMINISTRATION

DIVISION OF PIONEERS' BENEFITS

ANCHORAGE PIONEERS' HOME  
923 W. 11TH STREET  
ANCHORAGE, ALASKA 99501  
PHONE: (907) 276-3414

February 4, 1982

Senator Vic Fischer, Chariman  
Alaska State Legislature  
Senate Committee on State Affairs  
Pouch V  
Juneau, Alaska 99811

Dear Senator Fischer:

Thank you very much for your letter of January 20, 1982 discussing Senate Resolution No. 20, teleconference facilities in Pioneers' Homes. I think this is an excellent idea and would be enthusiastically welcomed by many of our residents. I have written Anchorage legislators, encouraging their support of the concept.

Again, thank you for taking the time to inform me of the resolution.

Sincerely,



David H. Herndon  
Manager  
Anchorage Pioneers' Home

DHH/tlf

# STATE OF ALASKA

## DEPARTMENT OF ADMINISTRATION

DIVISION OF PIONEER BENEFITS - SITKA

JAY S. HAMMOND, GOVERNOR

P.O. BOX 198 - SITKA 99835

February 2, 1982

Honorable Senator Vic Fischer  
Alaska State Legislature  
Pouch V  
Juneau, Alaska 99811

Dear Senator Fischer:

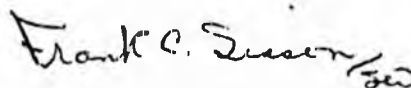
Thank you for your recent letter of January 20, 1982, and the copy of Senate Resolution 20 to establish teleconference installations in all Pioneers Homes. I am forwarding this on to my Supervisor and Director, Vernon L. Perry, for any input he might have from the standpoint of all the Homes. I can only speak for the Pioneers Home in Sitka, as you have requested.

I have talked with the President of our Residents Council for his thoughts on the proposal of teleconference units in the Home. He agrees that making access to this facility is a good idea and would be appreciated by the Senior Citizens here in the Sitka Home. However, it is possible the cost of equipment, installation and training of necessary personnel for its use might outweigh the possible benefits of the unit being physically located in the Home. In addition this would duplicate services already being performed here in Sitka. The Legislative Affairs Agency is located just three city blocks from the Pioneers Home, centrally located and easily accessible by the street level entrance. In the past twelve months I have utilized the teleconference facilities three times, once to testify. We have transported Pioneers to the agency one time when they expressed a desire to speak on an issue concerning Senior Citizens. As you see, this facility has not received extensive use in the past. It is quite likely that the units might be of more value in the metropolitan areas of Anchorage, Fairbanks and Palmer than Sitka.

On a more positive approach, it is noteworthy that having the facility in the Home would save time and effort on the part of the staff and the Pioneers when a subject of interest does appear that is important to them. Additionally, it would offer them the opportunity to become more involved in the affairs of the state which is an important facet we would like to encourage.

Again, thank you for this effort in behalf of our residents in the Pioneers Home and your concern in this area. If we can furnish any further information, please feel free to call on us at any time.

Sincerely,



Frank C. Sisson, LNHA  
Manager, Sitka Pioneers Home

cc: Vernon L. Perry, Director

DEPARTMENT OF ADMINISTRATION

OFFICE OF THE COMMISSIONER

POUCH C

JUNEAU, ALASKA 99811

465-2200

January 28, 1982

Honorable Vic Fischer, Chairman  
Senate Committee on State Affairs  
Alaska State Legislature  
Pouch V  
Juneau, Alaska 99811

Dear Mr. Chairman:

Re: Senate Resolution 20

The Department of Administration, Division of Telecommunications Services is presently studying the feasibility of developing and implementing a Statewide teleconference network to serve the needs of State government as well as nonprofit agencies associated with State government services.

The plan is addressing several approaches for developing State teleconference facilities ranging from dedicated audio circuits to a Statewide dial-up network whereby anybody with a telephone could dial into a teleconference bridge. Considering that the Pioneers' Homes are currently under the management of the Department of Administration, it would seem appropriate that the Division of Telecommunications Services include the Homes into the Statewide plan currently under study.

Local hook-ups to the Pioneers' Homes would be fairly inexpensive and the conference sets required would take up very little space. Initial review of this proposed service would indicate that the Pioneers' Homes could easily dial into the proposed State teleconference network or the Legislative Teleconference Network could easily "call up" the Home sites and include them into a legislative teleconference.

If you have any questions about the current teleconference plan for State government use, please feel free to contact Sioux Plummer Director, Division of Telecommunications Services at 465-2041. Thank you.

Respectfully,

*Bill*  
W. R. Hudson  
Commissioner

*report this Fair this year.*

WRH/mje

cc: Frederick B. Muller  
Vernon L. Perry  
Sioux Plummer

*Keith Speckburg*  
*Ron Lehr*

FEB 1 1981

Introduced: 1/14/82  
Referred: State Affairs and  
Finance

1 IN THE SENATE

BY FISCHER

2 SENATE RESOLUTION NO. 20

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TWELFTH LEGISLATURE - SECOND SESSION

5 Requesting the installation of tele-  
6 conference facilities at the Alaska  
7 Pioneers' Homes.

8 BE IT RESOLVED BY THE SENATE:

9 WHEREAS the operation of teleconference facilities greatly enhances the  
10 opportunity for the people of Alaska to participate in the processes of state  
11 government; and

12 WHEREAS the persons living in the Pioneers' Homes have been residents of  
13 the state for many years and have unique and valuable perspectives and con-  
14 tributions to make to Alaska; and

15 WHEREAS many of the persons who reside in the Alaska Pioneers' Homes are  
16 among those least able to actively participate in state government; and

17 WHEREAS the installation of teleconference facilities in each Pioneers'  
18 Home will provide many of our most experienced Alaskans an opportunity to  
19 participate in many aspects of state government otherwise not available to  
20 them;

21 BE IT RESOLVED that the Alaska Senate requests the Alaska Legislative  
22 Council to direct the Legislative Affairs Agency to provide teleconference  
23 facilities at each Pioneers' Home site.

24

25

26

27

28

29

*Dept of Admin*  
*relate to interest/desire*  
*determine what desire is justify*  
*permanent, or off-net facilities*

THE LEGISLATURE OF THE STATE OF ALASKA  
TWELFTH LEGISLATURE

FISCAL NOTE

*Cathy Bayler*

I. REQUEST  
 Bill/Resolution No. SENATE RESOLUTION NO. 20  
 Title Requesting the installation of teleconference facilities at the  
 Requested by Alaska Pioneers' Homes Date 1-21-82  
 Requested by Senate State Affairs Committee

II. FISCAL DETAIL  
 Agency Affected Legislative Affairs Agency  
 Program Category Affected General Government  
 BRU, Program, Or Subprogram(s) Affected Public Services  
 (Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

|                          | FY 82 | FY 83 | FY 84 | FY 85 | FY 86 | FY 87 |
|--------------------------|-------|-------|-------|-------|-------|-------|
| 100 PERSONAL SERVICES    |       | 63.5  |       |       |       |       |
| 200 TRAVEL               |       | 4.8   |       |       |       |       |
| 300 CONTRACTUAL          |       | 17.3  |       |       |       |       |
| 400 COMMODITIES          |       | 1.8   |       |       |       |       |
| 500 EQUIPMENT            |       | 19.6  |       |       |       |       |
| 600 LAND & STRUCTURES    |       | -0-   |       |       |       |       |
| 700 GRANTS, CLAIMS, ETC. |       | -0-   |       |       |       |       |
| TOTAL                    |       | 107.0 |       |       |       |       |

FUNDING (Thousands of Dollars)

|                        |  |       |  |  |  |  |
|------------------------|--|-------|--|--|--|--|
| GENERAL FUND           |  | 107.0 |  |  |  |  |
| FEDERAL FUNDS          |  |       |  |  |  |  |
| OTHER (Specify Source) |  |       |  |  |  |  |

POSITIONS

|           |  |  |  |  |  |  |
|-----------|--|--|--|--|--|--|
| FULL TIME |  |  |  |  |  |  |
| PART TIME |  |  |  |  |  |  |
| TEMPORARY |  |  |  |  |  |  |

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

|   |  |  |  |      |  |       |
|---|--|--|--|------|--|-------|
| 100 - Personal Services - 4.5 months time; six sites at the 1982 Salary Schedule with 17% employer costs. |  |  |  |      |  | 63.5  |
| 200 - Travel - Travel and per diem for orientation and training for six sites.                            |  |  |  |      |  | 4.8   |
| 300 - Contractual - Installation costs - one time   |  |  |  | 1.4  |  |       |
| LTN circuit charges - annual  |  |  |  | 10.8 |  |       |
| Freight - twice yearly @\$50x6 sites  |  |  |  | .6   |  |       |
| (Annual) Telephone line charges - 6 sites -   |  |  |  | 2.1  |  |       |
| Postage, advertising, etc.  |  |  |  | 2.4  |  | 17.3  |
| 400 - Commodities - F.Y. 83 impact for 6 sites  |  |  |  |      |  | 1.8   |
| 500 - Equipment - Ont-time charge:  |  |  |  |      |  |       |
| Teleconference sets and microphones for six sites   |  |  |  | 7.3  |  |       |
| Xerox 400 Telecopiers for six sites   |  |  |  | 12.3 |  | 19.6  |
| TOTAL   |  |  |  |      |  | 107.0 |

IV. DATE 1-26-82 PREPARED BY M. R. Charney, Executive Director  
 AGENCY- Legislative Affairs Agency  
 Original: Legislative Finance PHONE 465-3800  
 cc: Budget and Management  
Prime Sponsor (First Legislator Named)  
 33-001 (Rev. 12/81)

*M. R. Charney*

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT

# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF ADMINISTRATION

DIVISION OF TELECOMMUNICATIONS SERVICES

POUCH C  
JUNEAU, ALASKA 99811  
PHONE: (907) 465-2041

February 26, 1982

*file  
SR20*

Honorable Vic Fischer, Chairman  
Senate Committee on State Affairs  
Alaska State Legislature  
Pouch V  
Juneau, AK 99811

Dear Mr. Chairman:

Re: Teleconference Equipment - Anchorage Pioneer's Home

With regards to placing teleconferencing equipment in the Anchorage Pioneer's Home, the following information provides equipment and installation costs as well as where the equipment can be purchased and how it is installed.

Teleconference Equipment: Audio conferencing equipment is manufactured by a variety of companies. For the purpose of installing equipment in the Anchorage Pioneer's Home, two equipment types are discussed which are well proven and in use around the state.

Precision Components PC-50B: This is a widely used portable telephone and teleconference set providing hands free and two-way teleconferencing over the public telephone network. The unit includes a built in microphone plus the ability to tie in three desk top microphones. The microphones can be used singularly or in any combination. In addition the unit can be used as a telephone or as a public address system. The conference set is plugged into a standard telephone jack and 110 volt AV outlet. In the Pioneer's Home application, the conference set would be easily used, compact and flexible enough for a variety of applications. In addition, the PC-50B is available locally.

Darome Convener: Built in several models by the Darome Corporation of Harvard, Illinois, the Convener was developed jointly by the University of Wisconsin and Wisconsin Bell. It is probably the most widely used privately manufactured conference unit. The unit has a high quality speaker, one or multiple microphones and an amplifier. The unit also features recording, playback and additional speaker jacks, a volume control and a carrying case. The convener plugs directly into a modular phone jack accompanying an existing telephone and it also plugs into a standard 110 volt AC outlet. The Darome Convener is convenient to use, portable and easily set up.

