

SCOMM

106:1

HOUSE SPECIAL COMMITTEE ON TELECOMMUNICATIONS

Hearings December 11 & 12, 1997

THURSDAY, DECEMBER 11, 1997

9:00-9:30

Welcome and Opening Remarks, Representative Brian Porter, Chair.

9:30-10:00

Xe'Net Limited, John Ayers

10:00-10:30

AT&T Alascom, Jerry DeFrancisco/Ashby Riley

10:30-10:45 BREAK

10:45-11:15

✓ Arctic Slope Telephone Association, Dave Fauske

11:15-11:45

X Alaska Public Interest Research Group, Stephen Conn

11:45-1:00PM LUNCH

1:00-1:30

X GTE Alaska Inc., Alan Eaker

1:30-2:00

X ATU Telecommunications, Gordon Parker/Tom Edrington

2:00-2:30

X Matanuska Telephone Association, Greg Berberick/Scott Smith

2:30-2:45 BREAK

2:45-3:15

United Utilities Inc., Steve Hamlen

3:15-3:45

✓ Alaska Network Systems, Inc., Chuck Hensley

Continued on next page

-----Thursday continued-----

3:45-4:15

Ketchikan Utilities, Telephone Division, Edward Carter

4:15 Adjourn until 9:00AM, Friday morning

FRIDAY, DECEMBER 12, 1997

9:00-9:30

X TelAlaska Inc., Jack Rhyner

9:30-10:00

X GCI, ~~Dana Tindall~~ Jimmy JACKSON

10:00-10:30

X Alaska Telephone Association, James Rowe

10:30-10:45 BREAK

10:45-11:15

X Bethel District Delivery Consortium, Red Boucher, Martin Leonard,
Bob Medinger, Rebecca Grandusky, (testifying from Bethel)

11:15-11:45

Alaska Public Utility Commission, Sam Cotten, Robert Lohr

11:45

Committee wrap-up, end of hearings.

**Presentation to
House Special Committee
on
Telecommunications**

**by
Chuck Hensley
Alaska Network Systems, Inc.
December 11, 1997**

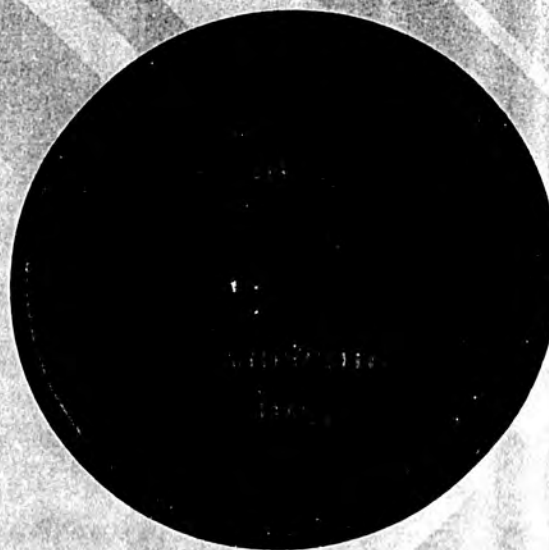
**Interexchange (Long Distance)
Communications**

- Barriers to competitive entry
- Wholesale rate fallacy
- Regulatory lag

Alaska Network Systems Inc.

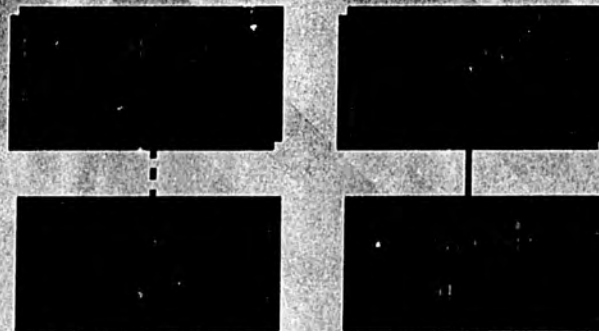
- New long distance entrant
- Owned by 12 local telephone companies
- Zero share of the market

Market Share



Others
2%

Barriers to Entry



A P U C

ANS
\$4 MU

Barriers to Entry



Barriers to Entry

ANS CONTRACT

Delors et al. en el congreso de la Unión Económica y Monetaria en 1992.

Exercitatio illamcorper suscipit erodit hinc omnia ginkhry ij.

Delors et al. en el congreso de la Unión Económica y Monetaria en 1992.

Anchorage Daily News

Attention all interexchange carriers. We now publish all ANS contracts, at reduced rates.

Order yours now --

Increase your competitive edge --

Save a trip to the regulatory agency --

Barriers to Entry



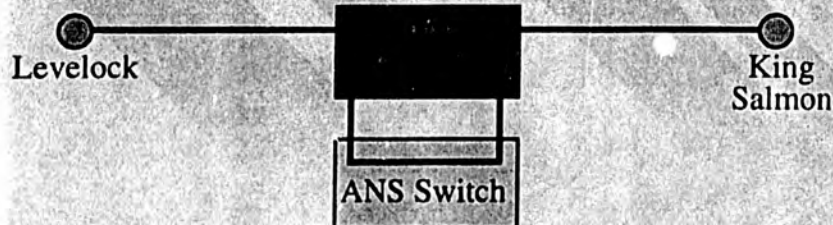
■ **Total separation requirement specifically rejected by the FCC. Not imposed in other states.**

The Wholesale Fallacy

- **“Third, wholesale rates had to bear a logical relationship to Alascom’s existing retail rates. This would allow an efficient competitor to be competitive while still receiving sufficient revenue to cover the costs of transport, local access, and internal operations.”**

Ben Johnson and Associates (APUC consultants for recently initiated Docket R-97-12) citing APUC in a 1990 docket.

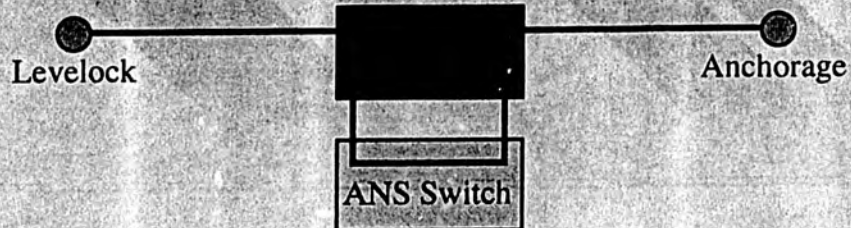
The Wholesale Fallacy



Alascom wholesale price is 39.8¢*

*Alascom tariff APUC No. 98, Page 361

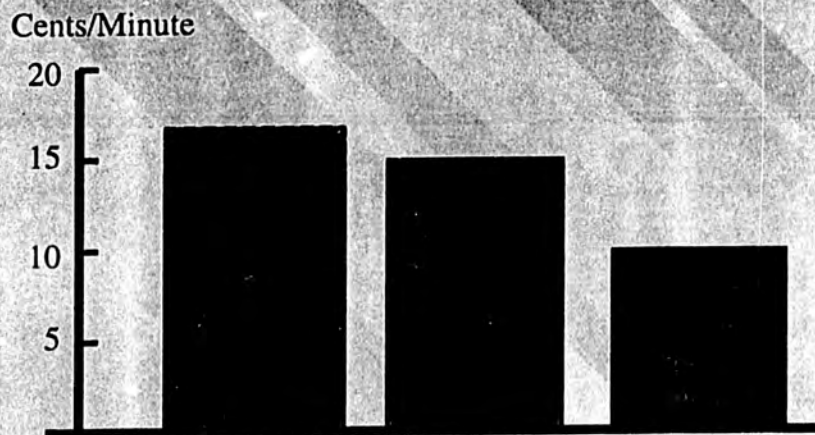
The Wholesale Fallacy



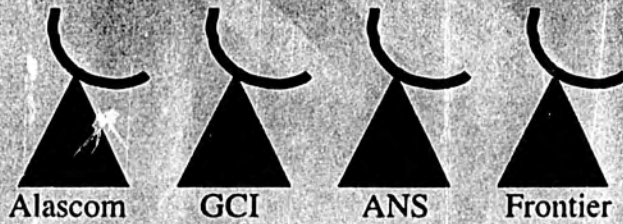
Alascom wholesale price is 21.8¢*

*Alascom tariff APUC No. 98, Page 361

The Wholesale Fallacy



Interexchange Facilities



The village of Kaktovik boasts the arrival of the fourth satellite carrier to meet the long distance need of its 177 residents.

Tariff (Price) Changes

■ Regulatory time to implement:

■ 24 Hours

■ 30 days

Competitor uses this time to develop a response



What is Needed

- Eliminate all barriers to long distance entry
- Wholesale rates less than retail
- 24 hour tariff notices (not tariff approvals)
- Faster action on important issues

BRISTOL BAY AREA HEALTH CORPORATION

Kanakanak Hospital
P.O. Box 130 • Dillingham, Alaska 99576
(907) 842-5201

Alaska Public Utilities Commission
1016 West Sixth Avenue
Anchorage, Alaska 99501

May 13, 1997

Dear Commissioners:

I am writing to provide information on the experience that the Bristol Bay Area Health Corporation (BBAHC) has had with the new long distance service provided by GCI.

BBAHC is a private non-profit tribal healthcare organization that serves the Bristol Bay region. BBAHC operates Kanakanak Hospital in Dillingham and village health clinics in most of the 32 tribal villages in its service area. Bristol Bay is completely rural, encompassing a 46,000 square mile area roughly the size of the state of Ohio, and is not connected to any major road system. Most of the villages themselves are truly isolated, and not connected by road to other villages.

Up until recently, telecommunications has always been a problem in Bristol Bay. The quality of communications varied from village to village, but essentially digressed from bad to worse. Voice connections have been characterized by noise, echo, and long delays. It was not uncommon to repeat facsimile transmissions more than once to transfer a clean copy, if at all. Data communications between villages was plagued by line drop-outs and extremely slow connection speeds, and thus was not used.

Because facsimile could get through some of the time, BBAHC invested in a Telemedicine unit that claimed to work wherever a facsimile machine would work. The objective was to transfer still images from the Community Health Aide in New Stuyahok to the physician at Kanakanak Hospital for faster and more accurate diagnosis and treatment. Some examples of the types of images that could be transferred were images of skin problems, trauma, lacerations, eye, teeth, gums, ear, nose, and throat.

The Telemedicine unit was installed in New Stuyahok in the Summer of 1996, but could not be used. The line connections kept dropping out during the image transfers. It was not until December of 1996 when we used GCI's new DAMA circuits that we could get a clean, fast, and successful image transfer. The Telemedicine unit is now being used routinely, and has had a positive effect on patient care in New Stuyahok. More units are now being planned for other villages that have the DAMA circuits installed.

Aleknagik • Chignik Bay • Chignik Lagoon • Chignik Lake • Clark's Point • Dillingham • Egegik • Etuk • Etuk • Goodnews Bay
Iliamna • Igiugig • Ivanof Bay • King Salmon • Kokhanok • Koliganek • Leedock • Manokotak • Naknek •
Nondalton • Pedro Bay • Perryville • Pilot Point • Platinum • Port Heiden • Portage Creek • South Naknek • T

Attachment A

Bristol Bay Area Health Corporation is a Tribal Organization of the Alaska Native Villages of the Bri

DAMA has also had a positive effect on facsimile transmissions. Villages that have been problematic in getting facsimiles through are now having a much easier time using the DAMA circuits. Many can now get the facsimiles through on the first try.

GCI is providing us with a service that was not previously available. Our Telemedicine unit would not work without DAMA. Now that data communications is possible, we are planning to install computers in the village clinics to allow health aides to access health records at Kanakanak Hospital. In addition, things like Email and Internet access for the village health aides are now within the realm of possibility. Overall, healthcare in Bristol Bay will be significantly improved by the presence of DAMA in the region.

Sincerely,



Larry F. Younshita
Chief Information Officer



NORTON SOUND HEALTH CORPORATION

P.O. BOX 966
NOME, ALASKA 99762
(907) 443-3311

May 13, 1997

Alaska Public Utilities Commission
1016 West Sixth Avenue
Anchorage, Alaska 99501

Dear Commissioners:

I am writing to provide information on the experience that Norton Sound Health Corporation (NSHC) has had with the new long distance service provided by GCI.

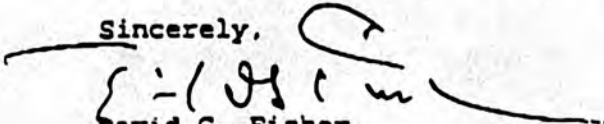
NSHC provides health services to 15 villages throughout the Norton Sound area. Our Regional Health Center (our major facility) is in Nome, and we have clinics in the other communities, some of them several hundred miles from Nome. In some of the communities we now have long distance phone service available from GCI.

We installed our Regional Health Center's main frame system (Meditech) before any service was available to us from GCI. This system runs on a platform in Nome and is accessed directly by modem dial-up from PC's in the villages running an emulation/communication program. At that time, only the e-mail part of Meditech worked, and rather poorly at that. The more important aspects of the system - medical information - ran so slowly and had so many disconnections as to make the system unusable. However, the entire system works very well with GCI's facilities, using a modem dial-up as before.

Last week we had a training conference in Nome for personnel from each of our Village Clinics, and it was very evident from the discussions that the ability to use the system is dependent on whether or not GCI's facilities are available in a particular community. In fact, there was a good deal of dissatisfaction among those persons who cannot use the system because they do not have service available from GCI.

In a very real sense, GCI is providing us a service that was not previously available. We are using telemedicine in a way that we could not use it before, we are providing an instant core of medical information available to all clinicians in Nome and we are making available an on line real time statistical and demographic database for IHS and other reportable agencies. In turn, this has enabled us to provide better health care to our clients, and it has saved money by improving the efficiencies of our operations.

Sincerely,


David G. Fisher
Manager, Information Systems

Attachment B

The Aleutians East Borough School District

**PO Box 429
Sand Point, Alaska
99661
907-383-5222**



March 18, 1997

To: Art Behm, Greg Jones

From: Chick Beckley

Re: GCI DAMA

So often all we hear about is the lack of response on the part of phone companies, whether GCI or a competitor. We've heard about the lack of updated equipment, the lack of bandwidth, and the lack of any viable solutions for rural Alaska. I have been in the forefront of those arguments.

Therefore, I find it only fair that I also be as vocal when I see a positive development in response to these issues. The GCI DAMA project is such a positive response. I have been accessing the DAMA station in Cold Bay for the past 2 weeks and I find the quality of service to be outstanding. It is providing everything it was promised to provide. Even though the dial up access is still long distance, the connections are at a true 14.4, and the consistency of the connection is excellent. I have had very few line drops when hooking up to the internet via Seattle. Because of the ability of the GCI DAMA stations to directly access Seattle, bypassing the Anchorage bottleneck, a 14.4 connection is much more "snappy" than accessing Anchorage. In addition, the response to my customer service inquiries has been very quick and has produced results, not excuses.

I look forward to the activation of GCI's DAMA sites in all 6 communities of the AEBSD, and to the improved services they will provide. I also look forward to the upgrades GCI is planning with regard to internet access and 28.8 dial up services. I am very pleased with the service GCI has provided to our schools and communities and want to take this opportunity to congratulate you on a "job well done"!



Competition is Here!

Mr. Tom Edrington
ATU Telecommunications
December 11, 1997

What is ATU like?

- ☎ It was started back in 1915, at the base of Alaska Railroad
- ☎ It grew from 300 access lines to 155,000 lines by the end of 1996
- ☎ It employed 700 people as of last December
- ☎ It took in \$130 million in revenues last year, showing a profit of \$13.9 million



ATU is a vital part of the Anchorage community

Just last year:

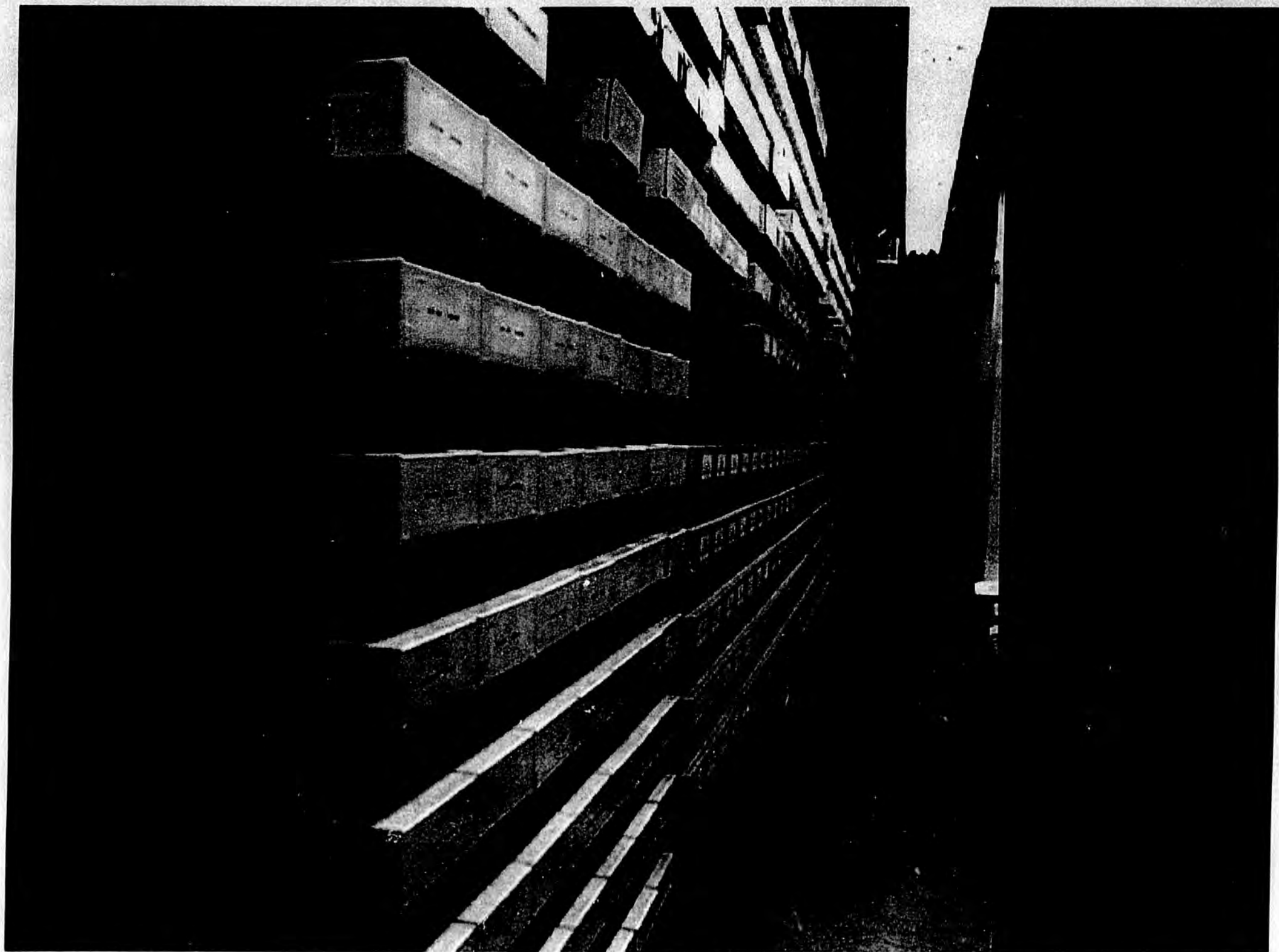
- ☎ It provided a city dividend of \$8.1 million
- ☎ It paid \$8.3 million in taxes and other charges
- ☎ Its employees volunteered over 15,000 hours of personal time to service and charitable organizations

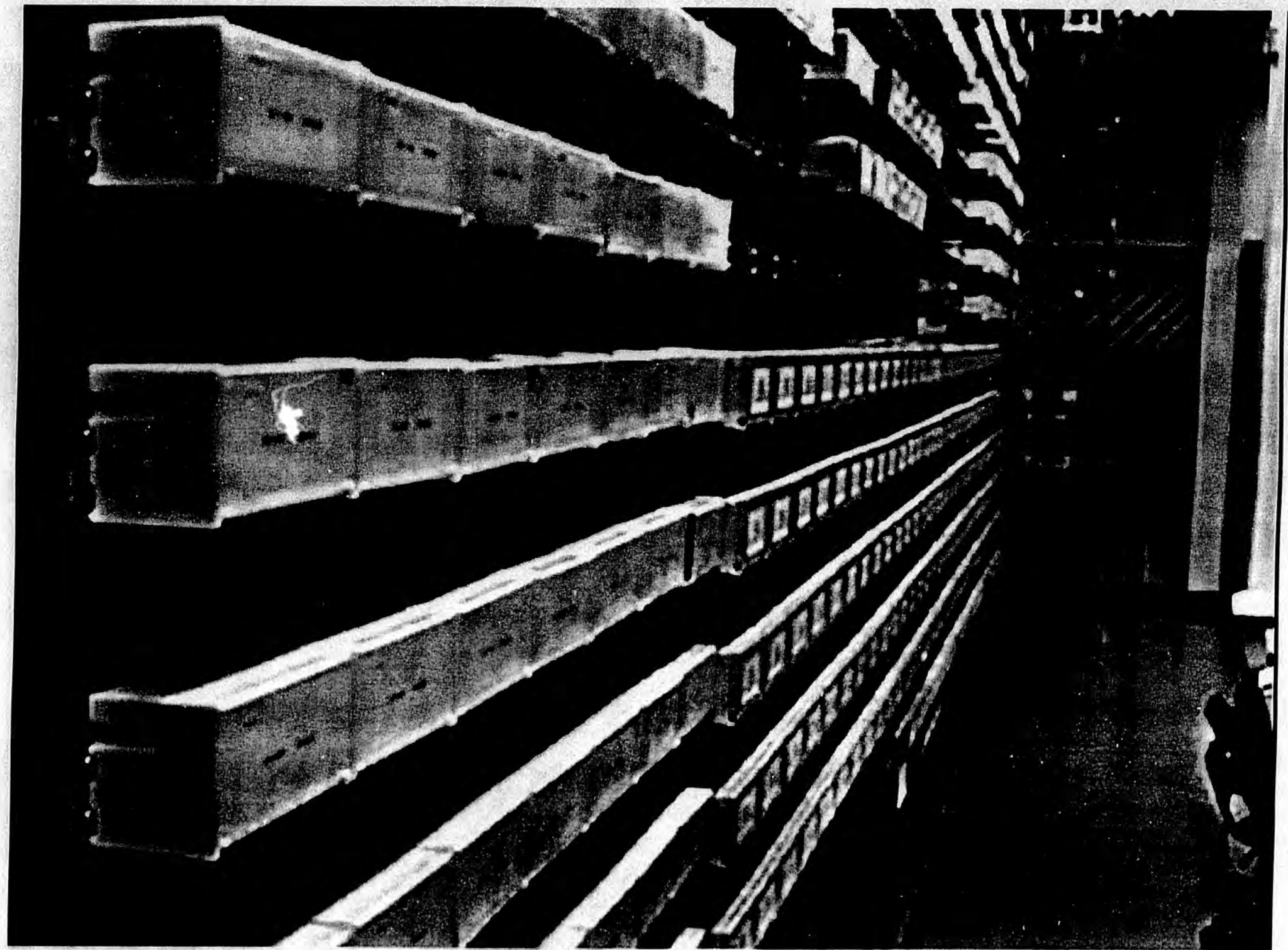


ATU has done its part to enable competition

- ☎ ATU was the first local telco in the US to reach an interconnection agreement with AT&T
 - AT&T resells ATU's services to its customers
- ☎ ATU provides colocation, power and space for GCI's equipment







PAIRS 6101-6200

PAIRS 6301-6400

ATU/OCI
TIE CABLE
PAIRS 4501-4600

ATU/OCI
TIE CABLE
PAIRS 4601-4700

ATU/OCI
TIE CABLE
PAIRS 4701-4800

ATU/OCI
TIE CABLE
PAIRS 2901-3000

ATU/OCI
TIE CABLE
PAIRS 3101-3200

ATU/OCI
TIE CABLE
PAIRS 3301-3400

ATU/OCI
TIE CABLE
PAIRS 1001-1100

ATU/OCI
TIE CABLE
PAIRS 1201-1300

ATU/OCI
TIE CABLE
PAIRS 1401-1500



**ATU/GCI
TIE CABLE
PAIRS 1501-1600**

**ATU/GCI
TIE CABLE
PAIRS 1601-1700**

**ATU/GCI
TIE CABLE
PAIRS 1-100**

**ATU/GCI
TIE CABLE
PAIRS 101-200**

LSG-18,19

ATU/GCI
TIE CABLE
PAIRS 1-100

ATU...

- ☎ Presents no barrier to entry
- ☎ Has no ability to set prices

But, it's not a level-playing field...

- ☎ The competition can bundle all of its products and services
- ☎ Regulations don't allow ATU to do the same thing
- ☎ ATU has to set up separate companies to provide different services

It's time to overhaul regulation!

-  Deregulate, reduce cost of operation for communications providers and regulators
-  Re-engineer processes that remain
-  Allow a playing field where the market operation protects the consumer

GTE ALASKA INCORPORATED



**Alaska House Special Committee on
Telephone Communications
December 11, 1997**



GTE ALASKA INCORPORATED



GTE

GTE ALASKA INCORPORATED

► PROFILE

Operations Profile

Central Offices-Base Units	11
Remote CO's	1
Square Miles	1,418
Lines Per Sq. Mile	15
Total Employees	72
Total Access Lines	21,621
Access Line Growth (5 Yr)	41.6%

Technology Mix

100% Digital Lines
100% Single Party



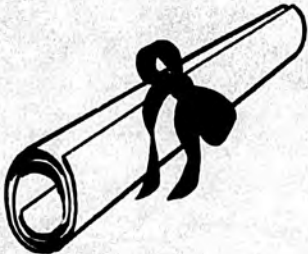
GTE ALASKA INCORPORATED

► GTE ALASKA VISION

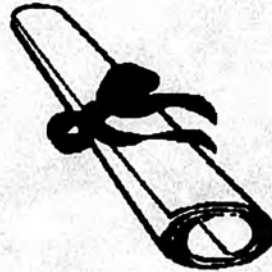
To remain the most efficient Alaska exchange carrier by providing:

- Excellent Service To Our Customers
- A Rewarding and Satisfying Workplace For Our Employees
- A Positive Economic and Social Impact On Our Communities
- A Growing and Profitable Business For Our Stockholders





GTE ALASKA INCORPORATED



► COLLEGE SCHOLARSHIPS

- Awarded \$9,000 in College Scholarships to 10 High School Seniors in 1997, in our Service Areas
- \$10,000 Will be Awarded in 1998 to 10 High School Seniors



GTE

Alaska House Special Committee on
Telephone Communications
December 11, 1997

Page 3

GTE ALASKA INCORPORATED

► WHO WE ARE

- Wholly Owned-Subsidiary of GTE Corporation
- Fourth Largest LEC In Alaska
- Low Cost Rural
- Exempt Rural Telephone Company
- Price Caps - Interstate



GTE ALASKA INCORPORATED

► GTE ALASKA SERVICE AREAS

Exchanges	Population	Median Family Income	Percent Below Poverty	Median Value Homes	Median Rent Paid
Barrow	3,469	65,948	7.4	71,300	628
Bethel	4,674	45,203	11.7	82,000	529
Haines	2,117	46,944	4.7	84,300	433
Hyder	99	41,875	16.2	60,000	242
Klukwan	256	36,458	3.9	40,000	99
Metlakatla	1,407	39,875	10.2	67,000	284
McGrath	528	21,500	10.4	63,800	275
Moose Pass	144	21,250	8.9	87,500	392
Nome	3,500	49,491	9.6	79,900	665
Petersburg	3,207	55,933	4.1	105,800	479
Seward	2,699	47,500	8.9	92,400	434
Unalakleet	714	40,347	10.5	65,000	380
Wrangell	2,479	44,375	6	88,300	403
Total GTE	25,293	42,519	8.4	75,139	413

