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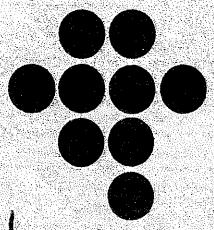

Research
Program on
Communications
Policy

TELEPHONE ACCESS CHARGES

October 13, 1983

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Paul Levy, Mass. Pub. Util. Comm.
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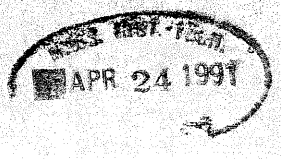

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MIT
RESEARCH PROGRAM ON
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Albert Halprin began his presentation with a brief history of competition in telecommunications. "Above 890" was the key decision, establishing the principle that private service networks could be constructed without showing that such service was unavailable from the existing carriers. The Specialized Common Carrier decision was also crucial from a historical perspective, as it authorized a new breed of carriers to provide service in competition with AT&T. As the price per unit of long distance service dropped and the price of local service rose, the response of the telephone companies and the regulators, in a monopoly environment, was to subsidise local service with long distance service. Once certain services were opened to competition, the reponse of AT&T was to establish bulk rates, through FX service, FTS and the like, for large users who didn't pay subsidies. These "regulatory bypass systems" necessary in a competitive environment. This system worked well for 10-15 years, but was knocked down by the courts, which ruled that subsidies were improper and authorized competition for small users as well as large users.

Once competition was proscribed for small as well as large users, the basic question became how much should the long distance carriers, in competition with AT&T, pay for use of the local exchange. AT&T argued that the MCI's of the world should be charged a full subsidy, just as all other small users were charged.MCI countered that they and other OCC's used local plants just like the federal government and other large users, and should therefore be exempt from subsidy payments. Under the "EMPHIA agreement, a partial subsidy was charged to MCI and other OCC's.

The FCC then opened the access charge proceeding in order to determine how access to the local exchange should be charged. Halprin noted two methods to eliminate subsidies from long distance to local service. The first was to turn to the states. However, the state regulators, despite a consensus in the FCC and Congress, would not accept responsibility for the costs of accessing the local exchanges. The second alternative was to recover the subsidy through a flat charge on each customer, which is of course the path the FCC has followed.

Halprin contended that the access charge proceeding allowed for the subsidies, which could not be supported in a competitive environment, to be removed from the costs of local service in a gradual manner. Several advantages to the gradual approach were listed: universal service is not threatened through a sudden and significant rise in rates for local phone service, telephone companies providing local service are kept viable, large users are kept on the network, and competition in the provision of long distance becomes possible.

The two areas of controversy in the access charge proceeding identified by Halprin are the two dollar charge, which he termed "political pimping," and the size of the difference between what AT&T and the OCC's pay for access to the local exchanges. It was his personal opinion that the first order established the correct ratio between AT&T and the OCC's, but that the second change was also satisfactory.

As for the future, Halprin predicted that Congress is not likely to act on the bills currently before the Legislature.

"You can't pass a bill to roll back competition," he said.

Paul Malandrakis, of AT&T Communications, which is the AT&T entity that will provide long distance in the post-decree environment, enumerated four goals of the access charge order: 1) Eliminate undue discrimination, 2) allow efficient use of the local network, 3) prevent economic bypass, and 4) preserve universal service. He noted that the subsidies of local service, which were designed to achieve social objectives, cannot survive in a competitive field.

The key policy change involved in the access charge proceeding, he noted, is the replacement of usage charges which are now traffic sensitive with flat charges. The cost of access is associated with the local loop, and should properly be charged at a flat rate. The change is a switch from a social policy to a market-driven policy.

The access charge does not threaten unversal service, in Malandrakis' view. The view that some households will be forced to abandon telephone service due to an increase in rates as a result of the access charge is unfounded. The universal service fund, lifeline service and measured rates will all operate to keep universal service intact.

AT&T does not believe that its users should have to pay a premium charge for access to the local exchanges.

Malandrakis suggested that AT&T believes that its customers pay 35-45 OCC's for access to the local exchanges under the current policy.

The third panelist was Paul Levy, a member of the

Massachusetts Public Utilities Commission. His biggest problem with the access charge decision was "the name," which he contended has led to misunderstanding of the purposes of the charge. Overall, Levy expressed support for the concept. The biggest area of contention with the decision is in the shift of revenues from local rate-payer supported exchanges to AT&T communications.

