

1 Aleutian East School District; Steve Conn, Executive Director,
2 Alaska Public Interest Research Group; Bristol Bay Telephone
3 Cooperative, Inc.; Steven Levin, Grants Administrator, Matanuska-
4 Susitna Borough School District; Tony Johnston, Information
5 Systems Manager, Matanuska-Susitna Borough School District; Dustin
6 Blake, Colony High School student; Nushagak Telephone Cooperative,
7 Inc.; Cordova Telephone Cooperative, Inc.; and Francis Corvin.

8 At the Public Meeting held November 8, 1995, the
9 Commission considered the proposed regulations, the comments
10 received, the cost impacts to customers, as well as Staff's
11 recommendations. Prior to the Public Meeting, Staff had provided
12 the Commission with a copy of its recommendations. Staff's
13 initial recommended changes are discussed below.

14 1. Revising Section 705(e) to apply to telephone
15 companies (LECs) and to make clear that the placement
16 of new facilities related solely to wireline
17 facilities. This change addressed comments made by
18 several LECs requesting clarification and to make
19 Section 705(e) consistent with Section 705(d).

20 2. Revising Section 705(f)(2) by deleting
21 subsections A and B and adding Section 705(f)(3). The
22 Commission, in Order R-95-4(4), stated that it was
23 appropriate to establish an end-to-end data-rate
24 standard for the entire public switched network to
25 encourage and improve computer networks and
26

1 information highways for subscribers. An end-to-end
2 data transfer rate was proposed, and the Commission
3 sought comment on the proposed rate or, alternatively,
4 the proposal of alternate requirements that will
5 provide a reasonable end-to-end quality of transfer
6 rate for subscribers using modems with a speed of 28.8
7 kilobits (kbps). Staff stated that consumer comments
8 (primarily those of schools) showed an expectation of
9 a minimum of 56 kbps and a willingness to pay
10 reasonable rates for the service. The IXCs asserted
11 that they could not economically provide service to
12 customers using modem speeds exceeding 9.6 kbps.
13 Staff stated that based upon the information
14 available, it could neither confirm nor dispute the
15 IXC's contention that the requirement to provide the
16 28.8 kbps rate is in fact a hardship for the IXCs.
17 Staff suggested that the provision of 28.8 service, as
18 it relates to IXCs, be reviewed at a later date.
19 Neither the LECs nor the IXCs asserted a hardship with
20 respect to the provision of switched 56 kbps service
21 within the time frame set out in the proposed
22 regulations. Several LECs commented that they were
23 able to implement switched 56 kbps service in a short
24 time frame. Based on this, Staff recommended that
25 Section 705(f)(2) be revised to show that LECs provide
26

1 an end-to-end minimum 28.8 kbps per second data
2 transfer rate and Section 705(f)(3) be added to
3 require facilities-based IXCs and LECs to provide
4 switched digital service that operates at a rate of at
5 least 56 kbps to any customer upon request.

6 3. Revising Section 720(a)(8) to make clear that the
7 definition of "telecommunications provider" included
8 LECs as well as facilities-based IXCs.

9 At the Public Meeting, Staff informed the Commission
10 that it had received a review of the proposed regulations from the
11 RUS. Staff stated that it had not had time to consider them in
12 its proposed recommendations. The Commission provided Staff an
13 opportunity to consider the RUS review and make revisions to its
14 initial recommendations. Staff presented the following recom-
15 mended revisions to the proposed STMP regulations to the
16 Commission.

17 1. Revise the title of Section 700 by changing
18 the word "waiver" to "extensions"; revise Section
19 700(c) by changing "...may be modified or waived, in
20 whole or in part, by order of the commission upon
21 application and a showing of good cause or on the
22 commission's own motion in" to "...may be
23 extended for up to five (5) years, by order of the
24 commission upon application and a showing that the
25 required technology is not commercially feasible in
26

1 "; revise the proposed revision to 3 AAC 52.260(e)
2 from "...or seek and obtain a waiver of those
3 requirements...." to "...or seek and obtain an
4 extension from compliance with those
5 requirements...."; revise Section 705(h) from
6 "Notwithstanding the provisions of this section,
7 compliance ..." to "Compliance ...". The intent of
8 Section 705(h) is to ensure that investments in
9 modernization are used in good faith and prudently
10 made. The RUS stated that it appeared that the
11 proposed STMP regulations reserved the right to waive
12 any requirement for any reason at any time. RUS
13 suggested that the language be replaced to make the
14 proposed STMP regulations more consistent with the RUS
15 regulations.¹ Staff's recommended changes to these
16 sections were made to incorporate the RUS requirements
17 into the STMP.

18 2. Revise Section 705(b) from "...develop tariff
19 rates..." to "develop affordable tariff rates...".
20 RUS's comments stated that the medical links and
21

22 ¹ 7 CFR Part 1751 Section 106 Paragraph (b), in part, states
23 that "...the plan developer, may approve extensions of time if the
24 required investment is not economically feasible or if the best
25 available telecommunications technology lacks the capability to
26 enable the Telecommunications Provider receiving the extension to
 comply with the Modernization Plan. Extensions shall be granted
 only on a case-by-case basis and generally shall not exceed a
 total of five years from the first such extension granted to the
 Telecommunications Provider."