Honorable Vic Fischer

-2-

February 26, 1982

Installation of teleconference equipment: The Anchorage Pioneer's Home has existing modular telephone jacks and 110 volt AC outlets in the conferencing location. Either teleconference unit described above can be set up in minutes by the staff. Essentially the conference unit employed is plugged into the phone and electrical outlet. The microphones are set up and plugged into the conference unit. To join a teleconference, a phone call is either placed to, or received from, the teleconference network. Once the call is established and connected, the conference set is put into a conference mode and the speaker volume is adjusted. Conferencing can commence.

Costs of Equipment: The following costs are the purchase costs of the two units previously described. In addition, the tariffed costs of a one hour telephone call from Anchorage to Juneau is included.

|   |            |
|---|------------|
| Precision Component PC-50                       | \$1,250.00 |
| Darome Convener #610<br>(w/4 #491s microphones) | 750.00     |
| Long Distance Phone Call<br>(hourly rate)       | 51.00      |

Purchasing Equipment: The Precision Components PC-50B can be purchased locally. The Darome Convener must be purchased from Harvard, Illinois.

Precision Component PC-50B Teleconference Unit:

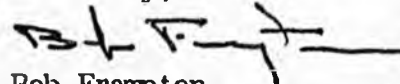
Telelink Communications, Inc.  
P.O. Box 1608  
Juneau, AK 99802  
(907) 586-6228  
Attention: Stuart P. Browne, President

Darome Convener Model 610 w/4 #491s microphones:

Darome Corporation  
711 E. Diggins St.  
Harvard, IL 60033  
(815) 943-5481  
Attention: Angela Mundo, Customer Services

If I can provide you with additional information or particulars on the described conference units, installation or use, please contact me at your convenience. Thank you.

Sincerely,



Bob Frampton  
Telecommunications Planner

BF/bb  
Enclosure



**TELEPHONE PRODUCTS DIVISION**

# PC-50B CONFERENCE TELEPHONE

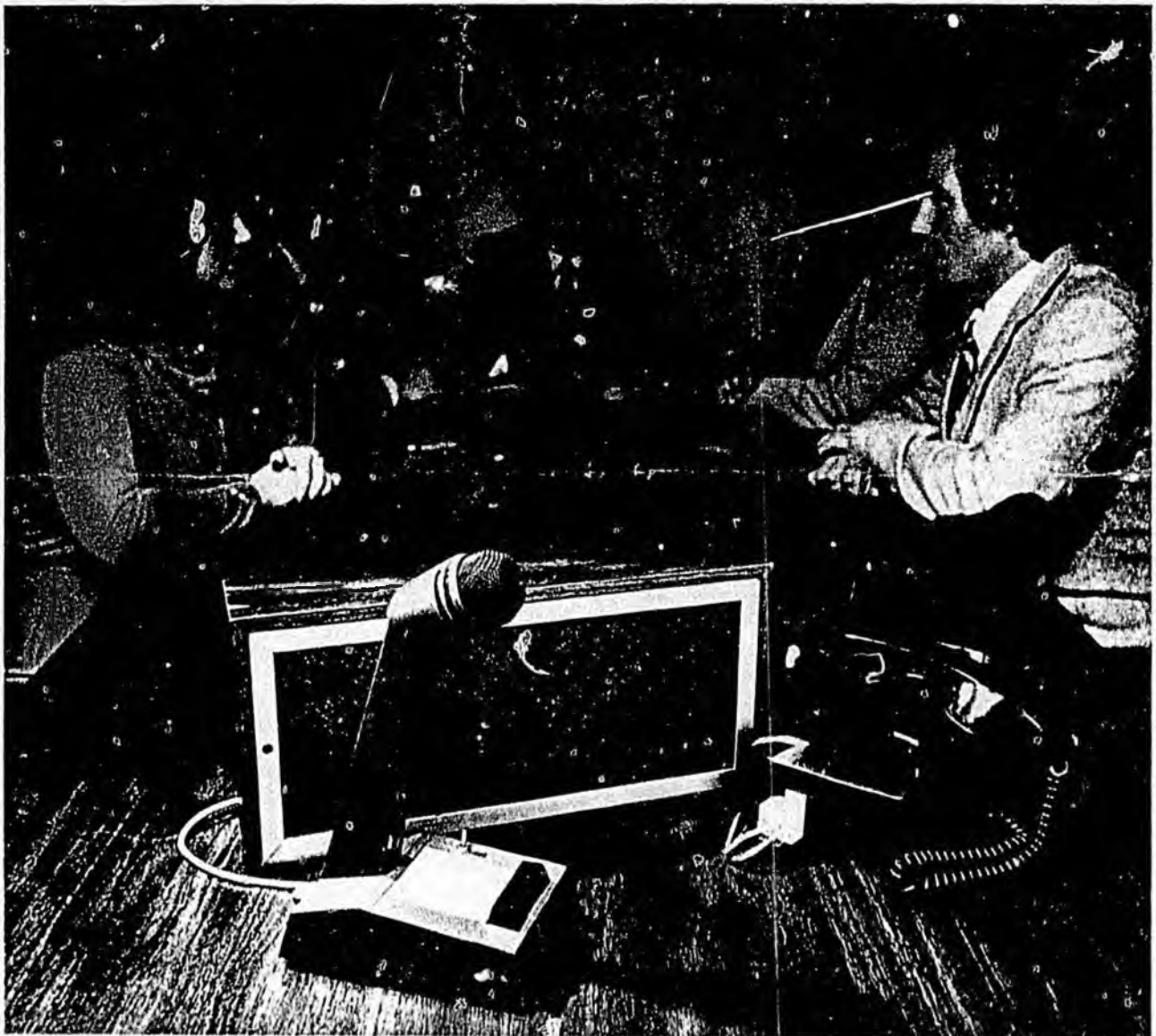


## **APPLICATION**

The PC-50B is a portable, hands-free telephone for use in a classroom, conference room or small auditorium and permits 2-way audience participation in a call placed over the telephone network.

## **DESIGN FEATURES**

- Hands-free communication using one, two or three microphones singularly or in any combination
- Voice switching accomplished with improved Type PC4B Speakerphone circuitry
- Transferring between hands-free and handset operation during conversation
- Can be used as telephone only
- Can be used as loudspeaker only
- Can be connected to a PA system for listening to both sides of conversation
- Plug-in installation into standard telephone jack and 110VAC outlet
- Compatible with four-wire line applications with optional 4-wire module (PC-50AM-4)
- A/A1 control leads available
- Either tone or pulse dialing
- FCC registered



## DAROME CONVENER

Model 610

Anchorage Pioneer's Home would utilize 4 microphones (model #491s w/ press-to-talk and toggle switch on the microphone base). Telephone handset not included, but the modular jack is included with the unit carrying case.

= D R A F T =

INTERACTIVE AUDIO

A PLAN TO DEVELOP AND IMPLEMENT TELECONFERENCING  
FACILITIES FOR ALASKA'S STATE GOVERNMENT

PREPARED BY  
DEPARTMENT OF ADMINISTRATION  
DIVISION OF TELECOMMUNICATIONS SERVICES

February 1980

= D R A F T =

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- 1.2 Teleconferencing
- 1.3 Teleconferencing Potential
- 1.4 Objectives

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- 3.2 Communications Networking Options
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  - B. Regional Service
  - C. Interstate Service

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- 6.3 References

## SECTION I

### 1.1 INTRODUCTION

By eliminating distance as an obstacle to holding meetings, teleconferencing has the capability to improve government efficiency and eliminate some of the time and expense involved in travel to and from meetings. The need to make instant decisions and to say "in touch" has made teleconferencing an effective job enhancement tool and a valuable management resource.

This paper explores development and implementation of a teleconference system to be used by State government in its normal daily activities and operations.

### 1.2 TELECONFERENCING

Teleconferencing, as the term is used in this paper, refers to interactive electronic communications connecting multiple groups, at geographically separate locations, for the purpose of holding and conducting meetings and other business. As such, teleconferencing extends from the simplest audio conference between three or more individuals using telephone handsets, linked together as an interactive group, through groups assembled in conference rooms equipped with hands-free conference sets and with or without visual aides (Stockbridge, 1980). Peripheral visual aid components, such as facsimile transmission equipment, can be employed in a teleconference facility to provide a diverse, interactive communications resource capable of meeting a wider range of teleconferencing applications.

### 1.3 TELECONFERENCING POTENTIAL

The teleconferencing medium has great potential for agencies conducting operations on a statewide basis. This potential includes:

1. Reduction in Travel Expenses: Agencies can reduce travel time away from the home office as well as contain travel costs and related expenses.
2. Enhancement of Decision Making: Agencies can enhance the decision making process by increasing the speed of making decisions.
3. Simplification of Scheduling Meetings: Agencies can schedule meetings that require participation on a statewide level, which would otherwise be cumbersome to coordinate due to weather, distance, logist of participants, and time required away from the home of or work place.
4. Increased Productivity: Agencies can reduce the time span between meetings and work sessions, thus accomplishing tasks in a more timely manner, and in the long term, realize an increase in productivity.

5. In-Service Training: Agencies can improve in-service training and on-the-job training opportunities enabling a wider range of instructional services to a greater number of State employees as well as to those agencies funded or assisted by State grants and/or financial aid.

#### 1.4 OBJECTIVES

1. Development Plan: To submit to the Governor a long-term development plan for teleconference facilities and services, including facilities and services used both by State agencies and groups other than State agencies, (AS 44.21.230(e)).
2. Analyze Existing Systems: To analyze existing teleconference facilities and systems in terms of applicability, availability, access from remote, rural locations, and costs per hour of use.
3. Flexible Design: To design a flexible teleconference plan with facilities that will meet principal current requirements as well as realistic future requirements.
4. Encourage utilization: To encourage managers and other personnel to use teleconferencing for the purposes of performing management and operation functions, staff coordination, public hearings, and, among other functions, to provide greater access to in-service and on-the-job training opportunities.

## SECTION II

### 2.1 EXISTING TELECONFERENCE NETWORKS

Currently there are two teleconference systems supported by State funding. The Legislative Teleconference Network (LTN) was established for use by the legislative community, but is offered for use by State agencies on a time available basis. The LEARN/Alaska Audio Conference Network was established for the educational community and is operated by the Department of Education and University of Alaska.

The Legislative Teleconference Network: The LTN serves Anchorage, Barrow, Bethel, Dillingham, Fairbanks, Haines, Homer, Juneau, Kenai, Ketchikan, Kodiak, Kotzebue, Mat-Su, Nome, Seward, Sitka, and Valdez. As a multipoint, closed circuit network (commonly referred to as a "dedicated" network), the LTN has the capability to dial conference participants into the network if they live in communities other than those listed above. In addition, the network can dial into other teleconference networks such as those in the Lower-48. The LTN also features one-and two-way video conference capabilities, computer based electronic mail and information status, storage and retrieval systems.

The LTN is used throughout the year. In 1980 the network accommodated 310 teleconferences and provided access to over 7,400 participants statewide. Of the 1980 teleconferences, 177 were legislative, 114 were non-legislative, and the remaining 19 were video conferences (Baltes, 1981). In addition, the network handles administrative traffic between the regional Legislative Information Offices and the central teleconference office in Juneau.