GTE

Alaska House Special Committee on
Telephone Communications
December 11, 1997

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GTE ALASKA INCORPORATED

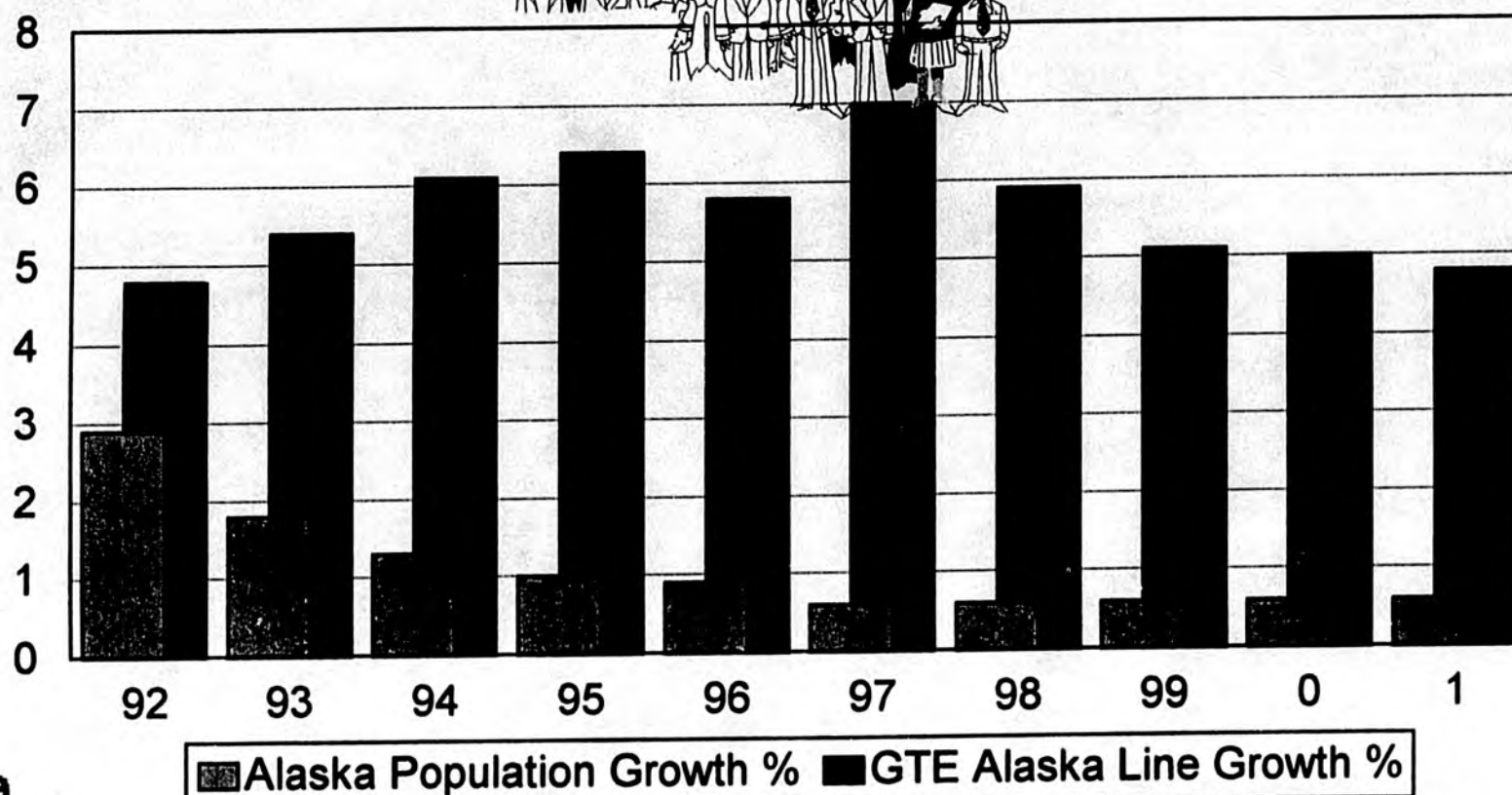
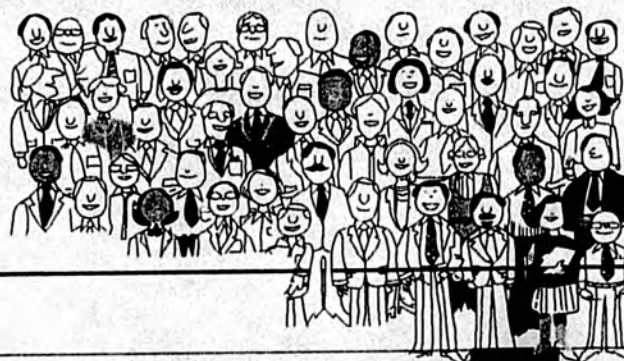
► EXCHANGES AND ACCESS LINES SERVED

EXCHANGE	ACCESS LINES	TELEPHONE LINES	EQUIPMENT
Anchorage	0	9	N/A
Barrow	3,190	5	DMS-10
Bethel	3,857	8	GTD-5
Haines	1,483	5	DMS-10
Hyder	81	0	N/A
Klukwan	198	0	Redcom
McGrath	422	0	DMS-10
Metlakatla	933	3	DMS-10
Moose Pass	354	0	DMS-10
Nome	3,070	6	GTD-5
Petersburg	2,664	5	DMS-10
Seward	3,276	6	DMS-10
Wrangell	1,659	5	DMS-10
Unalakleet	426	0	DMS-10
TOTAL	21,613	52	



GTE

GTE ALASKA INCORPORATED

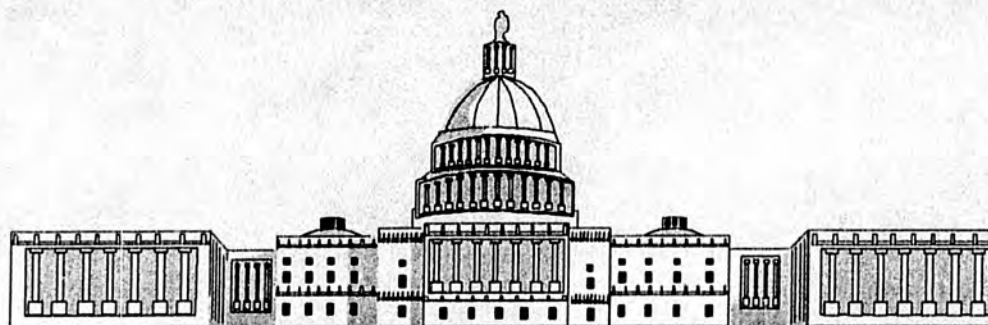


GTE

Alaska House Special Committee on
Telephone Communications
December 11, 1997

GTE ALASKA INCORPORATED

► CAPITAL INVESTMENT



Year	Capital Investment	Access Line Gain	Capital Per Line
1996	\$2,110,000	1,345	\$1,569
1997	\$3,252,000	1,816	\$1,790
1998	\$3,544,000	1,540	\$2,301

GTE

Alaska House Special Committee on
Telephone Communications
December 11, 1997

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GTE ALASKA INCORPORATED

► GTE CUSTOMERS SERVED Market Mix

IXCs	2
Major Business Accounts	109
Small Business Accounts	328
Consumers	14,417

 **100% Market 1**

GTE



GTE ALASKA INCORPORATED



► ACCESS CHARGE REFORM

- GTE Alaska Is The Only Alaska LEC To Experience Access Charge Reform At The Federal Level - Only Alaska Price CAP LEC
- Rate Of Return LECs Have Not Yet Been Reformed - All Other Alaska LECs Are In This Category
- Access Charge Reform Should Proceed In Alaska After The FCC Decides Upon Access Charge Reform For Rate Of Return LECs
- GTE Believes That The AECA Pool Should Be Extended At Least One More Year Because Any Modification Of The Pool Must Coincide With The Implementation Of a State Universal Service Fund

GTE



GTE ALASKA INCORPORATED



► ALASKA STATE UNIVERSAL FUND

- Alaska's USF Should Use The Telecom Act and The FCC's Order As a Baseline With The Addition Of Particular Challenges That Face Alaska
- Support Mechanisms Should Be Competitively Neutral
- All Providers Should Make Equitable and Nondiscriminatory Contributions To The Alaska USF
- Support Mechanisms Should Foster Incentives To Maintain Quality and Service At Affordable Rates
- Carriers Must Be Willing To Undertake Obligations Comparable To Those Borne By The Incumbent LEC To Be Eligible To Obtain Support
- Universal Service Support Should Provide Incentives For Carriers To Serve Consumers Who Otherwise Would Not Be Economical To Serve At Commission Allowed Rates
- In Rural Areas, The Service Area Should Remain The Incumbent LEC's Current Study Area





GTE ALASKA INCORPORATED



► COSTING AND PRICING

- **GTE Alaska Is Seeking Fair Prices and Adequate Compensation For Our Network Costs and Past Investments**
- **ILEC's Retail and Wholesale Rates Must Be Sufficient To Recover All Our Costs**
- **The Setting of ILEC Retail Rates Has a Direct Relationship To The Size Of The Proposed Alaska USF**
- **The Commission Must Make A Determination Of What Is An Affordable Local Rate In Alaska - The Remainder Of Cost Will Be Recovered From The USF**
- **Current ILEC Rates Are Disoriented Due To The System Of Implicit Supports and Cross-Subsidies That Has Existed For Years**



GTE ALASKA INCORPORATED

► ISSUES

- Competition
- Line Extensions
- Statute & Regulation Revisions
 - Noticing Requirements
 - Timing Requirement for Tariffs & Contracts



GTE ALASKA INCORPORATED



► TARIFF ADVICE LETTERS



LETTER NUMBER	SUBJECT	FILED DATE	INTERIM DATE	EFFECTIVE DATE
94	Local Rate Case	09-20-96	12-01-95	None
95	Private Pay Telephone	10-15-96		11-01-96
96-3	Remove Pub & Semi Pub & Add AS & Cls	01-14-97		04-15-96
97	Regulatory Cost Charge FY 97	01-24-97		01-01-97
98	Black Dot	03-27-97		05-09-97
99-3	Wireless Revisions	04-15-97		None
100-3	Interconnection Agreement/GTE AK & AT&T Wireless	04-24-97		10-29-97
101-3	Digital Channel Service	05-16-97		10-24-97
102-3	Seasonal & Vacation Service - Revision	05-16-97		06-27-97
103-3	Private Pay Telephone Service - Revision	05-16-97		None
104-3	Discounts School & Libraries	08-04-97		08-23-97
105-3	Waiver for Class & Promo SmartCall	10-07-97		11-21-97
106-3	Lifeline & Linkup	11-05-97		11-25-97

GTE

Presentation to the Alaska State House Telecommunications Committee

Competitive Rate Impacts to Rural Consumers - Overview

- KPU Company Profile
- Cherry Picking
- Average Rates
- Rural Service Under the Telecommunications Act of 1996
- Effects of Competition on Rural Markets

KPU Company Profile

- Owned and Operated by the Citizens of Ketchikan Since 1935
- Profits are returned to the Citizen-Owners by investing in Utility Capital Projects in the Community
- Over 10,000 Access Lines in the Ketchikan Gateway Borough, on Revillagigedo, Gravina and Pennock Islands

KPU Company Profile

- 1996 Revenues were \$7.7 Million



Cherry Picking

- Defines a competitor picking off profitable customers and leaving less profitable high cost customers to the Incumbent Local Exchange Carrier (ILEC).
- ILECs are regulated public utilities.
- Regulated public utilities have an obligation to serve all customers at non-discriminatory and average rates.

Average Rates

- Average rates mean all customers in a class pay the same rate -- even if some cost more to serve than others.
- Average rates also mean that rates might be the same in different communities -- even though some cost more to serve than others.

Average Rates (continued)

- For some customers, the cost to serve is greater than the revenue received.
- For other customers, the revenue received is much greater than the cost to serve resulting in a large profit margin.
- Revenue from higher margin customers offsets losses or low revenues on low margin customers.
- Since this is a closed market regulated by the APUC, this works.
- Average rates are often set in conjunction with social policy goals such as low cost residential service.

Examples of Average Rates

- **Example #1**
KPU's Residential rates are \$14 for all residential customers even though some are more expensive to serve.
KPU's Business rates are \$22 for all business customers even though some are more expensive to serve.
- **Example #2**
Interior Telephone Company's rates are the same in Port Lions, King Cove and Dutch Harbor.

Effects of Competition

- The new competitor goes after the high margin customers and ignores low margin customers.
- Profits from high margin customers are siphoned off to the new competitor and are no longer available to the ILEC to help cover the cost of high cost customers.
- Examples of Competition
 - Competitive Access Providers (CAP) outside focus on high volume business customers and not residential customers.
 - But the effects are worse in Rural Alaska due to "thin markets".

Effects of Competition: Airline Deregulation

- Formerly not a regulated industry.
- Benefits to large markets.
- Not beneficial for many smaller markets ("thin markets"):
 - Less Flights
 - More Expense Flights
- Who flies to Juneau?

Rural Markets are "Thin Markets"

- Loss of one or two large competitors can have a greater impact on rates than it would in urban markets.
- The minutes of use analysis that follows shows how this works.

Minutes of Use

- ILEC's network is used for two purposes, with each purpose paying a share:

<u>Use</u>	<u>Revenue Source</u>	<u>Who Pays</u>
To Connect Local Calls	■ Local Rates ■ Universal Service Fund	■ Local Rate Payers ■ Federal USF
To Complete and Originate Toll Calls	■ Access Charges	■ Long Distance Carriers

Minutes of Use (continued)

- The costs of the ILEC network are apportioned among local use and toll access use on various indicators of related usage.
- One of the indicators used to allocate network costs is related minutes of use.
 - “Traffic Sensitive” investment (local switching).
 - Local customers and long distance carriers pay based on a percent of local and long distance use.

Minutes of Use (continued)

- Conclusion: Allocating some costs to toll carriers keeps local rates lower.

<u>Simplified Example</u>	<u>Total</u>	<u>Local</u>	<u>Toll</u>
Minutes of Use (MOU)	20,000,000	12,000,000	8,000,000
MOU Percent	100%	60%	40%
Network Costs	\$100,000	\$60,000	\$40,000
Costs Percent	100%	60%	40%
Local Lines 275			
Annual Cost Per Line \$218			
Monthly Cost Per Line \$18.18			

Minutes of Use (continued)

- If costs allocated to toll go down, then local rates go up.
- Large customers in rural Alaska often have heavy toll usage.
- If the ILECs lose large customers to cherry picking, then local rates may go up.
- Is this consistent with universal service goals?
- Who benefits?

Minutes of Use (continued)

- Example - Effect of losing a large customer with heavy toll usage.

Network Costs	\$100,000		
Minutes of Use	10,000,000		
Cost Large Customer		\$10,000,000	
MOU After Loss of Customer		\$10,000,000	

Conclusion The higher the percentage allocation to toll will cause local rates to rise

Minutes of Use (continued)

- These were simple examples to make the point.
- The Point:
 - Network costs are allocated between toll and local.
 - Large customers with high toll volume are targets for cherry picking.
 - As large customers are lost, minutes of use swing to local.
 - More costs are allocated to local and
 - Local rates go up

Summary

- ILEC and Rural Customers are affected 2 ways:
 - Dollars are lost that are used to keep average cost lower.
 - Costs are shifted to local ratepayers.

What are the Legislature's Objectives?

- Alaska's long commitment to Universal Service.
- History of low residential rates and universal service support mechanisms.
- This was made possible through averaged rates and protection from cherry picking.
- Is Universal Service still a paramount goal?
- State Universal Service Fund.

Recommendations

- Protect rural ratepayers.
- Level playing field.
- Move carefully and with deliberation.
 - Universal Service Support Systems at the Federal level are changing and may result in less funding for Alaska.

Presentation to the Alaska State House Telecommunications Committee

December 11, 1997

Presenter: Greg Berberich
Company: Matanuska Telephone Assoc.
Palmer, Alaska

1 - MTA Company Profile

***2 - Competing for Universal Service
Funds - a rural company perspective***

***3 - Role and Structure of the Alaska
Public Utilities Commission***

MTA - Who We Are & What We Do



The Cooperative:

Open Membership -- Anyone who uses a cooperative's services and is willing to accept the responsibilities of membership is eligible to join. As an RUS Borrower ***we are required to serve all within our service area***

One Member, One Vote -- Power is shared equally among all members. Cooperatives are based on democratic principles. Members elect a board of directors and, when necessary, vote on specific issues.

Limited Return on Investment -- The purpose of a cooperative is to provide a service to its members, ***not to make a profit.***

Surplus is Returned to the Members -- Margins above and beyond the costs required to cover operating expenses are ***returned to the members in proportion*** to their patronage.

MTA Service Area

10,000 sq. miles

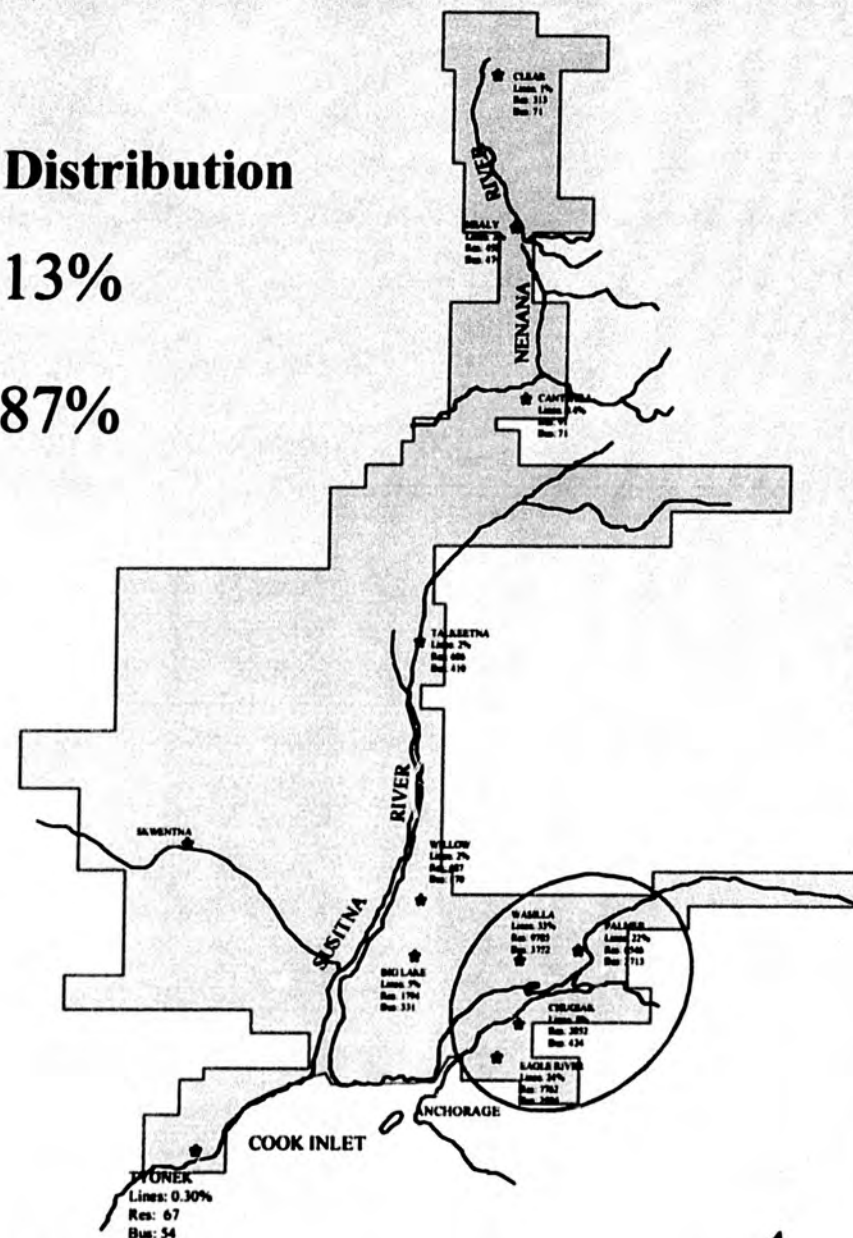
Access Line Distribution



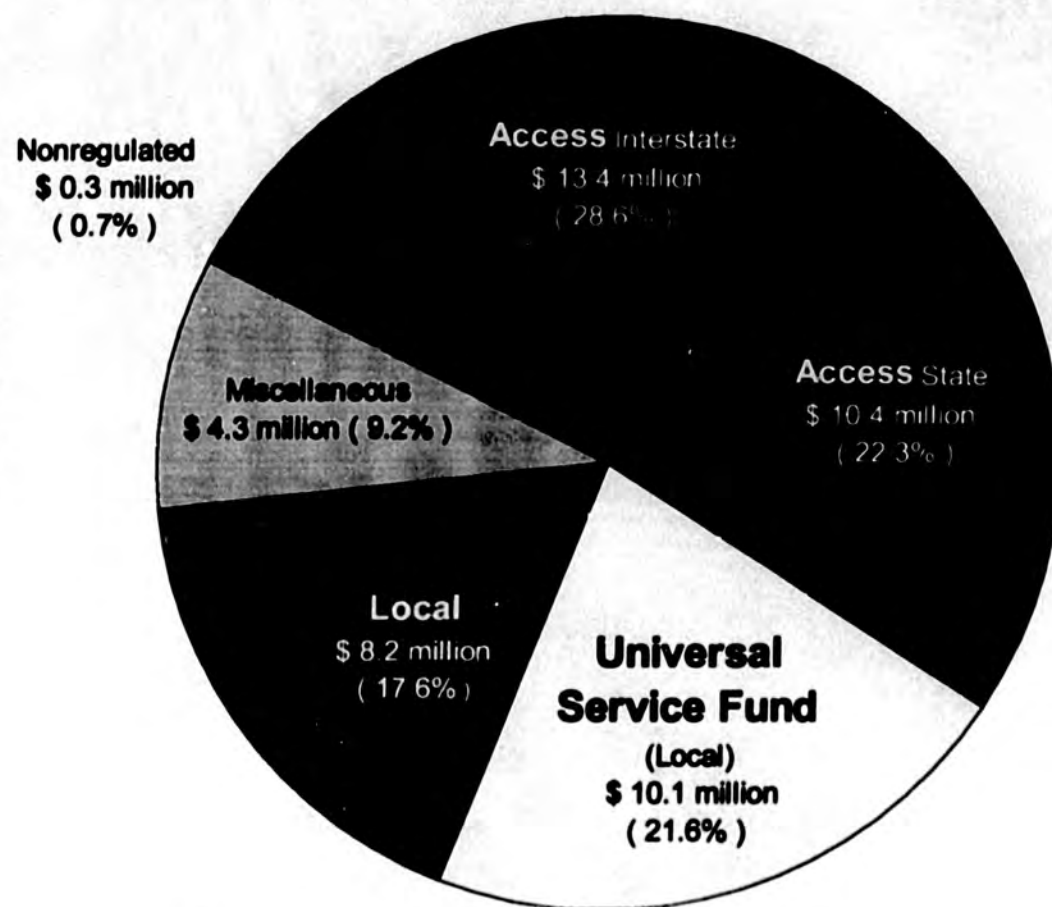
13%



87%



MTA - 1996 Revenues, \$46.7 million



Sources of Revenue

Access

Interexchange
Carriers

USF

Beginning 1998 All
Telecom Providers

Local

MTA Subscribers

Directory, B&C

Competing for Universal Service Funds

- ◆ Rural Competition in the 1996 Telecom Act
- ◆ Universal Service Funds in Rural Markets
- ◆ The Public Interest Question
- ◆ The Public Interest Dilemma
- ◆ Some Thoughts and Recommendations

1996 Telecom Act

Impact on Rural Markets

- ◆ Allows entry into any market through resale of services of the incumbent provider and through the build out of alternative networks.
- ◆ Exempts entry into rural markets if new entrant wants to use portions of the incumbent's network unless state commissions find it is:
 - Not unduly economically burdensome to the incumbent provider
 - Technically feasible
 - Consistent with universal service provisions of Act

Universal Service Funds in Rural Markets

- ◆ If the rural exemption is lifted in a market supported by universal service funds (USF) - those funds are not automatically shared with the new entrant.
- ◆ State commissions must hold a separate hearing to determine if sharing USF is in the public interest (Section 214 (e) (2))

Universal Service Funds in Rural Markets

- ◆ Universal service funds provide economic support to a telecommunications provider in a market where the cost to provide the service is higher than the price that can be afforded by the customer
- ◆ These markets are primarily small and rural
- ◆ Alaska's markets are primarily small and rural
- ◆ Alaska depends greatly upon universal service funds to keep rates affordable- over \$40 million per year

The Public Interest Question

- ◆ **Does it make sense to provide economic support to new entrants in a rural market which is already too small and costly to allow a single provider to offer service without such support?**

The Public Interest Answer

- ◆ If economic support, such as USF, is needed to keep rates affordable with just one provider, **allowing that support to be shared with new entrants will only lead to competition for support--instead of competition for customers.** Competition for support only serves the new entrants---not the public.

Why Competition for Support Does NOT Serve the Public Interest

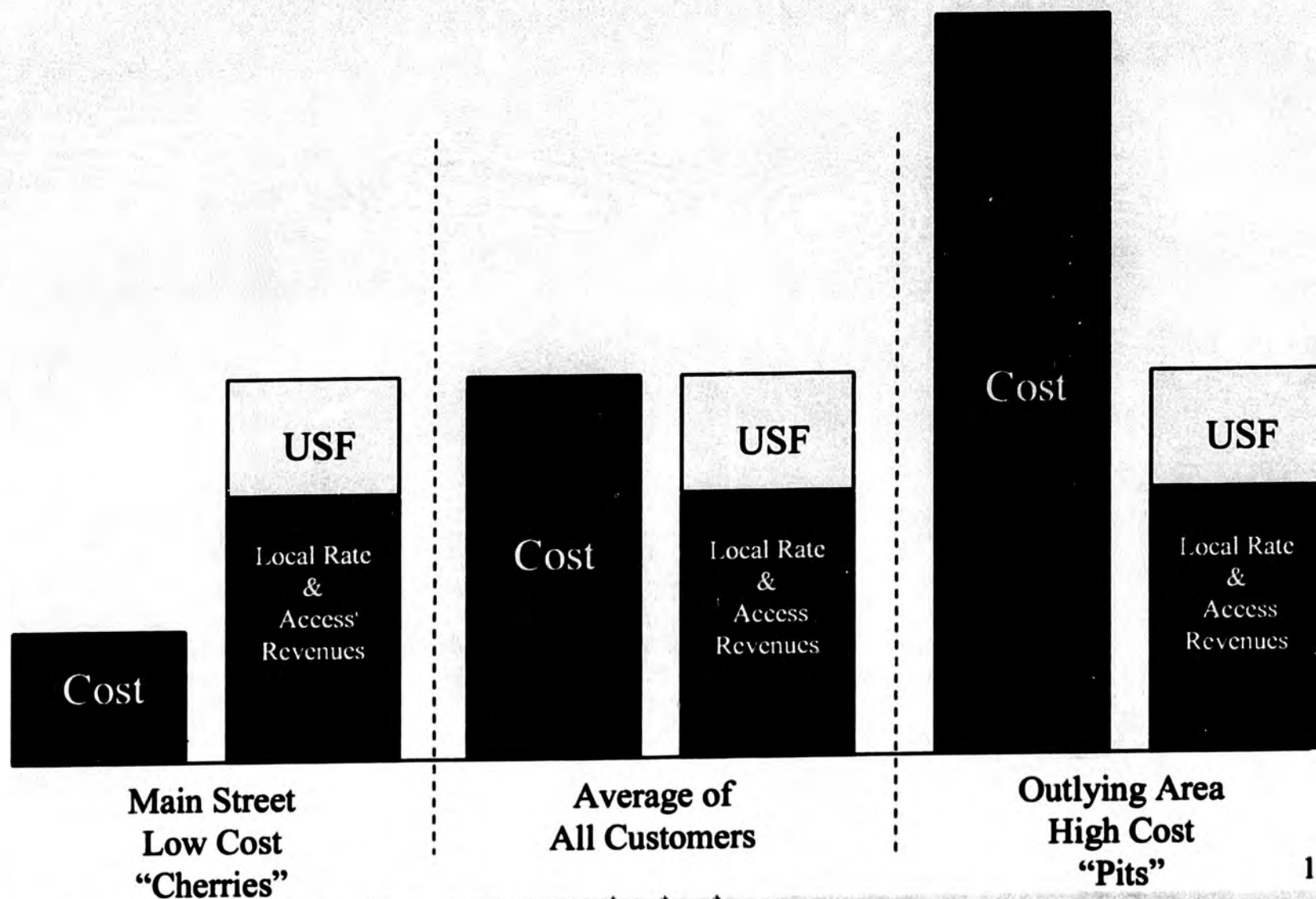
- ◆ The Cost to serve customers varies between customers--often drastically
- ◆ Support is averaged for all customers served by the incumbent provider
- ◆ Creates a perverse incentive for “cherry picking”
- ◆ New entrants will target only those customers whose cost to serve is low because the support is relatively high.

(continued)

Why Competition for Support Does NOT Serve the Public Interest

- ◆ New entrants will have no incentive to serve high cost customers since the support they will get is relatively low
- ◆ The incumbent provider is forced to raise rates for these customers since the support they receive is no longer sufficient to cover the cost
- ◆ An increase in rates may force many customers to discontinue service
- ◆ **RESULT: Many rural customers will be either without service, or pay very high rates for service; and the incumbent provider may be forced out of business**

Perverse Incentive For "Cherry Picking"



* Local & Access Charge Revenues in USF

The Public Interest Dilemma

- ◆ How can the benefits of competition be enjoyed by rural subscribers without the consequences of new entrants dividing up support and “picking the cherries”?

The Public Interest Solution

- ◆ **Eliminate the perverse incentive to compete for support.**

Eliminating the Perverse Incentive

- ◆ **Initial competition in rural markets is possible thru resale and the building of complete networks**
 - **Economic support continues to flow to the incumbent provider to keep rates affordable**
 - **New entrants purchase the services at the affordable rate from the incumbent provider.**
 - **New entrants resell the services, with their own branding and packaging, to customers that switch to them.**
- ◆ **Rural customers receive the benefits of a choice of service provider while paying comparable rates as their urban counterparts**

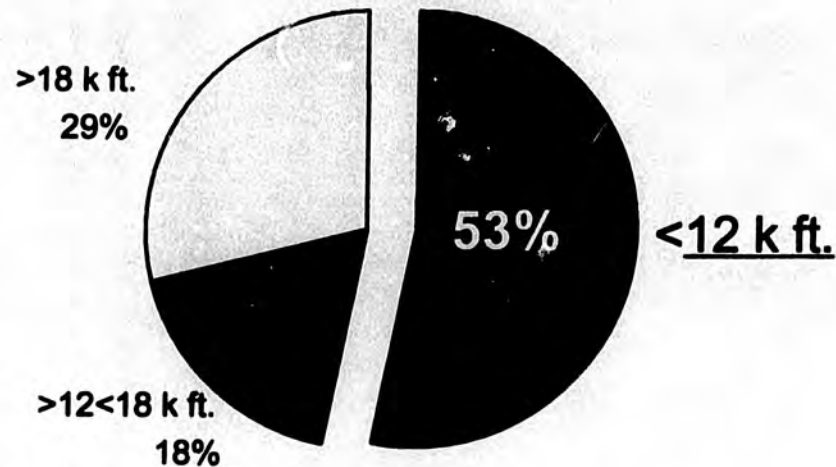
Eliminating the Perverse Incentive

- ◆ Require USF and other support to be calculated and targeted on a per customer (or customer group) basis instead of on an average basis **BEFORE** lifting the rural exemption and sharing economic support with new entrants in rural markets.

