

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672
1553 SCOMM 58: HOUSE SPEC. COMM. ON TELECOMMUNICATIONS, 1987-198850

The Fifth Step: Dealing With Broadcast Telecommunications

Broadcast telecommunications are information systems. That is easy enough to see in the case of Highway Patrol and marine radio frequencies, but probably much less obvious in the case of television channels which provide such fare as soap operas. Yet even soap operas can be used -- as the Mexican government did a few years ago -- to change public attitudes.

The House Finance Committee's intent language asks that the state supported broadcast network be treated as an information system and says:

"The Legislature intends that the Council assume primary responsibility for policy development for the broadcast system, so that the public's information needs are served."

The state government's interest in broadcast content has been limited and its approach to content issues has been even more conservative than state law would seem to require. Current law bars the state from making specific program decisions. Such decisions would be viewed as interference in the editorial or creative process. The law creating the Council moreover cautions it against involvement in programming decisions. These laws do not bar the Council, however, from making broad decisions that have an impact on content. The state has made such decisions. The distinction between programming and content is important, for it makes clear what authority the Council has to take actions affecting state-supported broadcasting channels.

It would seem appropriate for the Council, for example, to provide policy direction to the discussions of the place of educational broadcasting in the state's broadcast telecommunications plan. The state has gone from having a statewide network exclusively for educational programming to broadcasts of educational programming between the hours of 1:30 and 5:30 a.m. on the RATNET channel. Is this a better use of state-funded broadcast channels? Should the University in Anchorage be allowed to pursue a television license so that it can broadcast educational programming in southcentral Alaska?

Similarly, Alaskans across the state have said in response to questions in several surveys that they would like to see more state-oriented programming. Should the state be encouraging the production of such programming and its broadcast on the channels that the state helps underwrite?

All these are policy issues that can be most appropriately addressed by the Telecommunications Information Council. These are examples of broadcast policy issues which -- if they are addressed at all -- are addressed by vested interests within government. There is no body that can weigh the various arguments and act as mediator.

The Council, however, should have an additional interest in the broadcast telecommunications channels, an interest transcending their content. Telecommunications systems are Alaska's roads. They make it possible for people to be reached who would otherwise be inaccessible. These links can be used wisely or unwisely -- and that is a policy concern for the Council. But they can be used only if they are preserved -- and that is a separate and equally important policy concern for the Council.

The broadcast channels represent opportunities that can be lost if the system is allowed to deteriorate. Today they carry a wide variety of information on which Alaskans have come to depend -- from aviation broadcasts to programs about how to deal with hypothermia to emergency warnings. The RATNET channel is being used by the University's Rasmuson Library in Fairbanks to transmit large volumes of textual information to sites scattered across the state. Other valuable uses of the broadcast system may be developed in the coming years -- if the system is still there.

The broadcast system as it exists today is described in a House Special Committee on Telecommunications document, **The Future of State-Supported Broadcasting in Alaska: Final Recommendations**, which was issued last spring and revised during the summer.

The challenge for the Telecommunications Information Council in the area of broadcasting is to provide a policy framework where none has existed before.

Conclusion

The new Telecommunications Information Council has been given a mandate which empowers it to bring great changes to the state of Alaska. It can change the way people communicate. It can help the state government to organize its information resources and to use them in ways that were impossible before.

The Telecommunications Information Council can bring Alaska fully into the Information Age. It can formulate the larger policies and provide the needed direction as Alaska's information systems continue to develop.

Or . . . it can choose not to accept that vision. It can take a technocratic stance that traps us in the present. We will then remain pioneers, working with the tools of pioneers . . . while civilization passes us by.

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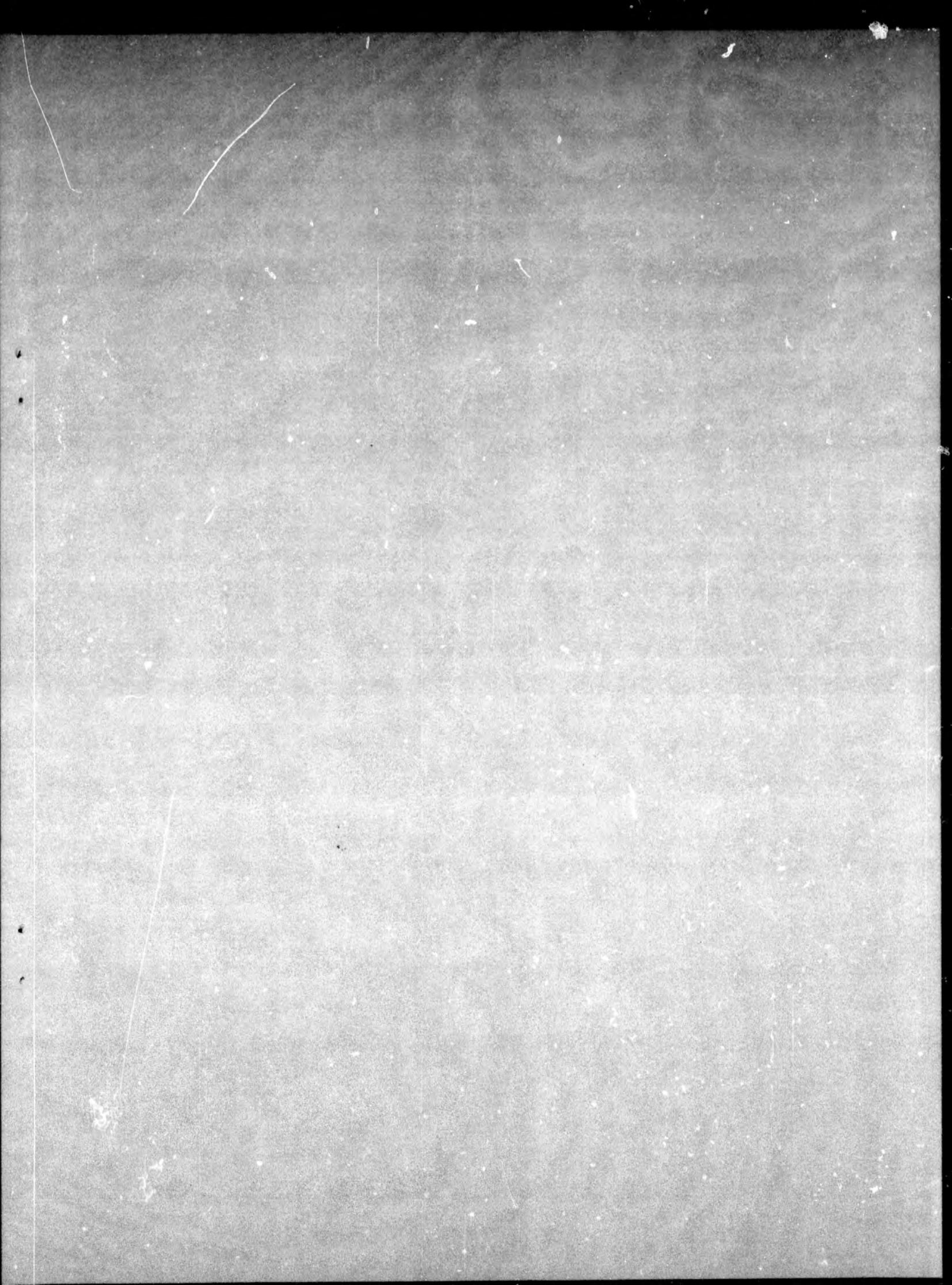
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TELECOMMUNICATION INFORMATION COUNCIL

September 3, 1987

1:30 p.m.

Governor's Conference Room

Juneau, Alaska

CALL TO ORDER/OPENING REMARKS

The Honorable Steve Cowper, Governor: Representative Boucher, no doubt, will get with us here pretty quick. The purpose of this meeting is to begin the deliberations of the Telecommunication Information Council, which was established by law in the last legislative session. The purpose of which is to try to organize and to make more efficient the delivery of information that goes on in every governmental department.

I had a personal experience related to that in the last legislative session. In the middle of a very difficult budget process, we discovered that the financial figures and the budgeting figures and the accounting figures were all different. None of them related to the other, and furthermore, there was no way until we worked on it. There was no way that you could try to reconcile the figures. We didn't know -- we knew how much money we were supposed to have, but we didn't know how much we did have. That was as near as I could come to understanding it.

The kind of information that is generated by government is useful, not only to assume it is accurate that is, is useful not only to people across department lines, but also to the University of Alaska, to various municipalities, and to individuals. Periodically during the last, I suppose, ten or twelve years there have been sort of half-hearted attempts to try to reconcile and to coordinate the use of information within government. None of it's worked. I don't know if anyone went into it with any sense of purpose or not, but I'd like to do it. I think that it's likely that many of the Commissioners here will have to designate people to take care of this duty, but I do think that it is important and I don't think that it's anything that we're going to sort out by the next Legislature. But it's important that we get started on it and that we understand how much is at stake here.

Actually, that is what government is. It's the movement of information up to people who supposedly make decisions and then back down to the ones that implement the decision itself. So there is a lot of information in departments that isn't available to other departments, and a lot of information in general that isn't available to the public in any comprehensible format. The purpose of this committee is to try to sort that out and make information work for us instead of against us.

I have to tell you that I am not an expert on the subject. If I talked anymore you would be able to figure that out for yourself. So at this point, I would like to ask John Andrews to give his presentation and go from there.

INTRODUCTION TO INFORMATION RESOURCE MANAGEMENT

John Andrews, Commissioner, Department of Administration: This body now sits as something described in the new law that passed here as the Telecommunication Information Council and the statutes give us certain tasks to try to work on. Two of them relate to planning, one of them relates to guidelines for operating procedures. It says we're suppose to prepare a statewide information plan; to provide guidelines for individual agencies to design compatible plans and there is a lot of language about the top down approach to that from this body being the one that decides what things are compatible with. We would make the first move. Agencies would respond with plans that conform to that and operating agencies might, right out there in front, would respond with operating procedures that conform to all those plans. Further, the statute requires us to provide guidelines for public access to state information. Not just information amongst ourselves, but information that is (inaudible) to the public.

I've been through a lot of dry planning exercises over the years and no doubt you have as well. So I'd like to take a minute or two to talk about planning about what. What is it about information resource management that would require that it needs to be planned. What kinds of difficulties are we apt to run into? How that will relate to the operation of our departments? How it will relate to existing problems we have already? What benefits might this group, advantages might this group have in the future that we did not have going into the execution of this new law?

The phrase "information resource management". . .

Teleconference Moderator: Teleconference hooked on.

Governor: Red, glad your here.

The Honorable Red Boucher, Representative: Thank you, Governor.

Governor: Would you like a sandwich?

Boucher: What?

Governor: You came in on the middle of Andrew's presentation and. . .

Boucher: We'll just hang on. Whenever you are ready, sir.

Governor: O.k., would you continue John.

Andrews: The point about the phrase "information resource management" is obvious in the words if you think about it, that information is a resource and it needs some management. It needs management because the process that it involves is both complicated and essential. It's difficult because it takes three things that are always scarce: it takes money, it takes time, and it takes talented people. It's valuable because it gives us importance with its quality, the life blood of our management process. The quality of the information that we get will be a limit on our management effectiveness. The timeliness of the information we get will be a limit on our reaction time to the problems that we find day-to-day and the appropriateness of the information will limit the range of options we're able to entertain in addressing management problems.

The difficulty in the money is fairly staggering. It requires money for occasional capital outlay, for expensive staff - the kinds of technical people to support the operations - and it requires us higher paid managers to be involved in information resources. All those things involve a lot of money. To give you a feeling for how much money, we spent, a little over a year ago, we spent fourteen million dollars to buy the bulk of the computer plant we have in place now. The current estimate I have is that if we don't do something different, the life of that plant is going to expire in twelve to fourteen months. Fourteen million dollars and two years later it isn't (inaudible) it. It's estimated to cost about nine million dollars to extend that life another three to four years so what we will have had, if we don't do anything different, what we will have had is an annual capital outlay of between four and five million dollars for centralized computer equipment, which doesn't include all the other facilities that you see around in your own departments. This is the data center stuff. That is a sobering number to me. Five million dollars a year every year to keep going on and no end in site. It's expensive and the people are expensive too.