The LTN is managed by the Legislative Affairs Agency, Division of Public Services. The LTN is available for non-legislative users on a time available basis at \$25 per hour per site.

The LEARN/Alaska Audio Conference Network: The LEARN/Alaska Audio Conference Network serves 103 sites statewide and is accessible from any telephone (commonly referred to as a "dial-up" network). The system can accommodate up to 80 sites on a single teleconference or several separate simultaneous teleconferences.

Managed by the University of Alaska Instructional Telecommunications Consortium, the network serves the educational community through the University, the Department of Education and the Rural Education Attendance Areas. The network complements both administrative functions and state-wide instructional requirements. Combining one-way video through the Instructional Television system, computer based electronic mail and other computer oriented instructional resources, the audio network can accommodate a variety of educational and instructional needs. Although the network is relatively new, commencing service in April of 1981, it is being used daily.

Currently, the network provides 70% of its' operational time for instructional purposes and the remaining 30% of the time is used for administrative functions (U of A, DOE, REAA). Although the University system is the major user, the network is intended to serve primary, secondary and post-secondary educational communities equally. Other users, such as non-profit organizations, have access to the network for educational/instructional purposes on a time available basis (Benning, 1981).

The LEARN/Alaska Audio Conference Network currently does not charge approved users; however, other users are responsible for their own toll charges (for long distance calls).

## 2.2 PRIVATE TELECONFERENCE SERVICES

Privately owned teleconference services specialize in audio conferencing for business and government operations. Because of technical limitations as well as other customer-oriented limitations found in traditional operator assisted conferencing, private teleconference services are becoming widely available in the contiguous states and are now available in Alaska.

One of the key elements of convenient audio conferencing is ease of access to a teleconference network. Private teleconference services offer rapid audio conference set-up time as all participants simply call into a central number at a specified time. If all sites are prompt in calling, it is possible to connect 10-18 locations in a matter of minutes. This "meet-me" approach permits the conference to start on time with a minimum of waiting. Often, private teleconference services employ automated equipment which permits this rapid set-up service without requiring an attendant.

A privately-owned teleconference service usually has a conference attendant, or operator on-line during an audio conference unless privacy is required. The attendant monitors the technical aspects of the conference and can make a variety of adjustments at the conference switchboard (often referred to as a "bridge") to assure continuing maximum sound quality. In some applications, the attendant is trained in teleconference protocol (as are the LTN and LEARN/Alaska moderators) to assist conferees in using the medium efficiently and effectively.

Privately-owned teleconference services often offer additional services such as automated conferencing (which does not require an attendant to set up a conference), facsimile (hardcopy) transfers, interconnects with other teleconference networks such as LTN, and user training, orientation and assistance.

## SECTION III

### 3.1 DEDICATED VS DIAL-UP CONFERENCE NETWORKS

Dedicated Teleconference Networks: Dedicated teleconference networks are private phone lines formed by providing permanent circuits between specific locations. The local telephone company and the longlines carrier (Alascom, Inc.) provide the service and the customer (one ordering and paying for the dedicated lines) can employ the type of conference sets and transmission terminal equipment, such as facsimile hardware, desired.

The main advantage of a dedicated network is the around-the-clock availability of the circuit. Dedicated lines are very expensive, but if a teleconference network is used extensively, these can be more cost effective than frequent long distance calls. Another advantage of the dedicated line is the ability to match or balance electronic components employed at the two or more ends of the network. This feature protects the integrity of the network by reducing line noise.

Essentially, there are two types of dedicated networks: 1) a point-to-point network; and, 2) a multipoint network. A point-to-point dedicated network is a private line serving two specific points such as from Juneau to Anchorage. A multipoint dedicated network is a private line serving a series of points or locations such as from Juneau to Anchorage and on to Fairbanks. The LTN is a dedicated, multipoint audio conference network optimized for heavy traffic use and which incorporates both voice and facsimile transmission capabilities.

Dial-Up Teleconference Network: Dial-up teleconference networks are widely used in the contiguous states and are also available in Alaska. A dial-up network employees a "meet-me" approach to teleconferencing by allowing conference participants to dial into a central telephone number whereby all conferees are connected into a teleconference. The key to the dial-up network is universal accessibility from any standard telephone handset, whether in the office, work place or at home.

Dial-up teleconference networks are employed when user traffic is too low to justify the costs of leasing the private lines required of a dedicated network. Ease of access, low user traffic and relatively lower user costs (the cost of a telephone call) make dial-up networks economically feasible.

Privately owned teleconference networks and the LEARN/Alaska Audio Conference Network are dial-up teleconference networks.

Both dedicated and dial-up teleconference networks have particular and unique features. However, certain features stand out:

1. dedicated point-to-point networks are closed circuit networks serving two locations at a high fixed cost;
2. dedicated multipoint networks are closed circuit "party lines" serving multiple locations at a high fixed cost;
3. multipoint networks have "privacy" limitations which can be improved upon with selective switching techniques to de-activate terminal equipment;
4. dial-up networks are accessible from the public telephone system, serve multiple locations at a relatively low fixed cost, are capable of the privacy offered by the public telephone system; and,
5. dial-up features can be incorporated with a dedicated network, at a high initial cost, but provide considerable privacy, accessibility and network flexibility.

### 3.2 COMMUNICATIONS NETWORKING AND OPTIONS (Table 1.1)

As described above, there are two basic teleconference network concepts: dedicated and dial-up. However, there are numerous network configurations depending on several use factors. Such factors would include: hours of anticipated use per day, week or month; number of locations to be served with a teleconference network; and, network applications or intended use.

The following network options are descriptions of network configurations which are practical to implement in Alaska. Operating costs of these options are included with the network descriptions. All teleconference network options assume that audio and facsimile transmission capabilities are required between Juneau, Anchorage and Fairbanks.

OPTION 1-A, Private Line Multipoint Network: This network configuration uses one completely interactive dedicated circuit between 3 points (Juneau, Anchorage and Fairbanks) and is essentially a party line similar to the LTN, (Fig 1-A).

Costs: The following operating costs are monthly recurring charges:

|                                 |            |          |
|---------------------------------|------------|----------|
| Full duplex type 3002 channel   | \$5,988    |          |
| Local charges                   | <u>751</u> |          |
| Total monthly recurring charges |            | \$ 6,239 |

An additional dedicated circuit can be added to the network for special applications (e.g. facsimile, slow scan video, etc.), freeing up the first dedicated circuit for full-time interactive audio, and, in the rare event of a circuit failure, providing a back-up circuit.

|   |                |          |
|---|----------------|----------|
| Additional 1/2 duplex circuit and local charges | <u>\$5,041</u> |          |
| Total recurring charges for 2 circuits          |                | \$11,280 |

TABLE 1.1  
 COMMUNICATIONS NETWORKING AND OPTIONS  
 COMPARISONS

|                                       | Option # | Ease of Access | Network Flexibility | Simultaneous Conferencing | Facilities Required | Fixed Costs per month* | \$ per 2 hrs use per day <sup>+</sup> | \$ per 4 hrs use per day <sup>+</sup> | \$ per 6 hrs use per day <sup>+</sup> |
|---------------------------------------|----------|----------------|---------------------|---------------------------|---------------------|------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <b>NETWORK CONFIGURATION</b>          |          |                |                     |                           |                     |                        |                                       |                                       |                                       |
| <b>Urban System</b>                   |          |                |                     |                           |                     |                        |                                       |                                       |                                       |
| Private Line Multipoint               | 1-A      | P              | P                   | N                         | Y                   | \$6239                 | \$156                                 | \$78                                  | \$52                                  |
| Private Line Point-to-Point           | 2-A      | P              | G                   | Y                         | Y                   | \$6900                 | \$173                                 | \$87                                  | \$58                                  |
| Dial-Up                               | 3-A      | E              | G                   | N                         | N                   | \$0                    | \$303                                 | \$606                                 | \$909                                 |
| Conference Operator                   | 4-A      | E              | G                   | N                         | N                   | \$0                    | \$164                                 | \$328                                 | \$492                                 |
| <b>Statewide System</b>               |          |                |                     |                           |                     |                        |                                       |                                       |                                       |
| Private Line Multipoint               | 1-B      | P              | P                   | N                         | Y                   | \$19440                | \$486                                 | \$243                                 | \$162                                 |
| Dial-Up                               | 2-B      | E              | G                   | N                         | N                   | \$0                    | \$1302                                | \$2604                                | \$3906                                |
| Private Line Point-to-Point / Dial-Up | 3-B      | E              | E                   | Y                         | Y                   | \$12900                | \$323                                 | \$162                                 | \$108                                 |
| (Dial-Up toll charges)                | 3-B      |                |                     |                           |                     | \$0                    | \$347                                 | \$693                                 | \$1039                                |
| <b>Interstate System</b>              |          |                |                     |                           |                     |                        |                                       |                                       |                                       |
| Private Line Multipoint               | 1-C      | P              | P                   | N                         | Y                   | \$7091                 | \$178                                 | \$89                                  | \$59                                  |
| Dial-Up                               | 2-C      | E              | G                   | N                         | N                   | \$0                    | \$392                                 | \$784                                 | \$1176                                |

P = Poor; G = Good; E = Excellent; N = No; Y = Yes; \* = \$ per month for fixed lease expenses;  
 + = for options with fixed costs, hrs use per day are equal to 40, 80 & 120 hrs / month

OPTION 2-A, Private Line Point-to-Point Network: This network configuration (Fig. 2-A) uses one completely interactive dedicated circuit between 2 sets of points (Juneau to Anchorage, and Fairbanks to Anchorage). The difference between this configuration and the preceding (Option 1-A) configuration is that, in essence, two separate circuits can be implemented, by selective switching techniques, allowing simultaneous teleconferences to occur between Juneau and Anchorage, and Fairbanks and Anchorage at any given time. This option provides greater flexibility as two separate circuits offer a wider range of applications and utilization.

Costs: The following operating costs are monthly recurring charges.

|   |            |          |
|---|------------|----------|
| Full duplex type 3002 channel<br>(Juneau to Anchorage)    | \$4,314    |          |
| Full duplex type 3002 channel<br>(Fairbanks to Anchorage) | 2,066      |          |
| Local charges   | <u>520</u> |          |
| Total monthly recurring charges                           |            | \$ 6,900 |

An additional dedicated circuit can be added to the network for special applications as described in Option 1-A, but as a point-to-point circuit.

|   |                |          |
|---|----------------|----------|
| Additional $\frac{1}{2}$ duplex circuit and local charges | <u>\$5,615</u> |          |
| Total recurring operating charges for 2 circuits          |                | \$12,515 |

OPTION 3-A, Dial-Up Network: This network configuration assumes that a privately owned teleconference service provides the conferencing connection between Juneau, Anchorage and Fairbanks, (Fig. 3-A). The customer pays the toll and the conference service charges.

Costs: The following operating costs assume that two, one-hour conferences are held daily for 20 days per month.

|                                      |                     |
|--------------------------------------|---------------------|
| Juneau-Anchorage toll call           | \$51 per hr         |
| Juneau-Fairbanks toll call           | 51 per hr           |
| Private conference service (3 ports) | <u>49.50 per hr</u> |
| Total one-hour conference            | \$ 151.50           |
| Two conferences per day              | \$ 303              |
| Forty conferences per month          | \$6,060             |

OPTION 4-A, Conference Operator: This network configuration assumes that the long distance conference operator provides the conferencing connection between Juneau, Anchorage and Fairbanks, (Fig. 4-A). The customer pays the toll and conference service tariff (charges).