1 distance learning services must be affordable and that
2 the proposed STMP regulations do not reference
3 affordability.² This change is not substantive
4 because the concept of affordability should be
5 considered under the general standard of just and
6 reasonable rates (AS 42.05.361 - AS 42.05.421).

7 3. Revise Section 705(b)(2) from "improve the
8 quality of the teleccommunications services within
9 Alaska" to "improve the quality and availability of
10 telecommunications services uniformly deployed
11 throughout rural and non-rural Alaska"; and revise
12 Section 705(b)(4) from "lead to deployment of an
13 intelligent telecommunications network within Alaska."
14 to "lead to uniform deployment of an intelligent
15 telecommunications network throughout rural and non-
16 rural Alaska." RUS stated that the STMP made no
17 reference to the uniform deployment required for rural
18 and non-rural areas.³
19

20 ² 7 CFR Part 1751 Section 106 Paragraph (f) states that the
21 "Modernization Plan must provide guidelines to Telecommunications
22 Providers for the development of affordable (emphasis added)
tariffs for medical links and distance learning services."

23 ³ 7 CFR Part 1751 Section 106 Paragraph (a)(5) states that the
24 modernization plan must provide for uniform deployment schedules
25 to ensure that advanced services are deployed at the same time in
26 rural and non-rural areas. 7 CFR Part 1751 Section 106 Paragraph
(g) states that with regard to the uniform deployment requirement
of the law restated in paragraph (a)(5) of this section, if
services cannot be deployed at the same time, only the minimum
(continued...)

1 4. Revise Section 705(e) from "...depicting a
2 reasonable representation of motion at a rate no less
3 than 120 kbps per second to subscribers" to
4 "...depicting a reasonable representation of motion".
5 RUS believed, with the transmission standard for
6 reception and transmission of data of no less than one
7 megabit per second for new construction, that the
8 proposed standard for full motion video should be
9 higher. RUS stated that the standard should be at
10 least as good as the current Motion Picture Experts
11 Group (MPEG) Phase one standard (the equivalent of a
12 VHS picture quality). Deleting the reference to the
13 120 kilobit per second is intended to establish a
14 standard of video representing motion that is
15 equivalent VHS picture quality.

16 5. Make minor textual changes to Section
17 705(f)(3) and (g)(2). A copy of the proposed STMP
18 regulations and 3 AAC 52.260(e), as revised by Staff,
19 are attached as Appendix B.

20 At the Public Meeting, the Commission adopted the
21 revised regulations delineated on Appendix B. The Commission
22 determined that those regulations be submitted to the RUS for
23 review and approval.

24 _____
25 ³(...continued)
26 feasible interval of time shall separate availability of the
services in rural and non-rural areas.

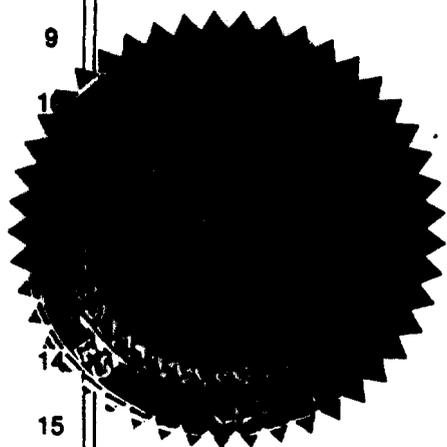
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ORDER

THE COMMISSION FURTHER ORDERS, That, the proposed State Telecommunications Modernization Plan regulations delineated on Appendix B attached to this Order are hereby adopted.

DATED AND EFFECTIVE at Anchorage, Alaska, this 22nd day of November, 1995.

BY DIRECTION OF THE COMMISSION
(Commissioners: Dwight D. Orquist
and Sam Cotten, not participating.)



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To: Don Schröer, Chairman
James E. Carter, Sr.
Alyce A. Hanley
Dwight D. Ornquist
G. Nanette Thompson

Date: November 2, 1995

From: William Marshall, Utilities Engineering Analyst IV *Wen*

Subject: R-95-4, Staff's Summary of Comments to Proposed STMP Regulations

The following is, first a summary of comments in response to Order R-95-4(2), then a summary of comments in response to Order R-95-4(4). After those summaries, is a brief summary, by section, of commentors proposed changes to the STMP.

COMMENTS TO ORDER R-95-4(2)

On August 25, 1995, the Commission issued Order R-95-4(2) which required all certificated local exchange carriers and all certificated interexchange carriers with greater than 10 percent market share to file information on how the adoption of the Rural Utilities Service, United States Department of Agriculture (RUS) standards in the Alaska State Telephone Modernization Plan (STMP) will probably affect its company, including whether compliance would likely have a material impact on rates, costs, and quality of service, and any known technical or other limitation on compliance. The following is a summary of the responses:

Alaska Telephone Association (ATA)

ATA stated that it is a trade association representing twenty-two local exchange companies. ATA submitted a proposed plan that was basically the same as the RUS plan requirements. The ATA plan for short term requirements stated that the 1 Mb/s rate may be accomplished utilizing the placement of Digital Loop Carrier (DLC) equipment. For the medium requirements, ATA recommended that the frame, resolution, and other measures of audio and video quality should be visually and audibly comparable to the video quality that can be achieved by the ISDN NI-1 interface.