The time element of the difficulty is no less staggering in a way. Because to get us to a place where we can really rely on the information, we get at that critical point of decision-making and be confident that it is appropriate, accurate, and timely, we're going to have to work from the murkiness of the situation we have now and very carefully. We cannot just scrap everything we have, all the applications we have running on the state data center. We cannot just throw them all away and do them again right. That would take years to even design, and by the time we got done with the design

then probably the situation would have changed dramatically enough to where it wouldn't be the solution anymore. We would have squandered millions more, and meanwhile (inaudible) along with the present difficulty, I know (inaudible) worse and we've done that, too. We've tried to reach out, five years out into the future, design a tens of millions of dollars of a solution and ended up throwing it away. We can't afford to that anymore. Also strategically, the -- let me come to that later.

The difficulty in the talent is something we face in all our operations of state government, I suppose. In this area it seems particularly sensitive. We need to get people looking at this problem who have three kinds of characteristics about their talents that seem important to me: They have to have sufficient understanding of the current situation to where they can gain some insight into the present pain. So I don't see contractors coming in from outside and doing this for us. We are the people best qualified to that. We are the ones that understand most what the present problem is. I don't think we can farm that part of it out. They also have to have some vision for what a better tomorrow looks like. They need also some wisdom based on experience as to how to get there in an orderly manner without it costing more to solve than it costs to bear. Now that's a scarce combination, I observe, in any group but in state government as well.

To the extent that the problem pervades all of our departments, we have to have that kind of talent base that we can draw on in all of the departments to affect a solution. I don't think it is something that the Department of Administration can do for you. As the Governor pointed out, another aspect of the management of information resources is that it crosses all the more or less artificial administrative lines that we draw between departments, between branches of government, and between the public and private sectors. Some examples of those will make that point clearer:

The statewide accounting system is, in some sense, owned by the Department of Administration. It's our baby to keep it running, but it's used mainly by other people. We are a user too, but that's used by people all over the state. Virtually every division and every section uses the statewide accounting system. That was the idea of a statewide accounting system. So all the problems associated with that crossed departmental boundaries.

Payroll is another example where we have a centralized idea of a state payroll that many departments are involved actively in data processing activities, designing new things to nail onto the side of the payroll box to help them deal with the present difficulty with that application. The budget is an example that crosses all of these boundaries in state

government. Public safety is an example where we cross the boundary with the local governments. The local governments tie into the data base that the state uses in public safety applications. And in private enterprise we have travel agencies that are connected to the marine transportation data base. Department of Natural Resources has a relationship with a private vendor who supplies information to the public for them in some contractual relationship there. Construction engineers use some of the scientific equipment in DOTPF, and here and there and around there are computer consultants, contract programmers, that have terminals connected to the state mainframe in their private offices.

The difficulty with that area is not that it is not a good idea. It's probably very helpful to travel agencies to make reservations directly and for programmers to be able to tune right into the application that they have a contract to maintain. The difficulty is in the equity of the questions and the cost recovery questions associated with that. Some travel agencies enjoy this relationship free of charge. Others maybe don't even know about it. We have no statewide policy, we have no management of that information availability on a statewide basis.

One of the difficulties that we have had in the past is that the statutes have charged the Department of Administration with two kinds of responsibility as the caretakers of the equipment. Not just the data centers, but the communications network that is outlined on some of these handouts and the telephone operations here and there around. We're charged with wearing two hats. One says that we're supposed to be good servers of our customers. We're supposed to provide whatever facilities and talent are needed to meet the need that you bring to us. The other part of our charge is that we're supposed to be sort of policeman who say something about whether that need is justified or not. Whether that extra program you want to run on the computer is worthy of being on there, or well formed or appropriate to your management problem. That's a difficult hat for the Department of Administration to wear.

In our history, not just my experience but predecessors have been involved in this thing over the decades, we have opted for the former. We have opted to wear that server of our customers hat as our predominant mission to meet whatever need evolves, and if anything to stay out ahead of that need, and I think that is why it comes up to four or five million dollars a year. Trying to stay out ahead of a need that is not being managed in any centralized way is a very expensive operation. You can see from some of the charts - I think you have pictures of most of them in your handouts - we have a lot of plant. We have a lot of computer facilities sprinkled

around the state. We have a data network that goes from Ketchikan to Unalaska, and from Barrow all the way to San Francisco. Thousands of terminals connected to that operation, all of them expecting reasonably rapid response time when they sit down at the terminal like that. So we have been fairly effectively staying out ahead of the need.

But the question now is whether we can afford to do that at the current growth curve that the need is occurring. The other hat, the . . . try to decide what a good customer looks like and say no to those others has largely failed. We've made a couple of attempts to try to deal with that over the years.

Used to be, when I first came to Alaska, the method was much simpler then in the computer room, but even so we had our difficulties. The method then was pretty much the squeaky door way of dealing with customers. It was easier to control with one doorway, so to speak, because we did not have on-line terminals all over the state. That wasn't going on here. That wasn't going on anywhere in the early 70s. So if you wanted something done, you brought it over with a little slip signed by your supervisor that says, "This is a hot one. I need this done," and somebody arbitrated those, that pile of emergency requests, and nobody was very happy with that.

We tried for a while, several times we tried with chargeback mechanisms where we tried to use the financial incentive of paying for each use as a management control incentive to try to control the growth of the demand by making people conscious of and directly involved with the cost of that incremental demand. Nobody was very happy with that either and it didn't work. Largely in our most recent experience, because of the decline in the budget that was no time to begin adding costs, pass-through monies, to your agencies, that method has died.

We have in my observation, in the last eight or nine months we have a growing interest in most of the agencies in controlling their use, the cost implications of their use of the machine, and I think that is real healthy. I see a real expanding consciousness of the fact of the cost, and some willingness to cooperate in working together to try to control those things. So that gives me some hope that a body like this can rise to the occasion. I think that the interest in the agencies is there. The form of this council, the mechanism of this council I hope, will give us a medium with which we can work out in cooperation to deal as a group with our problem. That's my sales pitch today, that it really is our problem. If I continue to spend five million dollars a year, that's money you can't spend. If you know better, if you know a way that we can do it for two and a half million dollars a year, we all profit from it. If we can figure out together a way to control

those costs by doing less or doing better, something, then we're all going to profit from that.

I would just like to stress, one more time, I guess that it is going to be a very difficult undertaking. We have over the past decades built up a huge inventory of complicated applications that we count on the mainframe to use on our whole, not just the computer, but the whole complex of data communication lines: high speed telephone lines and computer facilities connected in all different kinds of ways. These things have grown up more or less independently from each other, sometimes coordinated, most often not; sometimes carefully thought out and preanalyzed, and most often not; and I can confess to be a party to that myself, so I'm not just casting stones.

Our ideal for better way is clear enough. We characterize it as the top down approach. You decide what information you want, what you want it for, what value its going to have to you as a manager, then you build a system that provides you that information. Then you construct a facility to produce that information and you are off and running. When your management information need changes a little bit, you rethink that design, tinker with the physical plant, and you are up and running again. But what do we do with the mess we have in place? We all recognize the pains of dealing with the payroll system, personnel, forms, and all that. This ten years old plus . . .

The immediate difficulty I think we are going to face is not just identifying the problems, I think we can do that in an afternoon. They are right in our in-baskets everyday. The difficulty is going to be a continuing process that we will have to do repeatedly that goes something like this: Something that my teacher of this methodology called it, "evolutionary design," goes something like this. You look at the problem you have. You look forward into the future as to where you want to be down the road, your ideal of where you trying to get to. You figure out what you best conceive (the) next one or two steps is, not twenty-five steps, but what is the next two things I could do to get me on the road to my ideal. Then you do those two steps. And then you start over again. You look up again toward your ideal, you figure out the next two places your going to step, take the steps, and look up again.

I've tried that in my own experience and it works. I have a list of success stories that that kind of approach works. You cannot redesign the whole thing with a five or ten year implementation plan. But you can do the best thing you can do today. We can figure that out. We can figure out what a good next step looks like and we can carry that on and do it again tomorrow. And the new tomorrow will suggest maybe a different

third step than yesterday. Tomorrow's first step will probably be different than yesterday's third step, see what I mean. So the reason I point that out is to emphasize that I don't think this thing that we're asking ourselves to do called information systems management is something that we can sit down for two weeks of hard work and do and go away and say that we did it, we're done, history will love us. I think it is something that we'll have to carry as part of our continuing task. We'll have to continually do this thing called management of the information systems.

Well we haven't exactly been doing nothing and I would like to ask Beverly Reaume to describe what the activities have been. We have had a committee, you are mostly aware of, called the Information Systems Committee that has had representatives from all the departments. They have been active for awhile. Beverly, if you could describe the activities of that committee and how you see it relating to the council.

Governor: Bev, if you like you can come over here so Red can hear you.

Beverly Reaume, Chairperson, Informations Systems Committee: The Informations Systems Committee, better known as the ISC, was established in January 1984. And it was a result of a governor's policy statement at that point. The Committee is charged with representing the various departments in developing, reviewing, communicating recommendations for policies and procedures related to computing services and data and text processing. Not unlike some of the things that are set out for this committee to do. The membership requires partially exempt or exempt status and has tended to be either administrative services or technical services directors.

I'd say that the greatest single accomplishment of the ISC has been to provide a forum for the exchange of information among agencies. It has allowed us to do several cooperative ventures, as well as giving us a place to go when we had a problem, someone to call.

One of the first actions the committee did was to create the process that allowed us to begin to purchase microcomputers. I am not sure how many of you were concerned about microcomputers a few years ago, but we had a period when we were totally unable to buy any because of procedures and legal problems and all sorts of things. But through the ISC we did finally get through that and were able to start buying micros. We also developed several policy and procedure statements on items as varied as guidelines for agency data processing plans to the support level for mainframe software. Most recently, after considerable controversy, which John sort

of hinted at, we established an approved methodology for chargeback. This is for use of the mainframes' services.

We believe the ISC has done a lot of good, but at the same time it hasn't been as successful as we would have liked to have seen it. And it hasn't been able to solve some of the problems that John has already identified and will identify some more a little bit later. And I think if I had to look for the single reason why the ISC couldn't solve the problems, it is because we lacked the necessary clout to do so. Something we think that this committee will overcome.

The ISC is set up as an advisory committee to the Commissioner of Administration and had no mechanism to make anything happen across agencies. So it was always left to the Commissioner of Administration to carry the ball and whether that be before the Governor, before the cabinet, or before the Legislature. And of course as an advisory committee, it had the same failing, or same problem I should say, that advisory committees always have. Advisory committees never feel they are listened to sufficiently or that their advice is always sought.

But as I say, I think we have accomplished a lot and as you talk later on about the organizational structure for this committee, the ISC does have one recommendation in that regard and that is the ISC or a similar group be maintained to serve as a working group to this committee. A group that can maybe deal with some of the nitty gritty problems, but whatever that is, to identify the issues, determine what the alternatives are and then bring those alternatives back to this group to make a decision on.

About all I had to say is be happy to answer any questions if you had some.

Arthur Snowden, Administrative Director, Alaska Court System: One of the objectives of this committee hopefully would be to look into the data entry because one of the biggest problems I see is entry. A lot of information you get with a high error rate in entry is going to be useless to the managers that want to use it. And it is my hope that this committee will address that somewhat.

Governor: Well, I think we need to get a little bit more basic here for a minute. A computer is a tool. Information is what we're after. The question that I would have is, being a person that doesn't converse in computerese, is there has been millions of dollars worth of studies that have gone out around this state over the last twelve or fifteen years. Where are they? Whose got them? Has anybody looked through them to see

what's in there, to see if the data is any good, to see what agencies have them: the administrative agencies, the judicial system, the Legislature, the University of Alaska. Where is all that stuff? We paid a lot of money for it and is there an index to the information that was gotten together through those studies? Is there anyplace you can go to look things up? How does the index work? You run an agency, you are in an agency. What kind of information do you generate? Who gets it? How could the information be used, and by whom could it be used?