Costs: The following operating costs assume that two, one-hour conferences are held daily 20 days per month.

|  |                |
|--|----------------|
| Juneau, Anchorage, Fairbanks conference call | \$81.84 per hr |
| Two conference calls per day                 | \$ 163.68      |
| Forty conference calls per month             | \$3,273.60     |

Statewide Service: If teleconference services were implemented statewide to include the major rural regional centers with State office facilities, then audio conference and facsimile transmission capabilities could be extended into a statewide teleconference network. As stated previously, dedicated and/or dial-up network configurations are possible and practical for Alaska.

The following network configurations indicate practical network options which would provide teleconference services to Juneau, Anchorage, Fairbanks, Barrow, Kotzebue, Nome, Bethel, Dillingham, Kodiak, Sitka and Ketchikan. The monthly recurring operating costs of these networks are provided with the network descriptions.

OPTION 1-B, Statewide Private Line Multipoint Network: This network configuration uses one completely interactive dedicated circuit between 11 points or locations around the state and is essentially a party line similar to the LTN, (Fig 1-B).

Costs: The following operating costs are monthly recurring charges:

|                                 |              |          |
|---------------------------------|--------------|----------|
| Full duplex type 3002 channel   | \$18,400     |          |
| Local charges                   | <u>1,040</u> |          |
| Total monthly recurring charges |              | \$19,440 |

An additional dedicated circuit can be added to the network for special applications (e.g. facsimile, slow scan video, etc.) freeing up the first dedicated circuit for full-time interactive audio, and, in the rare event of a circuit failure, providing a back-up circuit.

|   |                 |          |
|---|-----------------|----------|
| Additional 1/2 duplex circuit and local charges | <u>\$16,053</u> |          |
| Total recurring charges for 2 circuits          |                 | \$35,493 |

OPTION 2-B, Statewide Dial-Up Network: This network configuration is essentially a statewide point-to-point network. However, the network uses the existing public telephone system and is not a dedicated network. In addition, connecting conferees into a conference mode requires a special bridge which in this option is provided by a privately owned teleconference service. It should be noted that the State could purchase it's own bridge, locate it in a central (Anchorage) facility and reduce toll charges accordingly. But, for the purpose of comparison to other statewide teleconference network options, this network model is centralized in Juneau and uses the services provided by a private teleconference service (Fig. 2-B).

Costs: The following recurring monthly operating charges assume that two, one hour teleconferences occur daily for 20 days per month.

|                                       |            |          |
|---------------------------------------|------------|----------|
| All 11 sites:                         |            |          |
| One hour toll call                    | \$ 469     |          |
| Private conference service (11 ports) | <u>182</u> |          |
| Total one hour conference             |            | \$ 651   |
| Two conferences per day               |            | \$ 1,302 |
| Forty conferences per month           |            | \$26,040 |

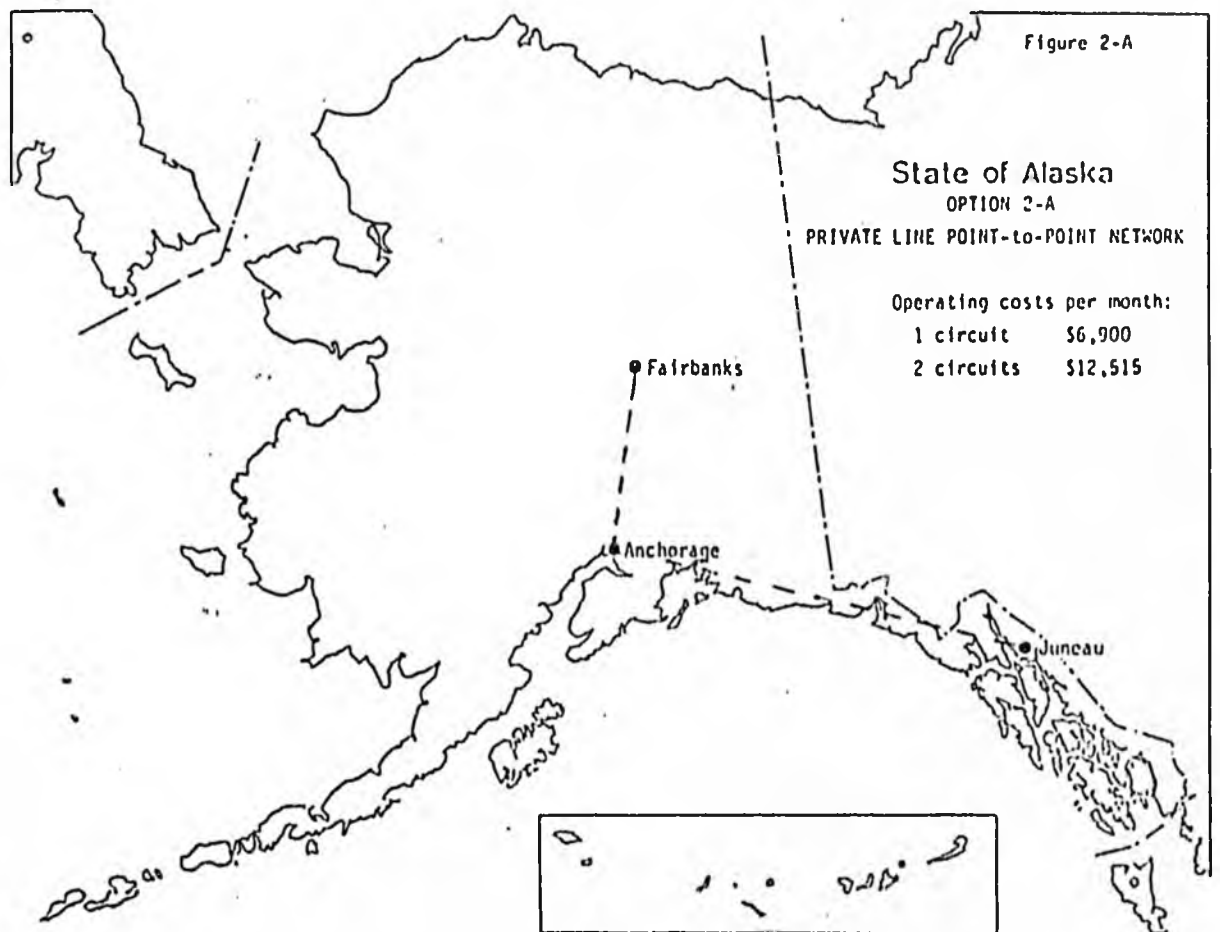
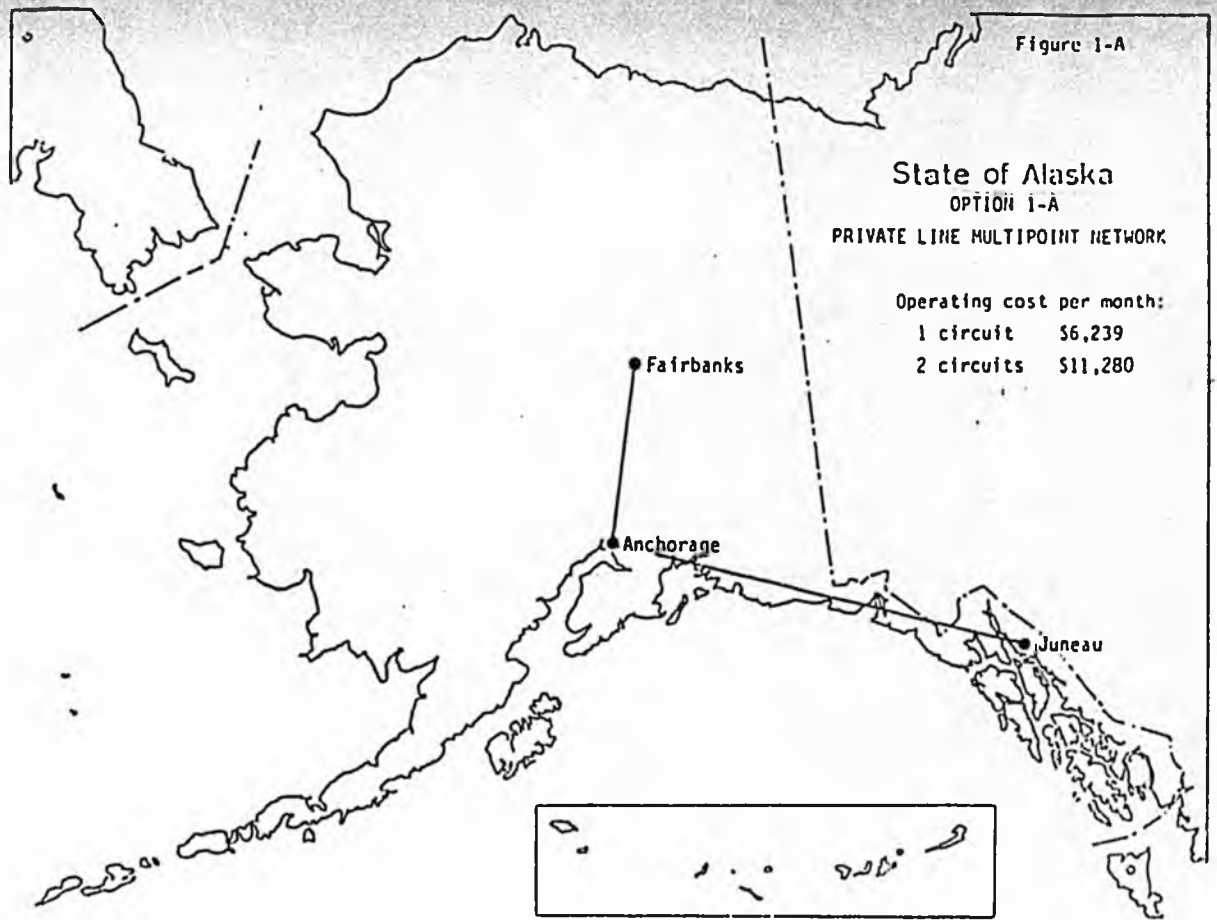
OPTION 3-B, Statewide Private Line Point-to-Point/Dial-Up Network: This network configuration combines two dedicated private line circuits between Juneau and Anchorage (1 circuit), and between Fairbanks and Anchorage (1 circuit) with a statewide dial-up capability from the regional centers (listed previously) or any other telephone accessing the public telephone system (Fig. 3-B). This network configuration features considerable flexibility (regional, inter-regional and statewide simultaneous conferencing) and through selective switching techniques, considerable privacy. This option does require bridging equipment as required of dial-up networks.