Fairbanks Municipal Utilities System (FMUS)

FMUS stated that it is not an RUS borrower and compliance with RUS standards would not likely have a material impact on FMUS' overall future rates, costs, or quality of service, and FMUS was

not aware of any significant technical or other barriers to compliance.

Anchorage Telephone Utility (ATU)

ATU stated that it meets most of RUS' short term and medium term requirements with its present system. ATU stated that it provides only 1-party service, custom calling features, and private line 1.544 Mbps data service. ATU believed that there would be no material impact to its present rates, costs or quality of service. ATU stated that the long term goals of RUS suggest that ISDN should be available. ATU does not presently provide ISDN but is reviewing the financial impacts of providing the service in the future.

Ketchikan Public Utilities (KPU)

KPU stated that it is exempt from local regulation by the APUC and is not a RUS borrower and serves approximately 9,500 access lines. KPU stated that it presently provides custom calling features, 911, one-party service. E911 will be provided if directed by the Ketchikan City Council. Digital voice and data service at rates of 56 kbps and 1.544 Mbps are presently provided on a special access basis. Video transmission will be provided if economically and technically feasible.

KPU stated that the RUS short and medium term requirements regarding 1 Mbps and 164 kbps transmission are ambiguous.

Alaska Telephone Company (ATC)

Bettles Telephone Company (BTC)

North Country Telephone Company (NCT)

ATC, BTC, and NCT collectively serve approximately 3,500 access lines. The companies are not RUS borrowers. The companies stated that they have their own internal strategic plans for deploying new services and upgrading the network. The companies stated that they currently meet the short and medium term requirements of the RUS plan. They provide single party service, custom calling features, and are capable of providing E911. The new facilities are designed for transmission of 1 Mbps with digital carrier equipment. The newer switches are capable of switching digital services. The companies also stated that they meet most of the long term goals.

The companies stated that the majority of high speed data services involve interconnection to a network outside the local service area and the customer needs the IXC to have compatible infrastructure with sufficient capacity.

The companies stated that the RUS plan will not materially affect their operations or cost of service in the long run. The companies stated that they did not believe the RUS plan's intent is to

encourage facility construction without the presence of customer demand.

Cordova Telephone Cooperative, Inc. (CTC)

CTC stated that it is a deregulated cooperative and is not a party in this proceeding. CTC stated that it currently meets the short term requirements and provides one-party service, custom calling features, 1 Mbps service with T-1 carrier, and E911 service. CTC did not expect any significant change in cost of service, local rates, or access rates, provided, however, that there is no change in settlements, and other revenue streams.

CTC stated that, with regard to the medium term requirements, it plans (and is unaware of any technical limitation on its ability) to provide video services outlined in ATA's proposed modernization plan by using a 128 kbps rate. CTC stated that the cost of the service should not affect other rates but could be significantly impacted by regulatory actions or changes in settlements, access, or other revenue streams.

CTC stated that it plans to implement switched 56 in several years and will meet all the RUS long term goals.

United Utilities, Inc. (UUI)

UUI stated that since its local exchange facilities are either currently in compliance with RUS requirements or are expected to be in compliance within a short time frame, it did not expect the adoption of these standards to have a material impact on local exchange service rates. UUI currently provides one-party service, custom calling features, 1 Mbps transmission capability, and switched 56 service with installation of line cards. UUI will be able to provide E911 in two years.

Telephone Utilities of the Northland, Inc. (TUNI)

TUNI stated that by the end of 1995, it will meet the short term requirements. TUNI will provide one-party service, custom calling features, transmission at 1 Mbps, and E911. TUNI meets the medium term video requirement since the service is available upon request.

TUNI stated that it is unable to quantify the costs of the 56-164 voice and data, 1 Mbps transmission, and video requirements. TUNI suggested that the STMP should address who will be responsible for paying the costs of upgrading all local loops prior to service demand if that is the intention of the Commission.

Telephone Utilities of Alaska, Inc. (TUA)

TUA stated that it meets the short term requirements and is capable of providing the video transmission capability upon request. TUA

stated that the digital voice and data (56-164 kbps), 1 Mbps transmission, and video requirements will have an attendant cost. TUA suggested that the STMP should address who will be responsible for paying the costs of upgrading all local loops prior to service demand if that is the intention of the Commission.

Bristol Bay Telephone Cooperative, Inc. (BBTC)

BBTC stated that it currently complies with the RUS short, medium, and long term requirements as they relate to one-party, custom calling features, E911, and 1 Mbps transmission. BBTC stated that in King Salmon, Naknek and South Naknek, its telephone cable is capable of transmitting video signals between these communities and the switching systems within those communities is capable of providing digital voice and data service (56 - 164kbps). In other communities served by BBTC, BBTC stated that its cable system is capable of transmitting good quality video signals and digital voice and data (56 - 164 kbps) for a distance of up to 12,000 feet (without repeaters) at a cost of approximately \$4,000 to \$6,000 per subscriber. BBC stated that in the outlying communities, the cost of digital voice and data will cost approximately \$3,000 to \$4,000 per customer.