For instance, suppose we found out through our records of the budget that capital projects had been directed at a specific legislative district and you could find that out through the budget records or something like that. You could also find out through the Department of Labor what the unemployment figures are out there. What if you found a district where millions and millions and millions of dollars had been poured in through capital projects and the unemployment rate hadn't changed a bit over the last. . . What kind of policy implications would you come up with? What if you had, if Art had some figures there that indicated that contrary to what everybody thinks, that more crimes get committed when we're rich than when we're poor. What kind of implications has that got for Susan Humphrey-Barnett, that is running a correctional system. He might have some information and Susan might have some information, but what if they don't either one of them know about the other's.

That's the kind of stuff I'm talking about. I don't know a damn thing about the computers, but that's what I'm talking about when I mean coordination of information. Maybe since Red has seen fit to make me the Chairman of this I thought I'd deliver that, but anyway, pardon me for interrupting.

Boucher: Governor, can I add something?

Governor: I thought you might.

Boucher: What you said is what the hell this is all about. I don't know a damn thing about the inside of the computer and I could care less. I don't know what a systems analyst means and I'm not a programmer. But I damn well know that this is like this telephone I'm talking over. It can be a powerful information, in fact the most powerful tool we've got is what I'm talking to you with right now, the telephone. And I don't need to go to computer science school or be intimidated by all the jargon that's come out. I think that's exactly what you are talking about. In other words, it is available to other states. Other nations are working on it, and there are things you want to work on and you shouldn't have to fumble through a bunch of paper to find at least the answers that are out there, and I think we're alike. We've got the tools. It's like a

giant Webster's dictionary that is spread out all over the floor and we're trying to find the word "cat."

Now I'm not saying that it is simple. It is complicated and it is expensive, but I guess what we are trying to say is let's focus on the information that makes it possible for you as the Governor of the State and those men and women sitting around you that they don't have to check their brains out to the nearest computer. Then if you ask a question, the information ought to be there and if it isn't there, then find out who has got it. So, I guess really what we're trying to talk about out of this entire thing is not just the technology, but what you just said. You shouldn't have to - the information should be available at your fingertips and as your Chief of Staff will tell you, it doesn't require a powerful mainframe to get it. Although to store the amount of information the state needs ultimately does require that. But you said exactly what I would have said. That covers it.

Governor: Thank you, Red. I think basically what we're talking about here is what kind of information do we need; and what can we use around here. Then we can design a system to deliver it. I guess that is what is important.

Snowden: What's important, the information that I think we get a lot of the time is inaccurate and information that is not accurate is useless.

Governor: Well, then I guess we've got to think about some way of filtering it through so we should weed out some of the stuff that is no good or at least having some caveat there, you know, a little star by the stuff.

Judy Brady, Commissioner, Department of Natural Resources: Well, I was trying to decide something that would help me because I don't want to go through a whole . . . I've been through a couple of these studies myself, and in fact Red, if you'll remember when my name came up for appointment, before I was even appointed, you called me and said you wanted to talk about telecommunications. So even in the budgeting process it would help me, for instance, to know, I know what equipment we have and we have some big pieces of equipment in Department of Natural Resources, and what I'm asking now is what equipment do we have that we are not making full use of, and there could be a couple of reasons. Either we don't have the programmers, we don't have the auditors, so the equipment is out of date. And the second question is where are we equipment short? Where, number one, we need to perform, and what we would like to have and what we would like to have goes in the long range kind of stuff.

And the other thing we can provide to this meeting, and I would appreciate it from everybody else, is what kind of information can we give you. I can tell you some information that we can tell you about land status and you are going to be surprised about how much we can't tell you, for instance. And in some areas, you will be surprised about how much we can tell you. But because you don't know to ask the questions, I wouldn't even know that you were interested but maybe once you look at what we can tell you, then we would all see where the holes were for your purposes. And if I can see your list of what you can tell me, then I would know. Then I would say, "Oh, now I know where to go." It seems to me that would be a real good first step. I don't even know what other equipment people have or what we're capable of, what questions we're capable of answering individually.

Governor: You see, even if you didn't have any computers people wouldn't know. O.k.

Brady: Still wouldn't know.

Governor: I wouldn't know what you had or what Labor's got over there or anything else. I'm sure there is probably a list somewhere but I don't know where it is.

Brady: Is there a list?

Reaume: Well, there are some partial lists, there are certainly no complete ones that I am aware of.

Governor: Anyway John, that was kind of a rude intrusion there on the end of there but. . .

Andrews: Not at all. It was exactly to the point, I think. It is a very common mistake in approaching this kind of problem to begin with the computer. I only know of one way it works, and that is to start with the discussion, some kind of determination of what information you want. That is essentially a management decision process that you are fully prepared to make at this point.

You may not have the leisure you wish you had to make that kind of decision, but the only way to guarantee a successful track through this mine field of the technical underpinnings to give you that information you decide you need is for you to have as clear perception as possible as to what information you need and that is not an insignificant task. You have to think why you want it, what you are going to do with it, how frequently do you need it updated, how detailed a level of support information do you need. How sensitive is it in terms of privacy information or something like that. You have to work all that out, then you can turn to the technicians and say

go get me something that delivers me this kind of information in this time frame. And there are a lot of technicians around that know how to do that. But there is no technician in the world that is going to be able to read your mind about what you need or to read between the lines in what you said you needed.

I appreciate you putting us back on the track.

DISCUSSION ON CURRENT PROBLEMS

Governor: Thank you Beverly. John we've got a discussion of current problems on the agenda, I don't know if you want a partial go at it.

Andrews: Well, I would just as soon move on beyond that if it's all right with you and look forward to the first business meeting. All I wanted to do was make it clear the kinds of things I saw this council having an advantageous involvement with. We've all got plenty of ideas for what that first agenda might look like and the kind of problems we might want to address.

INTRODUCTION OF THE PEARSON REPORT

Governor: Red, the next item on the agenda is the introduction of the Pearson Report.

Boucher: I think that's great. May I just say something about the gentleman that is sitting before you there, Larry Pearson. It's an example of one of the finest brains in the country and it's right here in Alaska. For those of you who may not know him, the soon to be Dr. Larry Pearson was former editor of the Minneapolis Tribune. So he is used to working with various sources of information to make a daily newspaper. In other words, the deadline sets that they must have the information and they must sort through it.

He is one, like most of us in the management area or leadership area, is frustrated by the information overflow that comes before us. The paper that he has put out is probably one of the finest that has ever been written on the subject. I guess really what we're saying, there is on page 10 on Alaska in 1987. And while it's a difficult journey, as John has clearly stated, and sometimes costly, I think if we are to, the vision that you have, Governor Cowper, for the entrepreneurial . . . (End of Side One)

. . . is for sure you can put the polar bear on this one because this is made in Alaska and it will be a document that

will be read throughout the country. And I want to thank you for your confidence, as well as the confidence of both the Senate and the House, in putting it before you. I see nothing that is its equal as a beginning. I can't say enough. You will find Dr. Pearson, unlike myself, to be a very quiet, thoughtful person but one who has every bit the belief that I do that we in Alaska have a golden opportunity with what's already in place to enter the information age.

With that, I won't make any further comments. I'll just listen, sir. Thank you.

Governor: Dr. Pearson, did you, Larry did you want to come up here?

Larry Pearson, Assistant Professor, Department of Journalism and Public Communications, University of Alaska, Anchorage: I don't have anything formal to say. I'll just make two comments on what Red just said: one in the form of a minor correction and the other in the form of question. I was news editor of the Tribune rather than editor. I'm not sure I'm one of the finest brains in the country. But I hope you find the document I prepared useful. I'd like to come back and respond to questions about it later when you've had a opportunity to look at it.

I share with just about everybody who has spoken today, with everybody I believe, the belief that this is a great opportunity and you are exactly the people to take advantage of it. We are talking about information rather than the technology.

I know, because most of you responded to the questionnaire I distributed a few weeks ago, that very few of you have computers on your desk. Most of you have delegated responsibility for the actual day-to-day management and control of computer systems to other people and that's very natural. They are intimidating things and they are accompanied by jargon and they are not as friendly as people. You are all managers. You are all used to primarily dealing with people.

I know too from your responses that you spend about half of your time in communicating with people doing it face-to-face or by voice. There is very little electronic mail communication going on within state government, for example. The University may be doing more of that than the rest of the government. That's a little more awkward a way of dealing with each other, but it's a new possibility. There are many new possibilities.

key issue that faces you is how you want to get your information, are you getting information you need. Is there

information out there that it's possible to get if that need is identified. Computers are thinking tools. To the extent that look at computers, as top level managers, it's to see how they can help us think. How they can perhaps state problems for us in ways that we can see them more easily than we can without their help. They're an improvement on paper and pencil for doing that. They're an improvement on talking to other people for doing that. They can be very useful as tools for top level managers. But they can't be good tools for top level managers until top level managers get involved in setting the policies that make it possible for those computer systems, the programs that are written whatever the information to be inserted. That will allow you to think best in the way you are used to.

There are different ways of thinking with computers. Some people think visually. Some people work from outlines. We all have our own way of presenting materials whether it be speeches, written documents. We all do that differently. We can use computers differently as support tools for ourselves, too. That means that if technology is to serve us well, the lives of people like John Andrews are complicated somewhat. Because we are not looking for a single system, a single elegant solution for all of us. We are looking for lots of solutions for different ones of us who deal with different sorts of problems, different sorts of personnel situations, different sorts of information. It's a very complicated issue. It's certainly deserving of interest and time of the people such as yourselves.

Thank you.

ORGANIZATIONAL DISCUSSION

Governor: Any questions of Larry? I'm sure there will be in time. Thank you. It was a good report.

Snowden: An excellent report.

Governor: At this juncture, unless there is something, a subject that anybody would like to address, and I encourage that if you want, I was going to go directly into the organizational decisions that we've got to make and that will be the end of the meeting. I don't know, I thought we kind of started passing some stuff around and then we promptly went back to the agenda and that shut it off. I think there is a tendency to forget how important the organization of information and the access to it is in this business and you know, you kind of, in the absence of some system that works well for you, everybody kind of designs their own and while it works for you, it's better than nothing, it's not very efficient.

Well, let me do this. We need to select a vice-chairman. I am chairman here, I think perhaps that DOTPF representative Mr. Poe might be a willing victim. You can say no if you want to. Does anybody want to nominate him?

Snowden: I'll nominate him, Mr. Chairman.

Governor: Is there a second?

Andrews: I'll second it.

Governor: Are there any further nominations? Thank you for volunteering, Bob. You're the vice-chairman, by God.

There are rules of order that have to be adopted here. I thought that Robert's, I don't know if we're ever going to have to use any of them, but I thought we might adopt Robert's if you want to.

Snowden: So move.

Governor: O.k. Hearing no objections, the Robert's Rules of Order are adopted. I don't have a copy or anything.

"Discussion of alternates and agency staff." I'm just going to read this: "The law designates that the alternates will be deputy commissioners and in the case of the University the vice president." Says here, "The members of the TIC and their alternates all have heavy schedules. Therefore the bulk of the work will be done by staff both in the Governor's Office and in the agencies. Should we encourage the members to recruit their staff liaison from management. Recommendation: management staff." I guess what that means is that somebody has to do the real work and somebody has to go to the meetings and they are not necessarily the same. I guess the idea is to find somebody who, seriously, who is interested here to make sure that we all up to scratch.

"Staff" is the next one. Red, what are we supposed to do about staff?

Boucher: What are you supposed to do about staff?

Governor: Does the committee have a staff? I mean, oh, I see. O.k., I guess staff to the committee will be Joan Kasson who is in the back of the room there from OMB. She is the OMB person who is assigned to telecommunications. Jack Fargnoli also with OMB is here. Jack and Joan will be serving as staff to the committee. I am sorry that I didn't get that piece of paper.

