

CS

STR

5

2-6-75

COMMITTEE REPORT

HOUSE

Mr. Speaker:

Date _____

The Committee on COMMERCE has had CSJR 5

under consideration. A Majority of the members of the Committee

() recommends it DO PASS

() recommends it DO NOT PASS

() recommends it DO PASS WITH ATTACHED AMENDMENT(S)

() recommends it BE REPLACED WITH CS FOR _____ AND THAT

CS FOR _____ DO PASS

() "and" recommends it BE REFERRED TO THE _____

COMMITTEE

() reports it back WITHOUT RECOMMENDATION

() "other"

Members signing the Majority report:

Members NOT concurring in the Majority report:

_____ recommends:
_____ recommends:
_____ recommends:
_____ recommends:
_____ recommends:

Chairman



STATE OF ALASKA
OFFICE OF THE GOVERNOR

February 14, 1975

Full

Walter R. Hinchman, Chief
Common Carrier Bureau
Federal Communications Commission
1919 M Street N.W.
Washington, D.C. 20554

Dear Mr. Hinchman:

In response to the Commission's request that the State comment on the RCA Alaska Communications plan of September, 1974, we submit the attached document.

The position of the State of Alaska is that since the RCA satellite is designed for service to the country as a whole, the merits of the issue now before the Commission should be judged accordingly. The satellite proposed by RCA offers Alaska no better service for voice communications than existing systems and, further, will not meet the comprehensive long-range needs of the State. In view of the Commission's "Open Skies" policy for domestic satellite communications, it seems inappropriate for the State to object to the launch of the satellite. However, the State cannot endorse the RCA plan, as it is not based on a system designed for Alaska's unique needs.

The State's vast distances, rugged terrain, and harsh weather conditions create a situation far different from that of the Lower 48. Our population is small, with twenty percent living in isolated areas connected to the rest of the State and the world only by airplane. With an area one-fifth the size of the entire continental United States and less than 5,000 miles of road, communications in many cases takes the place of transportation for business, education, health service, and personal exchanges. A large portion of Alaska presently has only the sparsest of communications - some have none - lacking in many cases is even the most basic 24-hour voice capability for medical and other emergencies.

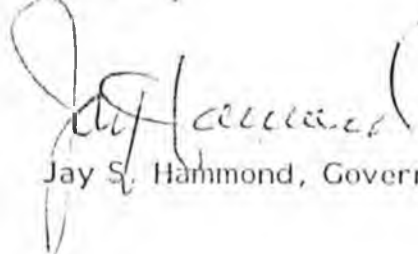
Walter R. Hinchman
February 14, 1975
Page 2

I urge the Commission to take into account the importance of the communications issue in Alaska, as evidenced by the active involvement of the State Legislature in the definition and planning of the system. Attached is a joint resolution and a legislative proposal dealing with the subject.

We realize that much remains to be done. Alaska is in the precedent-setting situation of being able to plan its future communications system rather than having to accept the traditional incremental development. Toward that end my Office of Telecommunications together with members of the Legislature will conduct an intensive six-to-nine month planning effort to fully define the State's long-range communications plans, and to determine alternatives for their implementation.

The record of your assistance and cooperation with the State is well known and I would like to express the appreciation of all Alaskans for your concern. We look forward to working with the Commission to resolve the problems and to meet the special communications needs for Alaska.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jay S. Hammond".

Jay S. Hammond, Governor

State of Alaska Comments
February, 1975

RCA Alaska Communications Plan

In September, 1974, RCA Alascom/Globcom submitted its plan for Alaska Communications, 1974-1980, to the Federal Communications Commission. This plan was reviewed by the previous Administration's Office of Telecommunications and comments were issued in October, 1974. These comments showed that the plan submitted by the RCA companies does not adequately meet the State's need for communications services. The comments further state that economic information presented by RCA was not sufficient to allow analysis of financial aspects of the plan nor to determine the allocation of costs between Alascom and Globcom. A copy of the summary comments issued by the State is attached.