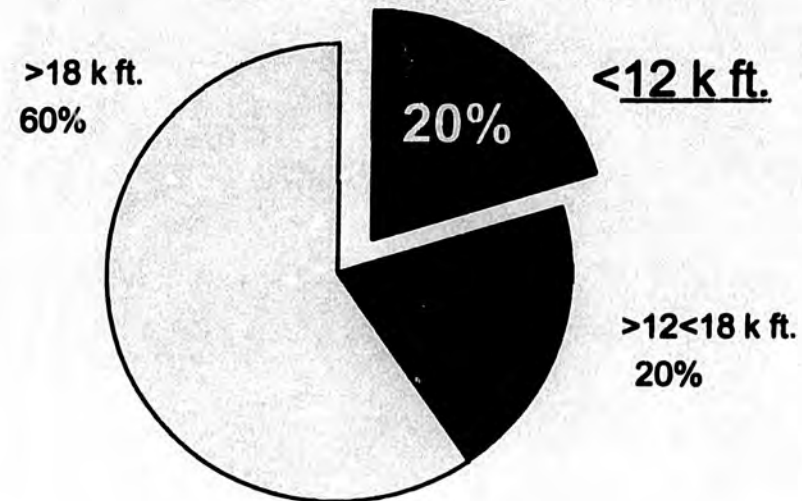
Recognizes the actual amount of support needed to keep each customer's rates affordable takes away the incentive to "cherry pick"

MTA Specific Loop Demographics

Subscriber Loops



Subscriber Loop Cost



- Main Street Low Cost "Cherries"** - There is an incentive to take 53% of the market while only absorbing 20% of the cost. Revenues on these lines are needed to offset the cost of providing service to marginal and outlying high cost customers.
- Marginal Customers** - Only 18% of these loops are marginally close to covering their share of the cost.
- Outlying Area High Cost "Pits"** - There is a disincentive to serve 29% of all outlying high cost loops since they generate 60% of the all loop costs.

How Can We Achieve the Public Interest Solution ?

Through the Alaska Public Utilities Commission

The Act and the Courts give state commissions the responsibility to:

- **Maintain or lift rural exemptions.**
- **Arbitrate terms and conditions for new entrants who wish to use the incumbent's network.**
- **Determine if economic support is to be shared.**

A Functional and Responsive Commission Is VITAL

- ◆ The public process works only if all parties have equal access
- ◆ Public policy has to be fair and indiscriminate
- ◆ Commission decisions must be responsive, fair, and timely
- ◆ As competitors enter new markets, regulation must be reduced equally for all providers
- ◆ Alaska's unique conditions and telecommunication network must always be considered

The APUC Must

- ◆ **Hire sufficient and qualified staff and consultants to meet the increased workload**
 - ◆ More Common Carrier Bureau staff
 - ◆ More Consumer Protection staff
 - ◆ Preference for local consultants
- ◆ **Reduce and Change Regulations**
 - ◆ Provide interim deregulation rules that treat all providers equally while markets transition to competition.
 - ◆ Allow competitive markets to self regulate
 - ◆ Tribunal of Last Resort vs Detail Regulation

(continued)

The APUC Must

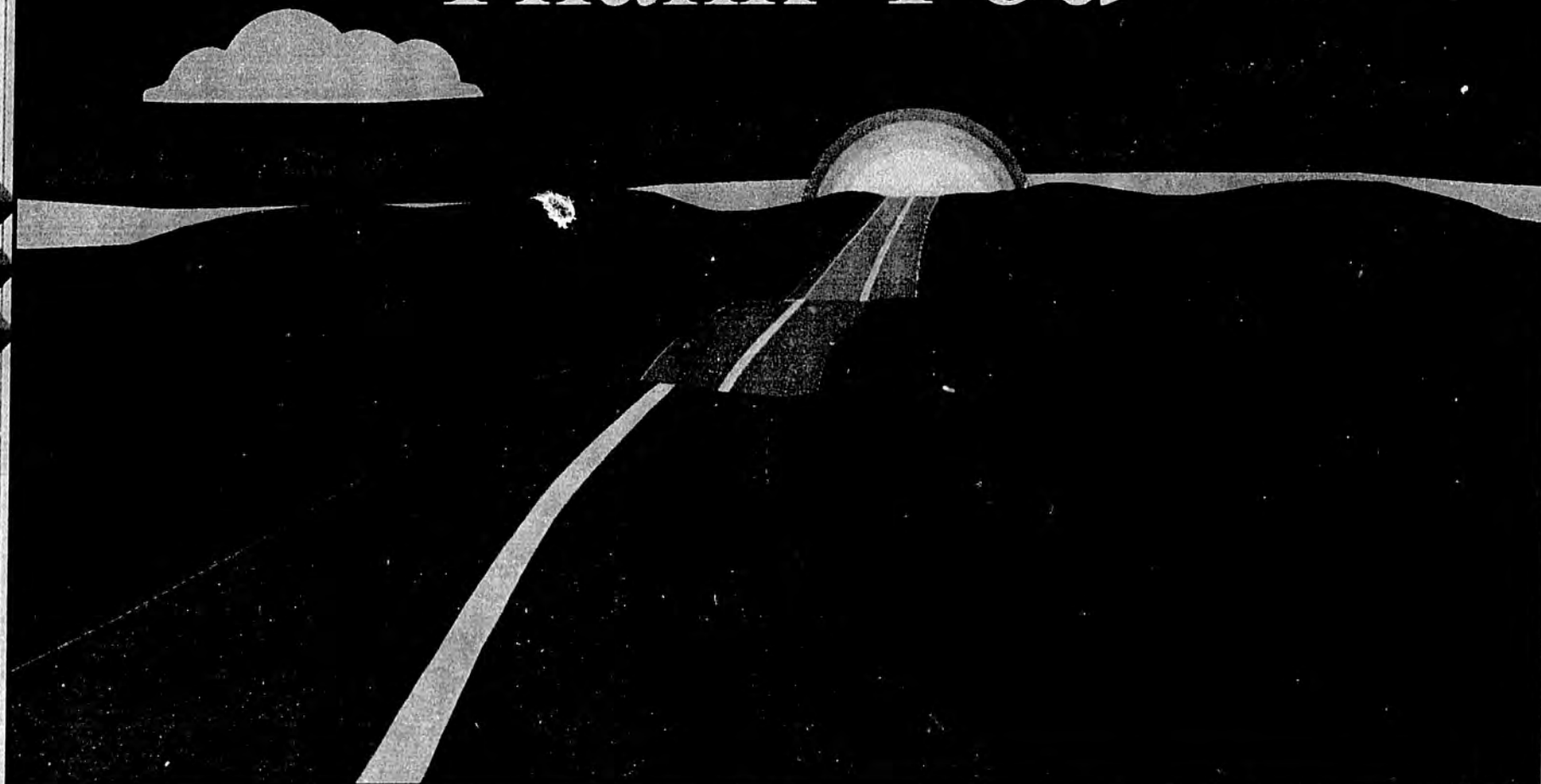
◆ Increase efficiency

- Kill the Paper Elephant- reduce the dependence on paper copies
- Expand electronic filing
- Expand use of Internet
- Expand use of e-mail
- Hire separate support staff for Commissioners

◆ Be Accountable

- Biennial Review by Legislature

Thank You



TelAlaska, Inc.

**House Special Committee on
Telecommunications**



House Special Committee on Telecommunications
Jack H Rhyner
December 12, 1997

My name is Jack Rhyner; I am the President and General Manager of TelAlaska, Inc. TelAlaska's address is 2121 Abbott Road, Anchorage, Alaska.

TelAlaska owns and operates Interior Telephone Company Inc. and Mukluk Telephone Company Inc.. TelAlaska's service areas range across the State from Little Diomed Island to Port Lions on Kodiak Island and from Fort Yukon to Unalaska / Dutch Harbor. TelAlaska's service areas, even by Alaska standards, include some of the most remote, rugged and culturally diverse geographic areas in the United States. See figure 1.

Prior to the State's small earth station program, only those rural communities which had military White Alice sites had one telephone available for non military use. After the mid 1970s small earth station program, 100 more small communities had a single long distance connection. It wasn't until small local exchange carriers, like Interior and Mukluk, started providing service that telecommunications was universally available to the public and the remaining 175 outlying communities were connected to the rest of the world.

The development of Alaska has been, and will continue to be, closely associated with telecommunications. Given the size, climatic conditions, population distribution and terrain of Alaska, the ability of it's people to function effectively politically, economically and socially depends upon telecommunication.

To give you an insight on just how important reliable communication service is to rural economic development in these communities and how it has helped them grow, let me give you a little of the history of Unalaska. After WWII, Dutch Harbor became almost a ghost town with no economic base. There was a single telephone for a community of a few hundred people. In 1972 Interior Telephone started providing service to just 49

customers. Six years later, Interior had 400 customers and the port of Dutch Harbor generated \$92.7 million, more money than any other port in the U.S. Today, Unalaska is ranked third in the world for most fish product landed and Interior has 2,200 telephone customers. There is a dynamic rural economy providing thousands of jobs because four seafood processors have invested hundreds of millions of dollars in shore based plants. There simply is no question the development of this community, in large part, was dependent upon the existence of affordable, reliable telecommunications.

You may have read in the newspaper recently that the people in rural Alaska are forced to communicate by CB radio. Nothing could be further from the truth. Interior and Mukluk operate in rural high cost areas and provide single party service, digital touch tone dialing, numerous custom calling features, access to operator service, 911, and directory assistance. Upon request we are capable of providing digital voice and data service up to T-1 or 1.544 Mbs locally. All the services mentioned above are in compliance with the State Telecommunications Modernization Plan, approved by the Alaska Public Utilities Commission and adhered to by all the local exchange companies. In addition, in Unalaska, Interior provides equal access to multiple long distance carriers. The rural health clinic currently is connected via T-1 to the regional hospital in Anchorage. The clinic uses state-of-the-art radiology end user equipment to transport their x-ray films. TelAlaska provides local Internet access to the school and library, as well as a number of other customers in the community.

The express goal of the Telecommunications Act of 1996 was to accelerate private sector deployment of advanced telecommunication and information technologies and services to all Americans. Whereas Congress designated the opening of markets to competition as a primary means of striving for this goal, it also established the preservation and advancement of universal service as a core principle to guide the Commission's actions. It was not merely a mandate to open all markets to competition as some would have you believe. If Congress had believed that competition would fully develop in every market and that it was a panacea for everything, they would not have

felt it necessary to insert Section 254 in the Act, mandating that the FCC and the State Commissions maintain universal service. Competition is or should be a means to an end. It should be used to achieve some goal.

I certainly understand it is politically incorrect to suggest that competition isn't the answer to all the world's ills. It would be like arguing against motherhood, apple pie and the American way of life. However, I would suggest that motherhood before the age of 12 or after the age of 80 might not be appropriate. I do endorse competition as defined by popular belief, that is, competition which produces better service, more choices and lower prices.

You have or will hear statements proclaiming that "competition lowers costs," but this is nothing but unrealistic nonsense. Competition does not and can not reduce costs. The reality is that multiples of anything cost more than just one. Competition does not lower cost, competition moves price toward cost. In theory, when the price paid by the consumer is above the cost of providing the commodity or service, then competition may reduce that price. The problem with this theory when applied to the local telephone industry, is that no one has been paying anything close to what it actually costs to provide a telephone in their home or business. The difference between how much it costs and how much people pay is even more pronounced in rural high cost areas. See figure 2.

Figure 2, provides you with a graphic depiction of the sources of revenue telephone companies currently have to recover their total cost. As you can see, the revenues generated by local basic service covers only a portion of the total cost, especially for the rural company.

What I hope to convey to you in the short time I have is that competition, except through resale, may not be in the public interest in the rural high cost areas. The fact is, the markets we are talking about are unable to economically support even one carrier and keep rates for service affordable. Universal service support is needed to

counter the dual problem of high cost and the subsequent lack of ability to generate enough revenue within the area.

The social objective of universal service is based on the premise that everyone in the nation, no matter where they live, should have access to a telephone. This was the force that drove the construction of facilities in high cost rural areas. A system of revenue transfers, mandated by regulators, from low cost to high cost areas, now known as universal service funding is what makes service affordable. See figure 3.

If you subtract Anchorage Telephone Utility, the only non-rural local exchange carrier in Alaska, and GTE because it receives no universal service funding from the data on this sheet, you will find that the other local exchange carrier's have invested \$726 million dollars to serve 200,000 customers. To ensure rates for service remain affordable and the companies can recover their investment in the rural high cost areas, they receive \$40 million dollars in universal service support annually. As you can plainly see, it is very expensive to provide services in rural areas. It is impossible to generate enough revenue to pay for existing services from within the area itself at this time.

It is important you understand that the support which is currently in place is calculated based on the existing local exchange company's actual costs. The \$726 million dollars, the majority of which is debt financed, was invested in facilities built in compliance with Federal and State standards and regulation. No one built these facilities because they believed they were going to reap some obscene monopoly profit. Frankly, I'd have been better off to put my money into long term CDs. Most of these small businesses have very little margin, therefore, very little ability to cut any costs. The costs are fixed because the companies have already built the facilities to serve all of the people in the communities where they provide service. Also, because the companies are small, employees fill many different roles. Companies can't lay off only a part of a person because of some regulatory change. The loss of customers does not reduce costs. For example, in the very best year my company ever had, net revenue was just 9% and return on investment was only 3.3%. The loss of as little as 9% of total business in that

year would have made the company unprofitable. The point here is that the loss of a relatively small amount of business would cause drastic rate increases for the remaining customers. In a recent letter to FCC Chairman Kennard, Senator John McCain, Chairman of the Senate Committee on Commerce, Science, and Transportation said, "rate increases were not the intent of Congress or the FCC when Congress passed the Telecommunications Act of 1996."

Facilities based competition simply makes no sense in these markets. Again if you can not generate enough revenue within a defined market area to pay for the current state-of-the-art facilities which are in place and have not been paid for, why would anyone consider constructing more. It would be uneconomic duplication of facilities.

Does this mean that no competition will work in these markets? Competition which uses the existing facilities would appear to do the least amount of harm. Resale of existing services, available at an avoided cost discount would at least maintain the proper targeting of the existing universal service support. This is consistent with Section 251 (b) of the Act and the way in which the APUC allowed for competition in the interexchange market in Alaska.

There are a number of rule making dockets which both the FCC and the APUC must complete before we will have answers to how the diametrically opposed concepts of universal service and competition can work harmoniously. There will, of course, be the inevitable appeals to the courts on many rulings that the FCC and the APUC make. So, as we struggle through the implementation of the Telecom Act, please keep in mind that the statement "competition is in the public interest" is a legal prescription based on finding of fact, on a case by case basis. It is not merely a statement of belief.

Topics

- History of TelAlaska, Inc
- Rural Economic Development
- Advanced Services - State Modernization Plan
- Telecommunication Act Goals
- Facilities Based Competition in Rural Alaska
- Market Size
- Public Interest

TelAlaska, Inc.

■ 21 Service Areas:

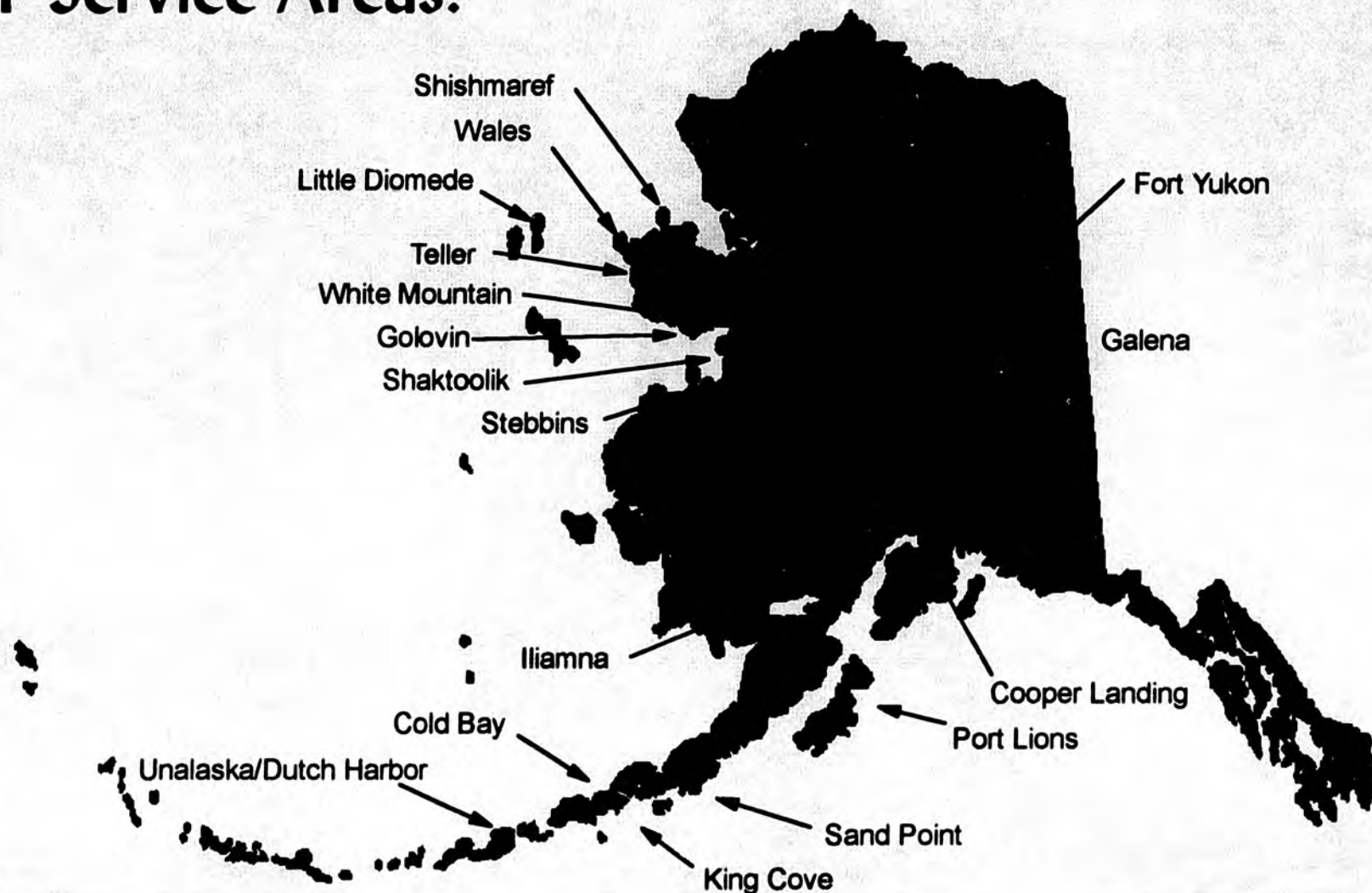


Figure 1

TelAlaska Access Lines

INTERIOR TELCO

COLD BAY	181
COOPER LANDING	272
FORT YUKON	302
GALENA	323
ILIAMNA	193
KING COVE	340
PORT LIONS	137
SAND POINT	436
UNALASKA	2220

Total 4,404

MUKLUK TELCO

COUNCIL (seasonal)	8
ELIM	99
GOLOVIN	78
KOYUK	107
LITTLE DIOMEDE	51
ST MICHAEL	116
SHAKTOOLIK	87
SHISHMAREF	178
STEBBINS	109
TELLER	159
WALES	76
WHITE MOUNTAIN	77

Total 1,145

Advanced Services and the State Telecommunications Modernization Plan

■ Advanced Services

TelAlaska Provides:

- ▲ Single party service
- ▲ Digital touch tone dialing
- ▲ Numerous custom calling features
- ▲ Access to operator service and directory assistance

▲ 911

- ▲ Upon request, digital voice and data service up to T-1 or 1.544 mbps locally.

▲ Internet access

- Compliance with the Alaska State Telcom Modernization Plan

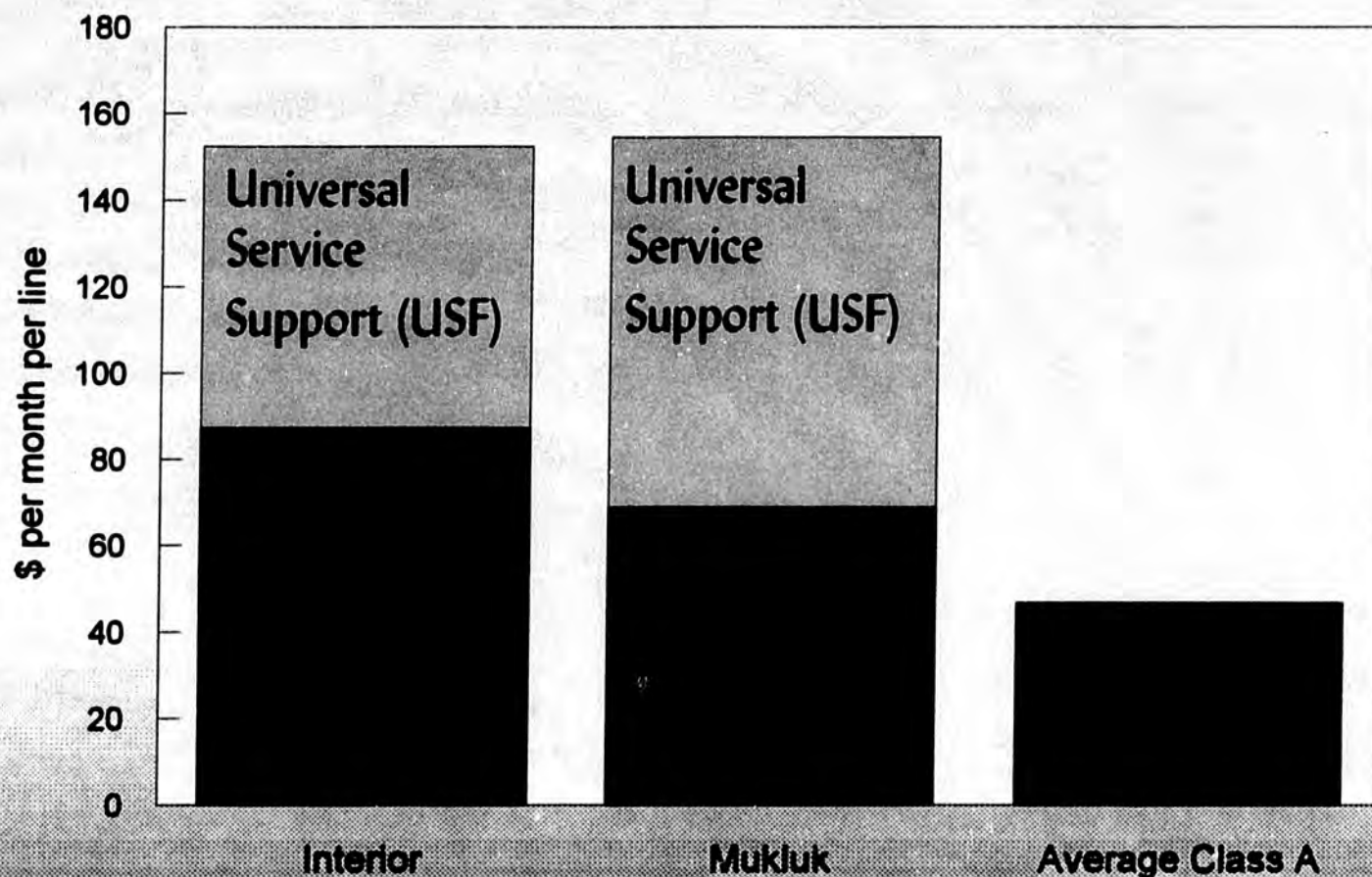
Telecommunications Act

■ Congressional intent of the Telcom Act

- ▲ Accelerate private sector deployment of advanced Telecommunications & Information services**
- ▲ Open markets to competition**
- ▲ Maintain and advance Universal Service**

■ Congress mandated in Section 254 that the FCC and State Commissions maintain Universal Service

Rural Telephone Company Cost Recovery



■ Other Intrastate (Toll)	■ Intrastate Access Charges
■ Interstate Support USF	■ Basic Local Exchange Service
■ Interstate Access Charges	■ Subscriber Line Charge

Figure 2

Alaskan ILEC's At A Glance

Incumbent Local Exchange Carrier	Investment	Employees	Subscribers	Exchanges
Anchorage Telephone Utility	309,781,324	622	151,499	4
Telephone Utilities of the Northland, Inc.	195,148,531	205	55,722	64
Matanuska Telephone Association, Inc.	193,500,000	246	41,908	11
Fairbanks Municipal Utilities System	108,961,247	156	33,659	1
Telephone Utilities of Alaska, Inc.	52,189,996	37	28,206	5
GTE Alaska Incorporated	27,852,000	70	19,805	13
Ketchikan Public Utilities Telephone Division	30,746,839	36	10,042	1
Copper Valley Telephone Cooperative, Inc.	27,082,697	35	5,056	6
United Utilities, Inc.	34,951,280	135	4,955	57
Interior Telephone Company, Inc.	25,505,530	9	4,404	9
Alaska Telephone Company	7,384,197	27	3,496	13
OTZ Telephone Cooperative, Inc.	9,010,369	26	2,905	12
Nushagak Telephone Cooperative, Inc.	5,604,927	8	2,137	3
Arctic Slope Telephone Association Cooperative	11,078,916	30	2,076	8
Cordova Telephone Cooperative, Inc.	7,540,347	11	1,853	1
Bristol Bay Telephone Cooperative., Inc.	5,268,593	20	1,744	6
Mukluk Telephone Company, Inc.	5,770,621	2	1,145	12
Bush-Tell, Inc.	2,500,000	13	798	10
Yukon Telephone Company, Inc.	2,222,426	7	426	3
North Country Telephone Company	280,240	2	170	1
Summit Telephone Company, Inc.	1,044,024	5	128	2
Bettles Telephone Company	331,400	2	68	2
Circle Utilities	Data not available			
Total ILECs 23	1,063,755,504	1,704	372,202	244

Figure 3

Small Markets

- Markets may be too small to support competition
 - ▲ Consider resale
 - ▲ Duplication of facilities is expensive
- Is competition always in the public interest?
 - ▲ Should be considered on a case-by-case basis

The State of the Alaskan Telecommunications Market

John R. Ayers
President, e.Net Limited

e.Net Limited

The Alaskan Market: Key Points

The Size and Scope of the Market Today
What the Market Needs to Grow and be
Healthy
What Influences are Necessary to Meet these
Needs

e.Net Limited

Size and Scope of the Market

TABLE 1

Service Category	Gross Revenue	Net Income
Local Exchange Carriers (combined)	\$256.3 million	\$35 million
Interexchange Carriers	\$120.5 million	\$26.8 million
Cable Television	\$75 million	NM
Wireless Services	\$45 million	\$4.0 million
Internet Services	\$15 million	NM
Other	\$10 million	\$1.0 million
Totals	\$821.8 million	\$66.8 million

Source: NCTA

Size and Scope of the Market

Access Line Distribution

Number of Exchanges	Size Category	Total Access Lines	Percent of Total
116	1-99 lines	6,282	1.7%
88	100-999	21,631	5.8%
31	1000-9999	113,779	30.6%
5	10,000-99,999	79,011	21.2%
1	100,000+	151,499	40.7%
241		372,202	100%

Note: median exchange size is 105 access lines

Source: NCTA

Size and Scope of the Market

	Number of Locations	Number of Access Lines	Percent of Total
1997	48	335,981	90.3%
1998	22	12,450	3.3%
Total	70	348,431	93.6%
Remaining	171	23,771	6.4%

Source: FCC, 1998

Size and Scope of the Market

Number of Locations and Subscribers by Provider

Provider	Number of Locations	Number of Subscribers	Percent of Total
GCI	26	101,000	88.2%
21 Others	35	13,500	12.8%
Total	61	114,500	100%

Note: DBS has limited application in Alaska due to geographic position relative to satellites, and the resulting high cost for antennas for access.

Source: FCC, 1998

Size and Scope of the Market

Service Provider	Number of Locations	Access Lines in Service Area	Percent of Total
GCI	26	304,431	81.8%
21 Others	35	40,747	10.9%
Not Served	180	27,024	7.3%
Total	241	372,202	100%

Market Health & Growth *Interexchange Markets*

Fair & Equal Regulatory Regime

- removal of tariff approval barriers in competitive service markets
- relax statutory requirements on pricing structures
- reduce barriers for smaller companies

Market Health & Growth

Interexchange Markets

Open Access to Infrastructure to Encourage Entrepreneurial Market Entry

- resist on-wholesale pricing structures from facilities-based carriers to allow competitive resale
- seek to prevent domination of essential facilities
- encourage niche market development

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Market Health & Growth

Local Exchange Markets

Promote Rational Competition

- encourage competition that doesn't harm rate affordability, service quality or reliability
- promote competition consistent with rural exemptions
- encourage competition for customers rather than subsidies

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What Influences are Necessary

Ensure the "Level Playing Field" Includes Consumers

Time is of the Essence for Regulatory Action to Accomplish Far-reaching Goals

Make Sufficient Resources Available to Agencies Responsible for Enactment of Telecommunications Reforms

© NCT Limited

What Influences are Necessary

Provide Safeguards against Providers Gaining Undue Market Power

Expect the Eventual End of Subsidies to Providers to Offset Costs

© NCT Limited

**Presentation to
Alaska House Special
Committee on
Telecommunications
Dec. 11-12, 1997**

- Rep. Brian Porter, Chair
- Rep. Ethan Berkowitz
- Rep. Fred Dyson
- Rep. Ivan Ivan
- Rep. Jeannette James

ALASKA LECS: THE BASICS

David Fauske
General Manager
ASTAC

Arctic Slope Telephone Association Cooperative

An overview of the exchange
telephone companies serving rural
towns and villages

INTRODUCTION

- The Local Exchange Companies (LECs) are a subject of interest and public debate.
- The public interest is best served when factual information underlies public policy.
- Mis-information has clouded this already complex debate in Alaska.
- This presentation will present a factual overview of the rural Alaska LEC status.