Bush-Tel, Inc. (Bush-Tel)

Bush-Tel stated that it currently meets the short term requirements of one-party service, custom calling features, and 1 Mbps transmission (with addition of T-1 type services). Bush-Tel stated that 1 Mbps service beyond the local network is dependant on the capabilities of the IXC. Bush-Tel stated that the medium requirement for full motion video can be provided over the 1 Mbps transmission system and that no governmental agency in its service area has requested E911 since many rural communities do not have actual street addresses for residences.

GCI Communication Corp. (GCI)

GCI stated that it believed that the short term requirements were applicable to only LECs.

GCI stated that it believed that the medium term requirements were applicable to only LECs. GCI stated that it can currently interconnect with video to LECs on a private line basis, subject to underlying capacity constraints in the market served. GCI stated that "To the extent that the standard included in the ATA STMP, 'ISDN...interface', is utilized to define such local loop capability and the switching of video utilizing such standard is implied, GCI cannot currently do so, however GCI could, with the addition of additional equipment if the market demanded such service". Such capabilities are anticipated to become increasingly available, with little effect on interexchange rates over the medium term assumed by the requirements

GCI stated that the long term goals applied to LECs. GCI stated that it could provide digital voice and data service (56-164kbps) and video connections on a private line basis. GCI stated that it currently provides the switching of data in multiples of 56 kbps, in Anchorage and Fairbanks. This can also occur in other GCI markets with the addition of additional equipment wherever the LEC can interconnect at this rate or through direct interconnection with an end-user.

Alascom, Inc. d/b/a AT&T Alascom (AT&T Alascom)

AT&T Alascom asserted that the RUS service standards do not apply to IXCs and cannot be reasonably imposed on non-RUS borrowers at this time. AT&T Alascom stated that it may possess the technical capability to provide those customers with video teleconference services, but it may choose not to do so if it would exceed the customer's needs or ability to pay. AT&T Alascom stated that "To use RUS's words, certain services may be technically feasible but not economically feasible." AT&T Alascom stated that its answers assume that it will have an opportunity to earn a fair return on any investment made in the enhanced services identified by the RUS.

AT&T Alascom stated that technological upgrades are almost always costly, the impact of these costs on rates can be mitigated if the upgrades are phased over time as obsolete equipment is retired. AT&T Alascom stated that it does not anticipate that the improvements contemplated by the RUS plan will be seriously disruptive, so long as it is permitted to manage the upgrade process in an orderly fashion and so long as economic feasibility remains part of the equation.

Copper Valley Telephone Cooperative, Inc. (CVTC)

CVTC stated that it is a RUS borrower and serves approximately 4,500 access lines. CVTC stated that it will be able to comply with the short term RUS standards. CVTC stated that some customers are served by wireless facilities and that those customers may not receive all custom calling features and have E911 service. CVTC stated that it currently has switched 56 kbps software available in its Valdez and Glennallen central offices and with some additional hardware can provide a satisfactory quality of video transmission. CVTC stated that it expects to be able to offer digital voice and data services (56-164 kbps), at a minimum, as a local special access service, and in all probability as a switched service as well. CVTC stated that its ability to offer service of the standards discussed in this filing is very heavily dependent upon the continuation of USF and DEM weighting support which enables rural utilities to provide universally available high-quality telephone service in remote and high-cost areas.

Nushagak Telephone Cooperative, Inc. (NTC)

NTC stated that it currently provides one-party service. NTC stated that it is capable of providing the 1 Mbps transmission service. Over half of its customers are over 10,000 feet from the central office (CO) and NTC would have to add additional investment to provide the 1 Mbps service to them. The additional investment would have a rate impact and demand for the service is questionable.

NTC stated that its COs are capable of providing custom calling features. The features have not been installed on the smaller COs because there was not be sufficient demand to support the investment.

NTC stated that E911 capability can be installed in its COs, however it did know the costs. It believed that the requirement would have an impact on rates. NTC stated that deployment of E911 in small villages may not practical because of the seasonal nature of the service and that the Commission should make a provision for a test of reasonability.

NTC stated that there would be little demand for video service in the remote areas. NTC suggested that less demanding provisions be required so that these applications can be dealt with as specialized cases without a time frame.

NTC stated that it was concerned that if a STMP is drafted with language as presented by RUS that customers may feel that they have a right to demand services that are not cost effective for the utility to provide. At the same time the service providers need to be aware that if they don't respond to the needs and wants of the customers that independent solutions will be considered and may very well become future competitors.

Arctic Slope Telephone Association Cooperative, Inc. (ASTAC)

ASTAC stated that it currently provides one-party service and custom calling features to all subscribers. ASTAC stated that it could provide 1 Mbps transmission with additional investment in T-1 equipment. ASTAC stated that the service would be provided on a dedicated, nonswitched basis. ASTAC stated that full motion video can be provided over the circuits equipped to provide 1 Mbps transmission. ASTAC stated that it has submitted a proposal for E911 services to the local government in the area that it serves but the proposal has not been approved.