Boucher: She is a very bright lady and has worked in the State of Texas in this area. She has an insight into it.

Governor: You see, all you have to do is volunteer and you get a compliment.

(Unknown): Governor, since the Information Systems Committee offered their assistance as a working group attached to this council, perhaps the connection could be through the staffing role as well.

Governor: Yeah, I think so. I think that we need to set another meeting at this meeting. I don't know what your schedules are. Bob you want to . . . ?

Bob Poe, Deputy Commissioner, Department of Transportation and Public Facilities: I just suggest that we contact the group in two weeks with proposed agenda and try to work out a meeting date through PROFS.

Governor: O.k. I think though, there ought to be some homework here. We don't want to repeat this meeting a second time around.

Poe: Right, I agree.

Governor: So, the agenda probably should be mailed out sometime in advance so that people can do a little bit of thinking.

Poe: Absolutely.

(Unknown): Preferably more than a day or two.

Poe: I was thinking in two weeks we ask for some suggestions and then we prepare the agenda from that memo.

Snowden: Governor, for the record, in as much the Chief Justice appointed me or my designee, I would like to state that my designee will be my Deputy Director, Stephanie Cole. So we have that on the record.

Governor: I think, without wanting to intrude on the agenda or anything at the next meeting, I think it might be worthwhile if the people in each agency would examine exactly what kind of information you do generate on a regular basis. Where does it go? What do you do with it? Who can use it as far as you know. It might surprise you the amount of information that your agency generates while you are asleep. That would be a useful thing to have available to us at the next meeting. If there is somewhere a record of the various studies, John you kind of invented the legislative system didn't you, that information system, was there a list of the studies that the Legislature put together?

Andrews: The only one I know of is a printed list of House Research Agency work. Interesting to bring that up. I went through their index of all the House Research activity that has taken place in the last however many years they have been in business and I came out with a stack of paper about that deep that looked interesting enough for me to find the time to read sometime that relates directly to my agency's problems. You might want to read through there. An example the kind of thing we're talking about, there's stuff around.

Governor: What about the state library system?

Poe: If I could, about four years ago the state library did look at a system called ASPIN. That is the acronym they dreamed up for it. Its approach was to essentially catalog all these studies that are done. You pay a hundred thousand dollars for some consultant study and it ends up in somebody's desk drawer and they leave three years later and nobody ever knows about it. And so the idea was to document that and to catalog it. The system never got much further than that. Other than naming the acronym. And talking about a little about what it could do. But that is a real resource we spent a lot of money on and we don't usually get much interdepartmental value from it.

Boucher: Governor?

Governor: Yes sir.

Boucher: One resource that I think would be absolutely valuable to you is the library system that we have existing within the state. These people have for some time been custodians of information and within the framework of the council we wanted to keep it at the highest level, but I think there is a lot to be learned in fact. They, in meetings with Professor Pearson and myself, have expressed a strong interest. So their business is cataloguing and coordinating information be it visual, audio or printed.

Governor: Shouldn't they be members of this council?

Boucher: Well you call the shots, sir. Initially the law, but definitely within the Department of Education, in that area you have some resources. People like Dr. Bramble and others who have been working on distant learning and cataloguing of information. And there's some bright minds in the University system particularly in Fairbanks, so I think there may be some troops out there that could well be used, sir. But I'll leave that up to you.

Governor: O.k. It just struck me that is what the library systems do. O.k. Well, just for starters I do think it would

be useful to get, see if you could put together the studies that have been generated in your own departments over the last, I don't know whatever useful time frame is: seven, eight, ten years. Depending on what kind of information it is. If it is an enormous hassle or. . . Art says if we can just get the studies we've had on this particular topic.

Snowden: And a list of information we collect by type. We do have collect reports by type, if we knew at least what we knew we're collecting it might be helpful.

Governor: And secondly, just try to assess what kind of information your department generates. That's kind of clearly basic information. What do you do with it, and how could it be used? I don't want commissioners to take five or six days to do this, but I do think you could probably assign a staff person to get this information. That would be a pretty good start I think.

Well Bob, do you or Joan want to . . .

Poe: We'll all get together, produce a memo, in a couple of weeks and get this thing rolling.

ADJOURNMENT

Governor: Has anybody have anything further to say or comment? If not, thank you for your time. We appreciate your attention. This is an important topic.

Thank you.

TELECOMMUNICATION INFORMATION COUNCIL

GOAL, OBJECTIVES AND WORK PLAN

Adopted February 2, 1988

GOAL

To develop and implement a cost-effective policy for managing the state's information and information technology resources in a comprehensive and coordinated manner so that state government may better serve the people of the state.

OBJECTIVE 1

Develop a statewide telecommunication/information management plan.

Task 1 Identify the state's information management resources (including human resources).

Task 2 Identify agency success factors as they relate to information management.

Task 3 Identify statewide and agency telecommunication/ information management shortcomings.

Task 4 Outline alternative solutions to meeting agency and statewide needs and solving shortcomings.

Task 5 Decide on solutions to be taken and set priorities for action.

Task 6 Monitor implementation, evaluate progress and make changes as necessary.

OBJECTIVE 2

Establish institutional arrangements for developing and implementing improved information management in Alaska.

Task 1 Identify opportunities for resource sharing and cooperative development of solutions.

Task 2 Define the roles of IRMEAC and the ISC in statewide information management.

Task 3 Obtain/assign resources to carry out/monitor the statewide plan.

OBJECTIVE 3

Establish information management policies and guidelines to implement the plan.

Task 1 Define at a statewide level the standards (requirements) that new telecommunication/information management systems should strive to address.

Task 2 Establish a policy and procedure for providing public access to state information systems.

TELECOMMUNICATION INFORMATION COUNCIL

February 2, 1988
1:30 p.m.
10th Floor Conference Room
State Office Building
Juneau

AGENDA

Call to Order

Decision Item: Establishment of Mini-Computer
Networks

TIC Goals and Objectives

Presentation: Mainframe Capacity

o *Division of Data Resources
Management, Department of
Administration*

Introduction to Executive Training

o *IBM*

Adjournment

END-USER-COMPUTING

POLICY DISCUSSION

Statement of Issue

Recently it has come to the Departments of Administrations' attention that several state agencies are exploring the merits of installing mini-computers to accomplish their more immediate needs in information processing. Informal discussions with our customers and local vendors indicate the potential acquisition of fifteen mid-range computer systems during this calendar year. These discussions have also indicated that in order to achieve maximum benefit of each of these computers, there will be the need to connect to the IRM data network. Unlike the micro-computer local area networks, these connections will have a large impact on both the IRM mainframes and data network. It appears that the majority of visible activity has been with IBM and Wang products. These vendors are offering test/demonstration periods where the vendor actually installs mini-computer systems for testing by the agency for a several month period with no obligation to purchase the equipment.

End-user computing provides the State a great potential in information processing. However, in order to achieve the maximum potential, it is imperative that agencies understand the implications of acquiring, operating and maintaining this type of equipment.

Need for Policy

Policies are required to set the direction of data network management, data sharing, application sharing, public access, and centralization or decentralization of applications. These policies should be implemented prior to acquisition of this type of equipment.



UNIVERSITY OF ALASKA - ~~FANNING~~

OFFICE OF
MANAGEMENT & BUDGET
DEC 22 1987

December 17, 1987

STRATEGIC PLANNING

Robert G. Poe
Vice Chairman
Telecommunication Information Council
c/o DOT/PF
P.O. Box Z
Juneau, AK 99811

Dear Mr. Poe:

As requested, here are comments about the draft goals and objectives for the Telecommunications Information Council (TIC), which you presented at the December 16 meeting.

1. The goal is right on. It should not be weakened by omitting the "implement" word. A policy not implemented is no policy at all.
2. Many of the objectives are steps in developing a statewide plan, which created some confusion when one objective was identified as creating a plan. I suggest categorizing objectives to overcome this confusion, yet still cover the steps required for a TIC work plan:
 - a. Objective 1: Develop a statewide telecommunication/information management plan (draft objective #8).

Task 1: Identify the state's information management resources (including human resources) (obj. #1).

Task 2: Identify agency success factors as they relate to information management (obj. #2).

Task 3: Identify statewide and agency telecommunication/information management shortcomings (obj. #3)

Task 4: Outline alternative solutions to meeting agency and statewide needs and solving shortcomings (new).

Task 5: Decide on solutions to be taken and set priorities for action (new/obj. #7).

Task 6: Monitor implementation, evaluate progress and make changes as necessary (per Con Dietz).

Robert G. Poe
December 17, 1987
Page 2

- b. Objective 2: Establish institutional arrangements for developing and implementing improved information management in Alaska (new).

Task 1: Identify opportunities for resource sharing and cooperative development of solutions (obj. #4).

Task 2: Define the roles of IRMEAC and the ISC in statewide information management (obj. #5).

Task 3: Obtain/assign resources required to carry out/monitor the statewide plan (per Amy Kyle).

- c. Objective 3: Establish information management policies and guidelines to implement the plan (new).

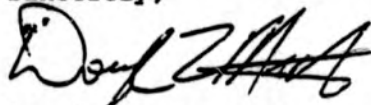
Task 1: Define at a statewide level the standards (requirements) that new telecommunication/information management systems should strive to address (obj. #6).

Task 2: Establish a policy and procedure for providing public access to state information systems (new).

Of course, the next step, upon TIC agreement of goals and objectives, is to define an action plan for achieving results.

Hope these comments are useful.

Sincerely,



Douglas L. Mutter

DLM:jlh
11H/035

cc: Donald O'Dowd, President, UA
Don Behrend, Provost, UA
Dave Hickok, Director, AEIDC
Conrad Dietz, Director, UACN
Joan Kasson, Policy Analyst, OMB

DRAFT GOAL AND OBJECTIVES

TELECOMMUNICATION INFORMATION COUNCIL

December 16, 1987

GOAL

To develop and implement a cost-effective policy for managing the state's information and information technology resources in a comprehensive and coordinated manner so that state government may better serve the people of the state.

OBJECTIVES

1. Identify the State's available information management resources (including human resources);
2. Identify Agency* Success Factors as they relate to information management;
3. Identify statewide and agency telecommunication/information management shortcomings;
4. Identify opportunities for resource sharing and cooperative development of solutions;
5. Define and coordinate the roles of IRMEAC and the ISC in statewide information management;

6. Define at a statewide level the standards (requirements) that new telecommunication/information management systems should strive to address;
7. Prioritize agency information management needs on a statewide level; and
8. Develop a statewide telecommunication/information management plan.

* The term "agency" includes executive branch departments, the legislature, the court system, and university organizations.

SERVICE CENTER CAPACITY REPORT

- A capacity study was conducted at the Juneau Service Center in August of 1987
- The study was verified by two independent sources
- The conclusion of the study showed:
 - An upgrade to the peripheral data storage devices will be needed in August of 1988
 - A larger computer system will be needed in calendar year 1989
- In lieu of a funding request in fiscal 89, a seven point program was devised by IRM to extend the life of the current computer systems. The plan was reported to the ISC and assigned to the Standards, Planning, Policy and Guidelines subcommittee of the ISC. The seven point program consists of:
 1. Build computer systems at the Juneau and Anchorage Service Centers that are compatible to allow transfer of workloads
 2. Tune the Juneau computer and user applications to take full advantage of software and hardware features available
 3. Perform a capacity study on the Anchorage Service Center computer for awareness of how much workload may be transferred
 4. Tune the Anchorage computer and user applications to take full advantage of software and hardware features available
 5. Move work from the Juneau Service Center to the Anchorage Service Center as Juneau becomes over loaded
 6. Review all agency processing needs for the next 18 months for input into the capacity planning effort
 7. Halt all new application development or enhancements at the service centers as the capacity limit is reached

Tasks 1, 3, and 6 have been completed and the results are:

- The systems are in a posture to allow workload transfer
- The capacity study of the Anchorage Center shows the computer running at 80% of capacity. Based on the high utilization of the Anchorage computer transfer of workloads should only be considered in an emergency
- The agencies have responded to a capacity needs survey. The projected growth by agencies in FY89 is +12%

Tasks 2 and 4 are under way. The Service Centers have tuned their computers to allow maximum work flow. The agencies have been contacted and work has begun on tuning their applications. The results to date have been positive.