MAIN POINTS

- Who are the LECs ?, who do they serve ?, where are they located ?
- What does a rural local exchange telephone company look like in the real world?
- What services can a rural Alaska LEC provide ? What are the limiting factors ?
- What is the telecommunications option for local exchange customers in Alaska ?

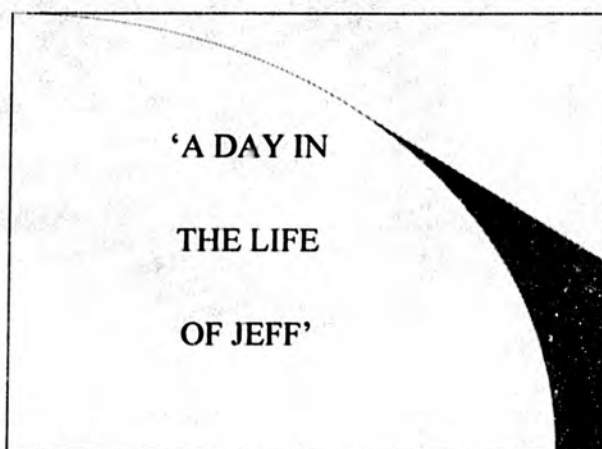
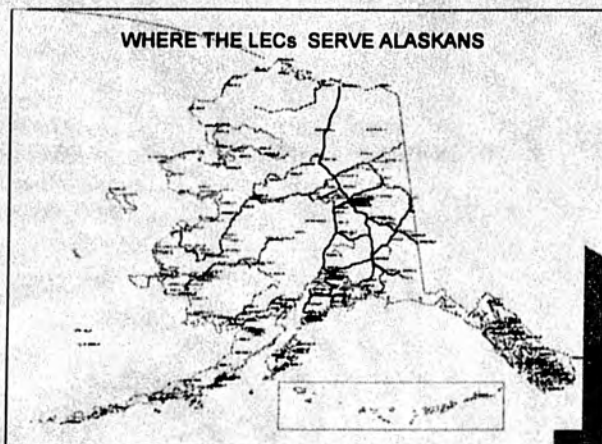
WHO ARE THE LECs ?

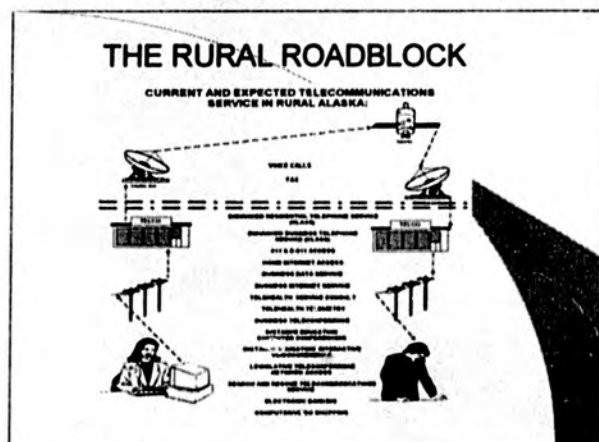
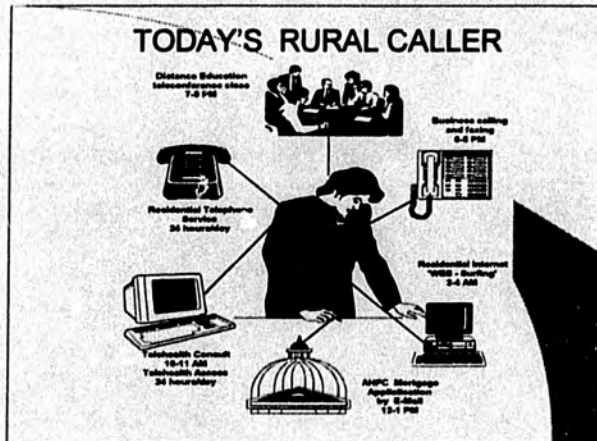
Alaska Power & Teleph.	Ketchikan Public Utilities
Arctic Slope Teleph. Co-op	Matanuska Teleph. Co-op
ATU Telecommunications	Nushagak Teleph. Co-op
Bristol Bay Teleph. Co-op	Kotzebue Teleph. Co-op
Bush-Tel, Inc.	Summit Teleph. Co-op
Copper Valley Teleph. Co-op	TelAlaska, Inc / Mukluks
Cordova Teleph. Co-op	United Utilities, Inc
PTI - Century Telephone	Yukon Telephone Company
(Fairbanks)	GTE-Alaska
(TUA)	Circle Telephone
(TUNI)	

THE LEC BUSINESS

COMPANY	LINES	COMPANY	LINES
APT	3,734	KPU	10,042
ASTAC	2,076	MTA	41,908
ATU	151,499	Nushagak	137
BBTC	1,744	OTZ	2
Bush-Tel	798	Summit	12
CVTC	5,056	TelAlaska	5,549
Cordova	1,853	United	4,955
PTI-Century	117,587	Yukon	426
GTE Alaska	19,805	Circle	30

APPROXIMATE TOTAL: 372,232
and PLANT INVENTORY: \$790,056,703





**Village Digital Subscriber Loop (DSL)
Subscriber Equipment**



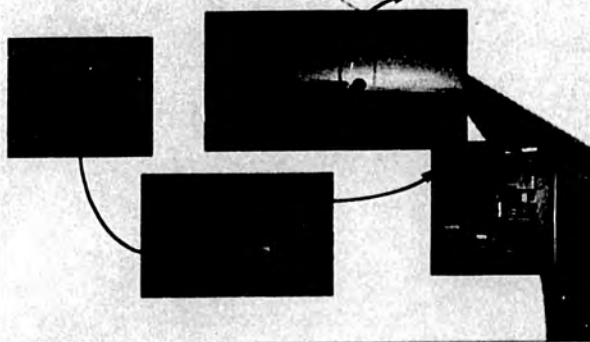
**Village Digital Subscriber Loop (DSL)
Local Loop Wire Plant**



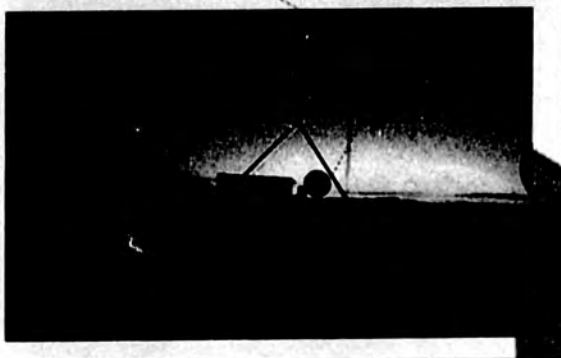
**Village Digital Subscriber Loop (DSL)
End User Equipment**



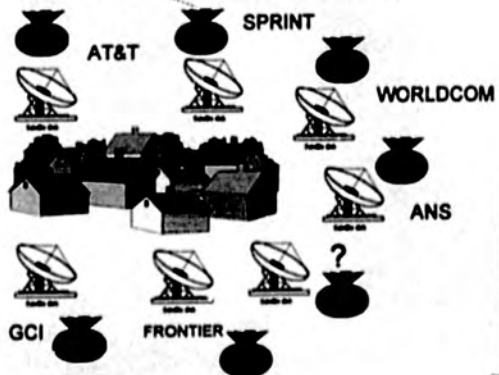
The village to the world..?

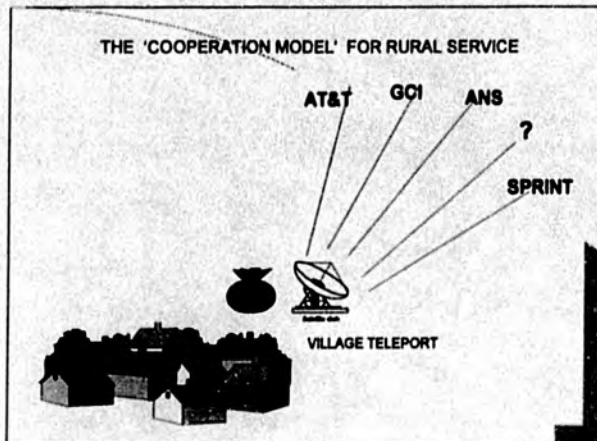


.....The rural telecom roadblock



THE 'COMPETITION MODEL' FOR RURAL SERVICE





Summary - 1

- Alaska's citizens, including rural residents, are provided with modern, multi-functional local telecommunications services by local exchange companies. (Alaska was the first and only, state to qualify--on its status quo--under the federal State Telecommunication Modernization Plan (STMP))

Summary - 2

- The technical limit to these services is at the front of the satellite earth station antenna. That is, the inter-exchange (IXC) portion of the network today is inadequate to the technical need and the already in-use or desired telecommunications applications of rural subscribers.

Summary - 3

- The myth that the local exchanges in rural Alaska need to be 'technically rescued' is an expensive, time and energy consuming diversion. It is a false option, a false dilemma, for Alaska society. It is self-serving marketeering by the myth makers.

Summary - 4

- The proper, economic and necessary path to the improvement of Alaska's telecommunications system is to add the most economical, efficient improvements to the segments that are deficient; and then to provide the maximum, practical choices of complete, reliable services to all of Alaska's end users of telecommunications.

Summary - 5

- State policy makers must first consider the competition faced by Alaska's entire economy, including its telecommunications structure, from the Pacific Rim and globally.
- A narrow, myopic focus on forcing urban 'local competition' models -- designed for huge 'RBOC' markets -- on our State, is so defeating for all but a very few investors, driven by market and subsidy capture goals.



AKPIRG

ALASKA PUBLIC INTEREST RESEARCH GROUP

Post Office Box 101093 / Anchorage, Alaska 99510-1093

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Testimony Before the House Special Committee on Telecommunication

by Stephen Conn, Executive Director, Alaska Public Interest Research Group

December 11, 1997, 11:15-11:45 a.m.

I am Stephen Conn, Executive Director of Alaska Public Interest Research Group, the state's only citizen supported consumer advocacy group with 4,000 members statewide.

AkPIRG's interest and involvement in matters of telecommunications in Alaska is of long standing. During its more than 22 years of activity, AkPIRG's members mounted the Alaska Consumer Advocacy Program, pressed for a Citizens Utility Board and represented consumers in numerous administrative and legislative inquiries into telecommunications. In recent years, we worked on the Alaska 2001 inquiry and testified before two FCC commissioners on behalf of Alaska consumers. This is the second special committee on telecommunications before whom we have testified, the first chaired by former Representative Bill Hudson. We consistently look to the needs and interests of rural Alaska Native communities as well as urban consumers and held the first ever workshop on the future of telecommunications in rural Alaska at the 1996 convention of the Alaska Federation of Natives.

Because we communicate and work with the Consumer Federation of America on the national front and meet regularly to share ideas and experiences with consumer advocates from throughout the United States, we are able to place the Alaska experience within that national context.

In the brief time allowed today to open the eyes of your committee to the consumer's perspective, I will outline several points drawn from our experience with the telecommunications process in our state and elsewhere.

Policymakers should expressly declare that all consumers must have access to affordable telephone service appropriate to modern uses of telecommunications.

We in Alaska and consumer advocates throughout the United States have long recognized that Universal Service must be the guiding objective of change. We view universal service as so significant to the educational and economic opportunities and political participation that we advocated and the Alaska telephone providers endorsed our bold suggestion that the legislature explore whether universal service should be a right entrenched as a constitutional right within our state constitution, this in the Alaska 2001 advisory committee recommendations. We further suggested that the APUC and the legislature embark on a serious inquiry to determine what services should encompass that minimum content of Universal Service for both rural and urban residents.

In Alaska the threat that the gap between those that former Commerce Undersecretary Larry Irvin termed the "technologically underprivileged" and the rest of us will be transformed into a chasm is a real one. As you well understand, rural Alaska faces not only time lags in satellite delivery, and gaps in economic and educational access to the new technology, but basic gaps in its infrastructure that are entirely unknown in the rural regions of the lower 48. Although it is often overused in political discourse, our political leaders must consistently point out to the FCC and Congress that Alaska is indeed different when construction of the road to universal service is considered.

Will the need for a universal fund be met by federal subsidy alone? Is there a need for a state universal service fund? Who will contribute to that fund? How will consumer interests be met, especially those who are disadvantaged by location, education, age or economics? Who will ensure that there is no deterioration in reliability of customer service?

A far more extensive examination of Alaska's societal needs must be funded and carried to completion. However, preliminary data collected and used by the APUC in its filings makes a strong case for a state universal service fund. The burden of that fund must be borne by all players in the market. The payoff for our state will be cost efficient government, educational services and economic development.

Consumer advocates agree that competition often achieves improvement in the well being of consumers. However, the process that defines competition in the realm of telecommunications is already riddled with false semantic barriers, special categories of immunity which those who purport to want an open market raise in legal proceedings and press upon regulators to avoid contributions necessary for the common good. These barriers include patently false distinctions between "common carriers" and "private carriers" and equally specious distinctions between dominant and equally significant carriers who are not regulated. So-called private systems are being constructed within Alaska whose owners will likely disclaim shared responsibility for universal service obligations even though their systems are connected to those long supported by public funds. Your job is to cut away this thicket of trick distinctions to create a clear path for market competition and for consumer justice when universal service obligations are considered.

In a shared market economy, both universal service and universal competition must be freed from outdated and artificial distinctions created in the monopolistic regimes of yesteryear. Who should sustain universal service throughout Alaska: All carriers and service providers who wish to serve our market. Consumers urban and rural must support a system that is as significant as the postal system of yesteryear.

Cable systems, deregulated by federal law, must be seen for what they are: important vehicles for high density telecommunication and regulated for the benefit of consumers.

The battle for access to market share in Alaska's telecommunications industry is a political battle that uses "competition" and "consumers' interest" as its mantra, but that is littered with examples of special pleading, special exceptions and well greased with political contributions to those in a position to make critical decisions. When the fight between Alascom and AT and T was raging, the top political spenders on contributions and on lobbyists were in the telecommunications industry and not in the petroleum industry as Alaskans might have expected. We suggest that those who would sit on this or on any special committee on telecommunications either pledge to take no contributions from telecommunications representatives or put these contributions on the public record when they vote. Consumers can judge for themselves whether decisions about telecommunications have been guided by political donations or by Alaska's needs.

If members need an example from the recent past of a state law pressed forward against the interests of telephone consumers, the legislative restriction placed on the APUC to bar it from demanding that providers participate in the Federal Lifeline program resulted in only ATU's voluntary participation until recent inducements in the Federal Telecommunications law encouraged providers to offer the program to their customers. The program still suffers from low penetration. Until a comprehensive survey of market penetration is conducted by the APUC and guided by consumers, the benefits of that program are not likely to be achieved.

Policymakers must ensure that consumers have sufficient information to make wise decisions in a competitive market. Policymakers must ensure that regulatory agencies have the resources needed to educate consumers, handle consumer complaints and curb abusive practices.

A stronger connection between consumer advocacy and the regulatory process is absolutely necessary. The current designation of certain commissioners who must vote on decisions as consumer representatives and designation of an office public affairs person as the consumer ombudsman is outdated in a world where consumer concerns must receive independent and disinterested advocacy. These casual labels are as outdated in the new world of telecommunications as the false distinctions between common carriers and private carriers and dominant carriers and nondominant made earlier and made for reasons of narrow self-interest.

The same can be said for deregulation necessary for enhanced market competition. That deregulation cannot and should not signal an end to protection of consumers. In fact, the reverse is true: what regulation remains should focus on consumers' needs and not merely on special pleadings by service providers in the name of consumers who have no voice at the table.

Consumers watched as pay telephone rates increased after pay telephones were privatized. They watched cable rates rise after companies were purchased and the market was deregulated while competition remained expensive or entirely illusive. Ralph Nader has pointed out that billing practices that are not geared to minutes and seconds actually used, cost consumers billions. For all of this and more, independent consumer advocates are needed, funded from the same source as the Alaska Public Utilities Commission or by special legislative appropriation to assure Alaska consumers that their interests are given equal regard to self-serving interests of service providers in a regulatory process that consumers (not service providers) underwrite with every utility bill they pay. No observer of the political process that has lead to the current state of telecommunications can conclude that providers and consumers interests were given equal regard- not even in the construction of the agenda that has guided this morning's proceedings.

At the national level, there is a counter attack against Universal Service. Senator Stevens worked hard to create bridgeheads for service in rural Alaska by affording special subsidies to medical and educational facilities as well as libraries. But attacks on cross subsidization to what opponents call "our country cousins" could impact both urban and rural Alaska. At the state legislative level, we hope that the legislature and governor recognize that the power cost equalization issue - core subsidies to rural electricity- is linked directly to access to telecommunications in rural Alaska.

Alaska's consumers are not naive. They already have discovered glitches in the new local competition between providers and patent lies about reduced costs where cable and

pay phones are concerned. They know full well that a political process that speaks of competition and consumer interest may be guided by an agenda defined by lobbyists for the major players and a flow of campaign contributions that is not in favor of market competition or the Alaska consumer.

In the end only consumer advocates with no second agenda will target anomalies in the evolving process and shine the halogen glare of publicity on special deals and special favors sought by service providers as they scramble for special access, competition and consumers be damned.

Thank you.

CONN

**Report to the
Alaska Public Utilities Commission**

by the

**Alaska 2001 Advisory Committee
Lt. Governor Fran Ulmer, Chair**

March 1996

I. SUMMARY OF RECOMMENDATIONS

COMPETITION AND REGULATION

- 1. The APUC should conduct an investigation of the Alaska telecommunications market structure to determine how to accommodate and take advantage of potential competition in the remaining telecommunications markets wherever possible in a manner that promotes the public interest.**
- 2. The commission's regulations should be amended to provide for an orderly transition to competitive markets in a manner that is fair to both consumers and providers.**
- 3. The APUC annual report to the legislature should include a discussion of changes during the past year to classifications of competitive markets and recommended legislative action.**
- 4. The APUC report each year should include a discussion of the quality of service in all markets in Alaska and Commission actions to monitor and maintain service standards, as well as an analysis of new product offerings, price performance in competitive markets, and their impact on state universal service goals, along with recommended legislative action.**

UNIVERSAL SERVICE

1. While universal service has been an established public policy and societal goal for many years, it has no explicit, written definition. The APUC or the Alaska Legislature should hold public hearings in order to explicitly define universal service. The definition should incorporate the following principles:

- * universal service is an evolving concept,**
- * quality services should be provided at just, reasonable, and affordable rates,**
- * the State of Alaska should seek to achieve subscribership levels in rural communities comparable to those in urban areas.**
- * consumers in rural and high cost areas should have access to telecommunications and information services, including interexchange services, that are comparable to those services provided in urban areas,**
- * consumers in rural and high cost areas should have access to the benefits of advanced telecommunications and information services for health care, education, libraries, economic development, and other public purposes,**
- * public libraries, elementary and secondary schools and classrooms should have access to advanced telecommunications services**
- * the services encompassed within carriers' universal service obligations should include those which, through the operation of market choices, are subscribed**

- * to by a majority of residential customers in the United States, the operational definition of universal service will remain a dynamic concept revisited at prescribed intervals by the APUC and the Alaska state legislature,
- * universal service is necessary for citizens to achieve full political and economic participation in society. Given the significance of universal service, any legislative hearing should address whether the citizens of Alaska desire a state constitutional amendment.

2. In addition to the principles in recommendation #1, the definition of universal service should include the following as the initial services which should be encompassed within carriers' universal service obligations: single party service, touch tone dialing, 911 emergency service where available, 411 (information), 611 (maintenance and repair), white page listings, data transmission over voice grade analog lines using a modem¹, and access to optional² digital services such as switched 56 kilobit and ISDN.

3. The APUC should establish a minimum service quality standard for basic service data transmission. This standard should: 1) be reviewed and changed periodically; 2) be an end to end standard that applies to both local and interexchange service; 3) accommodate the most amount of band width feasible; and 4) recognize the needs of Alaskans to communicate as adequately as those in the lower 48.

4. The APUC's State Telecommunications Modernization Plan (STMP), being developed in conjunction with Rural Utilities Service requirements, should give consideration to recommendations 1, 2, and 3.

5. The APUC should conduct an investigation to determine whether Alaska telephone companies and consumers are receiving the full, rational benefits of federal and state universal service cost support mechanisms. To the extent that telephone companies are not participating in available programs, or are not utilizing the benefits of the current programs to reduce prices to consumers, or are not utilizing available or existing programs to increase subscribership, the APUC should investigate the reasons and recommend possible solutions. In addition, as the FCC makes changes to universal service support

¹The Universal Service Task Force proposed that voice grade circuits be capable of transmitting data at a minimum of 9600 kbps. The initial staff drafting team (see footnote 4, following) proposed to the Advisory Committee that this standard should be set to allow data transmission over voice analog lines using a modem capable of speeds of 30 kbps and that this standard be an end-to-end standard that applies to both long distance and local exchange service. However, the Advisory Committee was unable to reach consensus on this issue. The reasons for and against these standards are discussed on pages 55-56.

²By optional we mean that these services would not be part of the basic service package at this time, but rather would be universally available at cost-based, market rates.

Testimony to the State House and Senate Committee on Telecommunications
December 12, 1997

Yukon-Kuskokwim Health Corporation
PO Box 528
Bethel, AK 99559

Rebecca Grandusky
Chief Information Officer
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Fx: 907/543-6006
Em: rebecca_grandusky@ddc-alaska.org

Health care providers today are extremely dependent on good telecommunications. In the Delta, we have been using radio, telephone and fax to deliver cost effective health care services to a population of 30,000 beginning in the 60's to the present day. Over 50 % of the Delta population qualifies for medical assistance, but less than 40 % receive this assistance. In many instances YKHC provides the health service with no additional reimbursement. Physicians have overcome great odds to assist health aides in making diagnoses from remote locations including Bethel, Anchorage and Seattle. Without the state and federal funds designated to telecommunications, the cost of health care would escalate at an even faster rate.

YKHC is committed to providing village-based Preventative health teams in villages throughout the state within the next three years. These teams will be recruited from the village and trained utilizing distance delivery combined with Bethel-based training. Bethel-based providers (physicians and physician practioners) will be accessible for consultation. The teams will be tasked with decreasing infectious disease rates, improving child immunization rates, promoting improved sanitation and delivering disease prevention and health promotion concepts to the village residents. The transmission of data, images and educational materials via satellite is essential to YKHC for providing these services cost effectively. Without ARCS, SIP and WEB access, the cost to support these professionals would increase greatly and the cost to state provided health care would also increase proportionally.

***Testimony to the State House and Senate Committee on Telecommunications
December 12, 1997***

**Yukon-Kuskokwim Health Corporation
PO Box 528
Bethel, AK 99559**

**Curt Madison
Village Operations Distance Delivery Technology Coordinator
Ph: 907/543-6168
Fx: 907/543-6143
Em: curt_madison@ddc-alaska.org**

Health care in rural Alaska, like health care anywhere in Alaska, can be greatly aided by telecommunications. Telemedicine's sexy, glamorous, headline grabbing images include exotic consultations between specialists around the world or acute, life-saving emergencies. However, here in the Delta we are more interested in using telecommunications to alter the less spotlighted normal day to day operation of a community. We want to make whole village area networks that allow all the village entities to work together. We have robust programs functioning now in our communities that will get an additional boost from affordable telecommunication connectivity. We are not asking for funding, we only want the freedom to design the best delivery system.

We want to use telecommunications to bring the health providers, the health aides, into a peer network. We want to use telecommunications to bring better access to education right into the village where people live. And we want to use telecommunications to give access to more information to people in the villages of the Delta as they find issues they need to research. Each of these uses will reduce the dependence of rural Alaska on State funds. And each of these uses will encourage village residents to be information providers to the rest of the state. We cannot afford to neglect our telecommunication resources.

Key telecommunication resources we utilize include data transfers that can operate on poor telephone lines in harsh conditions more similar to a Third World country than to the rest of the United States, as well as, a leading edge innovative use of digital satellite transponders. When internet access arrives in the delta we will be moving in the right direction. But right now the only way we can get full motion video to our villages, and the only way we can include all our residents in a State-wide dialogue is through the broadcast capabilities of ARCS.

Chairman Porter, thank you for allowing us to address this hearing. As you consider means to wisely use State legislative resources in the form of laws regulations and appropriations, we are confident that interest in telecommunications now will leverage into large investments in human resources of the Delta later. Whether it is economic development as natural resource extraction or ecotourist destinations, a healthy knowledgeable self-sufficient population in the Delta is a net gain for all of Alaska.



Region Map





Yukon-Kuskokwim Health Corporation

"Fostering Native Self-Determination in Primary Care, Prevention and Health Promotion"

**** WELCOME TO THE YUKON KUSKOKWIM HEALTH CORPORATION ****

On behalf of the Yukon Kuskokwim Health Corporation Board of Directors and employees, I would like to welcome you to YKHC.

The Mission Statement of the Yukon Kuskokwim Health Corporation states:

"OUR MISSION is to achieve the greatest possible improvement in the health status of the people of the Yukon-Kuskokwim Delta region.

We are committed to the development of culturally relevant programs for primary care, prevention, and health promotion in a setting that fosters Native Self-Determination in the control and management of health care delivery."

Please join us in our efforts to meet the goals and objectives of the Corporate statement.

Thank you.

Sincerely,

GENE PELTOLA
PRESIDENT/CHIEF EXECUTIVE OFFICER

Distance Delivery Consortium

*Promoting distance education and
communication in Rural Alaska*



P.O. Box 2401 • Bethel, Alaska 99569 • (907) 543-4089 • (907) 543-5720 FAX

General Information

The Distance Delivery Consortium (DDC) is a distinctive partnership formed in 1990, to promote effective distance delivered education and telecommunications in rural Alaska. The Bethel-based DDC is composed of several public, private, medical, and educational institutions within the Yukon-Kuskokwim Delta; each having diverse education, training and telecommunications needs. In the past, many of these needs have been difficult to address due to the vast distances and associated travel costs within the region.

The DDC was formed to promote inter agency cooperation in order to share personnel, equipment, facilities and expertise. Through this cooperative effort agencies have been able to develop state-of-the-art telecommunications infrastructure and foster cost effective distance learning experiences for their respective end-user groups.

Since 1994 there have been many successful projects. A prime example is the shared use of satellite television dishes located in forty-six community schools. These satellite capable sites allow all community members to access the growing number of course offerings and video conference efforts delivered by the member agencies. The DDC has delivered more than 300 hours of live educational television via satellite through the studios of KYUK, Bethel. Several major inter-school district courses have been broadcast including teacher in-service training on topics such as fetal alcohol syndrome, gender equity, and sexual abuse reporting laws for educators. LKSD and the Alaska Writing Consortium have offered several semester-long university courses for teachers by satellite. The Alaska Army National Guard completed training sessions to 21 villages saving thousands of dollars in travel costs. The Yukon Kuskokwim Health Corporation will continue to offer Community Health Aide Training by satellite. The Kuskokwim campus of the University of Alaska, Fairbanks is offering accredited instructional television (ITV) and computer / on-line courses through the DDC. The DDC also offers Internet access through a user-friendly electronic mail system (FirstClass) to all its members for an annual nominal fee.

Because a robust telecommunication system is critical to distance education, the DDC continues efforts to extend the information highway to rural Alaska. Since 1994, the consortium has secured over \$2,000,000 in grants and matching funds to support telecommunications infrastructure projects and develop new distance education programs. This support has been garnered from Federal, State and Public sources and through Member Agencies.

The DDC is officially represented by an executive board composed of member agency representatives who direct a full-time coordinator, Martin Leonard III. The DDC coordinator serves to secure grant funding for future efforts as specified in a long range plan, coordinate the dissemination of distance education offerings and information to members and provide expertise on technical matters.

Members

1. Bethel Broadcasting Inc. (KYUK TV/AM)
2. Lower Kuskokwim School District (26 Schools)
3. Lower Yukon School District (11 Schools)
4. Yukon-Kuskokwim Health Corporation (52 Villages)
5. Yupik School District (3 Schools)
6. University of Alaska, Kuskokwim Branch (52 Villages)
7. Kashunamuk School District
8. Rural Cap Parent Child Program (6 Villages)
9. St. Mary's School District
10. City of Bethel

Associate Members/Advisory Members

1. United States Fish & Wildlife Service

Corporate Members

1. AT&T Telecom
2. United Utilities, Inc.
3. GCI
4. Association of Village Council Presidents, Inc.
5. Bethel Native Corporation

Community Service Members

1. Tundra Women's Coalition
2. Bethel Chamber of Commerce
3. Bethel Community Services
4. Bethel Family Clinic
5. Orutsarmuk Native Council
6. Bethel Prenatal Home
7. Bethel Group Homes

Supporters

1. Alaska Army National Guard (AANG), Bethel Region

**For additional information contact the coordinator, at (907) 543-4089 or send E-mail to
Martin_Leonard@ddc-alaska.org**

Martin Leonard
Distance Delivery Consortium
Box 2401
Bethel, Alaska 99559

December 12, 1997

Testimony to the House and Senate Telecommunications Committee

Mr. Chairman...The professionals testifying before you, within this group, are executive representatives of the Distance Delivery Consortium (DDC). This group is the most active community-based organization in our state and is extremely devoted to bringing cost effective telecommunications infrastructure to the rural communities of the Yukon Kuskokwim Delta. We occupy seats on the governance board of the Satellite Interconnect Project (SIP) and are one of the founding agencies of Alaska's Educational Channel - Alaska III.

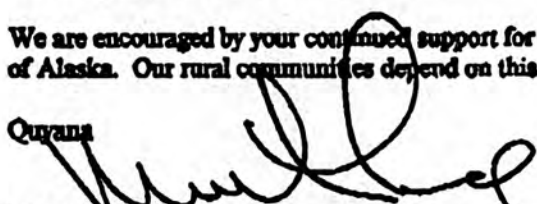
The partnerships we've developed have facilitated cooperative efforts between five rural school districts, regional health and social service organizations, city and tribal governments, public radio and TV stations, the higher education community as well as with the industry folks before you. By sharing human, technology, financial and fund development resources, these organizations have been able to address many of the unique telecommunications needs of SW Alaska. It is with your assistance and support, working through these true community partnerships like the DDC, that we can all bring to fruition a state infrastructure that is for the benefit all Alaskans.