Yukon Telephone Company, Inc. (YTC)

YTC stated that it currently meets all the RUS short term and medium term requirements except for E911. Regarding E911, YTC stated that its data base for cross-referencing the telephone

number to a physical location is problematic because the data base is maintained in Wasilla and not at its exchange locations. YTC stated that if the limitation of standard twisted pair wire are accounted for in the quality standard for video transmission, it meets this requirement. YTC stated that it appeared that it would be capable of meeting the long term goals.

YTC stated that any plan adopted by the Commission must reflect the assumptions that the LEC will be allowed to recover the cost of providing a particular service through rates and that there needs to be a coordinated effort by the customers, the LECs, and IXCs in providing some of the services.

Matanuska Telephone Association, Inc. (MTA)

MTA stated that it is deploying new technologies and deploys new services after analyzing customer demand and economic feasibility. The services will be deployed uniformly throughout its rural and non-rural serving areas. MTA will provide medical and distance learning service upon request, if feasible, and with Commission approval.

MTA stated that approximately 94% of its subscriber facilities are protected in the event of an electric power outage.

With regard to the short term RUS requirements, MTA stated that it is not able to provide 1 Mbps transmission to the Talkeetna, Cantwell, Healy, and Clear exchanges because the IXC toll network serving those areas uses analog microwave radios. MTA stated that once the IXC network is upgraded to digital, it will be able to provide 1 Mbps transmission using special construction to upgrade its own network. With the addition of equipment and special construction, it is able to provide 1 Mbps transmission in its other exchange service areas.

MTA stated that it currently provides one-party service and is able to provide custom calling features to all wireline customers. E911 service could be provide upon request.

With regard to the medium term RUS requirement for transmitting video, MTA stated that it will build its system, or add equipment, to provide the capability of video service comparable to the quality of the ISDN NI-1 interface. MTA stated that approximately 65% of its loops are within 12,000 feet of the CO. The longer loops will require special construction to provide the service.

MTA stated that its long term goals are consistent with the RUS goals.

MTA stated that USF support is being reviewed and there is a possibility of local loop competition. Given the potential of these two issues to shift MTA's costs and related revenue

requirement, it would be premature to state that the adoption of an Alaskan STMP would not materially affect MTA's rates and costs in the future.

GTE Alaska Incorporated (GTE)

GTE stated that it is not a RUS borrower. GTE stated that it currently has only eleven multi-party lines in service. The multi-party lines will be upgraded upon request. The charges for the upgraded service will be consistent with its existing tariff. GTE stated that it currently provides T-1 service as a tarified offering. All new facilities, with the addition of equipment, will be able to provide transmission at a rate of 1.544 Mbps.

GTE stated that custom calling features are available at eleven of its twelve COs. The Moose Pass CC is scheduled for replacement in 1996 and with the replacement, custom calling features can be provided from all its COs.

GTE stated that it is currently capable of providing E911 in all of its exchange areas.

With regard to the RUS medium term requirements, GTE stated that it is capable of providing reasonable representation of motion video over copper facilities. Additional equipment would have to be installed by GTE to provide the service. The requesting customer would have to agree to pay individual cost basis prices and sign a contract to obtain this video service.

GTE stated that it is providing 56 kbps service in many of its exchanges upon demand at the appropriate tarified rate for those services. GTE is capable of providing 56 to 164 kbps digital voice and data services in all of its exchanges.

OTZ Telephone Cooperative, Inc. (OTZ)

OTZ stated its switching equipment is fully digital. The villages OTZ serves are all compact and the local loops are short. OTZ stated that locally it can provide inexpensive high-speed digital service. At a reasonable cost, OTZ can upgrade the software in all of its switches to support E911 as well as other advanced calling features. OTZ's primary concern is that the cost of obtaining bandwidth over the satellite will continue to remain prohibitively expensive.

Interior Telephone Company, Inc. (ITC)
Mukluk Telephone Company, Inc. (MTC)

ITC/MTC stated that they currently provide only one-party services. 1 Mbps transmission can be provided with additional equipment. The costs would range from \$5,000 to \$40,000 depending on the customer location and requirements. ITC stated that it currently is able to

provide 1 Mbps switching at its Unalaska/Dutch Harbor exchange.

ITC/MTC stated that, with regard to 1 Mbps data, intrastate or interstate service in its exchanges is dependent on the earth station facilities which are owned by the IXC. At the present, many of the IXC facilities have not been upgraded from analog to digital technology. In ITC's service areas, the communities of Port Lions and Cooper Landing are still served by analog earth stations. For MTC, only the community of Teller has a digital earth station. ITC/MTC stated that providing the high speed digital services is dependant on the IXC upgrading its facilities.

Three way calling is currently available in Sand Point, Cold Bay, Iliamna, Cooper Landing, Galena, and Forth Yukon. The other custom calling features are available in all of ITC/MTC's service areas. ITC/MTC estimated \$3,000 per switch for the upgrade to provide three way calling.

ITC/MTC stated that the video service can be provided to subscribers over switched or nonswitched data circuits that have been equipped with the necessary end electronics to provide the data compression of 1 Mbps video signal.