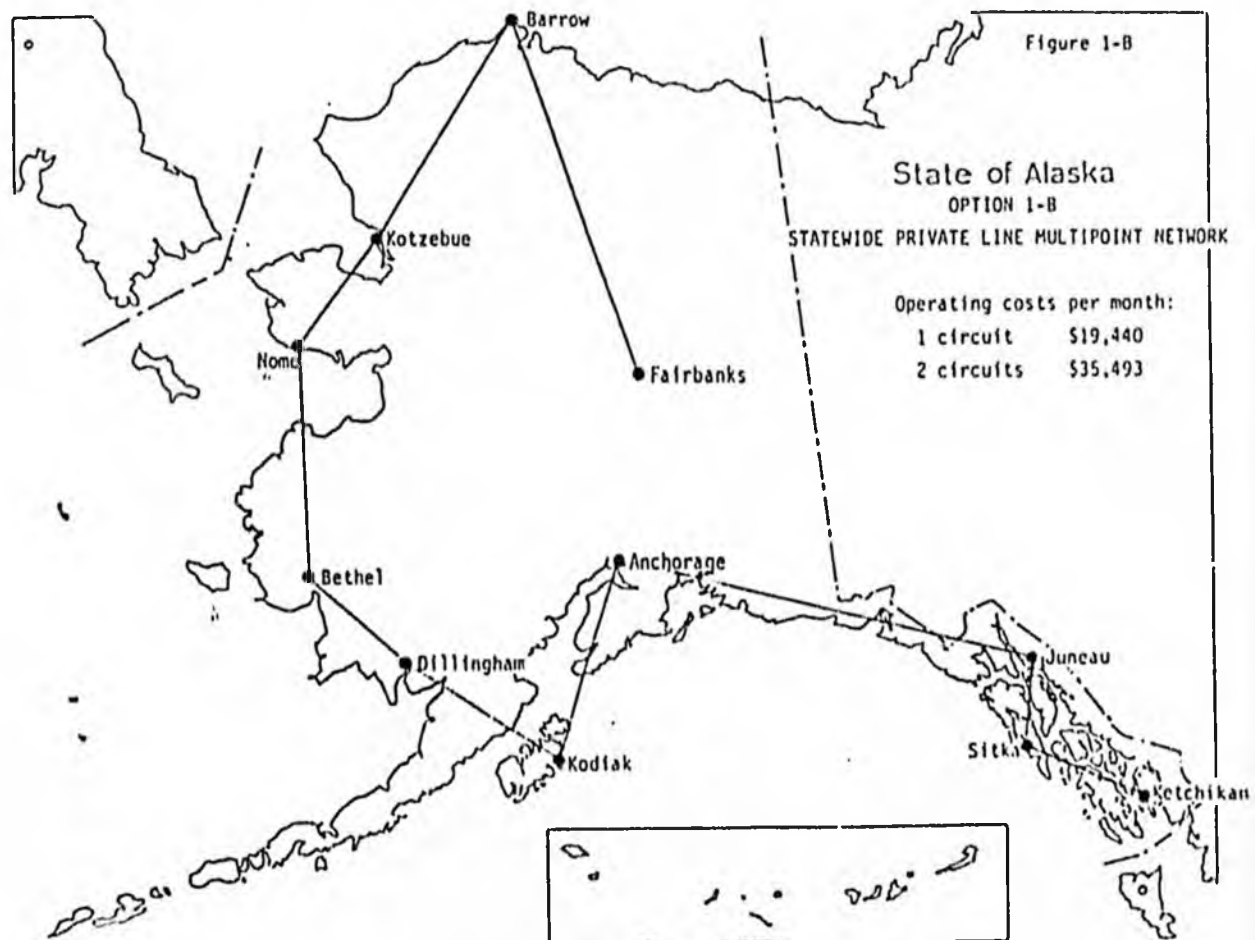
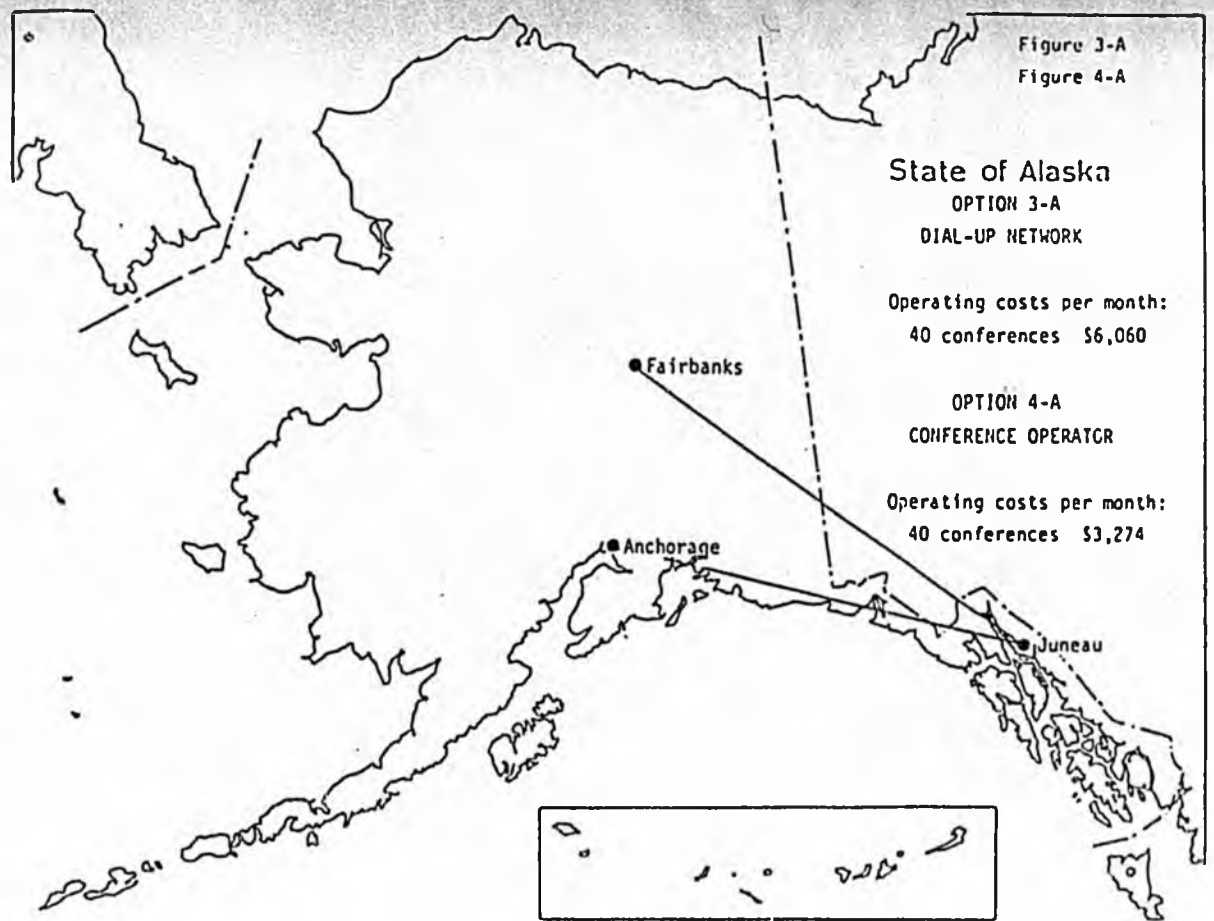
Costs: The two dedicated point-to-point circuits have monthly recurring charges. Three bridges, which provide the switching and conference connections for the dial-up capabilities, are leased. Toll charges are based on the rural regional centers dialing into the bridging equipment two hours per day, 20 days per month.

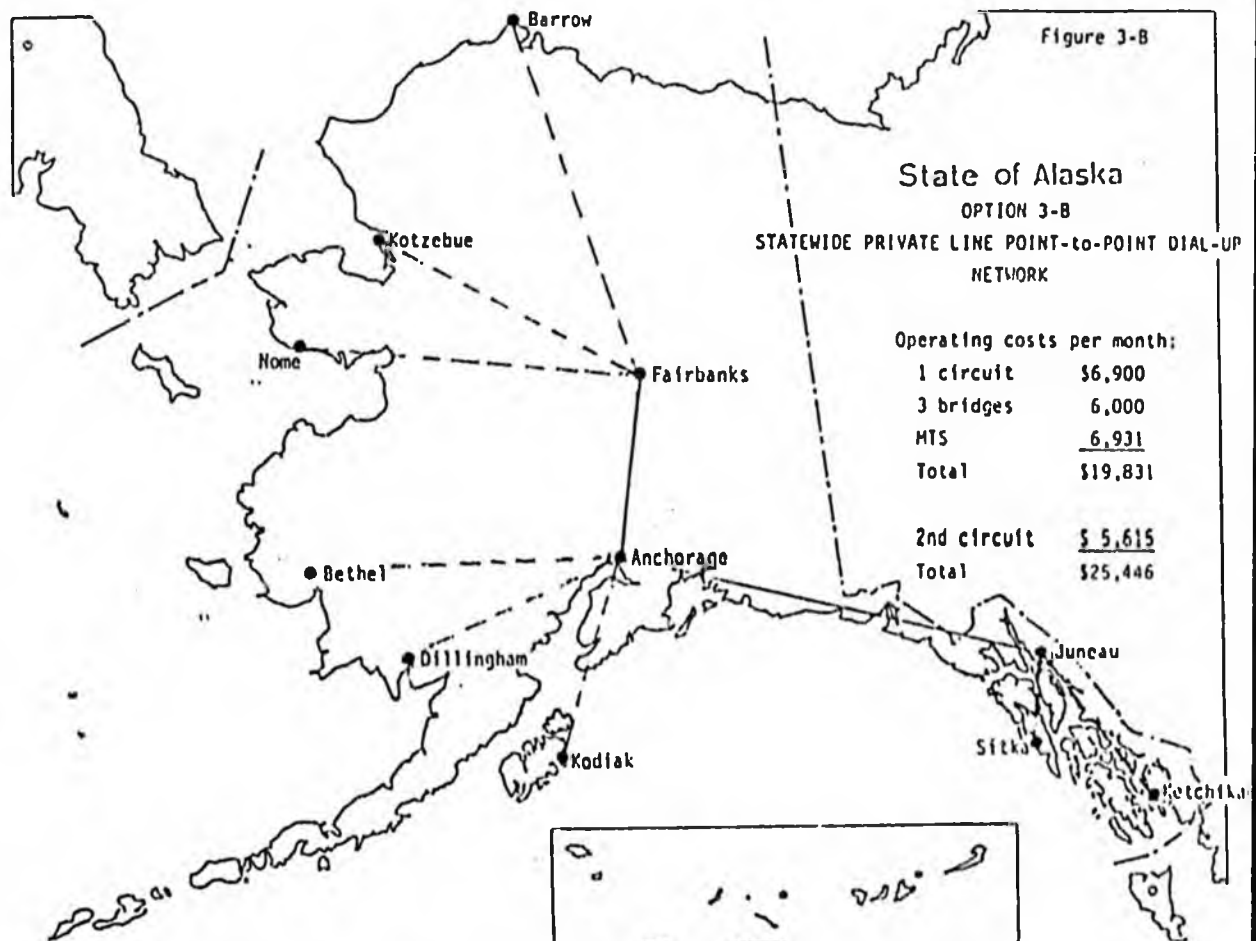
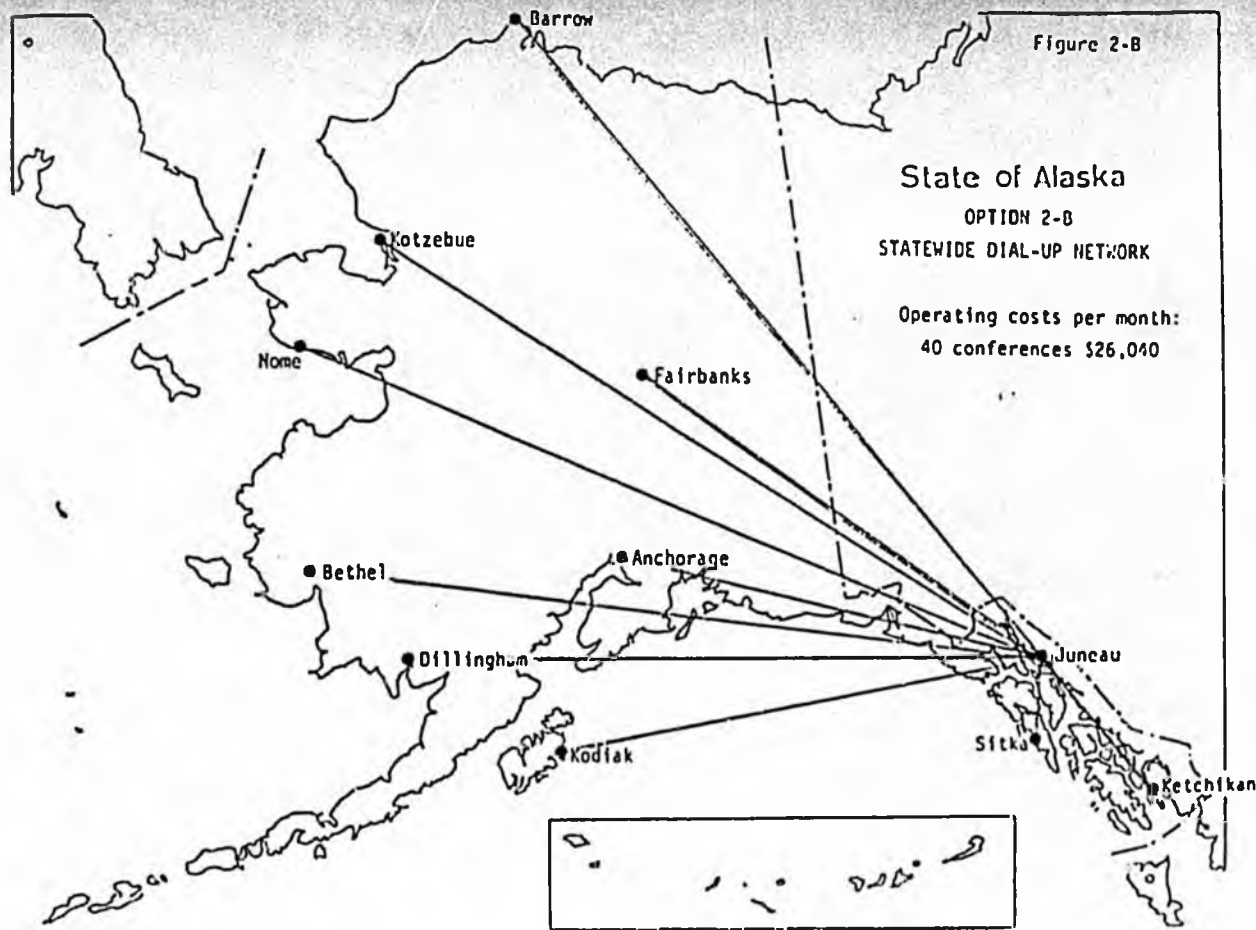
|  |              |          |
|--|--------------|----------|
| Full duplex type 3002 channel<br>(Juneau to Anchorage)             | \$ 4,314     |          |
| Full duplex type 3002 channel<br>(Fairbanks to Anchorage)          | 2,066        |          |
| Local charges  | <u>520</u>   |          |
| Total monthly recurring charges                                    |              | \$ 6,900 |
| 3 leased bridges per month<br>(1 ea. Juneau, Anchorage, Fairbanks) |              | \$ 6,000 |
| Toll charges per month   |              |          |
| Barrow, Kotzebue, Nome to Fairbanks                                | \$ 3,184     |          |
| Bethel, Dillingham, Kodiak to Anchorage                            | \$ 2,661     |          |
| Sitka, Ketchikan to Juneau   | <u>1,086</u> |          |
| Total toll charges per month                                       |              | \$ 6,931 |
| Total recurring operating charges per month                        |              | \$19,831 |