Task 5 should be considered only in an emergency as the Anchorage computer capacity study indicates a transfer of substantial workloads would cause an overload.

Task 7 is the halting of all new development and should only be considered as a business decision and critical need.

2-4-88

Meeting

**A Report to
The Alaska Legislature in Response to
Intent Language Regarding Telecommunications
in the
FY 88 Operating Budget**

January 1988

By

**The Department of Administration, Division of Telecommunications
The House Special Committee on Telecommunications
The Alaska Public Broadcasting Commission
The Office of Management and Budget, Division of Policy**

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EXECUTIVE SUMMARY

Legislative intent language inserted in the FY88 budget charged a review team from the Department of Administration, the House Special Committee on Telecommunications, the Alaska Public Broadcasting Commission, and the Division of Policy/Office of Management and Budget (OMB) with examining the existing Rural Alaska Television Network (RATNET) system, and public television, with the task of identifying cost efficiencies that might be implemented in the FY89 budget.

The legislature directed the review team to undertake eight specific tasks. The nature of these tasks, and the progress made on them to date, is summarized below:

1. Discussions between Alascom and OMB are on-going concerning the accuracy of assumptions made to develop expense versus saving estimates for four alternatives: State ownership of all earth stations (downlinks) comprising the RATNET system; competitive bid of the RATNET system; and two reduced rate options offered by Alascom.
2. A complete listing clarifying ownership and maintenance responsibilities for RATNET earth stations and related equipment is appended. The State is the owner of 102 small earth stations, Alascom of 146. The State also owns 248 RATNET low power television transmitters (LPTVs), and 235 LPTVs left inactive after funding for the LearnAlaska network was eliminated. Uplinks in Juneau and Anchorage, satellite transponders, and television operations

center time are leased from Alascom. Maintenance responsibilities are borne primarily by the Division of Telecommunications, but Alascom receives some funding from the State for minor repairs.

3. The State could easily transfer its licenses for the unused LearnAlaska LPTVs to local entities, or to a regional or private non-profit organization at the same time that title to equipment is transferred. A group or entity to accept the ownership responsibilities would have to be located or created. Local ownership would open up the feasibility of broadcasting local productions and video tapes, provided that commercial quality video cameras and tape recorders are purchased. An equity concern has been raised, however, regarding the benefit of such a transfer to quite small communities.

Retention of the licenses and LPTVs by the State would allow the State to take advantage of future satellite technologies which might permit increased service for present cost.

4. License transfers to local entities would open up the possibility of receiving alternative commercial broadcasting. There is at least one company that provides such programming to cable companies, and that would be willing to provide programming to local licensees for a relatively small fee. In order to enable access to different satellites, however, the purchase of small earth stations would be required in 146 locations where Alascom currently owns the earth station. The cost of each earth station is estimated at \$17,000 including installation.

If this service were used to replace the RATNET system entirely, rather than operate in conjunction with a RATNET system carrying solely public television, approximately \$600,000 more would be required to pay Alascom termination liability on those earth stations. This last option could create as many as 248 more independent local broadcasting facilities, and any benefits stemming from a statewide system would be precluded, e.g., statewide emergency broadcasting, instructional television, or data transmissions riding the video signal.

These types of services are under legal challenge regarding copyright. Alaska broadcasters believe rebroadcasting of imported signals by the proposed mini-tv stations would be piracy.

5. Assuming that commercial programming on RATNET were replaced with public television (PTV), a total of \$379,800 would be saved from the current RATNET budget and possibly \$27,000 from the current APBC budget.

Any broadcast of commercial programming over a PTV system would require the removal of all advertising, imposing an additional cost on the broadcasting station, if the removal of the advertising were even allowed by the commercial program producer.

Social costs also could be imposed. Unless some other source of commercial television were available, such as the options outlined in #4 above, viewers may not desire public television as their only viewing choice. Rural viewer participation in programming decisions would be lost with the elimination of the RATNET Board.

6. KTUU, KIMO, and KTVA, Anchorage commercial broadcast stations using the State-owned Southcentral microwave network, were asked if they would be interested in paying an annual cost of approximately \$7,500 each to cover their portion of the microwave network's costs. The response was negative.
- 7a. Transfer of the KUAC-TV/FM (Fairbanks) licenses to a community entity would be possible if the University of Alaska at Fairbanks were to agree. Representatives of the University state that they wish to retain the licenses, however, and it appears there is little public pressure for such a transfer unless the University chooses not to continue funding for the stations. If it does, a community group is standing by ready to take over both stations.
- 7b. Use of telecommunications by the RATNET Board was discussed at the December 3 and 4 meeting. The Board's response is included as Appendix M.

Two other potential alternatives for achieving additional cost efficiencies in the RATNET system are discussed in Section 8. The State could invest approximately \$3 million to replace earth stations presently leased from Alascom with State-owned equipment. About \$0.9 million could be saved annually in leasing costs under this alternative. If the uplinks and space segment of the system were then put to competitive bid, and a less expensive rate achieved, additional savings would be possible.

INTRODUCTION

The FY88 Operating budgets of the Department of Administration's Division of Telecommunications and the Alaska Public Broadcasting Commission contained the following intent language:

It is the intent of the Legislature that the Division of Telecommunications, the House Special Committee on Telecommunications, Alaska Public Broadcasting Commission, and Office of Management and Budget jointly review the Rural Alaska Television Network and Alaska Public Television System in an effort to identify cost efficiencies that may be incorporated into the FY89 budget. The review team should coordinate its efforts with the RATNET Board and the Corporation for Public Broadcasting. The Division shall present a report of its findings and recommendations to the Legislature no later than January 30, 1988.

It is further the intent of the Legislature that the review team take the following actions:

1. OMB shall enter into negotiations with Alascom in an attempt to reduce leasing costs associated with the RATNET and Southeast Microwave Systems.

2. Clarify ownership and maintenance obligations of all earth stations and related equipment comprising the RATNET system.
3. Review the ramifications of transferring FCC licenses for State-owned low power television transmitters not currently in use to local entities, of consolidating and transferring the licenses to a private non-profit entity, and of consolidating and retaining the licenses under State ownership.
4. Review alternatives and associated costs for communities to independently receive and pay for receiving commercial television through the use of State-owned low power television transmitters not currently in use.
5. Review alternatives and associated costs for communities to receive public broadcasting programming through the use of RATNET transmitters. Review commercial network syndicated programming that could be transmitted over this system without jeopardizing non-tariffed leasing rates, and determine the costs of the programming. Coordinate with the University of Alaska and the Department of Education to determine a cost-efficient and inexpensive means of broadcasting educational programs over the system.

6. Negotiate with those commercial stations that transmit programs through the Southcentral Microwave System in an attempt to have the stations defray the cost to the State of broadcasting the programs.
- 7a. Review the possibility of establishing a community-based organization to operate KUAC-TV/FM.
- 7b. The RATNET Board is to utilize teleconferencing in order to reduce costs.

REVIEW TEAM ACTIVITIES

Shortly after the beginning of FY88, representatives from the Division of Telecommunications, the House Special Committee, the APBC, and the Division of Policy/OMB met and agreed to research assignments necessary to create the report mandated by the above intent language. An outline of the tasks involved and the lead agency which was assigned to each task is included with this report as Appendix A.

The review team consisted of John Andrews, Commissioner of Administration; James J. Fox, Deputy Commissioner of Administration; Mel Hoversten, Director, Division of Telecommunications; Larry Pearson, University of Alaska Journalism

Professor, representing the House Special Committee on Telecommunications; Charles Northrip, Executive Director, Alaska Public Broadcasting Commission; and Joan Kasson, Division of Policy.

The team met in both in-person and teleconference sessions several times during the interim. Additional contacts were made with the RATNET Council, the University of Alaska, the State Department of Education, and the Corporation for Public Broadcasting*, as directed by the intent language.

The results of the team's work follow.

SECTION ONE

RATNET AND SOUTHEAST MICROWAVE RATE NEGOTIATIONS

Alascom was asked to review and comment on the alternatives discussed in Section Eight. Discussions on the accuracy of the assumptions are on-going. (Copies of correspondence are included as Appendix C.)

* The Corporation for Public Broadcasting offered expert assistance to the review team in the person of John P. Witherspoon of the Center for Communications of San Diego State University. See Appendix D for information on the Center. Mr. Witherspoon's assessment of the review team's work is included with others' comments in Appendix O.

The company was also asked if it would permit reduced rates for carrying the signal of KTOO, a noncommercial station, over the Southeast Alaska microwave network as encouraged by Congressional and Federal Communications Commission (FCC) intent. This intent is included as Appendix B and is further discussed in Section Five.

Alascom does not believe the intent is applicable to the Southeast microwave network even though the content of the transmissions is noncommercial. Its response:

It is our understanding that the intent of the referenced FCC order was to encourage common carriers to offer excess or "remaining" capacity to educational or public television providers at reduced rates. The southeast microwave channel was installed at the request of the state and specifically for one-way television service. It is not excess capacity on our network that could be used for other service. In fact, the only use it has is for one-way video.

Mr. Witherspoon disagrees that the Congressional and Federal Communications Commission (FCC) intent regarding free or reduced rates applied only to excess or "remaining" capacity. However, the language is permissive and only encourages the common carrier to offer more favorable rates for carrying noncommercial broadcasts. The final decision remains with the carrier.

SECTION TWO

OWNERSHIP AND MAINTENANCE OBLIGATIONS OF RATNET EARTH STATIONS AND RELATED EQUIPMENT

The RATNET signal originates in Anchorage, with some live transmissions originating in Juneau. Anchorage broadcasters provide programming from which the RATNET Board selects. Programs are uplinked, using Alascom facilities and personnel in those communities, to Alascom's satellite, Aurora. Alascom personnel at the Television Operations Center manage the provision of the service.

The signal is downlinked to 248 earth stations around the state. 146 of those earth stations are leased from Alascom. The remaining 102 earth stations are owned by the State.

In addition, the State owns 248 low power television transmitters (LPTVs) used to rebroadcast the RATNET signal from the earth station to receiving households. An additional 235 State-owned transmitters were left idle when LearnAlaska funding was eliminated.

The State Division of Telecommunications maintains all of the State-owned equipment. The State contracts with Alascom to provide maintenance to State-owned LPTVs, but this is limited to very minor work. Generally, Alascom employees simply remove the transmitters collocated in their facilities, ship them to

the Division of Telecommunications' shops for repair, and then replace them on their return.

A complete list indicating ownership and location of equipment, as well as maintenance responsibility, is attached as Appendix E.

SECTION THREE

LICENSING/OWNERSHIP POSSIBILITIES FOR STATE-OWNED LOW POWER TELEVISION TRANSMITTERS NOT CURRENTLY IN USE

Until the end of FY86, the State provided two channels of television to most rural communities in Alaska. The first channel was and continues to be known as the RATNET channel. The RATNET channel provides a mix of commercial and public television as selected by a representative seventeen-member council. (See Appendix N for by-laws, policy guidelines, and current membership of the RATNET Council.) The second State-provided channel was known as LearnAlaska. The LearnAlaska channel provided instructional programming, designed primarily for classroom use, throughout the broadcast day. Both the RATNET and LearnAlaska channels were distributed on separate satellite transponders to each rural community. In each community, an LPTV was used to broadcast the programs so that they could be received on conventional TV sets within each community.

At the end of FY86, the State cancelled its lease for the satellite transponder that had distributed LearnAlaska programming. As a result, the LPTVs in 235 locations no longer had a source of programming, so available channels of television in many locations dropped from two to one.