ITC/MTC stated that the only exchange equipped with E911 capability is Cooper Landing. ITC/MTC stated that governmental agencies have not requested the service in many cases because there is a lack of emergency facilities in many communities and difficulties in identifying a resident's physical address in many communities.

ITC/MTC stated the USF and DEM weighting support are under review and any changes in that support may have a significant impact on the cost to local ratepayers for necessary upgrades under the STMP.

Summit Telephone Company, Inc. (Summit)

Summit stated that E911 and custom calling features can be made available with a software addition to its two digital switches. Because its customers are spread out and the local loops are long, Summit stated that the provision of 1 Mbps service would require the addition of subscriber carrier equipment which would be expensive. Summit stated that 30 of its 80 customers at Cleary Summit were served via BETRS. All access lines a one-party.

Circle Telephone Company (Circle)

Circle stated that its COs are digital and that it did not foresee any problems in upgrading it switches. Circle stated that it had inquired about a T-1 connection with the IXC and was told that it was not economically feasible due to the size of Circle.

COMMENTS TO ORDER R-95-4(4)

On September 29, 1995, the Commission issued Order R-95-4(4) requesting comments to the Commission proposed STMP regulations. The following is a summary of the comments.

Aleutians East Borough School District (AEBSD)

The letter stated that the AEBSD includes the communities of Akutan, Cold Bay, False Pass, King Cove, Nelson Lagoon, and Sand Point. The AEBSD stated that over half of its communities cannot sustain even 2400 baud connections and e-mail services. The AEBSD needs access to Internet and world wide webb vendors to provide students a competitive educational experience. The AESBD expressed concern that a waiver for "good cause", may be too easily granted.

The AESBD stated that the schools need video transmission at a reasonable representation of motion rate of 120 kbps now, the end to end transfer rate of 30 kbps is too low a standard. The AESBD stated that the schools need universal availability to transmit and receive digital voice, data, and images at high bit rates -- at a minimum of 56 kbps now and soon service at 100 to 164 kbps will be required. The AESBD requested that the Commission speed up the deadlines for this service.

Fairbanks North Star Borough School District (FNSBSD)

FNSBSD stated that the 30 kbps end-to-end standard is inadequate and that 56 kbps is not adequate bandwidth for a single school. FNSBSD stated that the International Telecommunications Union (ITU) V.34 standard which established the 28.8 kbps transfer rate is being amended to include transfer rates of 33.6 kbps, and modems exceeding 30 kbps are currently available commercially. Even the fastest modems cannot support videoconferencing and other high bandwidth telecommunications needs. FNSBSD stated that it is willing to pay a fair market value for these services, but the services are not available.

FNSBSD stated that it proposed that every school, library, hospital, business, or public agency have a minimum of 128 kbps available, and that the timeline for implementation be shortened as much as possible. The STMP should not only address current needs but also future needs.

Denali Borough School District (DBSD)

DBSD stated that the minimum data transfer speed and bandwidth did not go far enough. DBSD stated that every school, hospital, and library in the State of Alaska should have access to a minimum of 128 kbps as soon as is practical. This level of bandwidth and connectivity to state, national, and global

resources would undoubtedly result in increased economic development in rural and remote areas of the state as well as provide emergency and public agencies with a means to achieve significant economies in their operations.

Anchorage Telephone Utility (ATU)

ATU stated that 30 kbps is not a standard transmission rate. ATU recommended a standard of 28.8 kbps for the end-to-end rate.

ATU stated that the next higher available standard is 56 kbps and is available from many carriers, including ATU.

Kuspuk School District (KSD)

KSD stated that its school district covers over 12,000 square miles with eleven separate schools. Communication is essential in managing an effective educational program. The inability to access networks within the state, national, and global area are detrimental to KSD's educational program and to the students. KSD requested the Commission encourage the upgrading of the network. KSD stated that its experience is that it can only send e-mail at a rate of 2400 baud or less.

Iditarod Area School District (IASD)

IASD stated that 30 kbps by 2003 will not meet the needs for statewide telecommunications, and even 56 kbps may not be sufficient. IASD encouraged the Commission to reconsider the setting of a minimum transfer rate.

Bristol Bay Telephone Cooperative, Inc. (BBC)

BBC stated that the proposed STMP was not clear as to whether it applied to customers served by BETRS. BBC suggested that it should not include BETRS and should only include wireline services. BBC stated that it intended to present oral comments at the November 3, 1995 public hearing.

Cordova Telephone Cooperative, Inc. (CTC)

CTC stated that it intended to present oral comments at the November 3, 1995 public hearing.

GCI Communication, Corp. (GCI)

GCI stated that the STMP should strictly apply to perspective RUS borrowers only. The Commission should set only reasonable requirements and goals, recognizing the unique structure and status of the Alaska telephone market and industry. GCI recommended changing Section 700 to state as follows:

(a) The provisions of 3 AAC 53.700 - 3 AAC 53.720 apply to all local exchange carriers obtaining qualifying RUS loans after the effective date of these regulations....

and

(b) The purpose of 3 AAC 53.700 - 3 AAC 53.720 is to ensure compliance with the existing regulations of the Rural Utilities Service, United States Department of Agriculture, to ensure that otherwise eligible RUS borrowers in Alaska are not denied RUS loans. Within this purpose, it is the intent of the Commission to....