Levy contended that AT&T Communications will now pay $1.5 billion less for access to the local exchange. If the rationale of the access decision was revenue real location, Levy argued, then AT&T should lower long distance rates in the same proportion.

9 KHz AM Spacing

Three years ago, US support for 9 KHz spacing (instead of the present 10 KHz) in the international regulatory community encouraged its adoption. Under the Reagan administration in the midst of broadcaster opposition, the US has maintained firm resistance to the change. Jackson suggested that we will never see 9 KHz spacing on the AM band.

Low Power Television

LPTV is a reality. The FCC is granting about 30 licenses per month. The new stations, which operate on the VHF band within a range of 10-20 miles from the transmission facilities, provide another broadcast outlet.

Direct Broadcast Satellite

DBS services are currently providing additional broadcast channels, and will continue to expand the number of channels available.

Terresterial Broadcasting at 12 GHz

The Commission could authorize terresterial broadcasting at this frequency, though Jackson emphasized that this was not likely to occur. One of the drawbacks cited was the current $15,000 cost of receivers operating in this band.

Other Expansions

TV Drop-ins and the authorization of a new band for radio broadcasting were suggested as additional expansions of the broadcast spectrum.

Electronic Media Channels in 1992: Probable and Achievable

Jackson presented a table (see appendix) which summarized the current availability of media channels, the probable availability in 1992, and the achievable number of channels by 1992. He stressed "achievable" was limited by technological constraints only, while "probable" included an assessment of the likelihoodd of the regulatory process pushing for such expansion and enhancements.

Additional Issues

Limitations to the number of viable video programming services. There are few cable operations in the country which are currently programming more than 35 active channels. Market research has indicated that a large fraction of demand is satisfied with 4-5 video programming sources beyond the three networks. The demand for additional video programming in the traditional modes may not support a proliferation of programmers.

Fourth Network

The prognosis for a fourth network is mixed. Metromedia could become such a fourth network, but the future of networking is likely to be different than today. Full time ties to a network will become less prevelant for several reasons, among them the opportunity to distribute by satellite programming on limited basis at low cost. This may lead to a proliferation of "hit and run services" which provide programming in one shot deals. Programming products can also be brought into the market much more quickly. Turner's broadcast of football games during the NFL strike last year was cited as an example. Finally, the

hybrid network, in which programming is delivered to a mix of outlets, including LPTV, MCMDS, cable and traditional broadcasters, have already emerged. CNN is the first hybrid network.

ISSUES RAISED IN QUESTION AND ANSWER SESSIONS

Broadcast & Cable Bypass of Local Loop

Marcus: Broadcast services are unlikely to be used for bypass of local loop services because it is only one way transmission. Cable could possibly be used for data transmission services that are currently carried on the telephone network. Privacy considerations may become important, as cable is easier to "tap" or intrude than voice channels, which require a physical installation of a phone tap.

Jackson: Cable is a strong contender for data transmission, but unlikely to be used for voice services unless Congress "screws up" the access decision and provides an economic incentive for bypass. Services like the Dow Jones newswire, which are currently carried on the phone network, will move to cable.

High Freguency Shortwave Transmission: Opportunity for Domestic Broadcast

Marcus: There is little demand for domestic shortwave, despite the presence of less expensive receivers. HF broadcasting has a low profile in the US.

MCMDS & ITFS

ITFS may lease out excess channel capicity, providing up to 28 MDS channels. Some educational institutions may lease out

nighttime nights, though the questioner noted that content restrictions would be more likely to be imposed by the licensee. It was noted that ITFS (as well as MCMDS) is a 2-way system, with an audio return channel authorized.

The potential for MDS as a bypass technology is small, according to Marcus, due to the value of the video channel over a data channel. Commercial data transmission will not compete with MCMDS video programming. Six MHz is too valuable to use for data when 25 KHz is sufficient.

Financial Viability of LPTV

Content regulations LPTV will be less stringent, allowing programming such as pornography to be broadcast. Differnt costs are associated with LPTV programming (as a result of different audience characteristics), and operators will have to experiment to find the right package to make money.

Jackson: LPTV will be especially viable in communities without local television stations. LPTV stations will be able to mix local origination with translation services. In high density areas, can privide alternative narrowcast signals. Finally, LPTV channels could be linked together to provide a portfolio of pay services, and compete with MCMDS systems. LPTV would have the advantage of being more powerful.

Future of Content Regulations

With the scarcity argument eliminated to a degree, the FCC is nibbling away at content regulations.

Marcus: The Commission has suggested to Congress that the Fairness Doctrine and Equal Time provisions be eliminated.