The State still holds title to and is the licensee of the LPTVs, which until July 1, 1986, distributed LearnAlaska programs throughout rural Alaska, even though the transmitters are no longer in operation. Therefore, no action is necessary for the State to remain in that position. The unused transmitters could be turned over to local community control or to the control of a regional or statewide concern for the purpose of making them available for the distribution of TV programming of the communities' own choosing.

If the State were to retain the licenses and the LPTVs, it could preserve the option of future use with new technologies that could provide additional programming at near the same cost of the current RATNET system alone. New satellite technologies now on the horizon are expected to offer the possibility of two or more channels of programming within technical parameters and costs now associated with one.

If the State should choose to transfer the licenses to local control or to a regional or statewide non-profit organization, to avoid any legal difficulties the State should, at the same time, transfer the licenses. Responsibility for meeting FCC rules and regulations should be in the same hands as control over broadcast content.

To avoid the same pitfall for ownership of the unused LPTVs and their licenses by a regional or statewide non-profit concern, a programming control system could be implemented. Without such a system, actual programming decisions would be made

at transmitter sites, and not by the licensee. Yet violations of equal time regulations, for example, would be held against the licensee (the non-profit), not the programmer.

The actual license transfer can be accomplished quite simply once an entity is found to take over the license obligation. This could be a school board, school, community council, village corporation, or anyone else willing and able to accept responsibility for meeting FCC mandates, and operating and maintaining the equipment. Both parties to the transfer sign a transfer application to be submitted to the FCC. The FCC approval process would likely take two to three months, but could take up to a year.

There are no fees for transfers or renewals if a governmental organization holds the license. A private non-profit would have to pay renewal fees of \$30 for each license (unless all programming was strictly educational). While the State currently handles most of the paperwork involved with renewals, making legal fees minimal, new license holders may need to contract for legal assistance before the FCC.

As noted above, new license holders would have to accept responsibility for FCC compliance and for maintenance, unless the State agreed to remain in some sort of support role. When RATNET was in its development stages, local communities were, in many cases, the licensees. The Division of Telecommunications found that many of the licensees were not complying with FCC rules for renewal and posting of licenses. The State sought to consolidate the licenses under one owner to simplify compliance. This was a voluntary process and, only a few are still held by local entities, e.g., the North Slope Borough, which wanted to retain ownership.

Once local communities or other entities are the owners/licensees of the currently unused LPTVs, local programming could be produced and aired on the transmitters. Some communities could presumably use the requisite video equipment owned by their community councils or schools. Many school districts, however, use less expensive half-inch, home-type video cameras and tape recorders. In order to broadcast local events, both camera and video cassette recorder must have output as certified by the National Television Standards Commission (NTSC). This commercial-type equipment generally utilizes three-quarter inch tape at a minimum. Estimated costs for purchasing this type of equipment follow:

- o Video camera with NTSC output: \$1,500 to \$3,000
- o Video cassette recorder with NTSC output in close proximity to the transmitter: \$600 to \$1,500
- o Time base corrector generator: \$3,000 to \$5,000

In 146 locations, the State-owned transmitters are collocated with Alascom equipment. In these communities, the former LearnAlaska transmitter would have to be moved out of Alascom space to another location suitable for broadcasting; thus, space, heating and power would be required.

Access to this equipment would allow council meetings, sporting events, or school activities to be televised. Such a process could help preserve bilingualism, native culture, etc., to a far greater degree than imported programs could provide.*

* In response to requests for increased bilingual/cultural programming, the RATNET Board at their December 3-4, 1987 meeting agreed to schedule one hour per week for programs of this nature approved by the Department of Education.

Nevertheless, local programming could hardly fill a complete daily broadcast schedule. Prerecorded tapes from the State film library or commercial suppliers could help complete that schedule. Unfortunately, the State film library estimates that the State owns broadcast rights to less than one-tenth of the library's film collection. The tapes for which the State does own broadcast rights are generally limited to Federal Aviation Administration produced tapes, and are likely to be of little general interest. The broadcasting of tapes without purchasing those rights could open the local programmers to charges of copyright violation.

A variant of this approach is advocated by Dan Johnson in his December 1986 report, "An Assessment of Current State Television Programming in Alaska, with Proposals for a New State Media Strategy." Mr. Johnson proposes establishing regional production centers to provide technical assistance to local producers and to act as clearinghouses for locally produced video tapes. Mr. Johnson estimates the cost of each such facility at \$50,000.

While local production does offer many social benefits, those benefits could only be enjoyed if the community had, to paraphrase Mr. A.G. Hiebert of Northern Television, the funds, the qualifications, and the inclination. Smaller villages could conceivably suffer compared to larger communities. (See Appendix O: letter from A.G. Hiebert, 1/8/88, page 6.)

A more ambitious approach to making live commercial/entertainment television available at each community's discretion is discussed in Section Four.

SECTION FOUR

COMMERCIAL/ENTERTAINMENT TV VIA LPTVs NOT CURRENTLY IN USE

If a community follows the procedures outlined in Section Three and becomes the owner/licensee of its own LPTV, then the potential of receiving and retransmitting live network television signals becomes a possibility. Many different program services are available by satellite, assuming the proper receiving equipment is used.

Two such services provide programming from all three major U.S. commercial networks, plus some independent stations and other services. The first of these is provided by CANCOM, a Canadian organization which receives, in Canada, American television signals, which originate in Detroit, and then transmits those signals via satellite to receivers throughout the U.S. and Canada. Some Alaska cable television systems utilize the CANCOM service. It is provided via the Canadian Anik satellite.

The second service is provided by Netlink U.S.A., a U.S. firm headquartered in Kirkland, Washington. Netlink utilizes an RCA Americom satellite. For illustrative services, this section of the report will utilize the Netlink service as an example of the programming that could be procured by local Alaska communities, which own their own LPTVs. Complete Netlink information concerning the various program services and costs is included in this report as Appendix F.

Netlink can provide up to six channels of television, including the three major U.S. commercial networks, independent stations, and other services. Since Netlink utilizes a satellite different from the one which provides the RATNET signal to rural Alaska, each community would have to purchase and install a satellite earth station which could receive signals from the Netlink satellite. The average cost for the purchase and installation of such a facility similar to State-owned earth stations is estimated conservatively to be about \$17,000, with some locales involving higher costs and some lower. (See Appendix G for cost-breakdown.) Less expensive equipment is available, but might entail higher maintenance costs or shorter useful life.

Since the proposed Netlink-type service is actually an over-the-air subscription service similar to cable, a lower cost option would entail permitting the transfer of licenses and equipment only to those communities without an alternative commercial television service to the current RATNET service, whether cable or over-the air. This would reduce required earth station purchases to 160 instead of 235. A list of those communities is attached as Appendix H. In addition to reducing required expenditures, this approach would avoid the issue of the State creating competitors for local broadcasters or cable television operators.

Each village could be expected to raise these funds itself; or, the State could provide a one-time grant to each community to capitalize the equipment, drawing on the savings generated by the first year or two of supplying public television over the current RATNET system. (Discussed in Section Five.)

Conversations with Netlink officials have resulted in a commitment by that firm to allow any Alaska community licensee to receive Netlink programming and choose, from among the six channels, a single channel or any combination of channels, up to the total six available (understanding, of course, that only one channel could be viewed at a time in any given community, since there is only one LPTV transmitter). The cost to each community for the Netlink service would be 64 cents per using household per month. Assuming an average community population of 300 and taking a conservative estimate of three persons per household, resulting in a net of 100 households, that cost would amount to a total of \$64 per month or \$768 per year per community. There would also be a one-time \$300 cost per community for a descrambling device.

A major advantage to this community-by-community approach to procuring network programming is that each individual community could make its own decisions by whatever process it chose regarding which network programs to view and in what order. Each community could also decide how much locally originated programming dealing with issues of local or regional importance would be included in each day's broadcast schedule. Decisions would have to be made regarding the location of the receive point for the incoming satellite signal. The location would have to be central and convenient for one or more individuals to actually shift the receiver from one network source to another as often as on a hour-to-hour basis. The Netlink programming is either on Mountain or Pacific time, meaning that all network programs are no more than one or two hours earlier than normal Alaska time.

A potential disadvantage to this approach stems from Alaska's size and location. Few commercial satellites have the "footprint" required to reach Barrow and the

Aleutian Chain. Should the programming source decide to use another satellite to reduce costs, for example, there is no guarantee that all the Alaska community-controlled LPTVs would be able to see the new satellite's signal.

In addition, the Alaska Broadcasters Association is on record opposing any importation of programming from outside of Alaska. Both services discussed above use imported signals. Rebroadcast of these signals could bring about piracy charges. Questions have also been raised as to the legality of similar types of service both in the federal courts and before the FCC. (See Appendix O: letters from A.G. Hiebert, 1/1/88, pp. 7-9, and Richard Zook, 12/30/87, p. 2.)

Local option television could also be provided without a RATNET system at all. In this case, the State could transfer ownership and license, not only to transmitters, either the RATNET or the LearnAlaska LPTVs, but also to the 102 State-owned earth stations. In this case, only the 146 Alascom-owned earth stations would need to be replaced at an average \$17,000 each as discussed above. An additional expenditure of \$1,700 for each, \$173,400 total, would be required to replace the current "Bush Format" receivers at the 102 State-owned earth stations sites, with "Standard Format" receivers. All other costs associated with leasing Alascom services and administering the network would end.

While this alternative would remove the State from the commercial television business, it would also preclude statewide broadcasting of any instructional television, emergency notification, data transfers, statewide public affairs or public safety programming, statewide Alaska news, or any other benefits derived from having a State network system. This decision could be expensive to reverse as well, since even though the State could retain title to one set of transmitters, all earth

stations would need to be replaced or leased to restart the network unless the local communities agreed to return them.

The State could transfer the entire RATNET system to a regional or private non-profit firm to operate and do nothing with the LearnAlaska equipment. Operating costs for the private firm could be slightly higher than current State-paid expenses due to maintenance. Presently, maintenance is performed by Division of Telecommunications personnel who are also responsible for maintaining other State communications equipment. Eliminating the necessity for maintenance of television related equipment is not expected to significantly decrease the Division's budget, perhaps only by as little as one and one-half persons.

SECTION FIVE

POTENTIAL COST SAVINGS VIA PUBLIC TELEVISION AND RATNET

The intent language required information on savings that could be achieved through transmitting public television over the RATNET system. In its simplest form, such a plan would offer some savings, although not without the probability of serious drawbacks.

The current RATNET arrangement requires an expenditure of \$329,800 per year to operate a tape delay center in Anchorage. \$50,000 per year also is spent on travel costs for the RATNET Council. Both of those expenditures could be saved if the regular programming of KAKM, the Anchorage PTV station, were substituted for the current RATNET service.

Such an approach would assure continued single-channel statewide television service and preserve the ancillary uses of the RATNET channel (Statewide Emergency Broadcast System notification; data transmission through the vertical blanking interval; public radio transmission on an audio subcarrier; and transmission of televised legislative and Governor's office reports). Almost all the bilingual/bicultural programming produced in Alaska originates on PTV stations. Use of this alternative would make that programming much more widely available. It would also open the possibility of more direct instructional programming from the Department of Education and the University of Alaska during daytime and weekend hours. Scheduling of instructional programming would impose no additional costs on a PTV network. Both the Department of Education and University are interested in pursuing these alternatives.

Additional savings would be possible, since the PTV service would be totally noncommercial. The Public Broadcasting Act of 1967 permits free or reduced rates to be charged by a common carrier for interconnection services provided for a noncommercial service. Included in this report as Appendix I is the text of the Public Broadcasting Act rate provision and excerpts from the committee report accompanying the Act, which indicate that a positive obligation rests with common carriers to provide such free or reduced rate service.

Alascom was asked to indicate the likelihood of reductions in rates currently being paid to Alascom if the content of the transmissions is noncommercial. While the company did not respond to this question directly, it did indicate its belief that the FCC and Congressional intent encouraging it to do so did not apply to the Southeast microwave network presently utilized by KTOO, a PTV station. As discussed in Section One, Alascom believes the intent should be applied only to excess capacity. While this interpretation is disputed, it is unknown whether Aurora, Alascom's satellite, has excess capacity.