You should be congratulated for your support for innovative initiatives directed at bringing valuable infrastructure and information resources to rural Alaska. In the Satellite Interconnect Project, the state has developed a technically advanced system, capable of delivering more service to rural communities, under the same cost structure - much more for less!

Alaska is once again a leader in the field of telecommunications and information resource technology. With that leadership role comes the responsibility to ensure that these resources are accessible to all regions of the state and validated through innovative uses like distance education and telemedicine, - we are doing just that here in the YK Delta.

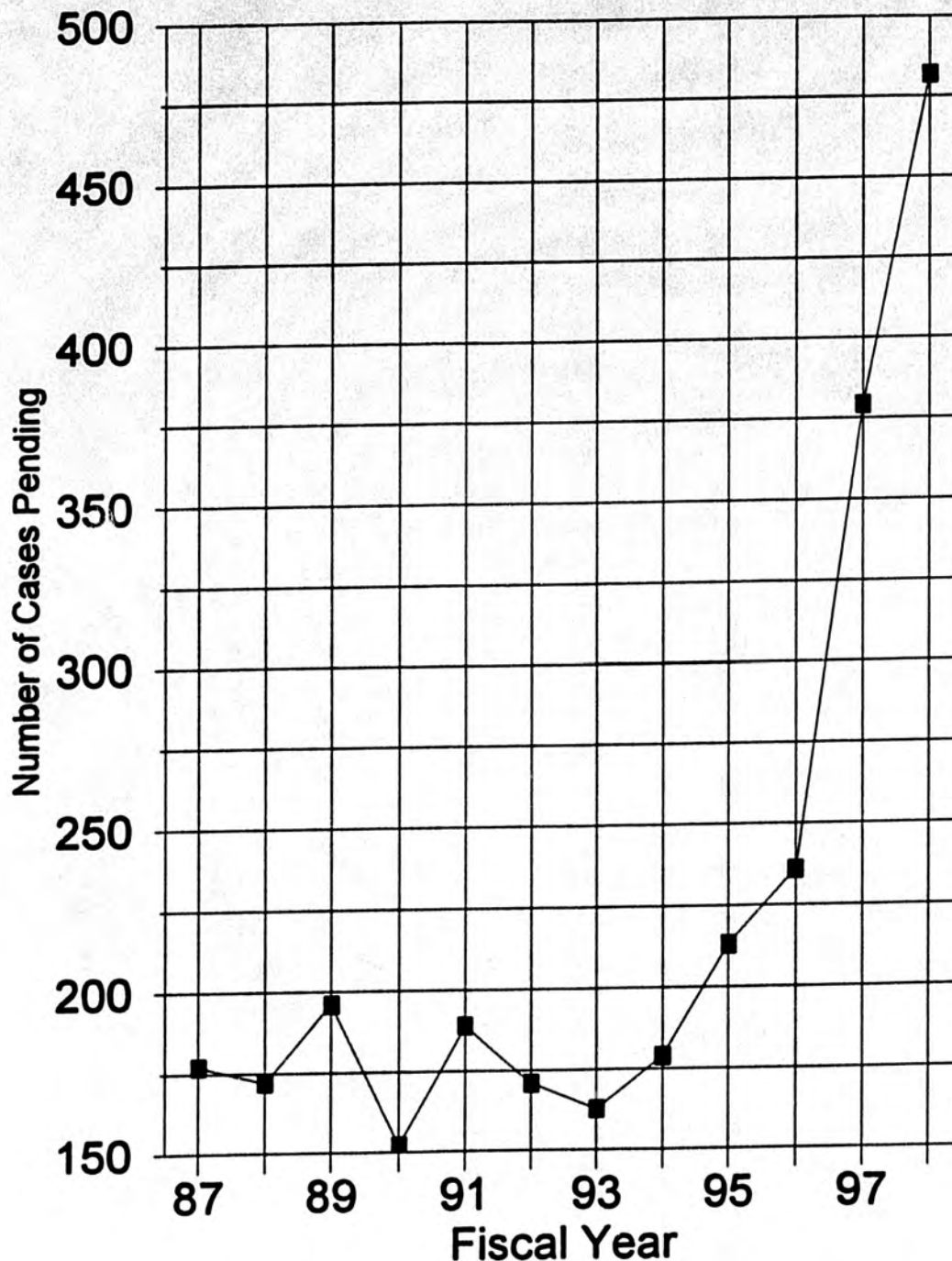
We are encouraged by your continued support for state-wide telecommunications resources for the people of Alaska. Our rural communities depend on this infrastructure. You have our support in this effort.

Quyana


Martin Leonard III, Coordinator, DDC

APUC Formal Caseload

Doubled in 16 mos; Tripled last 5 yrs.



IMPLEMENTATION OF THE TELECOMMUNICATIONS ACT OF 1996

Alaska Public Utilities Commission

House Special Committee on Telecommunications

December 12, 1997

INTRODUCTION

Mr. Chairman, Rep. James, Rep. Berkowitz, Rep. Ivan, thank you for inviting the Alaska Public Utilities Commission to make a presentation at the Telecommunications hearing today.

The chairman asked me to convey his regrets at being unable to be here today. And believe me, no one regrets his absence more than I do.

But regulators do not expect to be hugged very often by their customers. If they were, it would probably be a warning sign. The most that we can hope for is the grudging respect of regulated entities.

I would like to do three things this morning: 1, make some brief remarks about the commission; No. 2, summarize the commissions progress in carrying out its responsibilities under the federal telecommunications act 1996; and most importantly No. 3 responding to some of the questions raised by earlier presentations and to your questions.

The telecommunications industry in Alaska and nationally is in a period of dramatic change. The comprehensive rewrite of the federal telecommunications act of 1934 by Congress nearly two years ago was the first significant change in federal congressional telecommunications policy in 60 years. The act declared a national policy of competition in all aspects of the telecommunications industry. Since the long distance market nationally was already opened to competition, the primary focus was on deregulating the local exchange markets.

The act provided protection from competition in small rural markets, but directed state public utility commissions to remove that protection, unless it would be "unduly economically burdensome", technically infeasible or disruptive of the universal service support mechanisms to do so. For the past three days the commission has been holding hearings on the first request by a competitor (GCI) to remove the rural exemption held by PTI.

The Commission needs more resources to handle its new responsibilities in a timely and effective manner. Within one month of the passage of the telecommunications act the commission filed a supplemental budget cost

for 400,000 dollars. No action was taken on the request in 1996. However, during the special session the Legislature did approve the Commission's request to be allowed to spend any carryover balance to begin implementing its new responsibilities under the Telecommunications Act. We hired a new telecommunications specialist and continued a contract with a nationally recognized economics consulting firm.

I. Telecom Act Statement of Purpose

A. To provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition, and for other purposes.

II. FCC statement of the Act's Goal.

A. The goal of this new law is to let anyone enter any communications business -- to let any communications business compete in any market against any other. [FCC homepage]

III. Another overriding goal of the Act that many believe to be as important as the competitive goal is Universal Service.

IV. Congress relies on state commissions -- to a very great extent -- to implement its pro-competitive policies. Main Tools provided by the Act for promoting competition (removal of barriers to entry & requiring interconnection).

A. Removal of Barriers to Entry

B. Interconnection

1. The rules are fairly detailed and include obligations for such things as resale of services, number portability, access to poles, conduits and rights-of-ways, etc. This state must enforce these rules through oversight of interconnection agreements -- including, if necessary, mediation and arbitration of any disputes.

C. Sometimes in tension with the Act's pro-competitive policies is the goal of maintaining and enhancing universal service. Here again Congress has established fairly specific rules that require further implementation -- some by the Federal Communications Commission and some by state commissions.

- D. Congress has established some fairly detail procedures for implementing local exchange competition and maintaining and enhancing universal service, the Act's road map is not complete. In some cases -- for example rules for local exchange market structure -- a good deal of discretion has been left to the states -- provided state rules do not conflict with federal rules. The Commission also acknowledges the need for interexchange market structure rules which is largely ignored by the Telecommunications Act.
- E. In other cases of a missing Congressional road map, the job of drafting rules has been left to the FCC but the work is still in progress. In the case of access charges -- local competition has required some immediate, interim adjustments to the states existing rules that may well have to be further revised again once the federal rulemakings are complete.

V. The Commission has initiated five major rulemakings as a result of the Telecom Act regarding private pay telephones, directory assistance, access charge reform, universal service, and market structure for local exchange carriers.

- A. Access charge reform NOI (R-97-5) and Universal Service (R-97-6) initiated as combined Order August 1997 to solicit comments regarding how to ensure Alaska system complies with requirements of the Act. And whether to implement state USF.

1. For example the Act requires that support be explicit -- the current Alaska system provides Universal Service support through separations, pooling and rate averaging, and bulk bill weighting system.

- B. Initial comments have been received and are being reviewed.

VI. Market structure rules for local exchange competition NOI initiated November 1997 to solicit comments regarding rules necessary to create a level playing field (questions of market power, dominance and pricing flexibility) , local exchange carrier provision of IXC service, and arbitration pricing standards.

A. Comments originally due Jan 5 – many parties have requested an extension until Jan 12

B. When the Commission voted to initiate this NOI also acknowledged need to revisit IXC market structure – spun off IXC issues into separate NOI to be completed in near future – will address wholesale tariff (resources)

C. LEC provision of IXC service is addressed in this NOI

VII. Transitional market structure rules for Anchorage market based on current IXC model.

A. The Commission voted to issue regulations for comment at its November 19 Public Meeting and expects to issue the Order shortly with the goal of a 6 month turnaround.

VIII. Other Issues

A. With limited review IXC tariffs are currently allowed to go into effect upon 30 days notice to the Commission – not approved

1. reviewed for discriminatory treatment
2. rates must be geographically averaged

B. LEC notice requirements could be addressed by Commission – statute and regulations allow Commission discretion

C. Define advocacy and advisor process

D. IXC wholesale rates

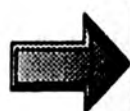


United Utilities, Inc.

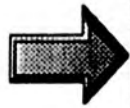
**Presentation to the House
Telecommunications Committee
December 11, 1997**



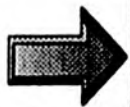
TOPICS



**Barriers to Entry to Long Distance
Markets**



Universal Service

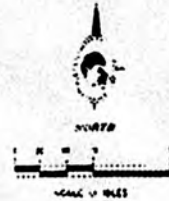


Low Income Households



UNITED UTILITIES, INC.

Yukon-Kuskokwim Delta Service Area

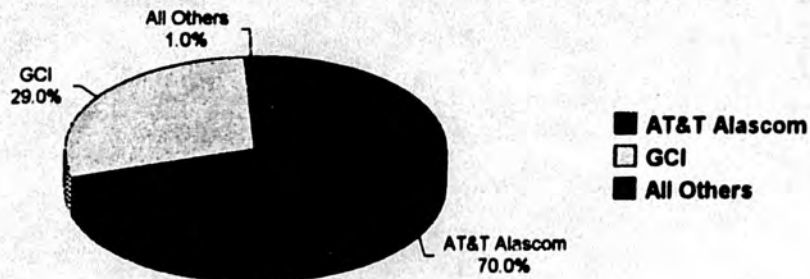


Barriers to Entry

- Local Exchange Companies entering the Long Distance Market are facing barriers to entry that do not exist for AT&T Alascom and GCI when entering local exchange markets.



Alaskan Long Distance Market



Source: Alaska Exchange Carriers Association

1994 Annual Reported Revenue to APUC

AT&T Alascom \$333 million

GCI \$117 million

Alaskan Long Distance Market Entry Options

- Construct Facilities
- Purchase Bundled Wholesale Service from AT&T Alascom or GCI
- Resell AT&T Alascom's or GCI's Retail Offerings
- Combinations of Above

Ability to Negotiate Interconnection to Compete to Provide Local Exchange Service

- Each local exchange carrier has the duty to interconnect with the facilities and equipment of other telecommunications carriers (Section 251)
 - Duty to negotiate in good faith (Section 251)
 - Formal arbitration procedures to resolve disputes (Section 252)
 - from 135th to 160th day can petition APUC to arbitrate open issues
 - APUC has 90 days to approve or reject a negotiated agreement or 30 days for an agreement adopted by arbitration
 - FCC will pre-empt APUC if APUC fails to act
- 

Options For Entry Into Alaskan Local Exchange Markets

- Install Facilities and Interconnect with Local Exchange Carrier
- Purchase Unbundled Network Elements*
 - Local Loops
 - Switching capability
 - Transmission facilities
 - Databases, signaling systems, etc.
- Resale - Local exchange carriers are required to provide service for resale at wholesale rates*
- Combination of Above

*A rural telephone company can maintain an exemption from these provisions when a competitor's request is unduly economically burdensome, technically not feasible, or not consistent with universal service (the Act, Section 251 (f)(1)(a))

Entry Options Into Long Distance Markets are More Restrictive than Entry Into Local Exchange Markets

- Resale of long distance retail offerings is not available at wholesale rates
- Facilities wholesale tariffs are not unbundled
- Lack of process with clearly defined time lines to resolve disputes



Unicom Complaint Against AT&T Alascom*

- 12/13/95 Unicom requests AT&T Alascom provide call detail records
- 4/19/96 AT&T Alascom nonresponsive, Unicom files complaint with APUC
- 5/22/96 APUC initiates investigation
- 8/ 5/96 Unicom files motion for conference to require negotiation of interconnection agreement, to amend complaint and to postpone equal access balloting in Bethel and Togiak
- 9/20/96 APUC bench order denying motion for conference and denying motion to postpone equal access balloting
- 10/25/96 Superior Court denies Unicom's request for injunction and stay of equal access balloting
- 3/ 3/97 APUC requests additional information on what the scope of the proceedings should be and holds petitions to intervene in abeyance
- 4/14/97 Comments and Reply Comments filed with APUC
- 12/11/97 APUC has, 598 days after Unicom filed complaint, not scheduled a hearing, acted on motion to compel discovery, or acted on petitions to intervene**

* Schedule does not include all actions/items

** Within this same time frame both AT&T Alascom and GCI were able to negotiate and have the APUC arbitrate interconnection agreements to provide local exchange services in Anchorage. In fact, both IXCs are now providing local exchange services.

Universal Service

- How will Universal Service be funded?
- How is Universal Service defined?
- Universal Service issues "the Devil is in the Details"
- Low income households



Funding of Universal Service

■ SPECIFIC AND PREDICTABLE SUPPORT MECHANISMS

There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service (Section 254(b)(5))

■ EQUITABLE AND NONDISCRIMINATORY CONTRIBUTIONS

All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service (Section 254 (b)(4))



FCC Definition of Universal Service

- Voice Grade Access to Public Switched Network
- Single Party Access
- Access to Emergency Services
- Access to Operator Services
- Access to Long Distance Services
- Access to Directory Assistance
- Toll blocking and limitation services for low income households*
- Access to Enhanced Emergency Services*

*to the extent carriers are capable of providing these services



Universal Service Issues "the Devil in the Details"

- What costs will continue to be recoverable via local exchange access charges?
- How do you define what costs should be funded with universal service funds?
- How do you provide for "efficient" use of universal service funds? Should universal service funds be used to:
 - a. duplicate facilities and services in high cost areas, or to
 - b. create uneconomic incentives to compete?



State Authority

1. The State has the authority to determine how regulated telecommunications providers costs are to be recovered.
Instate costs can be recovered from:
 - a. Access charges
 - b. State Universal Service fund
 - c. Customer charges
 - d. Charges to all telecommunications providers
2. The APUC is required to determine whether, for an area served by a rural telephone company, it is in the public interest to require that the rural telephone company share universal service funds with competitors*

*carriers seeking to serve rural communities are entitled to interconnect with other carriers (the Act-Section 251). They are not entitled to receive subsidies or universal service funds to duplicate facilities and services.



Low Income Households

- "... low-income consumers should have access to telecommunications services at rates that are just, reasonable, and affordable..."*

*the Act-Section 254(b)(3)



Telephone Penetration Rates by Housing Units Versus Household Income Levels by US Borough or Census Areas for State of Alaska

	% Housing Units without Phones	% Households with Annual Income less than \$20,000
Urban		
Anchorage	3.4	18.4
Fairbanks	6.5	23.8
Total Urban	4.2	19.7
Rural		
Wade Hampton	47.2	48.6
Yukon-Koyuk	38.8	44.1
Lake & Peninsula	32.8	41.3
NW Arctic	32.4	30.4
Bethel	30.5	41.4
Nome	27.2	37.5
Haines	25.5	23.9
Other	10.3	19.8
Total Rural	14.1	23.0
Total Statewide	8.3	21.1

Source: Statistical analysis by United Utilities, Inc., of 1990 US Census data and data provided by the Alaska Department of Labor, Research & Analysis, State Data Center

FCC Lifeline Program

1. For qualified low income households the FCC funds \$3.50 per month per household.
2. The FCC will fund an additional \$1.75 per month if the state approves the support.
3. The FCC will also provide an additional \$1.75 per month should the state provide support of \$3.50 per month.
4. Assuming state maximizes federal support, low income households would receive \$10.50 per month.
5. Approximately 42,000 households in Alaska qualify. Total State funding requirement estimated at \$1.8 million. Total available federal funding estimated at \$3.5 million.
6. Request to maximize federal support for low income households pending at APUC. (United Utilities Comments, September 22, 1997, APUC Docket R-97-6)

**THE FOLLOWING DOCUMENT HAS NOT
BEEN FILMED BUT IS AVAILABLE IN THE
ORIGINAL FILE.**

PAM PHLET

Alaska Telephone Association

1997-1998

201 E. 56th, Suite 114
Anchorage, Alaska 99518
907/563-4000 Fax 907/562-3776

Alaska Telephone Association

JAMES ROWE
Executive Director

201 E. 56th, Suite 114
Anchorage, AK 99518

907-563-4000
Fax 907-562-3776
e-mail: jrowe@ptialaska.net

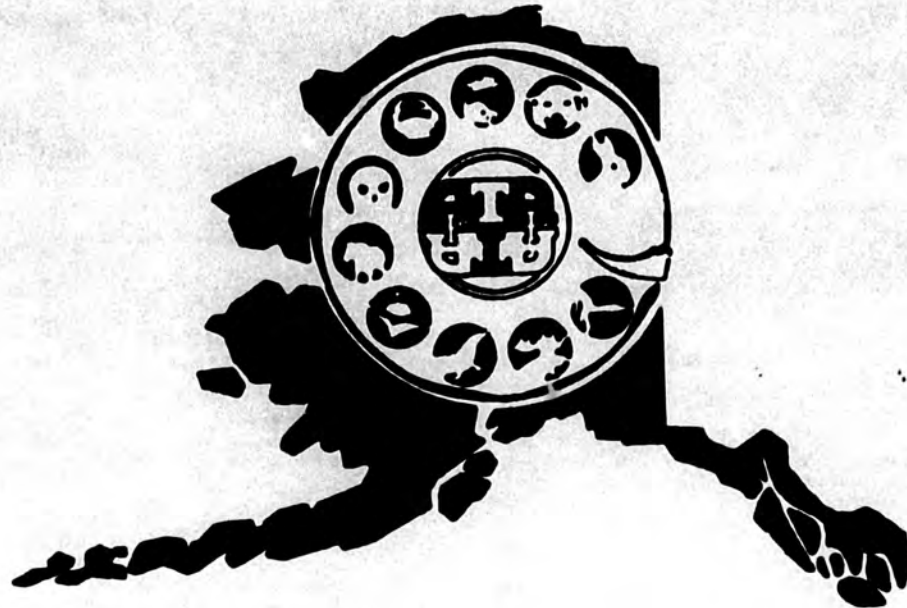
House Special Committee on Telecommunications

Jim Rowe

Alaska Telephone Association



The Alaska Telephone Association



Object: [T]o advocate for uniformity and efficiency in accounting, maintenance and construction for supporting the continuence of telecommunications services to the public....

The Alaska Telephone Association

Active Members

Alaska Power & Telephone Company

Alaska Telephone Company

Bettles Telephone Company

North Country Telephone Company

Arctic Slope Telephone Association Cooperative

ATU Telecommunications

Bristol Bay Telephone Cooperative, Inc.

Bush-Tell, Inc.

Century Telephone Company

PTIC (formerly FMUS)

Telephone Utilities of Alaska, Inc.

Telephone Utilities of the Northland, Inc.

Copper Valley Telephone Cooperative, Inc.

Cordova Telephone Cooperative

GTE Alaska Inc.

Ketchikan Public Utilities, Telephone Division

Matanuska Telephone Association Nushagak

Telephone Cooperative, Inc.

OTZ Telephone Cooperative, Inc.

Summit Telephone Company, Inc.

TelAlaska, Inc.

Interior Telephone Company, Inc.

Mukluk Telephone Company, Inc.

United Utilities, Inc.

Yukon Telephone Company, Inc.

TELECOMMUNICATIONS ACT OF 1996

Section 254. UNIVERSAL SERVICE

(b) UNIVERSAL SERVICE PRINCIPLES

(1) QUALITY AND RATES. Quality services should be available at just reasonable and affordable rates.

(2) ACCESS IN RURAL AND HIGH COST AREAS. Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable rates charged for similar services in urban areas.

TELECOMMUNICATIONS ACT OF 1996

Section 102. ELIGIBLE TELECOMMUNICATIONS CARRIERS

(e) PROVISION OF UNIVERSAL SERVICE

(1) ELIGIBLE TELECOMMUNICATIONS CARRIERS. A common carrier designated as an eligible telecommunications carrier under paragraph (2) or (3) shall be eligible to receive universal service support....

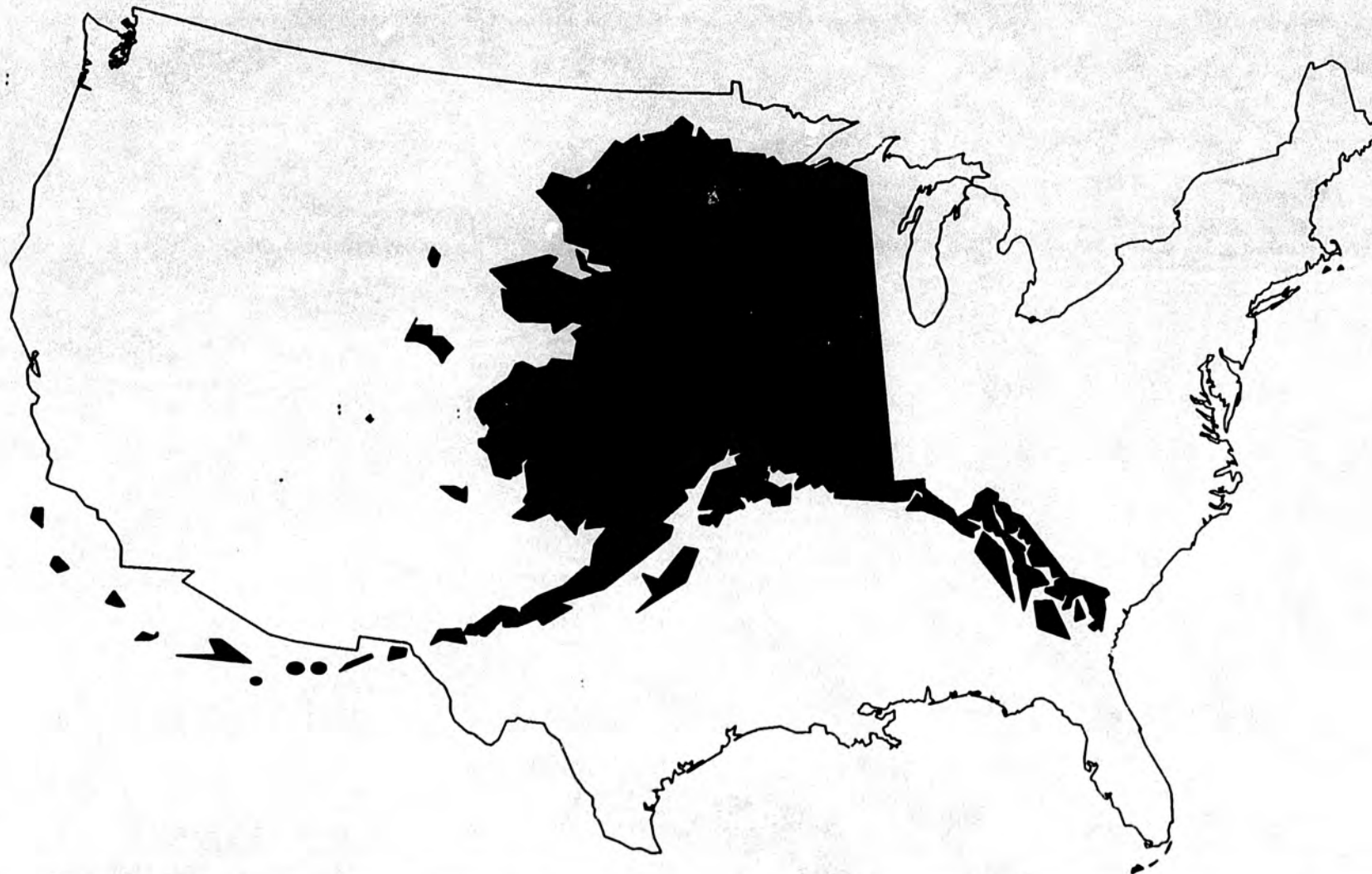
(2) DESIGNATION OF ELIGIBLE TELECOMMUNICATIONS CARRIERS. A State commission shall upon its own motion or upon request designate a common carrier that meets the requirements of paragraph (1) as an eligible telecommunications carrier for a service area designated by a State commission. Upon request and consistent with the public interest, convenience, and necessity, the State commission may, and in the case of an area served by a rural telephone company, and shall, in the case of all other areas, designate more than one common carrier as an eligible telecommunications carrier for a service area designated by the State commission, so long as each additional requesting carrier meets the requirements of paragraph (1). Before designating an additional eligible telecommunications carrier for an area served by a rural telephone company, the State commission shall find that the designation is in the public interest.

TELECOMMUNICATIONS ACT OF 1996

Section 253. REMOVAL OF BARRIERS TO ENTRY

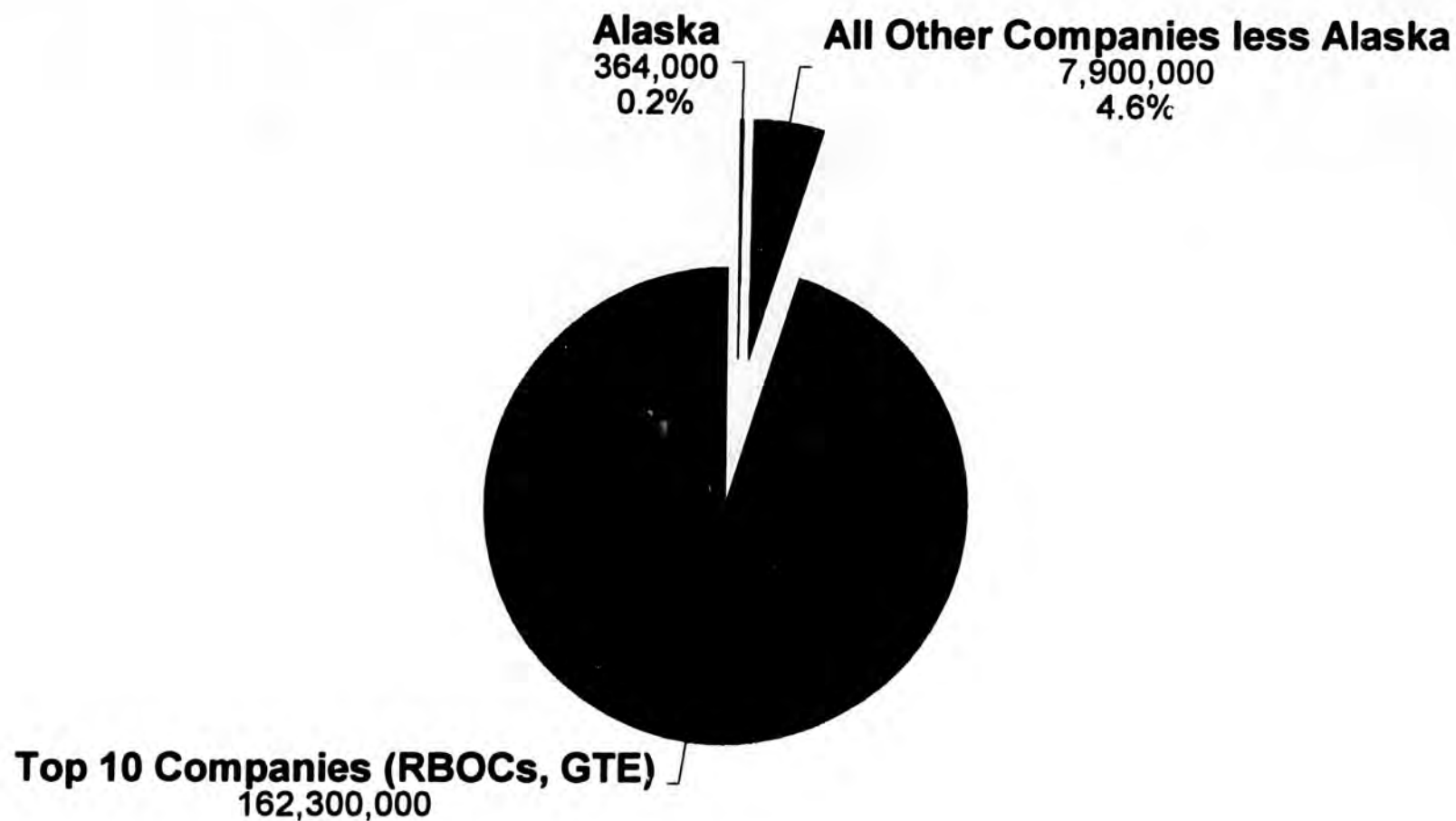
(B) STATE REGULATORY AUTHORITY. Nothing in this section shall affect the ability of a State to impose, on a competitively neutral basis and consistent with section 254, requirements necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers.