This Administration agrees with the objections expressed in the October comments, confirms their validity, and fully endorses the concepts and recommendations expressed in them.

RCA's Response to the State's Comments

At a meeting in Anchorage on January 13, 1975, RCA presented to the State several documents describing proposed modifications to the plan of September, 1974. These modifications would slightly increase the gain of several transponders and modify the pointing of one antenna to give better coverage of Alaska. The proposed ground system was revised to a modest extent by de-emphasizing the cluster concept and by reducing the size of some earth station antennas.

The increased gain still falls short of the State's recommendation by a factor of 10, and the tilted antenna cannot make up for the other deficiencies of the satellite design. The modified satellite still gives no advantage over existing satellite systems. The ground system modifications were an important first step, the State believes, but need to be carried further to eliminate all "cluster" construction and focus exclusively on a network of small, low-cost ground stations.

Areas of Understanding

Further discussions between the State and RCA in Alaska and in Washington, D.C., have helped clarify some of the issues. Progress made by small working groups demonstrates positive cooperation between RCA and the State on most technical, economic, and management issues. Significant differences persisted only in the area of satellite system design.

Substantial agreement has been reached on the matter of service requirements. RCA has offered to provide the requested economic data concerning accounting procedures.

The State and RCA agree generally on the use of small earth stations for voice communications. Further, RCA has acknowledged the State's position regarding high-power transponders for television and other advanced communications services by offering to put them on future generation spacecraft.

Continuing Concerns

The most serious unresolved problem results from RCA's system concept which is based on a satellite designed to provide services to the Lower 48 states rather than to meet Alaska's needs. The satellite planned for the joint Alascom/Globcom system is far better suited for Globcom's customers than for Alascom's. Acceptance of the RCA plan would preclude the State from obtaining a system optimized for it by forcing the use of facilities not able to provide necessary services on a cost-effective basis.

Because of ill-defined arrangements between the two RCA companies, plus the fact that development and construction of the spacecraft have been underway at RCA Astro-Electronics for more than a year (under waivers from the Commission rather than a Construction Permit) it is our view that Alascom finds itself committed to selling the services of a satellite of marginal utility to its customers. This conclusion is supported by the fact that the RCA plan, still more than a year from operational status, offers no advantage to Alaska over satellites now in orbit.

Service Requirements

To further present the State's needs so that a definitive implementation plan can be developed, a two-phase concept has evolved:

✓ Phase I Voice communications for all permanent communities with a population of 25 or more. This service is urgently needed, primarily for emergency medical use, and shall be initiated on a top priority basis using the most suitable satellite available.

✓ Phase II Television and other comprehensive communications services for all of Alaska. This service cannot be provided with present spacecraft. Therefore, the Administration and the Legislature will undertake a six to-nine month planning effort to determine Alaska's requirements and the best means for meeting them. The significance to the State of the decisions to be made in our long-range planning is very great in terms of future benefits and flexibility of service.

Phase I Status

Phase I calls for small earth stations of fairly simple design and lowest reasonable cost supplied by one of the following:

1. Alascom, utilizing its own earth stations,
2. Alascom, leasing State-owned earth stations,
3. other communications carrier participation,
4. the State of Alaska, using its own facilities.

Due to the urgent need for this service the State is exploring, without prejudice to RCA Alascom, the means for establishing a ground system of approximately 100 earth stations. Initial operation would be on an existing domestic satellite and continued on the most cost-effective spacecraft available. Initial steps to begin the process of State procurement have been taken by the State Legislature through the introduction of enabling legislation. (See Attachment)

1 SB 149

Phase II Plans

Because of Alaska's need for an extensive network of small, low-cost earth stations, high-power transponders are necessary to provide these comprehensive communications services, and to do so on a cost-effective basis.

RCA agrees to the need for high-power transponders but contends that construction of the first two spacecraft is too far along to incorporate such changes. RCA has offered to place a limited number of such transponders on later satellites if the State makes a substantial long-term financial commitment.