Additional minor savings, perhaps as much as \$9,000 per station, could be accomplished at the three remaining public television stations in the State, if a complete PTV schedule could be agreed upon by each local station and if it were received at those locations, as well as at current RATNET sites. Currently, all four public television stations in Alaska must tape delay many network programs in order for them to air in Alaska at the proper time. If the KAKM signal were available, stations could air programs using the KAKM tape delay, and not incur the expense of pre-taping network programs individually at each location, each day.

Such an arrangement would hinder local programming choices at each PTV station, since identical programs would have to be shown at all locations simultaneously.

Studies were made of the possibility of a group buy of PBS programming by one station on behalf of all four Alaska stations. While such a group buy is possible, it would have the effect of disqualifying the remaining three stations from PBS membership and would eliminate them as stations qualified to receive funds from the Federal Corporation for Public Broadcasting. The loss of Federal income at the three stations would result in a net loss of income which could not be made up by

any savings achieved through a PBS group buy. Included in this report as Appendix J are letters from PBS charting those various cost alternatives and indicating a best case total net loss of \$186,037 per year.

While all of the above savings are possible, there are complicating circumstances which raise serious questions as to the advisability of pursuing this alternative. The current RATNET system provides daily Alaska newscasts from commercial stations in Anchorage to all of rural Alaska. These newscasts carry commercials. While public television would be willing to tape one of the newscasts each night, expunge all commercials and then replay the newscast over the RATNET system, it is not likely that the commercial station would allow such a use of its programs, since it would have lost all commercial value.

More importantly, it must be noted that public television as it is seen in Anchorage, Fairbanks, Juneau, and Bethel is designed as alternative programming to regular commercial fare. If the RATNET system ceases to deliver commercial programming and, instead, delivers public television programming, a majority of the current communities serviced by RATNET would be receiving only an alternative with no conventional commercial programming to provide balance. It is probably an understatement to say that such a decision would be unpopular in the eyes of many people in rural Alaska. Also, the loss of the RATNET Council, through the elimination of its budget, would create the loss of rural participation in program decisions. Such a change has wide ranging policy ramifications. Savings are possible, but not without a significant change in the present philosophy of program choice.

Some of those savings would be lost if the public television service were modified to provide a commercial-free Anchorage newscast each day. The costs of recording, removing commercials, and replaying the program only for the rural system would require separate and additional activities at KAKM beyond what its current broadcast schedule requires because KAKM would have to generate a separate rural-only program service during those times in addition to its Anchorage PTV service. Any other nationally syndicated programs (feature film packages, etc.) which might be added to the rural service to make it less a traditional public television service would also require additional expenditures on the part of KAKM for the same reason and, therefore, would reduce the potential \$379,800 per year saving from the current RATNET budget.

If another means could be provided for the delivery of national network commercial programming to rural Alaska, then this alternative could be more appealing. Such a possibility is explored in Sections Three and Four above.

SECTION SIX

COMMERCIAL STATION PAYMENT FOR SOUTHCENTRAL MICROWAVE SYSTEM

The State-owned and operated Southcentral Alaska microwave network is actually two networks. One network serves the Turnagain Arm region including Bird Point, Indian, Girdwood, and Hope. The second network spans the area between Sterling

and Seldovia. The two networks are used by numerous State agencies such as the Department of Public Safety and the Department of Transportation and Public Facilities.

In addition to servicing these agencies' communication needs, the networks carry the television signals of four Anchorage television stations to residents in these regions without cost to the stations. The Division of Telecommunications estimates that the annual operating cost of providing the television service, over and above communication needs, is \$30,000.

The three Anchorage commercial stations who use the network were asked if they would be willing to contribute one-fourth, \$7,500 each, of the annual operating costs. The management of two of the stations responded negatively. No response was received from the third station.

Northern Television (KTVA) argues that Anchorage broadcasters donated licenses and equipment to the State when the microwave systems were installed. The Alaska Network (KIMO) notes that advertisers cannot provide enough revenue to cover the service given the population being served. Both companies argue that if the State will not continue to pay for the service, local communities who receive it should. (See Appendix K: letters from A.G. Hiebert, 1/6/88, p. 3, and Richard Zook, 12/30/87, p. 2.)

SECTION SEVEN A

THE POSSIBILITY OF A COMMUNITY LICENSEE FOR KUAC-TV/FM

KUAC-TV/FM is the oldest public broadcast licensee in Alaska. The University of Alaska applied for and received a license for KUAC-FM in 1962.

The University has been in the forefront of public broadcast development. In the early years of the Alaska Public Broadcasting Commission, the University provided free office space and other support to that new State agency. After establishing the first public radio station in 1962, the University established the State's first public television station in 1971.

It is possible for a community based non-profit corporation to become the licensee for KUAC-TV/FM. The Federal Communications Commission has an established procedure for the transfer of station licenses from one entity to another. It is a somewhat long and cumbersome process, although not as difficult as establishing a new station. At least one year should be anticipated for necessary FCC license transfer paperwork.

The FCC transfer procedure, however, is only used in those instances where the current holder of a license and the prospective receiver of the license transfer have both agreed on the transfer. If a current license holder is unwilling to transfer the

license, the FCC would not force such a transfer. A new prospective licensee could petition the FCC to deny the renewal of the two station licenses at the next license renewal period and further request the FCC to award the licenses to the new entity. The FCC would receive the petition and would consider it. Given the University's long history of public radio and television stewardship, and the obvious successes of both stations, however, it is unlikely that the FCC would deny regular license renewal to the University.

The University has indicated, through the Chancellor of the Fairbanks campus and the Dean of the College of Liberal Arts, that it wishes to retain the licenses for both stations and that it wishes to continue supporting both stations, particularly in terms of integrating station activities with the University's academic programs.

Interested Fairbanks citizens have drafted Articles of Incorporation and have created a non-profit corporation that could serve as the licensee for KUAC, should the University ever wish to divest itself of the stations. The local group is clearly concerned about and supportive of both stations. The expressed desire of the group, however, is for the stations to stay under University ownership as long as adequate and reliable support is provided through that institution. It should be noted, however, that there is concern among interested community members that the University's expressions of support are tenuous and could change if revenues decrease.

One "middle ground" position on this issue is the possibility of a service contract between the University and a local non-profit corporation, which would allow the non-profit to operate the stations under a contract with the University. The University would provide space and other services and, perhaps, pay a fee for

instructional services, while the corporation could establish separate pay scales and hiring procedures for the stations and conduct local fund raising and receive Federal and APBC funds. A sample of one such contract is included in this report as Appendix L.

The avenues through which KUAC receives its State funds changed in FY88, in that two-thirds of its State support now comes through the Alaska Public Broadcasting Commission and one-third directly through the University budget. In previous years, all of the stations' State support flowed directly through the University budget. The current arrangement offers slightly less job security to those KUAC staff members who are paid from the APBC grant, since the University has no way of being assured of grants from the APBC in subsequent years. On the other hand, the provision of two-thirds of the stations' State support from the APBC assures the stations that the University must spend those funds on the stations and could not reassign them to other uses, as could be done with the funds provided directly through the University. The arrangement also has the effect of broadening the stations' base of State support from one source to two, even though the total available to the stations in FY88 is less than what they received in FY87.

In summary, while it is possible for the KUAC licenses to be transferred to a community group, a successful transfer is primarily dependent on the University's willingness to be party to such a transfer. As long as the University continues to demonstrate its ability to act as a responsible and supportive licensee, it is unlikely that any request for a transfer or petition to deny renewal of the KUAC licenses would succeed.

SECTION SEVEN B

RATNET BOARD UTILIZE TELECOMMUNICATION

See Appendix M for the RATNET Board's response.

SECTION EIGHT

OTHER ALTERNATIVES TO IMPROVE COST EFFICIENCY OF THE RATNET SYSTEM

As has been discussed in more detail in other sections of this report, the costs of operating the RATNET system can be allocated to State-provided services, and contractual services provided by Alascom. The rates the State must pay Alascom are governed by FCC tariff. The State currently pays about \$2.2 million annually to Alascom for RATNET operations. (See Table A: "Status Quo".)

The State could invest an estimated \$2.8 to \$3 million to purchase and install equipment, and pay basic termination liability (BTL) to replace the 146 Alascom-owned downlink earth stations with State-owned equipment. As Tables B and C show, the State would recover its investment after four years by saving

approximately \$0.9 million annually in Alascom leasing costs. These two alternatives assume current Alascom rates for transponder time, uplink services in Juneau and Anchorage, and TV Operations Center services. Table C simply assumes an accelerated installation schedule.

Costs for State-provided services are not expected to increase. The Division of Telecommunications believes it could accomplish maintenance of additional earth stations, and take over maintenance of LPTVs which Alascom may presently service, within the Division's existing budget. The Division already travels to many of these locations to service other equipment, e.g., antenna systems.

Alascom would, of course, no longer be providing space and power for the earth stations and LPTVs. When the original 102 State-owned earth stations were installed, the State notified communities that if they wanted RATNET service, the community would need to provide for these necessities. This same condition could be imposed at the 146 sites where the State presently leases earth station services from Alascom.

Under these options, once the State owns the complete downlink system, earth stations and transmitting equipment, further savings may be possible through the competitive bid of uplink and satellite transponder services.

As the RATNET system is currently configured, the Alascom-owned earth stations must be able to see Aurora, Alascom's satellite, to provide telephone service. Installation of another earth station, State-owned, in each location solely for television reception would permit viewing of any available satellite. Division of Telecommunication research has, to date, found one other vendor with satellite

service available to all sites presently receiving RATNET, General Communications, Inc. (GCI). The Division is continuing to explore other alternatives.

With this flexibility, the State could seek competitive bids for the rest of the RATNET operations. GCI was asked, for comparison purposes, if it could provide equivalent service to that provided by Alascom, and if so, at what rate. GCI believes that it can. Tables D and E show the savings to the State over the status quo if GCI's estimated rates for transponder time and Juneau and Anchorage uplinks were a successful bid. (GCI did not believe a TV Operations Center was necessary.) The annual savings after the hypothetical switch in vendors increases to \$1.25 million, and the earth station investment is recovered after three years with the accelerated installation schedule depicted in Table E.

Each of these scenarios maintains the current RATNET service from the standpoint of the RATNET viewer. The former LearnAlaska transmitters remain unused. The choices posed in the previous sections remain. Putting the uplink and space segments of the service to competitive bid permits rates to be set by the market. Even if Alascom were the only supplier, given the current leasing rates charged the State for downlink earth stations, substantial savings are still possible.

The major negative ramification remains the required \$2.8 to \$3 million one-time capital investment.

CONCLUSION

Table F summarizes each alternative discussed in this report. Which alternative, or combination of alternatives, would be best depends on what criteria decision-makers wish to use.

Maximum monetary savings to the State can be achieved by dismantling the RATNET system. Maximum service is possible by selecting alternatives that retain a system-oriented approach, and use both sets of LPTVs that the State now owns. Maximum flexibility can be had by replacing Alascom-owned earth stations with State-owned ones, since this maintains a system approach, but permits control over, and market choice of, which satellites can be utilized to provide service.

Discussion drafts of this report were sent to a number of interested parties for review and comment. Those comments are included as Appendix O, and incorporated into the report where appropriate.

The emphasis of this report has been the gathering and synthesizing of information to assist the legislature and administration in decision-making. Many options are available for reducing, improving, or changing current services and the prices now being paid for them. It is hoped that the report makes all of the advantages, disadvantages, and trade-offs involved understandable and evident to the policy makers concerned.