Alaska Telephone Association



Access Lines - All Companies

1996 Data



Alaska State Legislature -- 1996

COMPETITION. The commission shall provide for competition in local exchange telephone service in a timely manner and shall adopt regulations that eliminate inappropriate impediments to entry for local exchange carriers fit, willing, and able to provide service.

SALOMON BROTHERS

SAYS

BUY

**GENERAL COMMUNICATION, INC. --
DOMINATING ALASKAN COMMUNICATIONS**

Salomon Brothers, September 16, 1997

...GCI has 55% of the business long distance and 41% of the residential long distance.... [p.6]

...GCI already has majority share of the top-100 business accounts in long distance, which represent 33% of the local market and through its cable, has a majority of Alaska's households as customers. GCI can bundle and sell its local services to this base. [p.5]

GENERAL COMMUNICATION, INC. -- DOMINATING ALASKAN COMMUNICATIONS

Salomon Brothers, September 16, 1997

[P]roviding a bundled offering will enable GCI to increase customer retention rates, especially given that GCI's aggressive salesforce is going up against LECs that literally have no salespeople. [p.5]

ATU...does not pose a real threat to GCI whose cost base as a facilities-based long distance operator is lower than ATU's cost as a reseller. [p.6]

GENERAL COMMUNICATION, INC. -- DOMINATING ALASKAN COMMUNICATIONS

Salomon Brothers, September 16, 1997

Since AT&T bought Alascom in 1995, GCI has gained eight market share points bringing its long distance share up to 45%. ...AT&T (which faces increasing competition in its core domestic long distance operations and, frankly, has bigger fish to fry) no doubt focuses a majority of its attention on retaining its customers in the lower 48 states.... Thus, we do not view either AT&T or ATU as a threat to GCI gaining additional market share. [p.7-8]

GENERAL COMMUNICATION, INC. -- DOMINATING ALASKAN COMMUNICATIONS

Salomon Brothers, September 16, 1997

A recent article...indicated that a privately held company had obtained financing to build another undersea fiber cable over the same period and at the same landing points as GCI.... However, based on our due diligence...no one had any commitments with GCI's potential competitor to either supply equipment or to be an anchor tenant of its fiber capacity. [p.3]

GENERAL COMMUNICATION, INC. -- DOMINATING ALASKAN COMMUNICATIONS

Salomon Brothers, September 16, 1997

**...GCI plans to build a PCS network covering all urban areas
with PCS cells.... [p.7]**

**GENERAL COMMUNICATION, INC. --
DOMINATING ALASKAN COMMUNICATIONS**

Salomon Brothers, September 16, 1997

**GCI will be the first fully integrated facilities-based provider of local, long distance and cable in the United States -- something that many communications companies only dream about doing.
[p.3]**

GENERAL COMMUNICATION, INC. -- DOMINATING ALASKAN COMMUNICATIONS

Salomon Brothers, September 16, 1997

GCI will own and operate a statewide fiber network, a statewide digital satellite network, local fiber networks in major cities that cover 250,000 of Alaska's 350,000 local lines, the only statewide Internet backbone, the only statewide PCS network and an upgraded two-way 550 MHz cable system reaching 70% of Alaska's households. [p.3]

GENERAL COMMUNICATION, INC. -- DOMINATING ALASKAN COMMUNICATIONS

Salomon Brothers, September 16, 1997

GCI's strategy is trying to "cream skim" the local market and capture the higher end consumers who are also [sic] tend to be the high end heavy users of the long distance market. [p.14]

[W]e would find it very difficult to imagine a competitor being able to go into Alaska and replicate the advantages that GCI has.... [p.4]

MARKET POWER

Alaskan Bottleneck Facilities

544 Kbps

64 Kbps

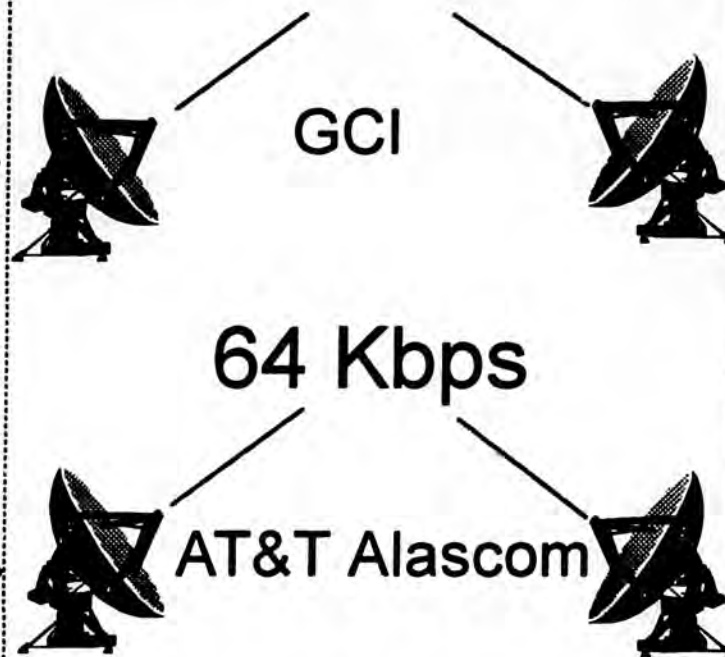
44000+ Kbps

Rural
Alaskan
LEC

Urban
Alaskan
LEC

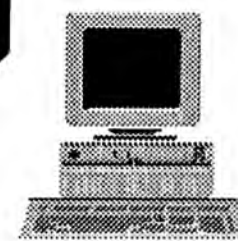


Terminal
Equipment
either telephone
or computer



Alaskan IXCs

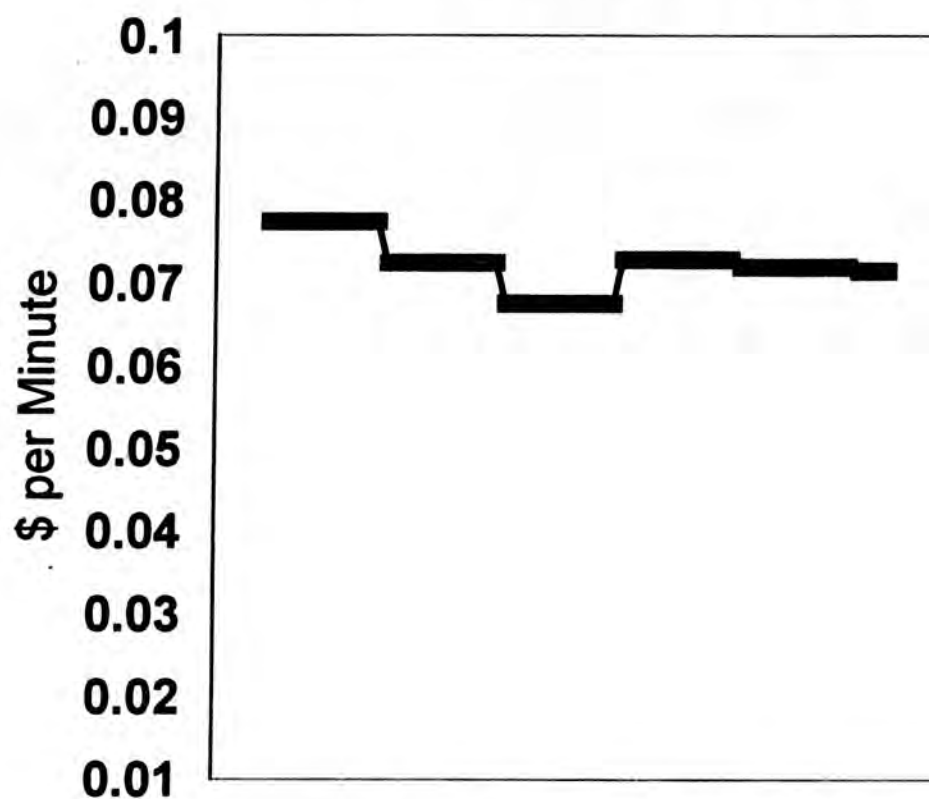
When trying to connect two parts of a fire hose, it doesn't help to have a "choice" of which straw to connect them with.



Terminal
Equipment
either telephone
or computer

Pooled Local Exchange (LEC) Access Rates

Intrastate Rates



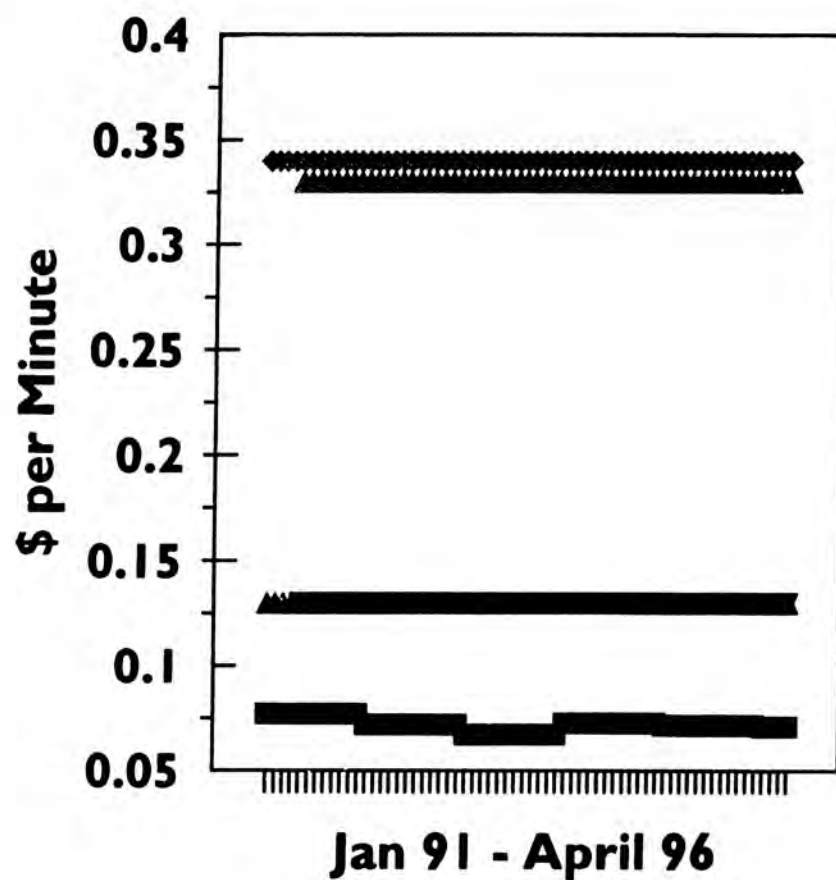
Local Exchange Access
Charges



Jan 91 - April 96

IXC Intrastate Rates (0-34mi)

Intrastate Rates



LEC Access Rates

Alascom 1st min. - 0-34 mi.

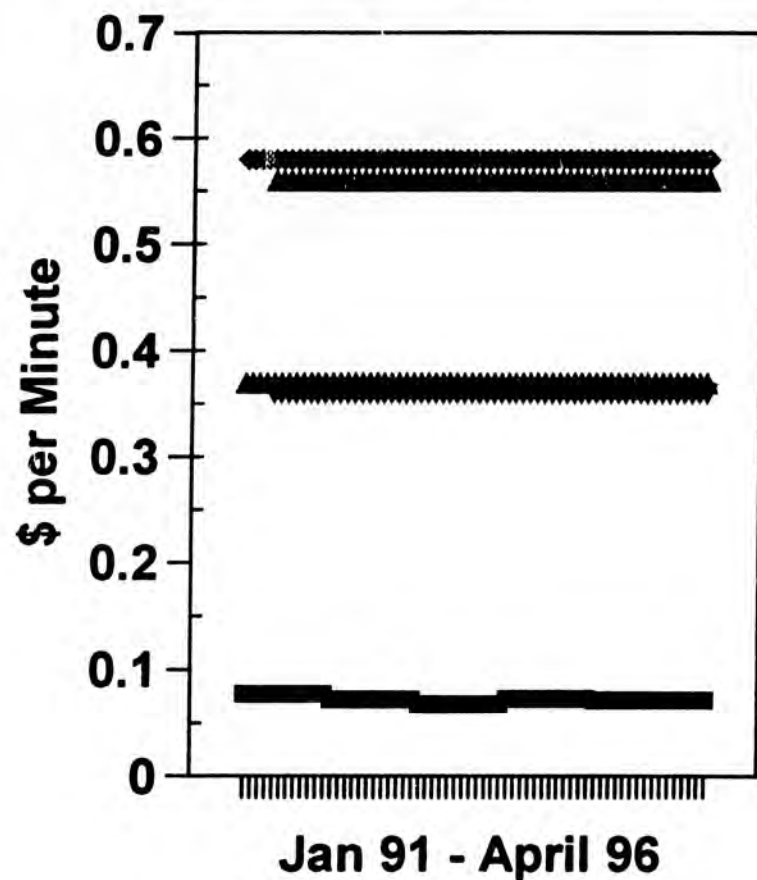
GCI 1st min. - 0-34 mi.

Alascom add'l min. - 0-34 mi.

GCI add'l min. - 0-34 mi.

IXC Intrastate Rates (215-275miles)

Intrastate Rates



LEC Access Rates

Alascom 1st min. - 215-274 mi.

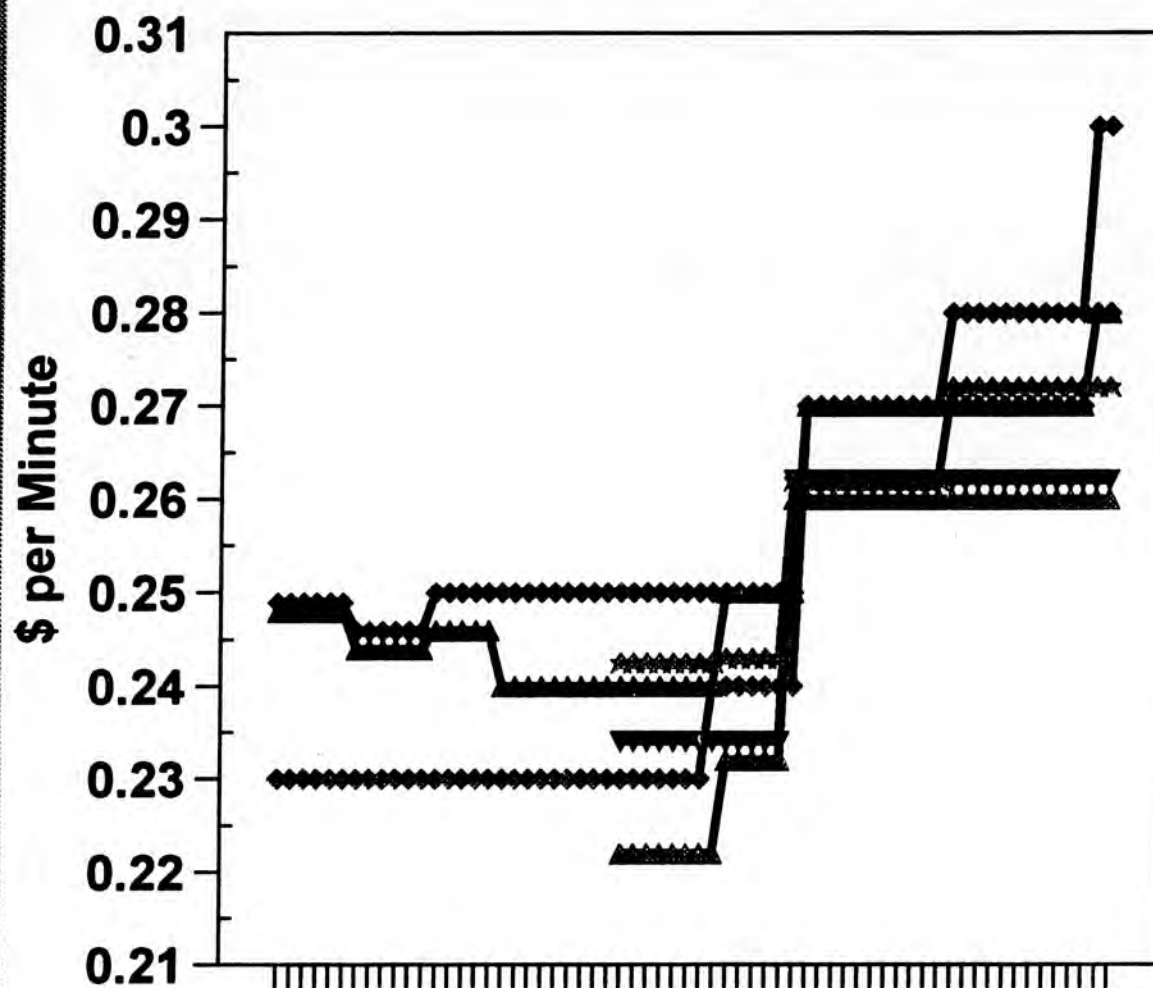
GCI 1st min. - 215-274 mi.

Alascom add'l min. - 215-274 mi.

GCI add'l min. - 215-274 mi.

IXC Interstate Rates

'1st Minute



Jan 91- April 96

Alascom 431-925 mi.

—◆—

GCI 431-925 mi.

—▲—

Alascom 926-1910 mi.

—▲—

GCI 926-1910 mi.

—▲—

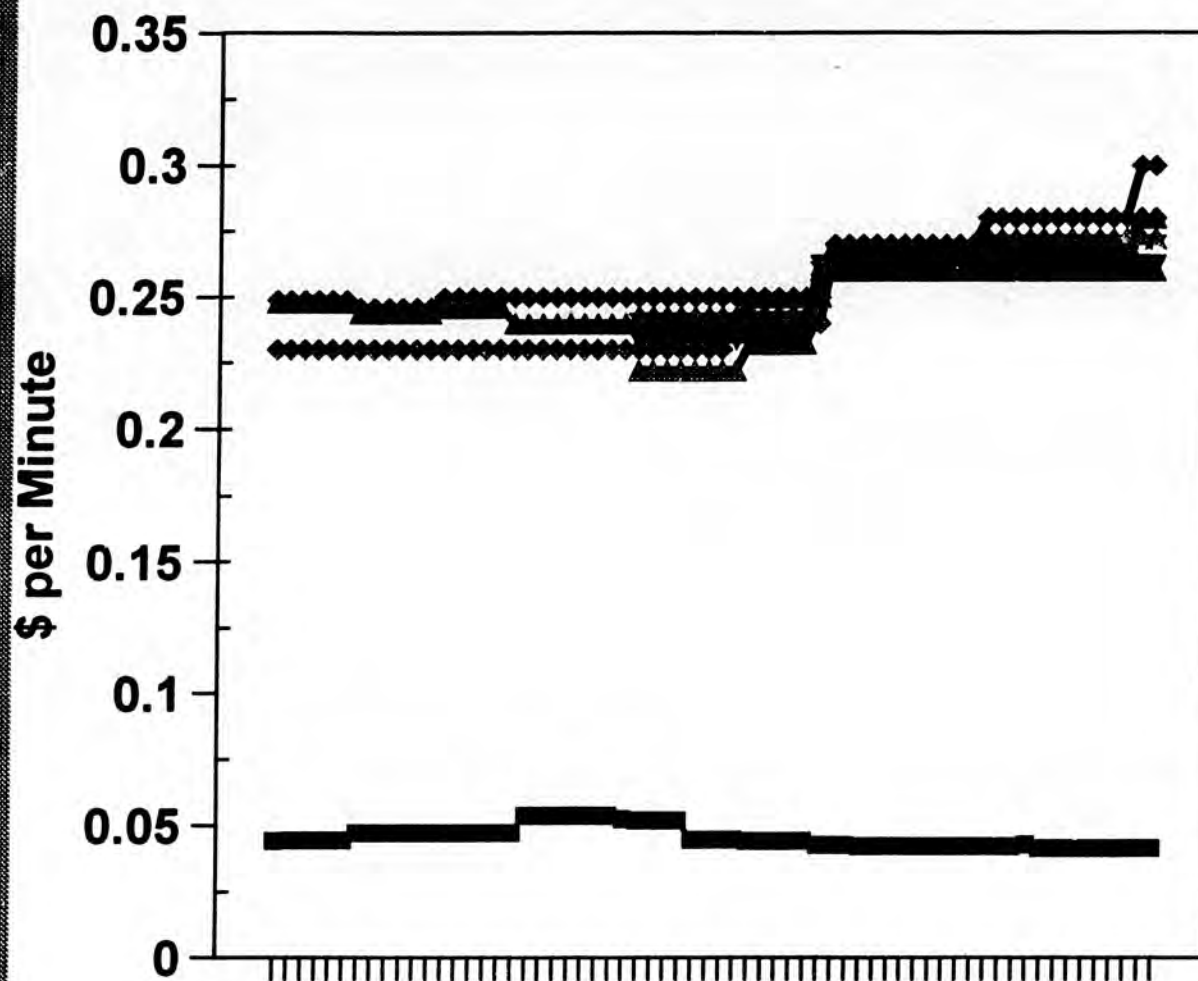
Alascom 1911-3000 mi.

—◆—

GCI 1911-3000 mi.

—▲—

IXC Interstate Rates GO UP! Pooled Local Exchange Access Rates GO DOWN!



Jan 91- April 96

Interstate 1st Minute

Access Costs

Alascom 431-925 mi.

GCI 431-925 mi.

Alascom 926-1910 mi.

GCI 926-1910 mi.

Alascom 1911-3000 mi.

GCI 1911-3000 mi.

Telecommunications Services

Salomon Brothers

Jack B. Grubman
(212) 783-0568
Sheri McMahon
(212) 783-7352
Christine Gochuico
(212) 783-7245

Global Telecom Team
United States
Jack B. Grubman
Group Leader
Sheri McMahon
Christine Gochuico

Europe
Andrew Harrington
Douglas Wight
John Jensen
Richard Sloane

Asia-Pacific
Dan J. Sherman
David Riedel
Chong Hwa Jon
John Tsang

Japan
Makio Inui

Latin America
Sari J. Mayer
Alberto Garcia-Tuñon

On August 6, 1997, we
initiated coverage of
General Communication,
Inc. with a Buy rating.

General Communication, Inc. — Dominating Alaskan Communications

Buy

- We initiated coverage of General Communication, Inc. (GCI) on August 6, 1997, with a Buy rating and a \$12-\$15 price target.
- GCI will be the first fully integrated facilities-based provider of local, long distance and cable in the United States — something that many communications companies only dream about doing.
- We believe that Alaska's unique market, GCI's 15 years of expertise in this market, GCI's current significant market share of the long-distance and cable markets which provide a customer base to sell a bundled local, long distance and cable package when local is added to GCI's product mix later this year, and the cross synergies of its local network buildout will all contribute to GCI's growth and margin expansion.
- Strategic investors include MCI, which owns 19.4% and Prime Cable, which owns 18.0% of GCI. Each of these companies holds two board seats.

Figure 1. General Communication, Inc. — Statistical Abstract

Ticker/Exchange	GNCMA/NASDAQ	Dividend:	—
Price (12 September):	\$8 ³ / ₈	Yield:	—
52-Week Price Range:	\$5 ³ / ₄ -\$8 ⁵ / ₈	Book Value Per Share:	\$4.35
Market Capitalization:	\$412.3 Million	Shares Outstanding:	49.2 Million
	EPS	EBITDA*	Firm Value/EBITDA
1996 Pro forma	\$0.16	\$47.427	12.2
1997E	(0.11)	37.994	15.3
1998E	(0.11)	60.742	9.6
1999E	0.11	97.922	5.9
2000E	0.30	118.918	4.9

* In thousands. E Salomon Brothers Inc estimate
Source: Company reports and Salomon Brothers Inc.

GNCMA QUANTITATIVE PROFILE: MARKET CLOSE 12 SEP 97
Relative Value

	GNCMA	5-Yr. Average	Industry Median ^a	S&P 500 Median
Price/Salomon 1997E	-76.14		16.34 ^d	21.90 ^e
Price/Salomon 1998E	-76.14		14.86 ^d	20.68 ^e
Price/Earnings (T12)	208.14	24.93	17.03	19.38
Price/Cash Flow ^b (T12)	18.34	7.78	7.44	12.20
Price/Sales (T12)	1.92	0.82	2.18	1.41
Price/Book Value	2.39	2.79	4.01	3.57
Firm Value/EBITDA ^c (T12)	21.19	9.03	9.47 ^d	13.0
Dividend Yield	0.00%		1.51%	1.54%

Financial Performance
Fiscal Year Ending Dec 96

	GNCMA	Industry Index	S&P 500 Index
Qtr.-Qtr. Earnings Growth ^f	-124.57%	10.95%	13.09%
Fiscal 1996 Earnings Growth	-0.53	14.22	11.53
Fiscal 1996 Sales Growth	27.55	16.26	7.25
Earnings/Sales Ratio	2.67	9.63	6.54
Long-Term Debt/Capitalization	58	44	35
Return on Equity	3.02	17.24	14.99

Shareholder Activity

	GNCMA	Industry Median	S&P 500 Median
Institutional Ownership ^h	NA	41.58%	60.77%
Insider Ownership	0.00	0.00	0.00
3-Month Change Institutional Ownership	NA	NA	NA
3-Month Change Insider Ownership	0.00	0.00	0.00
12-Month Inside Buyers-Sellers	0-6	1-3	1-4

Earnings Expectations
Fiscal Year Ending Dec 97

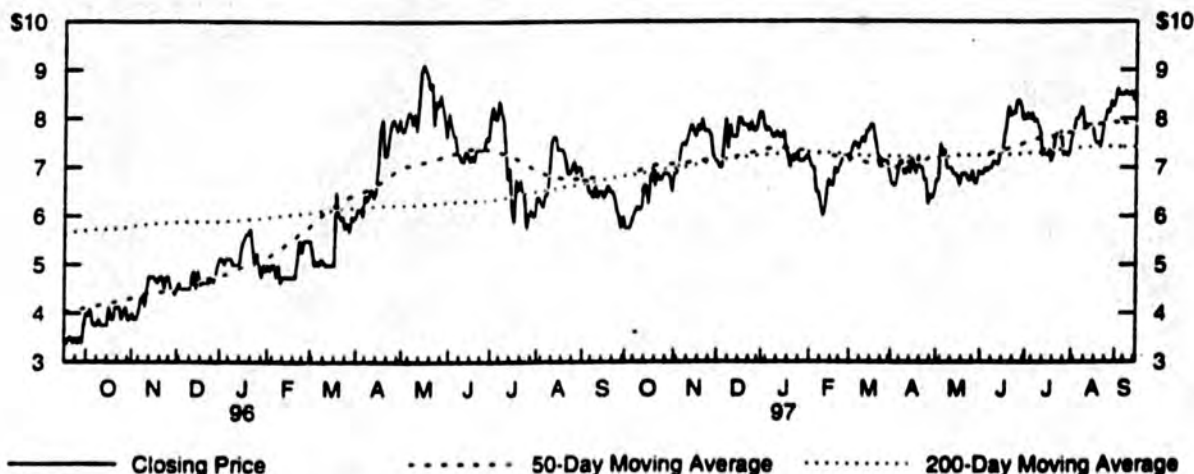
	Salomon Brothers	IBES	First Call
3Q Estimate	NA	-0.03	-0.03
4-Week Change in Estimate	NA	NA	-0.11
Fiscal 1997E	-0.11	-0.10	-0.11
Fiscal 1998E	-0.11	-0.15	-0.13
5-Year Growth Rate	NA	NA	NA
Next Announcement Date	11/15	10/01	11/15
Number of Fiscal 1997 Estimates	1	1	2

Technical Profile

	GNCMA	Industry Index	S&P 500 Index
Quarter-to-Date Price Return	4.69	NA	4.38
Year-to-Date Price Return	3.08	NA	24.73
21-Week Relative Strength Indicator ^g	60	NA	73
21-Week Stochastic ^h	94	NA	87
21-Week Money Flow/Volume Ratio ⁱ	-6%	1%	0%
Weight in the S&P 500	0.00	3.17%	
50-Day Average Daily Volume (00s)	1632		

Composition of Returns^j

	GNCMA	Industry Median	S&P 500 Median
Market Related	10%	23%	27%
Macroeconomic	12	14	9
Industry Related	0	10	11
Firm-Specific	78	46	49
Total	100		

Two-Year Price History


^a Industry medians are based on the 20 Russell 1000 constituents that are in the same industry. ^b Cash flow equals net income before extraordinary items plus depreciation, amortization and depletion. ^c Firm value divided by earnings before interest, taxes, depreciation, and amortization. Firm value equals the book value of total debt plus the market value of the firm's equity. ^d IBES median P/E ratios for the Russell 1000 stocks that are in the same industry. ^e S&P 500 P/E ratios are based on IBES top down consensus earnings for the index. ^f Percentage change in operating earnings between the last reported quarter and the same fiscal quarter one year ago. ^g The 21-week relative strength indicator is an overbought/oversold indicator that measures upside price movement as a percentage of total price movement (up and down). Values above 70 indicate that the stock may be overbought and values below 30 signal that the stock may be oversold. ^h The 21-week stochastic is an overbought/oversold indicator that measures where the stock price is within its 21-week trading range. Values above 80 indicate that the stock may be overbought and values below 20 suggest that the stock may be oversold. ⁱ Money flow equals the dollar volume executed on upticks, less the dollar volume executed on downticks. ^j Industry weight in the S&P 500. ^k Institutional and insider data source is CDA Investment Technologies. ^l The values equal the percentages of monthly return variation that are explained by movements in the S&P 500, key macroeconomic variables, and the relevant S&P industry index. E Estimate. EBITDA Earnings before interest, taxes, depreciation, and amortization. NA Not available. T12 Trailing 12 months.