An additional dedicated circuit can be added to the network for special applications as described in Option 1-B, but as a point-to-point circuit.

|   |          |          |
|---|----------|----------|
| Additional 1/2 duplex circuit and local charges | \$ 5,615 |          |
| Total recurring operating charges per month     |          | \$25,446 |







Interstate Service: If teleconference services are anticipated to be required interstate (Seattle, e.g., Alaska Marine Highway), a network can be designed as a dial-up or dedicated service.

To illustrate an interstate teleconference network, Option 1-A (multipoint private line) and Option 3-A (Dial-Up Network) can be built upon to provide teleconferencing services to Seattle.

OPTION 1-C, Interstate Private Line Multipoint Network: This network configuration is a 4 point dedicated circuit serving Juneau, Anchorage, Fairbanks, and Seattle (Fig. 1-C). The network is completely interactive and functions as a party line similar to the LTN (which is an interstate network).

Costs: The following recurring operating charges are monthly interstate service charges:

|                                      |            |          |
|--------------------------------------|------------|----------|
| Full duplex type 3002 channel        |            |          |
| Juneau, Anchorage, Fairbanks         | \$ 3,474   |          |
| Satellite channel (to Pt. Reyes, CA) | 2,700      |          |
| AT&T circuit (Pt. Reyes to Seattle)  | 635        |          |
| Local charges (4 points)             | <u>282</u> |          |
| Total monthly recurring charges      |            | \$ 7,091 |

An additional dedicated circuit can be added to the network for special applications as described in Option 1-A.

|   |          |          |
|---|----------|----------|
| Additional 1/2 duplex channel and local charges | \$ 6,063 |          |
| Total monthly recurring charges                 |          | \$13,154 |

OPTION 2-C, Interstate Dial-Up Network: This interstate network configuration assumes that a privately owned teleconference service provides the conferencing connections between Juneau, Anchorage, Fairbanks and Seattle, (Fig. 2-C). The customer pays the toll and conference service charges.

Costs: The following interstate operating costs assume that two, one hour conferences are held daily for 20 days per month.

|                                      |                  |          |
|--------------------------------------|------------------|----------|
| Juneau-Anchorage toll call           | \$51 per hr      |          |
| Juneau-Fairbanks toll call           | 51 per hr        |          |
| Juneau-Seattle toll call             | 28 per hr        |          |
| Private conference service (4 ports) | <u>66 per hr</u> |          |
| Total one hour conference            |                  | \$ 196   |
| Two conferences per day              |                  | 392      |
| Forty conferences per month          |                  | \$ 7,840 |

Figure 1-C

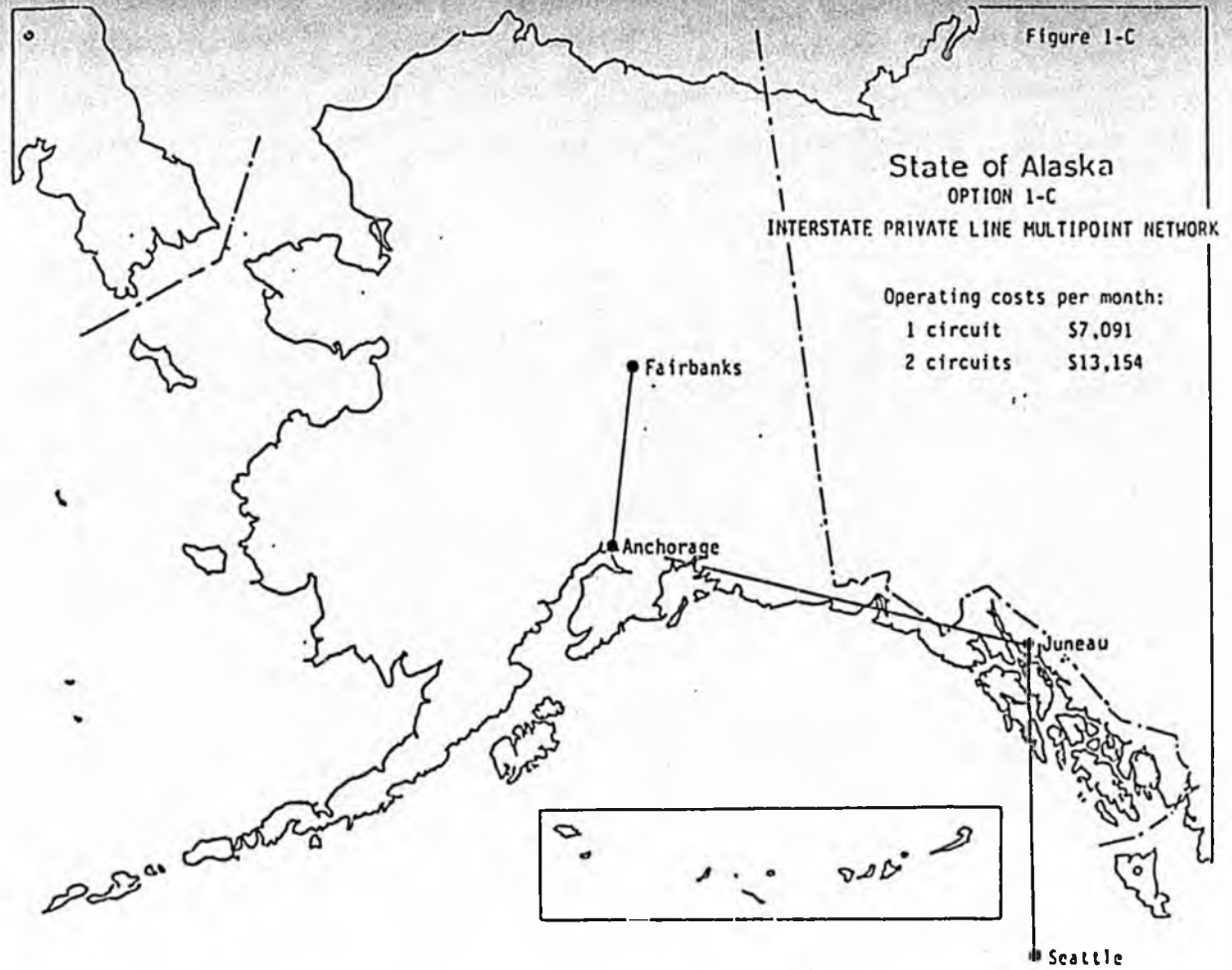
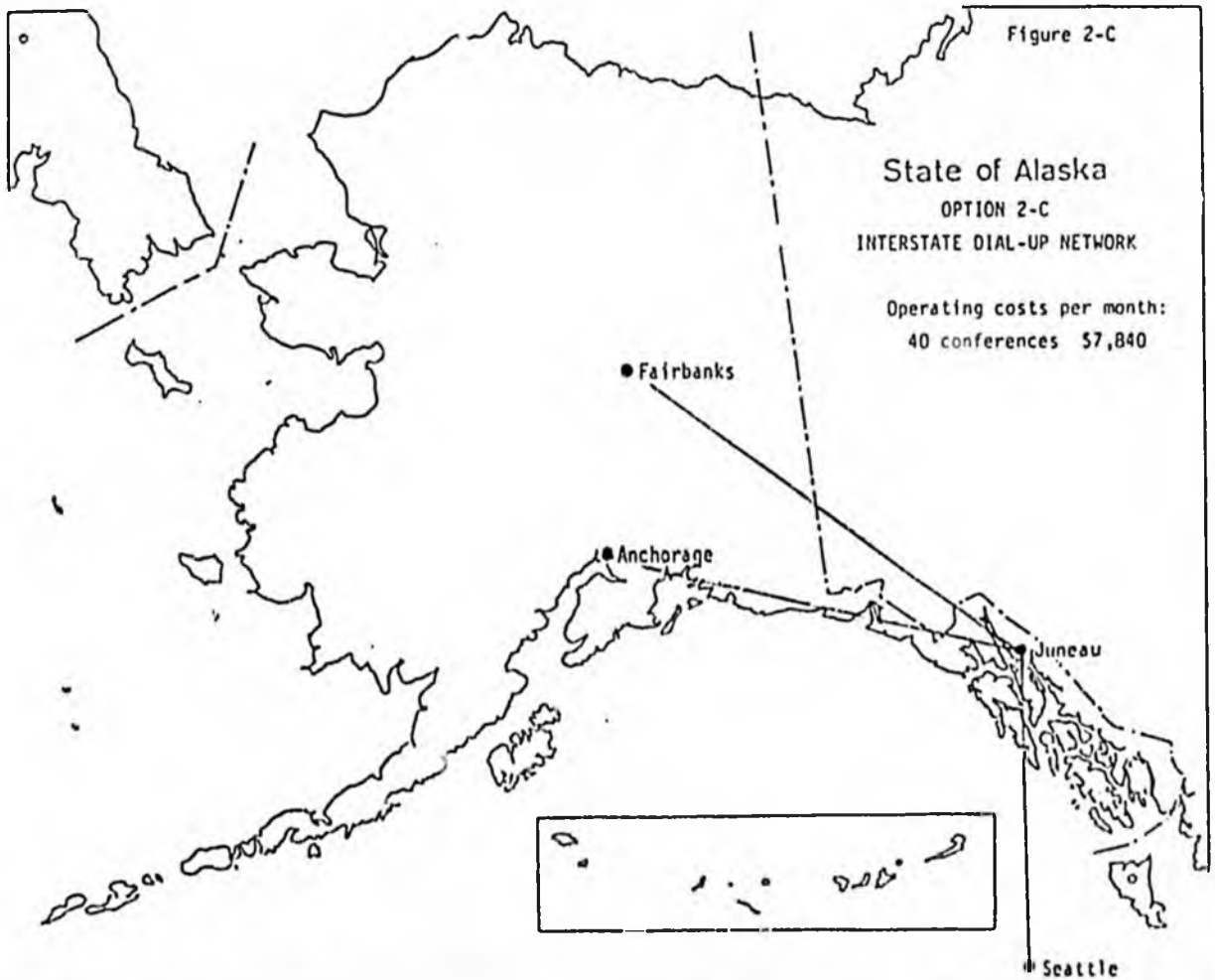