GCI stated that the capacity mandates for local loop, especially those for video transmission raise serious cost recovery questions. GCI stated that LEC responses provide little cost information for the video services, but generally state that these upgrades are not significant. GCI stated that, if the costs are significant, it is unfair and anticompetitive to saddle captive telephone rate payers, including access rate payers, with the potential cost of any capacity overbuilds (and associated premature copper retirement) in the local loop, when the expense is required for video capabilities. Commission should ensure that the cost causer is the cost payer.

GCI stated that the Commission should carefully review cost impact and demand for service as it considers adding the capabilities and "carefully weigh whether the language contained in its ratemaking statute, AS 42.05.431, is sufficiently clear and germane to these issues to allow for effective regulation of the results".

GCI also stated that standards of service for non-dominant carriers were expressly waived (3 AAC 52.385). GCI stated that the dominant carrier is guaranteed to recoup its investment through a rate of return on rate base. GCI stated that this is not true for the non-dominant carrier. The non-dominant carrier should be allowed to provide a lesser standard of service than the dominant carrier if it elects to do so. GCI proposed to change Section 700 of the proposed regulations to "The provision of 3 AAC 53.700 - 3 AAC 53.720 apply to...[facilities-based] dominant intrastate interexchange carriers certificated by the Commission."

GCI expressed concerns with the 30 kbps minimum end-to-end data transfer rate. GCI stated that when transmitted in an analog format to the IXC by the LEC, such capability actually requires 56 to 64 kbps clear channel, or uncompressed, transmission capabilities. GCI stated that there are trade offs between capital invested to provide bandwidth, and capital invested in electronics to maximize the efficiency of the bandwidth. GCI has used compression for efficient use of bandwidth. GCI stated that if additional bandwidth were required additional equipment would have to be added to recognize modem or fax tones. GCI stated that this

equipment would add between 4.8% of the costs for the proposed bush DAMA site, to approximately 22% for a bush hub site.

GCI stated that 28.8 kbps in analog format would at least require 56 kbps of "clear channel" capacity for reliable transmission. GCI stated 56 - 64 kbps of IXC bandwidth end-to-end for every call would defeat any attempts to efficiently configure the IXC network's existing voice traffic (2 to 1 compression; 32 kbps digital path per trunk) and would require that expensive bandwidth be wasted on every call that does not require the full 64 kbps. GCI estimated that this would raise the annual operating costs of bush hub stations by approximately 17.1%. If the capacity were required to be available automatically, through the use of voice/data discrimination equipment, annual operating costs of bush and hub stations would raise by approximately 8.8%.

GCI stated that Section 705(f)(2) should apply to telephone companies and subsection (B) relating to the end to end transfer rate should be deleted. GCI stated that if the Commission did decide to establish a standard, it should be set a 9.6 kbps.

Alascom, Inc. d/b/a AT&T Alascom (AT&T Alascom)

AT&T Alascom supports the comments of GCI regarding the 30 kbps end-to-end data transfer rate. AT&T Alascom stated that the proposed STMP may be in conflict with the final 2001 Advisory Committee recommendations, pending federal deregulation legislation, and numerous other technological and market developments that may occur in the future. Alascom stated that it is imperative that commercial feasibility be a clear condition to all STMP requirements and goals. It simply may not be feasible or cost effective to provide such high levels of transmission capacity to every community of 25 or more persons throughout Alaska. The proposed 30 kbps and the 120 kbps rate for video transmission do not appear in the RUS regulations where as Order R-95-4(4) stated that the Commission's intent is to reflect the RUS requirements for STMP.

Matanuska Telephone Association, Inc. (MTA)

MTA expressed concern regarding the 30 kbps end-to-end data transfer rate. MTA stated that its system had a considerable number of long loops with load coils that will not allow for reliable data transfer rates over 9.6 kbps. In addition, MTA stated that the analog line cards used on its switching systems do not support through-put of more than 9.6 kbps. MTA stated that to meet the 30 kbps rate, MTA would be required to provide customers with digital subscriber loops by means of ISDN or switched 56 service.

MTA suggested that the term "facilities" used in Section 705(e) should be clarified to include or exclude radiotelephone

subscribers. MTA recommended that the end to end standard be changed to a minimum speed of 9.6 kbps. MTA stated that the 30 kbps end-to-end transfer rate is not currently economically feasible in many rural areas of the state. MTA provided a schedule showing that it estimated \$22,127,500 to convert its subscribers to Integrated Services Digital Network (ISDN, digital loops).

Matanuska-Susitna School District and Borough (Mat-Su School District)

The Mat-Su School District stated that the 30 kbps rate was not adequate. Recommends a rate of 128 kbps or higher be set.

Alaska Gateway School District (with seven attached letters)

The Alaska Gateway School District stated that the 30 kbps was unacceptable for the students in Alaska, recommended 128 kbps or better.