GENERAL COMMUNICATION, INC. — DOMINATING ALASKAN COMMUNICATIONS

We initiated coverage of General Communication, Inc. (GCI) on August 6, 1997, with a Buy rating and a \$12-\$15 price target. Later in the report we provide details on our valuation. We believe that there is upside to our numbers — that is, GCI believes that it can gain share in local faster than we have factored into our current models (we have GCI local share roughly 35% in ten years; however, given that GCI has 45% of long distance and 55% in business long distance, there is no reason why it should not attain similar share in local, especially against municipally owned LECs). Furthermore, GCI's recent share offering resulted in a tripling in the float from eight million shares to roughly 24 million shares, thus further enhancing the investment appeal of GCI.

GCI will be the first fully integrated facilities-based provider of local, long distance and cable in the United States — something that many communications companies only dream about doing. GCI will own and operate a statewide fiber network, a statewide digital satellite network, local fiber networks in major cities that cover 250,000 of Alaska's 350,000 local lines, the only statewide Internet backbone, the only statewide PCS network and an upgraded two-way 550 MHz cable system reaching 70% of Alaska's households. Furthermore, GCI will construct an undersea fiber optic network connecting Anchorage to Seattle with a spur to Juneau and a terrestrial connection to Fairbanks (see Figure 5) and redundant ring-protected inland extensions will be constructed. GCI has completed the necessary marine survey and has a supply contract with Tyco Submarine Systems (TSS) to build the system with commercial service expected to begin in late 1998. The new fiber will give GCI added capacity (which is greatly needed since capacity is filled on the current fiber optic cable) to transmit high bandwidth services including data transmission and Internet applications. GCI expects that AT&T will lease some of the fibers in the cable and become an equity partner in this investment within five years rather than build its own, since significant excess capacity would likely affect pricing for AT&T and GCI services.

A recent article in an Alaskan newspaper and a press release indicated that a privately held company had obtained financing to build another undersea fiber cable over the same period and at the same landing points as GCI, with the state of Alaska, the University of Alaska and the military as potential customers. However, based on our due diligence — that is, in conversations with AT&T, the state of Alaska, a former general who is a consultant to the military, Sea Floor Survey International (undersea surveyors), and TSS (potential suppliers of the undersea fiber cable) — no one had any commitments with GCI's potential competitor to either supply equipment or to be an anchor tenant of its fiber capacity. In fact, the state, the military and the university would have to go through a procurement process and accept bids before any commitment would be made. In addition, TSS, as part of its agreement with GCI to be GCI's supplier and builder of GCI's undersea fiber, is precluded from building a competing undersea fiber. Hypothetically speaking, if another undersea cable is built and AT&T does not buy a 50% share of GCI's cable, nonetheless GCI's investment would be justified given the amount of traffic GCI carries and the proliferation of demand for bandwidth-consuming services.

Clearly, GCI is following a business plan that we support and believe is necessary in order to compete and earn sufficient margins in this industry — that is, the company is a facilities-based provider versus a reseller of long distance, cable. In addition, by the end of 1998 the company will have local facilities. GCI will do this in Alaska — a market in which it has competed and become an expert in over the last 15 years and whose

geographical idiosyncrasies, population distribution, competitive landscape and communication-intensive needs serve as a barrier to entry for competitors and more important, a market opportunity for GCI.

We believe the following will contribute to GCI's growth and margin expansion: (1) the unique telecom-intense characteristics of the Alaska market; (2) GCI's 15 years of expertise in Alaska; (3) growth of existing business (which we flesh out later) — its 45% share of the long distance market (55% of business long distance) and its 64% penetration of homes passed for cable (GCI passes 70% of the households in Alaska) — which provide a customer base to which GCI will cross sell their existing services (GCI has 104,000 long distance customers and 94,000 cable customers with only 50% using GCI for both) and new services like cable modems and local which will be added later this year; (4) its position as the first significant provider of integrated communications services; and (5) the cost synergies of common network and systems platforms (for example, access costs will be reduced as traffic is put on its own network rather than the incumbent local exchange carrier's network, some of the local network facilities will be shared with cable, and joint billing and customer service platforms).

Alaska is a market with about \$800 million of telecom/cable revenue — 90% of which is local/long distance. With GCI only now addressing the long distance and cable portion (55%), and with the overall market growing at a double-digit rate, significant upside exists for GCI, especially as it enters local. However, since Alaska is, well Alaska, there is limited return of capital investment for a new competitor without facilities; thus, we would find it very difficult to imagine a competitor being able to go into Alaska and replicate the advantages that GCI has as Alaska's first fully integrated provider of communications services. So, while GCI does face a somewhat finite opportunity and probably has little takeover appeal, nonetheless, we view the Alaska market as a virtue since there will not be big telecom players coming in to compete (neither MCI nor Sprint have facilities — they use GCI) and GCI's capital program is truly fully funded.

UNIQUE ALASKAN MARKET PROVIDES OPPORTUNITY FOR GCI

- **GCI has 15 years of expertise in Alaska and understands its needs.** Geography poses unique issues in providing telephony and cable. However, GCI has built its expertise during its more than 15 years in Alaska and understands the complexities of the market. Such expertise ranges from how to reach Alaska's remote communities, given the lack of terrestrial transportation infrastructure, to installing a VSAT on an oil rig in the straits between Alaska and Russia for the numerous oil companies drilling in Alaska — not the typical things network engineers in the lower 48 need to grapple with on a day-to-day basis, or for which they have the skill set. Because of its geography, Alaska relies extensively on satellite-based transmission for intrastate calling between remote communities where investment in a terrestrial network would be uneconomic or impractical.

- **Good demographics propelled market growth.** Alaska's population is growing at a 2% CAGR driven by growth in its tourism and distribution industries, in addition to oil and fishing. Per capita income for Alaskans tends to be higher than in the lower 48 and purchasing power is enhanced by the lack of state income tax and the annual Permanent Fund dividend that every resident receives from the state to live in Alaska (the state paid over \$1,100 per person in 1996 to live in Alaska). In addition, Alaskans have a higher education level, which translates into a higher demand for more advanced technologies and services. For example, 60% of Alaskans have a computer compared with 37% of the population in the lower 48. The growing need for higher bandwidth-consuming services and Alaska's

dependence on communications in lieu of travel has propelled the double-digit per annum growth in the telecommunications market in which we believe GCI will be the best positioned player in all segments of the communications market, since the company owns its own facilities.

- **Alaskans use telecommunications as a substitute for travel.** Factors further influencing the telephony and cable markets include (1) the lack of terrestrial transportation infrastructure (the majority of Alaska's communities are accessible only by air or water), its population distribution and Alaska's northern latitude (not something we telecom analysts and, for that matter, the industry, need to focus on very often). Communities are generally in small, dense population clusters (with the exception of Anchorage, Fairbanks and Juneau) and lack such things as hospitals and libraries. In most of Alaska, you can't just walk down the block to visit the library or drive five minutes to go to the hospital — things that we in the lower 48 take for granted. As such, things like telemedicine and Internet services for information are a necessity for which there is high demand, along with an emphasis on distance education. This is very good news for GCI, which has an Internet backbone and will be providing cable modems in 1998.

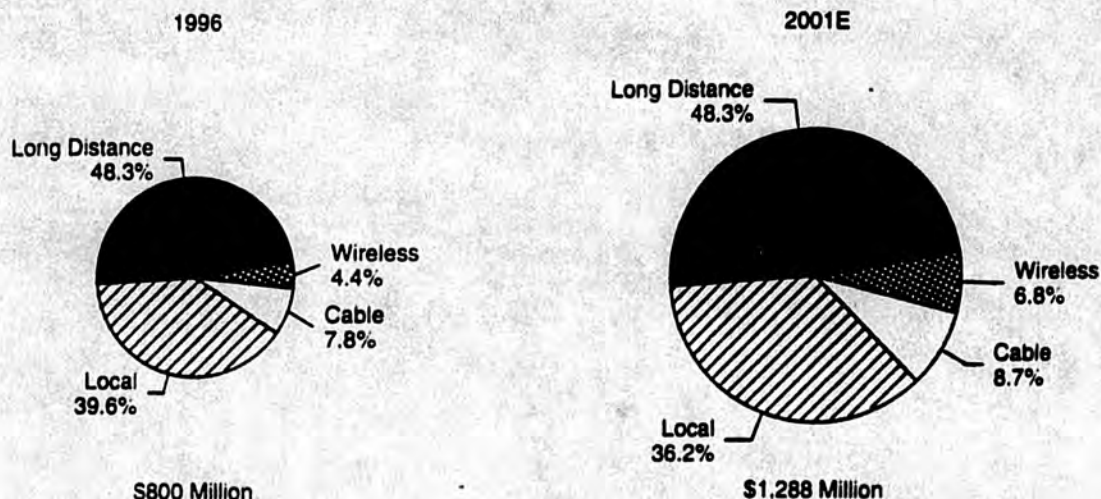
GCI's STRATEGY EXPANDS ADDRESSABLE MARKET WHILE IMPROVING MARGINS

GCI's strategy is to provide a fully integrated, facilities-based telecommunications and cable operations, expand its addressable market, increase its penetration of these markets while improving operating margins and utilization of its capital resources.

- **Expand addressable market to include local.** Today, GCI has 45% share of the Alaska long distance market, up from zero in 1982 (since 1982, MCI and Sprint together have only achieved 25% of the U.S. long distance market and GCI gained eight percentage points of share since AT&T bought Alascom in 1995), and due to its acquisition of various cable properties late in 1996, provides cable services to 64% of homes passed, which represent roughly 70% of Alaska's households. Later this year, GCI will enter into the local market on a resale basis and plans to have all its local customers on a facilities basis by the end of 1998. Given that GCI already has majority share of the top-100 business accounts in long distance, which represent 33% of the local market and through its cable, has a majority of Alaska's households as customers, GCI can bundle and sell its local services to this base. Since the competition includes 22 independent telcos, three which are municipally owned, we believe that GCI will be able to gain local market share very quickly and become a dominant player in local as well as long distance and cable (see our section on local and wireless for GCI's local strategy below). Moreover, providing a bundled offering will enable GCI to increase customer retention rates, especially given that GCI's aggressive salesforce is going up against LECs that literally have no salespeople.

At the end of 1996, the Alaska communications market totaled \$800 million, with GCI addressing \$448 million through its long distance and cable operations. We estimate that the communications market will grow at a 10% cumulative annual growth rate (CAGR) and that by 2001, GCI's addressable market will be \$1.288 billion.

Figure 2. General Communication, Inc. — Addressable Market, 1996-01E (Dollars in Millions)



Source: Salomon Brothers Inc

• **Network build will allow an increase in penetration of markets.** GCI will build an integrated broadband network to provide a superior offering and a single point of contact for all services and leverage its customer base (see separate section below) to increase penetration of its markets and dominate each of its segments. With its recent equity and debt transactions, GCI is fully funded to carry out this buildout. GCI operates (1) a state-of-the-art network using the latest digital transmission technology based upon fiber optic and digital microwave facilities within and between Anchorage, Fairbanks and Juneau; (2) a digital undersea fiber optic cable (with a capacity of nine DS3s and backed-up by additional satellite capacity) linking Alaska to the lower 48 states and providing access to other carriers' networks for communications around the world; and (3) the use of satellite transmission to remote areas of Alaska (and for interstate traffic as well).

GCI has budgeted \$75 million over five years to upgrade its long distance systems, \$125 million for undersea fiber build (with \$60 million expected to be paid for by an expected equity partner) and \$40 million for satellite transponders, \$65 million to upgrade its cable plant to a minimum 550 MHz so that GCI will be able to offer cable modems to its customers, and \$140 million to build out its local network so that the company can provide its customers with facilities-based local services versus resold services.

Figure 3. General Communication, Inc. — Five-Year Capital Expenditures Plan

Long distance facilities	\$75
Satellite transponders	40
Local/PCS network buildout	140
Upgrade cable facilities	65
GCI Alaska United Fiber	125
Alaska United Partner	(60)
Total Capital Expenditures	\$385

Source: General Communication, Inc.

By the third-quarter 1997, GCI will have integrated customer service on a common information system platform with six-second queue times (that is, within six seconds your call will be answered) and a single bill for all services by the second quarter of 1998 — simplicity that consumers crave.

By the end of 1998, GCI will have an integrated broadband network with its fiber rings installed in urban markets, all cable systems upgrade to 550 MHz, a common switching platform supporting all services, a fiber optic network to the lower 48 and cable modems in all systems.

• **Achieve costs synergies across segments.** We expect GCI to achieve greater operational efficiencies and expand its margins by combining the marketing, sales and customer service, information systems and administrative functions of the cable systems with GCI's existing operations as explained above. In addition, GCI will reduce its access costs, which represented approximately 58% of its long distance revenues in 1996, as it builds its own local service network. The company estimates that the average access charge payable by it to Alaskan LECs for originating and terminating interstate access is roughly \$0.043 per minute of traffic and for originating or terminating intrastate access, approximately \$0.07 per minute of traffic (or a total of \$0.14 for both originating and terminating access).

In addition, GCI will leverage its investment in existing cable plant and rights-of-way by, in some cases, overlaying or using existing fiber optic cable for telephony or PCS applications. The incremental cost of such network enhancements, especially combined with planned upgrades to existing cable plant (which was described above), is significantly less than the cost of building entirely new network facilities.

GCI WILL LEVERAGE ITS CUSTOMER BASE AND EXPERTISE TO DOMINATE EACH OF ITS SEGMENTS

Long Distance

GCI began offering interstate long-distance services to Alaskans in 1982 and intrastate long distance services since 1991, when the Alaskan Public Utilities Commission (APUC) opened up the market for these services. Prior to 1982, Alascom (which was bought by AT&T in 1995) was Alaska's only interstate and intrastate long distance provider. Despite efforts by the incumbent monopoly to keep GCI from gaining share, GCI's market share grew from 0% in 1982 to 45% in 1996 — which matches the share loss of AT&T in the lower 48 to more than 800 competitors during that time. In fact, between MCI and Sprint, which we regard as fierce competitors, captured roughly one-half of GCI's market share gain, or 25%, of the lower 48 long distance market — showing that GCI is pretty good at what it does.

At the end of 1996, GCI held 45% market share, with 41% of the residential market and 55% of the business market and today, GCI is viewed as an expert in telecommunications in Alaska. In fact, although the revenues are not significant, GCI has served as an outsourcer of telecommunications expertise during the past two years for two of the top ten businesses in Alaska — the National Bank of Alaska and British Petroleum. Furthermore, GCI can leverage its recent purchase of cable properties and cross sell its long distance services to 59% of its cable customers — that is, 59% of cable customers are potential long distance customers — while 27% of its residential long distance customers are potential cable customers.

Current long distance competitors do not pose a threat

Currently, GCI's competitors in long distance consist of AT&T, which bought Alascom in 1995 (rather than continue to subsidize its unprofitable operation) and Anchorage Telecommunications Utility (ATU) in Anchorage. Since AT&T bought Alascom in 1995, GCI has gained eight market share points bringing its long distance share up to 45%. This is not surprising, as GCI is viewed as a telecommunications expert in Alaska and AT&T (which faces increasing competition in its core domestic long

distance operations and, frankly, has bigger fish to fry) no doubt focuses a majority of its attention on retaining its customers in the lower 48 states and does not direct any capital in its budget toward Alaska. ATU, the facilities-based local carrier in Anchorage (and which is certified as a reseller of intrastate long distance services throughout the state), currently resells long distance services to its customers in Anchorage and does not pose a real threat to GCI, whose cost basis as a facilities-based long distance operator is lower than ATU's cost as a reseller. Thus, we do not view either AT&T or ATU as a threat to GCI gaining additional market share.

We do not expect any significant new competitors

We do not expect any significant new competitors in this region for two reasons: (1) GCI has agreements with MCI and Sprint to terminate their long distance calls in Alaska; and (2) it does not make sense for new companies to build out in Alaska since they would need to build a statewide network. The only way to compete in long distance is to provide statewide service — including the bush of Alaska — through a ubiquitous network and the economics of such a strategy would not justify the investment.

GCI has entered into strategic agreements with MCI (which owns 19.4% of GCI stock after its recent offering) and Sprint which expire in 2001 and 1999, respectively, whereby GCI can route its long distance traffic which terminates in the contiguous 48 states (excluding Washington and Oregon) over MCI's network and all of its international calls over Sprint's network. In return, GCI will carry substantially all of MCI's and all of Sprint's calls which terminate in Alaska. The MCI agreement also requires that GCI handle MCI's 800 traffic originating in Alaska and handle MCI's calling card customers when they are in Alaska, while MCI originates calls for GCI's calling card customers when they are in the lower 49 states.

Upon termination of these agreements we do not believe MCI or Sprint will enter the market, because as a third or fourth player into a market with Alaska's idiosyncrasies, it would not be able to justify its investment, especially with a full facilities-based competitor as GCI, which has built its expertise in Alaska. In addition, entry into the market by a national carrier such as MCI or Sprint through acquisition, or through building its own facilities, would subject the carrier to more regulatory scrutiny as a dominant carrier (versus GCI's status as a nondominant carrier).

Upgrading network facilities and adding undersea fiber optic cable to improve efficiencies and increase capacity

GCI's current network includes six leased C-band transponders on Hughes' Galaxy IX satellite and one Ku-band transponder on Hughes' SBS5 satellite, which will be replaced by seven transponders (six C-band and one Ku-band), which the company will own on Hughes' Galaxy X satellite (expected to be launched in mid-1998). The C-band satellite network is used for the company's message toll services and private line and network services. The Ku-band network is higher power and is used primarily for point-to-point data communications. GCI has earth stations throughout Alaska which are used to receive and/or transmit signals via satellite (see Figure 5). GCI owns three digital toll switches in Anchorage, Fairbanks and Juneau and has installed a Lucent 5ESS combined local/long distance switches in Anchorage and will install additional 5ESS switches to consolidate its local and long distance operations.

Within and between Anchorage, Fairbanks and Juneau GCI uses digital microwave facilities leased from AT&T. The majority of GCI's interstate long distance traffic is carried to and from the contiguous 48 states over the current undersea fiber optic cable in which GCI owns one of the nine DS3s of capacity and leases 57% of another DS3 channel. GCI will construct an undersea fiber optic network from Alaska to the lower 48 as mentioned above.

Cable

Late in 1996, GCI purchased Prime Cable of Alaska, L.P., Alaska Cablevision and Alaskan Cable Network in three separate transactions for a combined purchase price of \$280.1 million (\$86.7 million in stock, \$72.8 million cash, \$110.6 million assumption of debt and issuance of \$10.0 million in subordinated convertible notes). GCI will add value to its cable acquisitions since GCI has the resources needed to upgrade the systems to enable the deployment of cable modems and has long distance customers to which it can cross-sell cable services (roughly 27% of the company's residential long distance customers are potential cable subscribers). After the purchase of these properties, GCI's homes passed reached 70% of households with a penetration of 64%. GCI kept the management of Prime Cable, which owns 18.0% of GCI after the recent offering and holds two Board seats, to manage the cable systems with a nine-year agreement, but either GCI or Prime Cable management could terminate the agreement after October 31, 1998.

GCI will offer cable modems beginning in the fourth quarter of 1997 once it upgrades its current 300-400 MHz of channel capacity network to between 450 and 550/750 MHz system with the upgrade expected to be completed by the end of 1998. The upgrade will improve network quality, expand channel capacity and add new services. For example, cable modems provide faster access to the Internet and other on-line data services. While AT&T through their AT&T Worldnet offers Internet services, an AT&T Worldnet customer needs to make a toll call in order to dial into the Internet since AT&T does not have an Internet backbone in Alaska, compared with a local call for GCI Internet customers. For this reason, we believe customers will sign on to GCI's offering over AT&T's.

Drawbacks of DBS Systems

DBS is not a very viable competitor because of Alaska's high northern latitude. Existing satellites which are situated over the equator have relatively low altitude above the horizon when viewed from Alaska, making their signals subject to interference from mountains, buildings and other structures. Therefore, in order to provide signals via satellite as in the DBS system, a carrier either needs a strong signal — meaning a satellite which is focused directly on Alaska — or a subscriber needs a six-foot diameter satellite dish to receive the signal (versus two feet in the lower 48). Multichannel, multipoint distribution service (MMDS) or wireless cable operators are also potential competitors, however, MMDS requires that customers' receiving antennas have line-of-sight access to transmitting radio towers and both MMDS and DBS signals are subject to interference from rain, snow and wind.

Local and Wireless

GCI's local strategy is a typical CLEC strategy, only better, since GCI has 55% of the business long distance and 41% of the residential long distance markets and thus has customers to which to sell local services. The top 100 business accounts in Alaska represents roughly one-third of the telecom market and 60% of the commercial telecom market, giving GCI a leg up in competing in the local market. GCI will offer local service either facilities-based, on unbundled local loops, or through resale. GCI will begin offering service in the third quarter of 1997 on a resale basis in Anchorage where it is certified as a local exchange carrier and has an approved interconnection agreement with the ATU — the incumbent local exchange carrier (ILEC) in Anchorage — initially to its long distance companies and then to Internet service providers and other business, including large businesses and will add Fairbanks and Juneau in 1998 and other markets during 1999.

Local network buildout plans

Through its buildout of local facilities, which will be completed by the end of 1998, GCI will transfer its local customers onto its own facilities, enabling greater cost efficiencies. On a facilities-basis, GCI could provide local service on its fiber-optic metropolitan area network (MAN) (which can handle high-speed data network services as well) and microwave radio facilities and potentially through the use of wireless local loop equipment and its coaxial cable network. GCI began construction of its 130-mile Anchorage MAN during 1997 and expects to complete the MAN by the end of 1998. The MAN will also benefit the cable network through creation of a hybrid fiber-coaxial infrastructure that will provide increased bandwidth and improved noise and distortion suppression. The system is being designed to provide up to 750 MHz of usable bandwidth for a combination of 550 MHz analog and 200 MHz digital cable video services. GCI plans to construct a 35-mile MAN in Fairbanks beginning in late 1997 and has acquired 52 miles of fiber optic networks in Juneau and Kodiak through its cable acquisitions.

PCS plans

GCI purchased a statewide 30 MHz B-block PCS license in June 1995 for \$1.65 million, or \$3 per pop. GCI plans to build a PCS network covering all urban areas with PCS cells and plans to rollout its PCS product in Anchorage in 1999 and in Fairbanks and Juneau in 2000. The planned MAN networks will provide the fiber optic cable backbone to link PCS cell sites in major population centers. GCI's PCS business expects to compete against the cellular subsidiaries of AT&T and ATU in Anchorage and the cellular subsidiaries of PTI and others outside of Anchorage and against the five other statewide PCS license holders (30 MHz A- and C-block, and 10 MHz D-, E- and F-block). However, to date, none of the PCS licensees have announced plans for service in Alaska.

Larger local competitors are the best competitors GCI can ask for — municipally owned monopolies

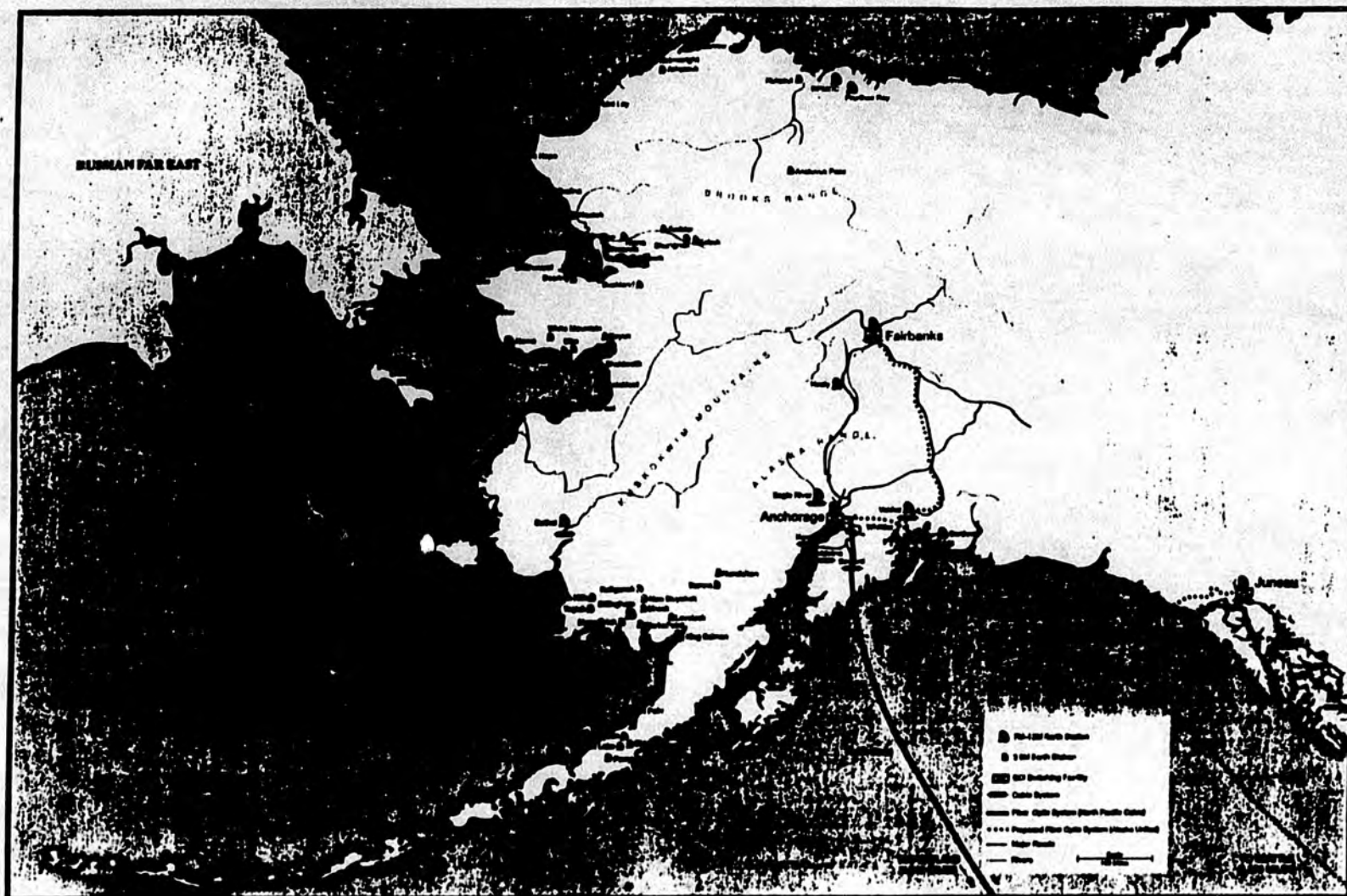
Current local competitors include ATU in Anchorage, which is a government-owned monopoly, Pacific Telecom, or PTI, which was recently bought by Century Telephone, in Juneau and is expected to be in Fairbanks by the end of 1997, GTE and 19 other independent telcos. GCI could not have asked for better competitors — three of the independent telcos, including ATU, are government-owned monopolies which make the RBOCs look like Microsoft. We suspect that these municipally owned monopolies do not have much competitive know-how, which at least a monopoly that is publicly traded has some notion of.

Figure 4. Comparison of Competitive Products and Facilities

	GCI	AT&T	ATU	PTI
Products				
Long distance	Yes	Yes	Resale	None
Local	Yes	Resale	Limited	Limited
Wireless	Yes	Limited	Limited	Limited
Internet	Yes	Limited	None	Limited
Video/Entertainment	Yes	None	None	None
Facilities				
Terrestrial fiber	Yes	Yes	None	None
Statewide satellite network	Yes	Yes	None	None
Wired local network	Yes	None	Limited	Limited

Source: General Communication, Inc.

Figure 5. General Communication, Inc. — Voice, Video and Data Network



Source: General Communication, Inc.

ACCESS REFORM BENEFICIARY AS LOCAL AND LONG-DISTANCE PROVIDER

The FCC's recent access reform order, which covers interstate access, allows GCI, as a facilities-based local service provider in rural America, to receive a subsidy for providing these service. The subsidy is paid out of a "Universal Service Fund (USF)" to which telecommunications carriers contribute on a proportional basis. With Alaska's large rural population, GCI would be a net taker of USF, which will subsidize 90% of a rural subscribers' including schools' and hospitals' telephony needs.

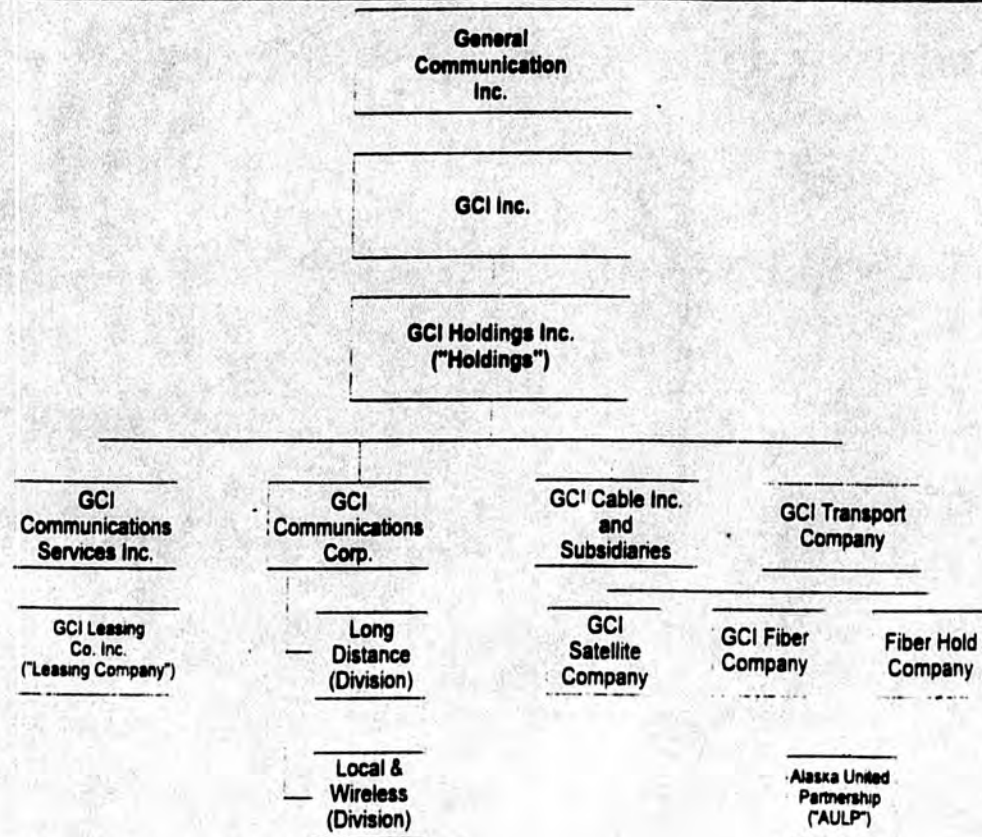
In addition, access reform also mandates that the access charges that the facilities-based local carriers charge interexchange carriers for using the local carrier's network to originate or terminate long distance calls be reduced such that by the year 2000, per minute originating and terminating access will be reduced from on average \$0.024 per minute to \$0.012. Furthermore, the FCC also mandated that terminating access charges will decline first. What this equates to for GCI is lower access expenses, since twice as many of the calls GCI carries are outgoing to the lower 48 and thus, GCI's originating access will be on its own network as its local build is completed and its terminating access charges are reduced as mandated by the FCC (that is, terminating traffic costs go down first).