Figure 2-C



## SECTION IV

### 4.1 TELECONFERENCE FACILITIES

Often multi-location teleconferencing can take place from the office or work place using the telephone handset, such as teleconferencing through the conference operator or a privately owned teleconference service. Although convenient, such an audio conference technique does not provide peripheral conference services, such as document transfer, without added inconvenience.

This section provides an overview of centralized audio conference facilities. Such facilities do not preclude the use of the telephone handset, but rather complement access to a teleconference network at the local level. A centralized facility is a location where 5 to 15 individuals can meet to participate in an audio conference. The facility would also provide peripheral services such as document transfer as well as copying and collating transferred documents. The information which follows regards the development of teleconference facilities in Juneau, Anchorage and Fairbanks including the peripheral components, physical layout and costs.

Facility: From an accessibility and convenience point of view, a facility central to State government operations (e.g. the State Office Building in Juneau) is preferred. It is possible that existing conference rooms can be easily adapted or modified to accommodate teleconference applications if the following criteria are met.

1. Room capacity: The conference room should comfortably seat approximately 15 conference participants. Added seating capacity may be desirable if observers are invited to conferences.
2. Room layout: A rectangular room with a length to width to height ratio of approximately 3:2:1 is suitable for audio conference applications, (AT&T, 1980). Thus a room 24' x 14' x 8' would accommodate 15 conference participants comfortably around an oblong or rectangular conference table, with an area set aside for observers.
3. Room access: The conference room should be accessed from the rear so that individuals entering or leaving the conference do not disrupt the proceedings.
4. Support room: A smaller room bordering the conference area is recommended to accommodate facsimile, copying and, if required, bridging equipment. This room would provide a sound barrier between support equipment and a conference in progress. Such a room would also have future application if slow scan video was implemented (which may require a control room).

5. Room furnishings: The conference room should have an adequate conference table to sit 15 participants with comfortable chairs.
6. Room comfort: The conference room must have ample lighting and ventilation as well as adequate heating.
7. Electrical and telephone: The conference room should have adequate electrical outlets and phone jacks.
8. Noise levels: Potential teleconference rooms should be evaluated for acoustical isolation from ambient sound disturbances. Elevator shafts, lavatories, fans, typewriters and street noise, among many other sources of noise, can be quite bothersome if transmitted over the teleconference network to other conference location

Audio Conference Hardware (terminal equipment): While it is possible to teleconference using an ordinary telephone handset, participants meeting at a central teleconference location will use terminal equipment providing microphones, speakers and amplification allowing "hands free" teleconferencing. Similar equipment can be employed by anyone participating in a dial-up, "meet-me" approach to teleconferencing, or in a two location teleconference using the public telephone system. However, when considering the development of centralized audio conference facilities, certain hardware components (a few essential, some optional) require evaluation based upon anticipated conference needs, levels of use, convenience and costs. The following components described audio conference terminal equipment and some peripheral hardware located in a versatile conference facility.

1. Audio conference sets: As the main component of the central facility, the audio conference sets consist of microphones and quality speakers with amplification. The units would be adaptable, serving groups from two to 15, with ample desk top microphones and two speakers either wall mounted or placed on a table top.
2. Facsimile equipment: Facsimile transmission equipment is a valuable aid to teleconferencing by providing the ability to transfer hard copy material (e.g. documents) between conference sites using the phone lines. Facsimile equipment is available which will send or receive documents at one minute or less per page and is capable of automatic copy transmission and reception (i.e. without attendant assistance).
3. Copy/collating equipment: Copying equipment greatly aids in the distribution of documents received from other sites by facsimile transfer. Likewise, collating equipment speeds up the process of compiling documents for distribution.

4. Two-way slow scan video (optional): Slow scan video is a still frame video transmission technique using phone lines or other narrow band transmission techniques (such equipment was employed on the Voyager spacecraft to transmit picture of Saturn back to earth). The application of slow scan provides conferees the ability to see conference participants at other sites, transfer graphic materials, photographs and text. Slow scan video images can be viewed on a television monitor, printed in hard copy and electronically saved for future reference. The equipment required for slow scan transmission includes: 1) television camera; 2) video bandwidth compressor and television monitor; 3) acoustic coupler for transmitting signals over phone lines; 4) video expander; and, 5) a television monitor at the receiving end.
5. Electronic blackboard (optional): Electronic blackboards are capable of transmitting graphic material (text or illustrations), handwritten on a pressure-sensitive blackboard, over telephone lines and circuits to other conference sites where the writing is received on a television monitor. As with slow scan video, electronic blackboards are a narrow band transmission technique. The equipment required for electronic blackboards include both transmitting and receiving components: 1) electronic blackboard; 2) transceiver modem; 3) memory; and, 4) television monitor.
6. Conference bridge (optional): Bridging equipment enables conference participants to be connected into a teleconference network. A dedicated, private line, conference network has bridging equipment inherent in network hardware and circuits provided by the longline carrier. Additional bridging equipment, which connects off-network calls to the network, is required to add dial-up capability to a dedicated teleconference network. Privately owned teleconference networks rely on bridging equipment and the public telephone system. Bridging equipment provides additional flexibility to a dedicated network, such as simultaneous conferencing at a given time. With a dedicated teleconference network, employing bridging equipment is optional. However, it provides a dial-up capability, allows considerably more flexibility to the network configuration, and greatly improved accessibility.

#### 4.2 COSTS

Actual space availability for implementing central teleconference facilities is not currently known. Development of such facilities in Juneau, Anchorage and Fairbanks would require close cooperation with the Department of Administration, Division of General Services and Supply (Office of Space Management and Leasing) which is beyond the scope of this preliminary plan. However, leasing office space, through the private sector, currently runs approximately \$2 per square foot in the communities mentioned.

Space costs: The following recurring monthly costs are for leasing office space suitable for teleconference applications in Anchorage, Fairbanks and Juneau

|  |          |
|--|----------|
| Facilities leasing - 3 locations<br>(300 sq ft per site) | \$ 1,800 |
|--|----------|

Hardware costs: The following costs include both capital costs (one time expenses) and recurring monthly charges (operational expenses) for teleconference hardware. The essential and optional teleconference hardware components, discussed in the previous sub-section, are listed.

| Audio Conference Hardware       | Monthly Recurring | Capital  |
|---------------------------------|-------------------|----------|
| Conference sets (3 units)       |                   | \$ 5,000 |
| Facsimile equipment (3 units)   |                   | 19,680   |
| Copier w/collator (3 units)     | \$ 2,500 or       | 98,265   |
|                                 |                   |          |
| Optional Conference Hardware    |                   |          |
| Slow Scan Video (3 units)       |                   | 69,000   |
| Electronic Blackboard (3 units) | 1,665             |          |
| Conference Bridge (3 units)     | 6,000 or          | 150,000  |

#### 4.3 PERSONNEL

If full-time teleconference facilities are to be considered in Juneau, Anchorage and Fairbanks, both maintenance and operation of the facilities must be considered ("full-time" refers to a facility being available 37.5 hours/week for scheduling and actual conference use).

Each conference site would require at least one person responsible for operating the facility, scheduling and assisting in teleconference preparations, and to assist in teleconference proceedings (i.e. operating facsimile equipment, duplicating, moderating if required, etc.). Equipment maintenance could be provided by existing State telecommunications maintenance facilities and technicians.

Costs: The following costs are annual recurring operating costs associated with personnel and maintenance for 3 teleconference facilities.

|  |           |
|--|-----------|
| Operators<br>(3 at \$21,000 per year)        | \$ 63,000 |
| Maintenance/Engineering<br>(parts and labor) | 5,000     |

## SECTION V

### 5.1 DISCUSSION

It is recognized that modern communications and high technology applications cannot substitute for all travel, but meetings which consist of information exchange, discussion, and verbal presentations can often be very efficiently accommodated through teleconferencing. In terms of travel avoidance and timely information exchange, teleconference applications can be viewed as an effective job enhancement tool and management resource.

A major and valuable aspect of teleconferencing is potential universal access. Currently, Juneau has over 2,000 phone lines assigned to State government use. Statewide there are in excess of 6,000 phone lines in service to State agencies and operations. On a dial-up network, such as the LEARN/Alaska Audio Conference Network and the services offered by privately owned teleconference services, each phone line and telephone handset has the potential to tie into a teleconference network. In addition, the public access telephone system is global in terms of reaching over 400 million telephones worldwide.