Content regulations have been eased for radio broadcasters. The maximum number of commercials is no longer proscribed, for example. The difficulty in eliminating content regulations comes with extreme cases. Given the existence of cases such as in which an FM broadcaster refused to carry any news, it is extremely difficult for the FCC to completely eliminate content regulations.

Jackson: The content restriction policy is harder to enforce with the proliferation of channels. Unregulated channels, such as cable, affect perceptions to the appropriatness of material being delivered through the television set. However, given the current climate of the Congress, bills such as the Packwood bill to repeal the Fairness Doctrine and Equal Time provision have little chance of being passed. As the scarcity rationale for content regulation has eroded, it has gradually been replaced with the "intusive nature of the medium" rationale.

Broadcasters will not coalesce to support the Packwood-type bills, as few value editorial freedom over financial considerations. Given the political realities, if Congress "gives" the broadcasters something (i.e. freedom from content restrictions) it will likely expect something in return, which might cost the broadcasters money.

Lack of Market For Kinds Of Pay Television Services

It was noted that we can't anticipate the kinds of services that could proliferate on pay services such as LPTV or MMDS. Many are currently thinking only of demand for entertainment programming. Some services will pay for themselves on a smaller scale, such as

teleconforencing and small, specialized audience services.

Jackson: Certain technical prerequisites such as mechanisms for scrambling, control and billing for services are required for alternative programming. C-Span and CNN are two alternatives, non-entertainment services that have found a market.

TABLE I

Electronic Media Channels
in Portland, Oregon

	1982	Probable 1992	Achievable 1992
AURAL			
AM	11	11	14
FM	16	18	30
New Band	0	0	200
Cable	building	90	150
TOTAL	27	119	394
VIDEO			
Full Power	5	9	15
Low Power	0	10	20
MDS	1	20	40
SHF Broadcasting	0	0	20
Direct Broadcast Satellite	0	6	25
Cable	building	108	108
TOTAL	6	153	228
TOTAL (Aural & Video)	33	272	622

TABLE II

Nationwide Summary of
Electronic Media Channels

	1982	Probable 1992	Achievable 1992
AURAL			
AM	4800	5300	6200
FM	4700	5200	9400
New Band	0	0	40,000 200/city
Cable	little	50/city	75/city
TOTAL	9,500	10,500 +cable	55,000 +cable
VIDEO			
Full Power	1000	1300	2000
Low Power	100	2000	4000
MDS	200	2000	4000
SHF Broadcasting	0	0	2000
Direct Broadcast Satellite	0	6 channels	25 channels
Cable	32% of households	65% of households	65% of households
TOTAL	1300 +cable +DBS	5,300 +cable +DBS	12,000 +cable +DBS