COMPANY BACKGROUND AND MANAGEMENT

GCI was founded in 1979 by Ron Duncan and Robert Walp as a provider of interstate long distance services. From 1980-87, GCI was a wholly owned subsidiary of WestMarc Communications, Inc. The company was spun off in 1987 from WestMarc, a subsidiary of TCI that was itself spun off by TCI in 1984. TCI acquired its stock in GCI through its ownership of WestMarc, which was reacquired by TCI in 1990.

Management and the company's affiliates hold 45.3% of GCI stock after the recent equity offering. MCI, which has a strategic alliance with GCI (explained above in the segment analysis — long distance section), owns 19.4% after GCI's recent equity offering and holds two Board seats. Prime Cable, which received shares from its acquisition by GCI and provides management of the cable properties, owns 18.0% of the shares of GCI and also holds two Board seats.

Figure 6. General Communication Inc. — Corporate Structure



Source: General Communication Inc.

GCI's telecommunications operations are conducted primarily through GCI Communication Corp. and also through two other subsidiaries. GCI Communication Services, Inc. provides private network point-to-point data and voice transmission services between Alaska, Hawaii and certain western states, and GCI Leasing Co. Inc. is the owner of the company's existing undersea fiber optic cable capacity. The company's cable operations are conducted through GCI Cable, Inc. and its subsidiaries. GCI Transport Company and its subsidiaries were recently formed to finance the acquisition of seven transponders on the Galaxy X satellite that is expected to be launched in mid-1998, and to finance the construction of new undersea fiber optic cable facilities linking Anchorage and Juneau to the lower 48 states at Seattle, Washington with a terrestrial connection to Fairbanks.

GCI REPORTS IN-LINE SECOND QUARTER RESULTS; STRONG CORE REVENUE AND VOLUME GROWTH

GCI reported a good quarter in line with our expectations while some of the operational highlights of the quarter showed that GCI will benefit from its unique market. During the fourth quarter the gap between long distance revenue growth and MOU growth was positive — something we cannot say about the Big three LD players in the lower 48 with long-distance transmission revenue growth of 9.2% and MOU growth of 8.8% while sequential cable revenue growth was 2.9% (year-over-year comparisons are not available since GCI purchased the cable properties during the fourth quarter of 1996).

In addition, the company has been pre-marketing its local services with encouraging results. In fact, although GCI has not yet turned on its local operations (which is expected in September 1997 when they begin to connect into wire centers) it has already signed on its first local customer

and has a backlog of orders from commercial and consumer customers which will be turned up as soon as GCI starts providing local service. In Anchorage, GCI began to provide local dial tone dial up for AOL during the second quarter, carrying AOL internet traffic and continues local rollout with a backlog of customers that want GCI service. The delay in providing local service to is due to the ATU's (the incumbent's) foot dragging which GCI has resolved through an Alaska PUC decision that spells out a time frame for the ATU to provide the necessary interconnection for local service competition. Local services are expected to begin in mid-September with all wire centers expected to be turned on in Anchorage by the end of the year. We expect GCI will be able turn up 250-300 lines per day once they are in all the wire centers.

GCI's local customer commitments are largely from commercial customers which good news for GCI as these customers are higher value customers as compared with the consumer market and contracts are generally multi-year. This is clear evidence of GCI being able to leverage its 55% share of commercial long distance customers. In the consumer segment GCI's marketing plans include offering a bundled local, long distance and cable package to consumers. GCI has been selling services door-to-door to target customers with a \$19.95 product offering for basic local services with enhanced features such as Call Waiting and Caller ID if the customer also signs up for their long distance offering as well. With basic local services of \$10 in Alaska, GCI's strategy is trying to "cream skim" the local market and capture the higher end consumers who are also tend to be the high end heavy users of the long distance market. So far, GCI has had a good take rate to their \$19.95 local consumer offering although for competitive reasons will not disclose these amounts.

Since GCI completed its recent share offering (which fully funds its build out plans) the company has entered into a contract with Tyco Submarine Systems (TSS) to build its undersea fiber linking Alaska with the lower 48. As part of the terms of the contract, TSS is precluded from building a competing fiber making any competing fiber more difficult to build as TSS is only one of a few companies who are equipped for an undersea build. The fiber which started construction this month is expected to be completed by the end of 1998.

Long distance revenues were strong with 8.2% sequential revenue growth as GCI continues to gain market share. Overall revenue growth was 7.5% year over year with growth due to its strong LD transmission business which posted 9.2% revenue growth despite a 2.5% decrease (a small level which is unheard of in the lower 48) in the average revenue per switched minute as volumes were stimulated by this decrease. EBITDA margins for the long distance segment were 7.9% down from the 10.3% in the first quarter of 1997 with margin pressure primarily due to the increased costs from the integration of its information processing systems including billing and customer service and the expansion of its business. The information processing systems expenses are reported in the longdistance segment rather than spreading the costs across the three segments further impacting EBITDA margins. GCI expects integration costs to total approximately \$10 million for the year with the bulk of the costs during the first, second and third quarters of 1997. The company is on track to complete the integration of its customer service platform by the third quarter of 1997 and expects to complete the billing integration so that customers may receive a single invoice for all services by the second quarter of 1998. The fact is GCI's core LD margins have not deteriorated but rather long distance was burdened disproportionately with all the expenses of integration.

Cable revenues posted 2.9% sequential growth primarily due to price increases in Anchorage which began in April while EBITDA remained virtually flat at \$5.9 million due primarily to the increase in costs due to

the integration of the three cable properties that were purchased in 4Q'96. In fact, more than half of the increase in SG&A were due to non-recurring costs with the balance due to consolidation and integration costs. Average revenue per sub was basically flat with the first quarter of 1997 at \$39. GCI's upgrade of its cable plant continues adding 13 additional channels in Fairbanks with other markets in the process of being upgraded. GCI's cable businesses should benefit from its rebranding of cable services under the GCI name during the second quarter and a planned third quarter marketing campaign as well as from its upgrades are completed.

NET/NET: We continue to believe that GCI is on track with their build out plan and will reap the benefits of being a facilities-based integrated local, long distance and cable carrier with an integrated salesforce and service platforms including billing and will post positive eps beginning in 1999 and positive overall EBITDA during its buildout phase. With its core business posting strong revenue growth and volume growth and results from pre-marketing in local, we believe the company is well on its way to reaching its goal of greater than 50% share in all segments of its business — including local. We reiterate our Buy on the shares of GCI and our \$12-\$15 price target.

VALUATION

In Figures 7-10, we provide our quarterly and annual earnings models including a segment analysis and our discounted cash flow (DCF) for GCI. Given GCI's strategic position as the first fully facilities-based provider of communication services and our belief that GCI will grab market share quickly in local and further penetrate its already significant market share in long distance and cable, we believe the assumptions we used in building our model are conservative. Based on the assumptions we used, our DCF valuation implies a \$12-\$15 per share value for GCI. At a firm value/1999 estimated EBITDA multiple of 5.9 times, GCI is trading at RBOC multiples (in 1999, we expect GCI's buildout phase to be completed). Though RBOCs are not direct comparables to GCI, given that GCI has opportunities for growth greater than that of an RBOC and is a fully integrated provider, we believe that GCI is relatively inexpensive.

We assumed in our models that GCI's share of the long distance market will increase moderately from 45% of the market in 1996 to 47% by 2000 and 54% ten years out. In cable, we assumed that market penetration will moderately increase from 64% at the end of 1996 to 70% by 2000 and 74% by 2006, while we assumed that GCI would gain 29% market share in local by 2000 and 36% by 2006. We believe that these estimates may be conservative given the following: (1) GCI is starting with a significant share in long distance and cable and has potential cross-selling opportunities across these business lines as well as its local customers; (2) its ability to integrate service platforms and introduce new products that will ride the same facilities (that is, the long distance fiber network will provide an Internet and PCS backbone, local fiber rings will provide upstream assets for cable modems); and (3) the fact that additional competition with GCI's statewide facilities-based coverage is unlikely. Given these factors, we believe that GCI may end up with two-thirds of the long distance market (especially since AT&T will concentrate on the lower 48 versus Alaska) and 40% of the local market in five years. Thus, we believe that there may be upside to our numbers.

In our model, we assume that EBITDA margins will range from 28%-32% from 1999 to 2006, which is relatively conservative given that RBOCs have EBITDA margins at the 40% level, while long-distance margins are roughly 20% and cable margins are roughly 45%-47%. Given the synergies GCI will experience from a combined salesforce, and common platform

across all its business segments, we believe that our EBITDA estimates are very conservative. In addition, we have assumed that AT&T will buy 50% ownership of the undersea fiber optic cable to the lower 48 in 2001 and will then begin account for its investment in Alaska United on an equity basis.

In our DCF we used terminal multiples of roughly 2.5 times long distance revenues, 8.5 times cable EBITDA and 6.0 times local EBITDA and a discount rate of 12%, all of which result in an aggregate implied perpetuity growth rate of cash flow of only 5.2% per annum. This clearly gives us great confidence that our inputs to the model are reasonable, if not conservative.

INVESTMENT CONCLUSION

We believe that GCI has unique characteristics which make it an attractive investment. GCI's 15 years of market expertise in Alaska, its significant market share in long distance and cable and the company's opportunities in entering the local market, as well as its ability to achieve cost synergies across segments as GCI combines marketing and administrative functions and develops a single platform for customer service and information services (including billing) will allow the company to dominate all segments of the Alaskan market, in our view. Furthermore, Alaska's isolated market and limited investment appeal to new competitors is a plus for GCI, which will have the first and likely only facilities-based local, long distance and cable operation in the state. At a price target of between \$12-\$15 per share, we believe that investors in GCI (which currently trades in the \$8 range) will get a better return than many telecom investments.

Figure 7. General Communication Inc. — Quarterly Earnings Model, 1996-98E

	1996 Proforma	1997E 1Q4	2Q4	3Q4	4Q4	1997E Year	1998E Year
Revenues							
Telecommunications services	\$155,419	\$39,225	\$42,131	\$44,045	\$42,612	\$168,013	\$190,111
Cable services	55,343	13,656	14,055	14,413	15,272	57,396	65,361
Local services	0	0	0	1,399	2,257	3,656	16,822
Total Revenues	\$210,762	\$52,881	\$56,186	\$59,857	\$60,141	\$229,065	\$272,294
Operating Expenses							
Cost of sales and services	104,180	27,168	29,778	31,271	31,069	119,286	129,355
Total SG&A	59,155	16,301	18,014	18,633	18,837	71,785	82,197
-Operating and engineering		2,792	2,638	2,775	2,685	10,889	12,019
-Cable television		4,368	4,918	4,857	4,773	18,915	19,935
-Sales and communications		2,914	3,716	3,964	3,835	14,429	16,642
-General and administrative		5,256	5,778	6,085	6,613	23,733	29,565
-Legal and regulatory		448	345	396	384	1,573	1,664
-Bad debts		523	619	556	548	2,246	2,372
EBITDA	\$47,427	\$9,412	\$8,394	\$9,952	\$10,235	\$37,994	\$60,742
EBITDA Margin	22.5%	17.8%	14.9%	16.6%	17.0%	16.6%	22.3%
Depreciation and amortization	20,553	6,120	5,608	6,980	7,664	26,372	35,500
Operating Income	\$26,874	\$3,292	\$2,786	\$2,973	\$2,571	\$11,622	\$25,241
Operating Margin	12.8%	6.2%	5.0%	5.0%	4.3%	5.1%	9.3%
Interest expense, net	15,512	3,949	4,228	5,489	6,338	20,004	34,118
Income Before Taxes	\$11,362	\$(857)	\$(1,442)	\$(2,516)	\$(3,767)	\$(8,382)	\$(8,877)
Income tax expense (benefit)	4,695	(132)	(610)	(1,031)	(1,544)	(3,318)	(3,639)
Effective income tax rate	41.3%	NA	41.0%	41.0%	41.0%	39.6%	41.0%
Net Income	\$6,700	\$(525)	\$(832)	\$(1,484)	\$(2,222)	\$(5,064)	\$(5,237)
Average Shares Outstanding	43,167	43,167	43,474	49,236	49,236	46,278	49,236
EPS	\$0.16	\$(0.01)	\$(0.02)	\$(0.03)	\$(0.05)	\$(0.11)	\$(0.11)
Long Distance							
Revenue	\$155,419	\$39,225	\$42,131	\$44,045	\$42,612	\$168,013	\$190,111
Distribution costs and costs of services	90,597	23,884	26,495	27,528	26,632	104,539	110,720
SG&A	42,550	11,320	12,291	12,861	12,443	48,915	54,364
EBITDA	22,272	4,021	3,345	3,656	3,537	14,559	25,027
EBITDA Margin	14.3%	10.3%	7.9%	8.3%	8.3%	8.7%	13.5%
Depreciation and amortization	7,189	2,623	2,295	2,958	3,221	11,097	14,476
Operating Income	15,083	1,398	1,050	698	316	3,462	10,551
Operating Margin	9.7%	3.6%	2.5%	1.6%	0.7%	2.1%	5.7%
Capital expenditures		9,529	10,000	32,500	32,500	84,529	116,000
LD market share based on number of lines	45%	45%	45%	45%	45%	43%	42%
Cable							
Revenue	\$55,343	\$13,656	\$14,055	\$14,413	\$15,272	\$57,396	\$65,361
Programming and copyright costs	13,583	3,166	3,165	3,243	3,436	13,010	15,033
SG&A	15,735	4,465	5,027	4,972	4,895	19,359	20,458
EBITDA	26,025	6,025	5,863	6,198	6,941	25,028	29,870
EBITDA Margin	47.0%	44.1%	41.7%	43.0%	45.5%	43.6%	45.7%
Depreciation and amortization	13,364	3,497	3,313	3,848	4,023	14,681	16,348
Operating Income	12,661	2,528	2,550	2,350	2,918	10,346	13,522
Operating Margin	22.9%	18.5%	18.1%	16.3%	19.1%	18.0%	20.7%
Capital expenditures			6,667	6,667	6,667	20,000	22,500
Homes passed	162,395	163,220	163,414	163,691	163,291	163,291	163,985
Basic subscribers	102,115	104,656	103,942	104,940	107,178	107,178	110,691
Penetration	62.9%	64.1%	63.6%	64.1%	65.6%	65.6%	67.5%
Local							
Revenue	\$0	\$0	\$0	\$1,399	\$2,257	\$3,656	\$16,822
Distribution costs and costs of services	0	118	118	500	1,000	1,736	3,602
SG&A	870	516	696	800	1,500	3,512	7,375
EBITDA	(870)	(634)	(614)	99	(243)	(1,592)	5,845
EBITDA Margin	NA	NA	NA	NA	NA	NA	34.7%
Depreciation and amortization				174	420	594	4,676
Operating Income	(870)	(634)	(614)	(76)	(662)	(2,186)	1,169
Operating Margin	NA	NA	NA	NA	NA	NA	6.9%
Capital expenditures			8,333	8,333	8,333	25,000	45,000
Lines in service				6,614	15,949	15,949	47,177
-Residential lines in service				-	7,760	7,760	22,736
-Business lines in service				6,614	8,189	8,189	24,441
Addressable lines				28,709	161,908	161,908	262,080
Market share of lines				23.0%	9.9%	9.9%	18.0%
-Residential lines				-	102,864	102,864	179,869
-Business lines				28,709	59,044	59,044	82,211
Total							
EBITDA		9,412	8,394	9,952	10,235	37,994	60,742
Depreciation and amortization		6,120	5,608	6,980	7,664	26,372	35,500
Total capex		9,529	25,000	47,500	47,500	129,529	183,500

1996 is proforma for cable acquisitions. EBITDA Earnings before interest, taxes and depreciation and amortization. E Salomon Brothers estimate
Source: Salomon Brothers Inc

Figure 8. General Communication Inc. — Annual Earnings Model, 1996-06E

	1996 Proforma	1997E Year	1998E Year	1999E Year	2000E Year	2001E Year	2002E Year	2003E Year	2004E Year	2005E Year	2006E Year
Revenues											
Telecommunications services	\$155.419	\$168.013	\$190.111	\$214.054	\$231.115	\$243.844	\$262.406	\$282.465	\$305.248	\$328.737	\$356.897
Cable services	55.343	57.396	65.361	74.021	79.035	84.293	89.168	93.958	98.833	103.707	108.612
Local services	-	3.656	16.822	34.437	50.932	62.853	72.241	78.184	82.810	85.743	91.105
Total Revenues	\$210.762	\$229.065	\$272.294	\$322.511	\$361.080	\$390.989	\$423.815	\$454.607	\$486.891	\$518.187	\$556.615
Operating Expenses											
Cost of sales and services	104.180	119.286	129.355	139.084	151.865	170.103	180.436	190.993	207.320	221.204	244.435
Total SG&A	59.155	71.785	82.197	85.506	90.298	94.906	98.793	105.142	112.116	119.492	124.313
-Operating and engineering	-	10.889	12.019	12.081	13.168	14.199	15.312	16.516	17.883	19.436	21.126
-Cable television	-	18.915	19.935	20.524	20.798	21.430	23.023	24.235	25.469	26.314	27.547
-Sales and communications	-	14.429	16.642	17.115	17.557	17.742	16.588	17.892	19.373	21.056	22.886
-General and administrative	-	23.733	29.565	31.368	34.052	36.189	38.129	40.235	42.642	45.391	44.870
-Legal and regulatory	-	1.573	1.664	1.812	1.975	2.130	2.297	2.477	2.682	2.915	3.169
-Bad debts	-	2.246	2.372	2.606	2.748	3.209	3.444	3.786	4.068	4.380	4.716
EBITDA	\$47.427	\$37.984	\$60.742	\$87.922	\$118.918	\$125.981	\$144.585	\$158.472	\$167.455	\$177.491	\$187.867
EBITDA Margin	22.5%	16.6%	22.3%	30.4%	32.9%	32.2%	34.1%	34.9%	34.4%	34.3%	33.8%
Depreciation and amortization	20.553	26.372	35.500	46.803	52.010	52.780	56.735	59.213	61.692	64.090	60.325
Operating Income	\$26.874	\$11.622	\$25.241	\$41.119	\$66.908	\$73.201	\$87.850	\$99.259	\$105.763	\$129.400	\$137.541
Operating Margin	12.8%	5.1%	9.3%	15.9%	18.5%	18.7%	20.7%	21.8%	21.7%	25.0%	24.7%
Equity in income of affiliates	-	-	-	-	-	325	425	490	555	625	700
Interest expense, net	15.512	20.001	34.118	41.716	42.109	37.801	31.157	24.691	18.128	13.835	9.479
Income Before Taxes	\$11.362	\$(8.382)	\$(8.877)	\$9.403	\$24.799	\$35.075	\$56.268	\$74.078	\$87.680	\$114.940	\$127.362
Income tax expense (benefit)	4.695	13.315	13.639	3.855	10.168	14.381	23.070	30.372	35.703	47.125	52.219
Effective income tax rate	41.3%	39.6%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%
Net Income	\$6.700	\$(15.064)	\$(15.237)	\$5.548	\$14.631	\$20.694	\$33.198	\$43.706	\$51.377	\$67.815	\$75.144
Average Shares Outstanding	43.167	46.278	49.236	49.236	49.236	49.236	49.236	49.236	49.236	49.236	49.236
EPS	\$0.16	\$(0.11)	\$(0.11)	\$0.11	\$0.30	\$0.42	\$0.67	\$0.89	\$1.04	\$1.38	\$1.53

1996 is proforma for cable acquisitions. EBITDA Earnings before interest, taxes and depreciation and amortization. E Salomon Brothers estimate.
Source: Salomon Brothers Inc

Figure 9. General Communication Inc. — Segment Analysis, 1996-06E

	1996 Proforma	1997E Year	1998E Year	1999E Year	2000E Year	2001E Year	2002E Year	2003E Year	2004E Year	2005E Year	2006E Year
Long Distance											
Revenue	\$155.419	\$168.013	\$190.111	\$214.054	\$231.115	\$243.844	\$262.406	\$282.465	\$305.246	\$328.737	\$356.897
Distribution costs and costs of services	90.597	104.539	110.720	115.516	125.879	141.270	148.925	157.485	171.269	182.512	202.450
SG&A	42.550	48.915	54.364	55.171	59.036	62.477	64.822	69.917	75.704	82.267	85.912
EBITDA	22.272	14.559	25.027	43.367	46.200	40.100	48.659	55.062	58.275	63.945	68.536
EBITDA Margin	14.3%	8.7%	13.5%	21.5%	21.1%	16.9%	19.1%	20.0%	19.6%	19.7%	19.5%
Depreciation and amortization	7.189	11.097	14.476	24.072	28.110	28.047	30.695	32.304	33.912	20.559	21.994
Operating income	15.083	3.462	10.551	19.296	18.090	12.054	17.964	22.758	24.362	43.386	46.542
Operating Margin	9.7%	2.1%	5.7%	9.6%	8.2%	5.1%	7.0%	8.3%	8.2%	13.4%	13.2%
Capital expenditures		84.529	116.000	12.500	12.000	8.500	8.500	8.500	8.500	8.500	8.500
LD market share based on number of lines	45%	43%	42%	41%	43%	44%	46%	47%	49%	51%	54%
Cable											
Revenue	\$55.343	\$57.396	\$65.351	\$74.021	\$79.033	\$84.293	\$89.168	\$93.958	\$98.833	\$103.707	\$108.612
Programming and copyright costs	13.583	13.010	15.033	19.245	21.339	24.023	26.750	29.127	31.627	34.223	37.471
SG&A	15.735	19.359	20.458	21.116	21.351	22.273	23.915	25.269	26.556	27.455	28.744
EBITDA	26.025	25.028	29.870	33.659	36.343	37.996	38.503	39.562	40.651	42.029	42.400
EBITDA Margin	47.0%	43.6%	45.7%	45.5%	46.0%	45.1%	43.2%	42.1%	41.1%	40.5%	39.0%
Depreciation and amortization	13.364	14.681	16.348	17.681	18.640	19.473	20.551	21.420	22.290	22.487	23.287
Operating income	12.661	10.346	13.522	15.978	17.703	18.523	17.952	18.142	18.361	19.542	19.113
Operating Margin	22.9%	18.0%	20.7%	21.6%	22.4%	22.0%	20.1%	19.3%	18.6%	18.8%	17.6%
Capital expenditures		20.000	22.500	15.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000
Homes passed	162.395	163.291	163.985	165.827	167.783	169.656	171.609	173.477	175.409	177.379	179.359
Basic subscribers	102.115	107.176	110.691	113.614	117.476	120.639	122.989	125.576	127.844	130.127	132.242
Penetration	62.9%	65.6%	67.5%	68.5%	70.0%	71.1%	71.7%	72.3%	72.9%	73.4%	73.7%
Local											
Revenue	\$0	\$3.656	\$16.822	\$34.437	\$50.932	\$62.855	\$72.244	\$78.184	\$82.810	\$85.744	\$91.105
Distribution costs and costs of services	-	1.736	3.602	4.323	4.647	4.809	4.761	4.380	4.421	4.469	4.513
SG&A	870	3.512	7.375	9.219	9.910	10.158	10.057	9.956	9.856	9.758	9.660
EBITDA	(870)	(1.592)	5.845	20.895	36.375	47.885	57.423	63.848	68.529	71.516	76.931
EBITDA Margin	NA	NA	34.7%	60.7%	71.4%	76.2%	79.5%	81.7%	82.8%	83.4%	84.4%
Depreciation and amortization	-	594	4.676	5.050	5.261	5.261	5.489	5.489	5.489	5.050	5.050
Operating income	(870)	(2.186)	1.169	15.845	31.115	42.624	51.934	58.358	63.040	66.466	71.881
Operating Margin	NA	NA	6.9%	46.0%	61.1%	67.8%	71.9%	74.6%	76.1%	77.5%	78.9%
Capital expenditures		25.000	45.000	37.500	30.000	15.000	12.500	10.000	10.000	10.000	10.000
Lines in service		15.949	47.177	71.883	83.562	91.560	102.643	104.968	109.405	111.062	112.752
-Residential lines in service		7.760	22.736	33.867	40.925	47.312	57.604	59.120	62.731	63.543	64.370
-Business lines in service		8.189	24.441	38.016	42.637	44.248	45.039	45.848	46.674	47.519	48.382
Addressable lines		161.908	262.080	282.205	286.228	290.337	294.532	298.817	303.192	307.659	312.220
Market share of lines		9.9%	18.0%	25.5%	29.2%	31.5%	34.8%	35.1%	36.1%	36.1%	36.1%
-Residential lines		102.864	179.869	186.827	189.148	191.517	193.934	196.400	198.917	201.485	204.106
-Business lines		59.044	82.211	95.378	97.080	98.820	100.598	102.417	104.275	106.174	108.114
PCS penetration				2.0%	5.0%	7.2%	9.8%	11.3%	12.1%	13.0%	13.5%
Total											
EBITDA		37.994	60.742	97.922	118.918	125.987	144.585	158.472	167.455	177.497	187.867
Depreciation and amortization		26.372	35.500	46.803	52.010	52.780	56.735	59.213	61.692	48.093	50.325
Total capex		129.529	183.500	65.000	52.000	33.500	31.000	28.500	28.500	28.500	28.500

1996 is proforma for cable acquisitions. EBITDA Earnings before interest, taxes and depreciation and amortization. E Salomon Brothers estimate.
Source: Salomon Brothers Inc.

Figure 10. General Communication Inc. — Discounted Cash Flow Analysis

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Part 1: Annual free cash flow projections										
EBITDA	\$37.99	\$60.742	\$97.922	\$118.918	\$125.981	\$144.585	\$158.472	\$167.455	\$177.491	\$187.867
Growth Rate	NM	59.9%	61.2%	21.4%	5.9%	14.8%	9.6%	5.7%	6.0%	5.8%
Net income	(\$5.064)	(\$5.237)	\$5.548	\$14.631	\$20.694	\$33.198	\$43.706	\$51.377	\$67.815	\$75.144
Plus:										
Sale of 50% Undersea Fiber to AT&T	0	0	0	0	47.000	0	0	0	0	0
Interest Expense After-Tax	12.085	20.130	24.612	24.844	22.303	18.383	14.566	10.696	8.165	5.593
Tax Rate	40%	41%	41%	41%	41%	41%	41%	41%	41%	41%
Depreciation and Amortization	26.372	35.500	46.803	52.010	52.780	56.735	59.213	61.692	48.090	50.325
Less: Capital Spending	(129.529)	(183.500)	(65.000)	(52.000)	(33.500)	(31.000)	(28.500)	(28.500)	(28.500)	(28.500)
Less: Working Capital Increase	0	0	0	0	0	0	0	0	0	0
Free Cash Flow	(96.136)	(133.107)	11.963	39.465	109.277	77.316	88.987	95.265	95.568	102.562
Discounted Free Cash Flow	(90.840)	(112.299)	9.011	26.557	65.622	41.454	42.600	40.719	36.472	34.947
Part 2: Perpetuity Value Calculation										
	#1	#2	#3							
Assumed 2006 FV/EBITDA Multiple	8.5	9.1	9.8							
Long distance FV/Revenue	2.3	2.5	2.8							
Cable FV/EBITDA	8.3	8.5	8.8							
Local FV/EBITDA	5.8	6.0	6.3							
Implied 2006 P/E Multiple	19.1	20.7	22.2							
Part 3: Calculation of theoretical value per share										
Discount rate (%)	12.00%	12.00%	12.00%							
Sum of discounted cash flow	\$94.244	\$94.244	\$94.244							
Long distance revenues	273.624	304.027	334.430							
Cable EBITDA	119.192	122.804	126.416							
Local EBITDA	150.730	157.283	162.977							
PV of perpetual cash flow	543.546	584.114	624.682							
Value of debt plus equity	637.789	678.357	718.925							
Less: market value of debt	(216.849)	(216.849)	(216.849)							
Plus: market value of cash	54.730	54.730	54.730							
Theoretical value	475.670	516.238	556.806							
Current Shares Outstanding	43.474	43.474	43.474							
Theoretical value per share	\$10.94	\$11.87	\$12.81							

EBITDA Earnings before interest, taxes and depreciation and amortization. E Salomon Brothers estimate.
Source: Salomon Brothers Inc

Salomon Brothers

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Investment Code (12-month time horizon)

U.S. equities are coded against the S&P 500; Japanese equities are coded against the Tokyo Stock Price Index (TOPIX); equities from other countries are coded against the appropriate local index.

Strong Buy: Expected to outperform the market by at least 25 percentage points.

Buy: Expected to outperform the market.

Held: Expected to match the market.

Underperform: Expected to underperform the market.

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