Although teleconference networks, whether dial-up or dedicated private line, may appear to have rather high operational costs, these recurring costs are not so high when compared to the high cost of travel. For example: An overnight (including per diem), roundtrip from Anchorage to Juneau costs approximately \$380; an overnight, round trip from Fairbanks to Juneau costs approximately \$420; and, an overnight, round trip from Fairbanks to Anchorage costs approximately \$260. If five trips from Anchorage to Juneau, from Fairbanks to Juneau, and from Fairbanks to Anchorage could be avoided per week (one round trip per community per day), a weekly travel savings would amount to approximately \$5,300; monthly, approximately \$21,200; and yearly, approximately \$254,400. Considering employee work time lost in transit, approximately an additional \$40,000 could benefit from travel avoidance yearly. Teleconferencing can be very cost effective, (Table 1.2)

### 5.2 RECOMMENDATIONS:

The following conclusions have been developed as recommendations from the findings established in this study.

Recommendation #1: That, for the interim, the use of existing teleconference networks, including those services which are privately owned, be encouraged on the department and division levels of State government. The Department of Administration, Division of Telecommunications Services should promote teleconferencing, provide teleconferencing orientations and assist in developing a teleconferencing "awareness". In addition, assistance with scheduling, training and operations of facilities should be provided as required.

Recommendation #2: That teleconference network use and associated costs be charged against travel budgets to encourage travel avoidance whenever practical. This recommendation would require a revision, or modification, of State budgeting policies to allow, or require, teleconferencing expenses to be charged against travel budgets. This action would simplify and expedite implementation of a State teleconference plan.

Recommendation #3: That agencies be encouraged to purchase teleconference terminal equipment to be employed in the office to accommodate two point or multipoint teleconferencing using the public telephone system.

Recommendation #4: That statewide hearings be held regarding the development and implementation of a State teleconference plan. The hearings would gain valuable State, private and public opinions as to the acceptance of such a plan. In addition, it is recommended that such hearings be held via existing teleconference networks, providing the opportunity for those in attendance to have "hands-on" experience with a teleconference system.

Recommendation #5: Based upon the results and findings generated from the proposed statewide hearings, if the overall reaction is favorable, that the Department of Administration, Division of Telecommunications Services develop a two year teleconference pilot (demonstration) project based upon the following considerations (Table 1.3, Fig 1.D):

- A. That the Division of Telecommunications Services, in conjunction with the Division of General Services and Supply, plan and develop teleconference facilities in Juneau, Anchorage and Fairbanks.
- B. That consideration be given to sharing existing, or planned, dedicated audio circuits to ensure maximum utilization of leased communications lines.
- C. That teleconference facilities be equipped with: 1) audio conference sets; 2) facsimile transmission equipment; and, 3) copying and collating equipment to complement facsimile capabilities.
- D. That bridging equipment be considered at each teleconference facility, as part of a pilot project, to ensure universal access to the teleconference network on a dial-up basis.
- E. That demonstration projects regarding other teleconference applications be considered including slow scan video and electronic blackboards.
- F. That, if shared circuits do not prove adequate to meet State use requirements, 2 dedicated private line circuits be employed, as a point-to-point network between Juneau-Anchorage and Fairbanks-Anchorage, (Fig. 2-D).

Recommendation #6: It is recommended that the above proposed Pilot Project be evaluated and modified as required to ensure an efficient and effective State teleconference system capable of meeting departmental and divisional requirements.

TABLE 1.2

ILLUSTRATION OF POTENTIAL TELECONFERENCE BENEFITS

## TRAVEL EXPENSES

| TRAVEL ROUTE <sup>1</sup>      | MONTHLY <sup>2</sup> | YEARLY    |
|--------------------------------|----------------------|-----------|
| Anchorage to Juneau (\$380)    | \$7,600              | \$91,200  |
| Fairbanks to Juneau (\$420)    | 8,400                | 100,800   |
| Fairbanks to Anchorage (\$260) | 5,200                | 62,400    |
| Total                          | \$21,200             | \$254,400 |

## DEDICATED TELECONFERENCE NETWORK

| FIXED COSTS <sup>3</sup> | MONTHLY  | YEARLY    |
|--------------------------|----------|-----------|
| Point-to-Point Circuit   | \$6,900  | \$82,800  |
| Facilities               | 4,300    | 51,600    |
| Total                    | \$11,200 | \$134,400 |

## TRAVEL AVOIDANCE

| BENEFITS <sup>4</sup> | MONTHLY  | YEARLY    |
|-----------------------|----------|-----------|
| Savings               | \$10,000 | \$120,000 |

## Assumptions (1-4):

1. round trip air fare plus overnight per diem;
2. 20 round trips per month;
3. recurring monthly costs including full duplex pt-to-pt circuit, office space and copying/collating equipment; and,
4. benefits = travel expenses - fixed costs.

TABLE 1.3

TELECONFERENCE PILOT PROJECT  
COSTS

| COMPONENTS  | MONTHLY<br>OPERATING COSTS | CAPITAL          |
|---|----------------------------|------------------|
| Facilities -office space<br>(3 sites @ 300 sq ft ea)                              | \$1,800                    |                  |
| Audio Conference Sets<br>(3 units)  |                            | \$5,000          |
| Facsimile Equipment<br>(3 units)  |                            | 19,800           |
| Copying/Collating Equipment<br>(3 units)  | 2,500                      |                  |
| Bridging Equipment<br>(3 units)   |                            | 150,000          |
| Private Line Circuit<br>(full duplex pt-to-pt circuit)<br>(local connect charges) | 6,900                      | 520              |
| Toll Charges*   | 3,500                      |                  |
| Personnel   | 5,250                      |                  |
| Maintenance   | 450                        |                  |
| <b>Total</b>  | <b>\$19,400</b>            | <b>\$175,380</b> |

SLOW SCAN VIDEO PILOT PROJECT  
COSTS

| COMPONENTS   | MONTHLY<br>OPERATING COSTS | CAPITAL         |
|--|----------------------------|-----------------|
| Slow Scan Video Equipment  |                            | \$69,000        |
| Private Line Circuit<br>(1/2 duplex pt-to-pt circuit)<br>(local connect charges) | \$5,612                    | 520             |
| <b>Total</b>   | <b>\$5,612</b>             | <b>\$69,520</b> |

\*Assumes 20, one hour toll calls per month, from: Barrow, Kotzebue and Nome to Fairbanks; Bethel, Dillingham and Kodiak to Anchorage; and, Sitka and Ketchikan to Juneau.

Figure 2-D  
Network Diagram

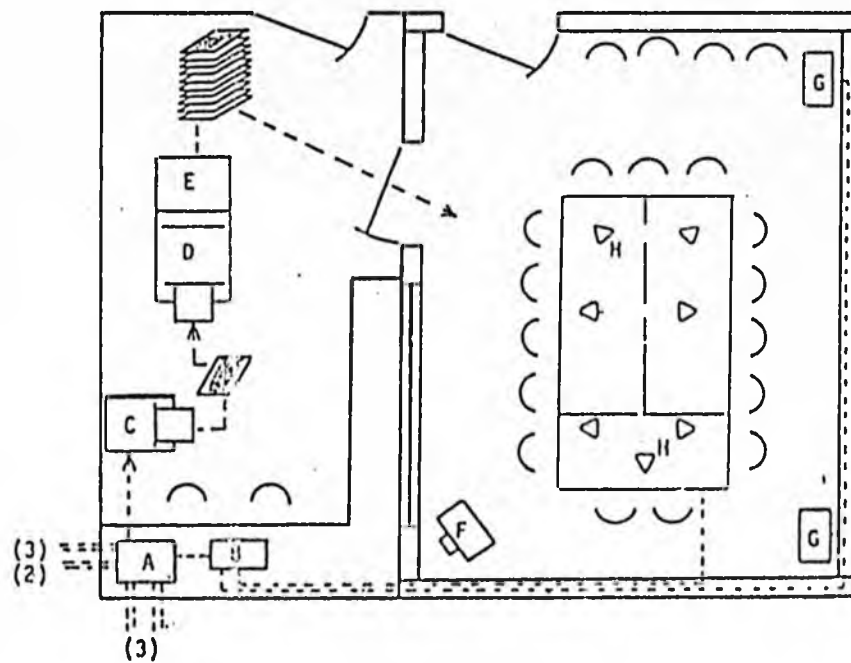
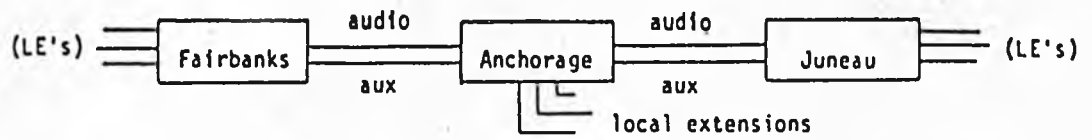


Figure 1-D  
Teleconference Center

- |  |                                     |
|--|-------------------------------------|
| (1) Dial-Up Lines                      | (A) Switching and Control Equipment |
| (2) Local Extensions                   | (B) Audio Conference Equipment      |
| (3) Inter-City Lines<br>(e.g. Fig 2-D) | (C) High Speed Facsimile Equipment  |
|  | (D) Copying Equipment               |
|  | (E) Collating Equipment             |
|  | (F) Television Monitor              |
|  | (G) Conference Speakers             |
|  | (H) Conference Microphones          |

## SECTION VI

### 6.1 PIONEER HOMES

Senate Resolution 20, introduced January 14, 1982 in the State Affairs and Finance Committee, requests the Alaska Legislative Council to direct the Legislative Affairs Agency to provide teleconference facilities at each Pioneers' Home site. Considering that the Pioneer Homes are currently managed by the Department of Administration, Division of Pioneers' Benefits, it would appear appropriate for the Homes to be provided teleconference services under this teleconference plan.

Considering the options previously presented, the Pioneer Homes could be incorporated in a teleconference network on a dial-up basis. As such, the Homes would also have access to the Legislative Teleconference Network and the LEARN/Alaska Audio Conference Network. Dedicated private line expenses would not be required as the Pioneer Homes are not anticipated to generate the heavy user traffic volumes required to justify the expense of dedicated circuits.

This proposes that the Pioneer Homes be equipped with teleconference audio terminal equipment. For the six Homes, the one-time capital expense would be approximately \$6,000 including installation charges. Toll charges would vary, but an approximate figure of \$40 per hour per location would be sufficient for each teleconference. Accessing the LTN, for legislative applications, would not generate toll charges to the Homes as the LTN assumes toll charges. Accessing the LEARN/Alaska Audio Conference Network and the proposed State teleconference network would generate toll charges (exceptions being Anchorage Pioneer Home for LEARN/Alaska network, and the Fairbanks and Anchorage Pioneer Homes for the proposed State network).

Providing teleconference services to the Pioneer Homes would not be complicated, would be relatively inexpensive and would provide Alaska Pioneers better access to State government and continuing educational opportunities. In addition, such teleconferencing facilities and network access would aid the Division of Pioneers' Benefits administering services to the Homes.

### 6.2 EFFECT OF A CAPITAL MOVE ON A STATE TELECONFERENCE NETWORK AND PLAN

If the State elects to develop a dedicated teleconference network with statewide accessibility (dial-up capabilities), the effects of a Capital relocation on the proposed network would be minimal. The only significant effects of such a Capital move would require additional circuits and teleconference facilities at the new Capital site.

Before the Capital is relocated, the proposed teleconference plan could be operational and usage, most likely, would rapidly increase. Assuming that this teleconference plan were operational, the main effect would be to add dedicated circuits from Anchorage to the new Capital site and to develop a teleconference facility at the site. The economic impact would be minimal.

### 6.3 REFERENCES

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