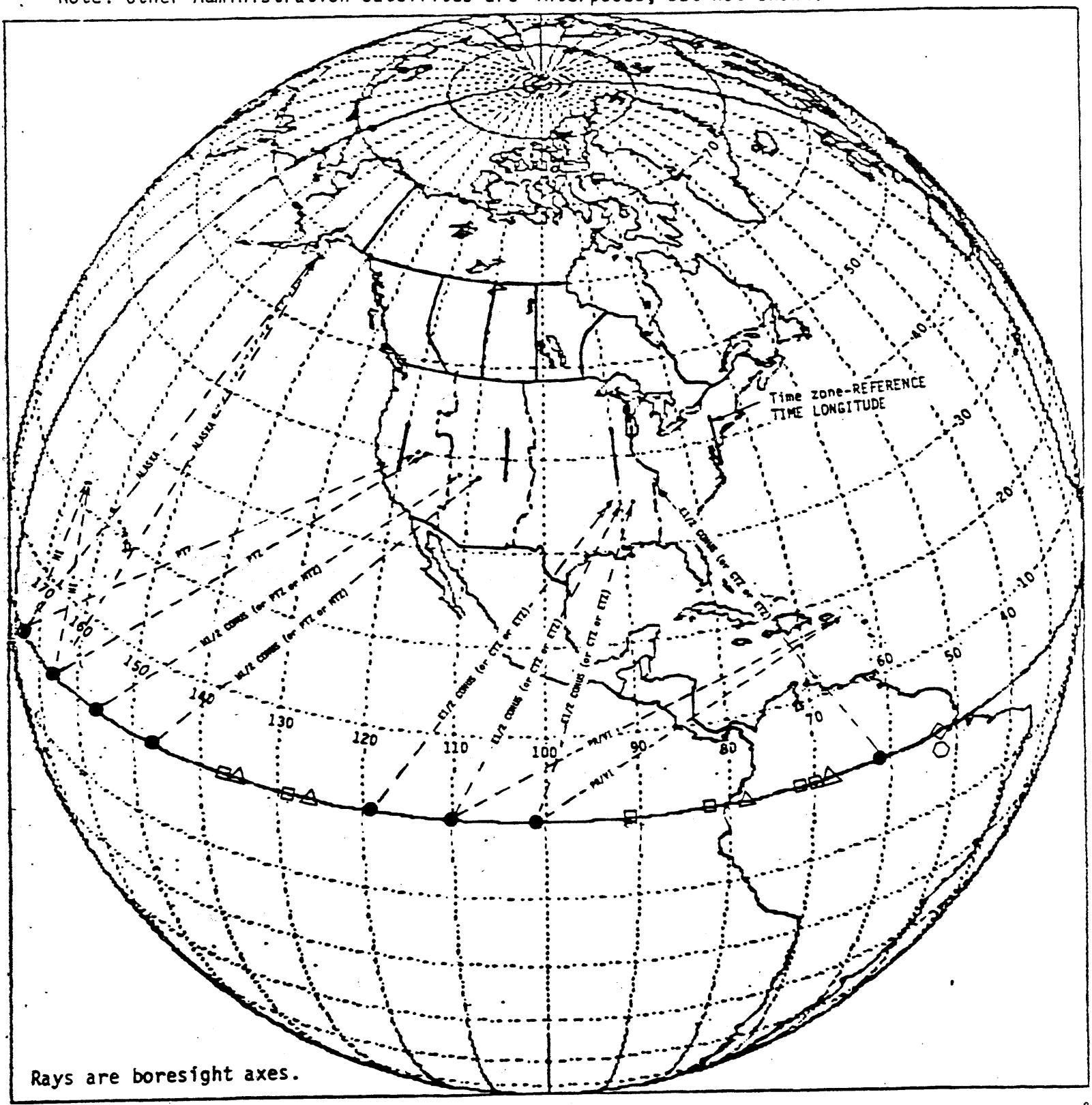
NORTH AMERICA DBS SATELLITE LOCATIONS (RARC-83)

● : U.S.A. (175°W, 166, 157, 148, 119, 110, 101, 61.5), [these locations may support multiple U.S. satellites (clustering)]

□ : CANADA (138°W, 129, 91, 82, 72.5, 70.5)

△ : MEXICO (136°W, 127, 78, 69)

Note: Other Administration satellites are interposed, but not shown.



Rays are boresight axes.

Greenland & St. Pierre/Miquelon located at 53°

Figure 5

10.14.83
BP

THUMBNAIL LOOK AT DBS OPERATION IN THE FSS BAND (11.7-12.2 GHz)

COMPANY	SATELLITE	EIRP	COVERAGE	No. CHS	ANT. SIZE	NOTES
USCI[1] (1983)	ANIK C-2 (IN ORBIT)	45	NORTHEAST	5[6]	1.2-1.8M	(2), (7)
SKYBAND INC.[9] (EARLY '84)	SBS-3 (IN ORBIT)	38DBW CONUS	CONUS	5[8]	6 FEET	(3)
STC (LATE '84)	SBS-4[4] (LAUNCH TO 89°?)	53 EOC	NORTHEAST	5	2-3 FT	(5)

(1) WILL SWITCH OVER TO GSTAR-1 WHEN LAUNCHED IN APRIL 1984. POSSIBLE 1/2 CONUS COV..

(2) WILL USE GENERAL INSTRUMENT ANTENNA.

(3) OFF-SET FEED ANTENNA BY M/A-COM.

(4) LAUNCH IN 1984 (I BELIEVE SBS HAS REQUESTED LAUNCH TO 101° (LOC. NOW UNASSIGNED).

(5) RCVR WILL ALSO BE USED IN BAND 12.2-12.7 GHz, BUT ANTENNAS WILL HAVE TO BE REPOINTED.

(6) TWO MOVIE, ONE ALL-NEWS, ONE ALL-SPORTS, ONE MIX: CHILDREN, WOMEN, ADULT.

(7) INITIALLY WILL COST SUBSCRIBERS $40 A MONTH.

(8) MOVIES, SPORTS, NEWS, SELECTED PROGRAMMING, AGRICULTURAL.

(9) FORMALLY CALLED INTER-AMERICAN SATELLITE TV (MURDOCH).