TABLE A**STATUS QUD**

	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
Transponder	879,996	879,996	879,996	879,996	879,996	879,996
Uplinks	153,144	153,144	153,144	153,144	153,144	153,144
ETV Downlinks	1,002,144	1,002,144	1,002,144	1,002,144	1,002,144	1,002,144
ETV Maint.	48,000	48,000	48,000	48,000	48,000	48,000
TV Oper. Center	76,128	76,128	76,128	76,128	76,128	76,128
Total Annual Costs:	2,159,412	2,159,412	2,159,412	2,159,412	2,159,412	2,159,412

TABLE B

ALTERNATIVE #1-A * - (State Purchase Of Earth Stations/Alascom System Costs)

	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
Purch., Btl, Install.,						
Maint., & Lease:	1,050,144	1,680,499	1,289,765	859,646	0	0
Depreciation:	0	37,125	74,250	108,405	108,405	108,405
Transponder:	879,996	879,996	879,996	879,996	879,996	879,996
Uplinks:	153,144	153,144	153,144	153,144	153,144	153,144
TV Oper. Center:	76,128	76,128	76,128	76,128	76,128	76,128
Total Annual Cost:	2,159,412	2,826,892	2,473,283	2,077,319	1,217,673	1,217,673

Total Investment: 2,808,537
(Purchase + Install. + BTL)

	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
Savings:	0	(667,480)	(313,871)	82,093	941,739	941,739
Cumulative Savings:		(667,480)	(981,351)	(899,258)	42,481	984,220
Breakeven Point:	FY93					

*

Assumes that purchase and installation costs, as well as BTL's, are incurred according to the following schedule: 50 earth stations in FY90, 50 in FY91, and the remaining 46 in FY92.

TABLE C

ALTERNATIVE #1-B * - (State Purchase Of Earth Stations/Alascom System Costs)
 Accelerated Installation

	FY89	FY90	FY91	FY92	FY93	FY94
	-----	-----	-----	-----	-----	-----
Purch., Btl, Install.,						
Maint., & Lease:	1,550,825	1,962,795	455,040	0	0	0
Depreciation:	26,730	92,070	108,405	108,405	108,405	108,405
Transponder:	879,996	879,996	879,996	879,996	879,996	879,996
Uplinks:	153,144	153,144	153,144	153,144	153,144	153,144
TV Oper. Center:	76,128	76,128	76,128	76,128	76,128	76,128
	-----	-----	-----	-----	-----	-----
Total Annual Cost:	2,686,823	3,164,133	1,672,713	1,217,673	1,217,673	1,217,673

Total Investment: 3,019,215
 (Purchase + Install. + BTL)

	FY89	FY90	FY91	FY92	FY93	FY94
	-----	-----	-----	-----	-----	-----
Savings:	(527,411)	(1,004,721)	486,699	941,739	941,739	941,739
Cumulative Savings:		(1,532,132)	(1,045,433)	(103,694)	838,045	1,779,784
Breakeven Point:	FY93					

* Assumes that purchase and installation costs, as well as BTL's, are incurred according to the following schedule: 36 earth stations in FY89 (25%), 88 in FY90 (60%), and 22 in FY91 (10%).

TABLE D

ALTERNATIVE #2A* - (State Purchase Of Earth Stations/GCI Estimated System Costs)

	FY89	FY90	FY91	FY92	FY93**	FY94
Purch., Btl, Install.,						
Maint., & Lease:	1,050,144	1,680,499	1,289,765	859,646	0	0
Depreciation:	0	37,125	74,250	108,405	108,405	108,405
Transponder:	879,996	879,996	879,996	879,996	720,000	720,000
Uplinks:	153,144	153,144	153,144	153,144	84,000	84,000
TV Oper. Center:	76,128	76,128	76,128	76,128	0	0
Total Annual Cost:	2,159,412	2,826,892	2,473,283	2,077,319	912,405	912,405

Total Investment: 2,808,537
(Purchase + Install. + BTL)

	FY89	FY90	FY91	FY92	FY93	FY94
Savings:	0	(667,480)	(313,871)	82,093	1,247,007	1,247,007
Cumulative Savings:		(667,480)	(981,351)	(899,258)	347,749	1,594,756
Breakeven Point:	FY93					

*

Assumes that purchase and installation costs, as well as BTL's, are incurred according to the following schedule: 50 earth stations in FY90, 50 in FY91, and the remaining 46 in FY92. GCI estimate effective 7/1/92.

**

Costs are the same as Alternative #1A until FY93, since the system could not go to bid until all Alascom-owned earth stations are replaced.

TABLE E

ALTERNATIVE #2B* - (State Purchase Of Earth Stations/GCI Estimated System Costs)
Accelerated Installation

	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>FY92**</u>	<u>FY93</u>	<u>FY94</u>
Purch., Btl, Install.,						
Maint., & Lease:	1,550,825	1,962,795	455,040	0	0	0
Depreciation:	26,730	92,070	108,405	108,405	108,405	108,405
Transponder:	879,996	879,996	879,996	799,998	720,000	720,000
Uplinks:	153,144	153,144	153,144	118,572	84,000	84,000
TV Oper. Center:	76,128	76,128	76,128	38,064	0	0
Total Annual Cost:	2,686,823	3,164,133	1,672,713	1,065,039	912,405	912,405

Total Investment: 3,019,215
(Purchase + Install. + BTL)

	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
Savings:	(527,411)	(1,004,721)	486,699	1,094,373	1,247,007	1,247,007
Cumulative Savings:		(1,532,132)	(1,045,433)	48,940	1,295,947	2,542,954
Breakeven Point:		FY92				

* Assumes that purchase and installation costs, as well as BTL's, are incurred according to the following schedule: 36 earth stations in FY89 (25%), 88 in FY90 (60%), and 22 in FY91 (10%). GCI estimate effective 1/1/92.

** Costs are the same as Alternative #1B until mid-FY92, since the system could not go to bid until all Alascom-owned earth stations are replaced.

CORRECTION

**THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY**

TABLE E

ALTERNATIVE #2B* - (State Purchase Of Earth Stations/GCI Estimated System Costs)
 Accelerated Installation

	FY89	FY90	FY91	FY92**	FY93	FY94
	-----	-----	-----	-----	-----	-----
Purch., Btl, Install.,						
Maint., & Lease:	1,550,825	1,962,795	455,040	0	0	0
Depreciation:	26,730	92,070	108,405	108,405	108,405	108,405
Transponder:	879,996	879,996	879,996	799,998	720,000	720,000
Uplinks:	153,144	153,144	153,144	118,572	84,000	84,000
TV Oper. Center:	76,128	76,128	76,128	38,064	0	0
	-----	-----	-----	-----	-----	-----
Total Annual Cost:	2,686,823	3,164,133	1,672,713	1,065,039	912,405	912,405

Total Investment: 3,019,215
 (Purchase + Install. + BTL)

	FY89	FY90	FY91	FY92	FY93	FY94
	-----	-----	-----	-----	-----	-----
Savings:	(527,411)	(1,004,721)	486,699	1,094,373	1,247,007	1,247,007
Cumulative Savings:		(1,532,132)	(1,045,433)	48,940	1,295,947	2,542,954
Breakeven Point:	FY92					

* Assumes that purchase and installation costs, as well as BTL's, are incurred according to the following schedule: 36 earth stations in FY89 (25%), 88 in FY90 (60%), and 22 in FY91 (10%). GCI estimate effective 1/1/92.

** Costs are the same as Alternative #1B until mid-FY92, since the system could not go to bid until all Alascom-owned earth stations are replaced.

TABLE F**SUMMARY OF ALTERNATIVES**

OPTION -----	OWNERSHIP -----			LICENSES -----		REQUIRED INVESTMENT -----		OPERATING COSTS -----	
	Earth Station	RATNET LPTVs	LA LPTVs	RATNET LPTVs	LA LPTVs	STATE	OTHER	STATE (Annual)	OTHER
I.									
Status quo (Sec. 2)	146 Alascom 102 State	248 State	235 State	248 State	235 State		NA	\$2.27 million	NA
II.									
Local Production and Broadcast Only Using LearnAlaska LPTVs (Sec. 3)	146 Alascom 102 State	248 State	235 Local	248 State	235 Local	0	\$5,100 - \$9,500 video camera, VCR, time base corrector	0	space, power, heat
III.									
Local Production and Broadcast Only with Regional Production Centers (Sec. 3)		Same as II		Same as II		0	\$50,000 estimated	0	Unknown

OPTION -----	MAINTENANCE RESPONSIBILITY ----- RATNET LA	SAVINGS TO STATE ----- (Annual)	ADVANTAGES -----	DISADVANTAGES -----
I. Status quo (Sec. 2)	State	NA	EBS, statewide news, data transmission, public affairs, and other programs of statewide interest that only a system can provide.	Little programming flexibility; Programs must be of general interest to majority of RATNET constituency.
II. Local Production and Broadcast Only Using LearnAlaska LPTVs (Sec. 3)	State *Other	0	Program choice closer to viewer; permits broadcasting of events of local interest (e.g., school activities, fishing reports); encourage preservation bilingualism and native culture; does not use RATNET LPTVs or earth stations.	Difficult to fill schedule with only local events and alternative videotape sources limited; may be impractical for smaller villages.
III. Local Production and Broadcast Only with Regional Production Centers (Sec. 3)	Same as II	0	Broaden availability of videos by providing central location to bicycle tapes among communities; improve production technical capabilities; allow regional emphasis.	

OPTION -----	OWNERSHIP -----			LICENSES -----		REQUIRED INVESTMENT -----		OPERATING COSTS -----	
	Earth Station	RATNET LPTVs	LA LPTVs	RATNET LPTVs	LA LPTVs	STATE	OTHER	STATE (Annual)	OTHER
IV.									
Netlink System plus RATNET-type System (Sec. 4)	146 Alascom 102 State 235 local or 160**	248 State	235 Local	248 State	235 Local		\$17,000 per earth station \$300 per community for descrambler		space, power, heat, \$768 annual subscription per community
V.									
Netlink System without RATNET-type System (Sec. 4)	248 Local (Could transfer either set of transmitters and equivalent number of earth stations.)	235 State	248 Local	One set State and one set local. See cell to left.			\$17,000 per earth station (146 total) \$300 per community for descrambler \$1,700 per receiver (102 total)	0	Maintenance, space, heat, power; possibly legal.
VI.									
Public Television Over RATNET (Sec. 5)	146 Alascom 102 State	248 State	235 State	248 State	235 State	0	NA	\$1.9 million	NA

OPTION	MAINTENANCE RESPONSIBILITY		SAVINGS TO STATE	ADVANTAGES	DISADVANTAGES
	RATNET	LA	(Annual)		
IV.					
Netlink System plus RATNET-type System (Sec. 4)	State	*Local	0	Six tv channels to choose from; local programming deci- sions.	Supply of Netlink-type services limited; broadcasters oppose; could bring charges of piracy.
V.					
Netlink System without RATNET-type System (Sec. 4)	One set of LPTVs	Earth stations and one set of LPTVs.	\$2.27 million	Removes the State from tv provision; same as IV above.	Prohibit statewide ITV, EBS, data transfers, public affairs; for public safety programming and would be difficult to reverse action; capital expenditure required; same as IV above.
VI.					
Public Television Over RATNET (Sec. 5)	State	NA	\$406,800 maximum	Preserve system uses (See I); possible additional ITV; may be additional savings from reduced rates.	May not be able to broadcast commercial productions of news and entertainment; PTV designed as alternative to commercial tv; viewers may not like switch; lose rural parti- cipation in program selection. Capital expenditure required.

OPTION	OWNERSHIP			LICENSES		REQUIRED INVESTMENT		OPERATING COSTS	
	Earth Station	RATNET LPTVs	LA LPTVs	RATNET LPTVs	LA LPTVs	STATE	OTHER	STATE (Annual)	OTHER
VII. State Ownership of All Earth Stations (Sec. 8)	146 State	248 State	235 State	State	State	193 million purchase, install, and btls (estimated)	NA	191.4 million	NA
VIII. Competitive Bid of RATNET System (Sec. 8)		Same as VII		Same as VII		Same as VII		1.02 million (estimated by potential third-party vendor)	NA

Source: Division of Policy, Office of the Governor