Summary by STMP Section

3 AAC 53.700

GCI proposed changes to Section 700 (a) and (b). GCI recommended changing Section 700 "(a) The provisions of 3 AAC 53.700 - 3 AAC 53.720 apply to all local exchange carriers obtaining qualifying RUS loans after the effective date of these regulations...." and (b) "The purpose of 3 AAC 53.700 - 3 AAC 53.720 is to ensure compliance with the existing regulations of the Rural Utilities Service, United States Department of Agriculture, to ensure that otherwise eligible RUS borrowers in Alaska are not denied RUS loans. Within this purpose, it is the intent of the Commission to....".

In addition, GCI proposed to change Section 700 of the proposed regulations to "The provision of 3 AAC 53.700 - 3 AAC 53.720 apply to...[facilities-based] dominant intrastate interexchange carriers certificated by the Commission."

No other recommended changes were proposed for this Section.

3 AAC 53.705

No recommended changes were proposed for Section 705(a) and (c).

With regard to Section 705(b), GCI recommended that the order adopting this provision must state that it is merely a restatement of the existing RUS guidelines and that the Commission deems them sufficient to accomplish the stated purposes.

No changes were proposed to Section 705(d), the short term requirements, were made. The majority of the LECs stated that they would or are now capable of meeting these requirements.

No changes were proposed changes to Section 705(e), medium term requirement. The majority of the LECs stated that they will be able to provide the 1 Mbps transmission rate. Several utilities stated that they had long local loops in their system and could provide the service with additional equipment and special construction. Several utilities stated that they are currently providing, under tariff, 1.544 Mbps services.

No changes were proposed to Section 705(f) (1) (A) - (B).

With regard to Section 705(f) (2) (B), a considerable number of comments were received. The comments received from the school districts stated that 30 kbps end-to-end data transfer rate was inadequate. Commentors recommended that the rate be 128 kbps. ATU suggested using 28.8 kbps. GCI, AT&T Alascom, and MTA recommended 9.6 kbps.

No changes were proposed regarding the remaining sections of the STMP.

3 AAC 52.260(e) is repealed and readopted to read:

(e) A telephone utility shall design and install facilities to comply with the requirements set out in the 3 AAC 53.700 - 3 AAC 53.720 (State Telecommunications Modernization Plan) or seek and obtain an extension of time to meet those requirements in accordance with the provisions of 3 AAC 53.700. (Eff. 1/5/79, Register 69; am __/__/__, Register __)

Authority: AS 42.05.141 AS 42.05.291 AS 42.05.331
AS 42.05.145 AS 42.05.311 AS 42.05.800
AS 42.05.151 AS 42.05.321

3 AAC 53 is amended to add a new article 5 and sections to read as follows:

[Publisher: Please add the following new article to the article listing for 3 AAC 53.]

ARTICLE 5. STATE TELECOMMUNICATIONS MODERNIZATION PLAN

- Section
- 700. Applicability, purpose, and extensions
- 705. Modernization plan requirements
- 710. Reporting requirements
- 720. Definitions

3 AAC 53.700. **APPLICABILITY, PURPOSE, AND EXTENSIONS.** (a) The provisions of 3 AAC 53.700 - 3 AAC 53.720 apply to all local exchange carriers and facilities-based intrastate interexchange carriers certificated by the commission.

(b) The purpose of 3 AAC 53.700 - 3 AAC 53.720 is to

(1) establish a plan defining requirements for the modernization of the public switched telephone network in Alaska;

(2) improve the quality and availability of telecommunications services uniformly deployed throughout rural and non-rural Alaska;

(3) assure the establishment of telecommunications services and facilities that may be required by the public convenience and necessity and the furnishing of service at rates that are just and reasonable; and

(4) lead to uniform deployment of an intelligent telecommunications network throughout rural and non-rural Alaska.

(c) Unless otherwise mandated under AS 42.05, any requirement in 3 AAC 53.700 - 3 AAC 53.720 may be extended for up to five (5) years, by order of the commission upon application and a showing that the required technology is not commercially feasible in accordance with the provisions of 3 AAC 48.805. (Eff. __/__/__, Register __)

Authority:	AS 42.05.141	AS 42.05.221	AS 42.05.311
	AS 42.05.145	AS 42.05.241	AS 42.05.321
	AS 42.05.151	AS 42.05.291	AS 42.05.800

3 AAC 53.705. MODERNIZATION REQUIREMENTS. (a) A telecommunications provider shall design its telephone network to allow for the

expeditious deployment and integration of emerging technologies as they become commercially feasible.

(b) A telecommunications provider may develop affordable tariff rates specifically for medical links and distance learning services provided that they comply with AS 42.05.361 – AS 42.05.421.

(c) A telephone company shall provide reliable powering of ordinary voice telephone service operating over those portions of the telecommunications network that are not network powered.

(d) After February 13, 1997, a telephone company shall

(1) only place new wireline facilities into service that can provide

(A) every subscriber with one-party service and

(B) as built or with additional equipment, transmission and reception of data at a rate no lower than 1 megabit per second; and

(2) only place switching equipment into service that can provide

(A) custom-calling features that, at a minimum, include call waiting, call forwarding, abbreviated dialing, and three-way calling and

(B) E911 service for areas served by the telephone company when requested by the governmental agency responsible for that service.