It has become apparent from the discussions of the past several months that far more extensive study and planning must be done before the State makes any major, long-term commitments. The State Legislature and the Governor's Office of Telecommunications are developing the framework under which this planning will be done.

Conclusions and Recommendations

The State concludes that the current RCA satellite plan offers no advantage to Alaska over existing satellite systems. Even the State's Phase I requirements can be met by existing satellites. There is clearly no advantage for the State to wait for the launch of an RCA satellite which can only provide similar services.

Since the Commission has an "Open Skies" policy with respect to domestic satellite communications, and because the RCA system is largely designed to provide service outside the State, it is inappropriate for Alaska to object to the launch of the RCA spacecraft.

It cannot be overemphasized, however, that Alaska in no way endorses the RCA plan as designed for, or meeting Alaska's needs; nor should the Commission grant a Construction Permit to RCA on the grounds that the proposed system meets Alaska's needs.

It should be noted that the objections of the State are based primarily on the design of the satellite to be used by Alascom, and not, in any manner, to the participation of that company as a communications carrier for Alaska.

On the basis of the above, the State of Alaska recommends to the Federal Communications Commission that:

1. Alaska not be required to use a specific satellite, RCA or other, to supply Phase I or Phase II services if in the State's judgement, a more cost-effective option is available;
2. Any carrier providing Phase I service to Alaska be required to meet the following criteria:
 - a. Compliance with State-approved small earth station specifications, and State-approved mixture of satellite and terrestrial services;
 - b. Satisfactory presentation of economic data, including accounting procedures and rate separations methods;
 - c. Full disclosure of business relationships among companies subsidiary to a common management;
3. The Commission judge the RCA Alaska Communications plan at issue only on the merits of service proposed for the entire United States, and not on the basis of specialized service for Alaska.

October 14, 1974

Comments on Sections II, III, and Attachments: The Technical Factors

Before summarizing the technical factors in RCA's "Alaskan Communications Plan 1974-1980," it should be mentioned that much information is missing and much that has been presented is misleading or contradictory. In the following comments, only the major issues have been addressed; opportunity should be reserved to comment further on these and other issues when RCA provides a clearer plan for review.

The major technical shortcomings of the plan can be summarized as follows:

1. The ground station design for telephone service to medium and small communities is approximately three times as expensive as necessary, due to system choice.
2. The design of all the RCA satellite transponders is optimized for telephone service between urban centers and consequently is inappropriate for Alaska's needs.
3. The satellite capacity required for Alaskan phone service is greatly overestimated.
4. The service offered will include two satellite hops (1 1/4 second delay in conversations).

5. RCA's plan proposes construction of expensive ground microwave and VHF systems despite the availability of much cheaper satellite alternatives. *

6. The plan gives no assurance that the satellite antennas will provide the signal strength promised in mainland Alaska.

7. The \$100,000 television reception stations proposed will not provide usable television to two-thirds of Alaska; RCA offers no technically valid alternative for Alaskan television distribution.

If there were no valid alternatives to RCA's proposals, or if the alternatives offered only moderate savings, it might be reasonable to ignore the shortcomings of the plan and allow RCA to proceed. There are, however, far less expensive, proven alternatives available. A more efficient telephone system is used by General Telephone and Electric in Algeria and Brazil. A more efficient satellite transponder design for Alaska is obvious and easy to implement. NASA's ATS-6 satellite provides high quality television to commercial ground stations costing only \$5,000, not \$100,000. The revenue RCA desires from Alaska is far more than that needed to use this efficient technology.

The RCA satellite design reflects none of the recent technology. Though it is supposedly designed to supply Alaska's needs, it will supply signals somewhat weaker than Anik, the Canadian satellite, already in orbit. Though RCA, rather than Western Union, is supposed to serve Alaska, Westar's signals are only slightly weaker in Alaska, only because RCA has requested a more favorable orbital position.