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FEDERAL COMMUNICATIONS COMMISSION
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RONALD L. PLESSER
202/861-3969

March 24, 1994

HAND DELIVER

Mr. William Caton
Acting Secretary
Federal Communications Commission
1919 M Street, NW #222
Washington, DC 20554

Re: GEN Docket No. 90-314
Ex Parte Presentation

Dear Mr. Caton:

Pursuant to Section 1.1206 of the Commission's rules, this letter is to advise you that PCS Action, Inc., a coalition of companies to promote the deployment of PCS services, met yesterday with a group of the Commission's staff at the Washington offices of Piper & Marbury. The Commission's staff members in attendance were Mr. Ralph Haller, Mr. Richard Engleman, Mr. Donald Gips, Mr. Robert Pepper, Mr. Gregory Rosston, Ms. Julia Kogan, Ms. Geraldine Matise, Mr. David Siddall, Mr. John Williams, and Mr. Peter Tenhula. Attending the presentation on behalf of PCS Action, Inc. were Ms. Lisa Hook of Time Warner Telecommunications, Mr. J. Barclay Jones of American Personal Communications, Mr. Jonathan Blake of Covington & Burling, Mr. Mark O'Connor of Piper & Marbury, and myself. In addition, PCS Action, Inc. invited the following individuals to make a presentation and participate at yesterday's meeting: Mr. Russell Coffin of Northern Telecom, Mr. Jeff Rosenblatt of Comsearch, Inc., Mr. Barry Goodstadt of EDS Management Consulting Services, Mr. David Lax of The Conifer Group, L.P., Mr. David Schechner of Bear, Stearns & Co., and Mr. Mark A. Roberts of Alex Brown & Sons. The subject of each invitee's presentation is reflected in the attached document entitled, "PCS Action Seminar." Copies of the slide presentations made by Mr. Rosenblatt, Mr. Goodstadt, Mr. Lax, and Mr. Coffin are attached hereto.

The attendees of the meeting discussed PCS Action's position with respect to the Commission's reconsideration of its Second Report and Order in the above-referenced

Mr. William Caton
March 24, 1994
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proceeding, as reflected in previous filings of PCS Action in that proceeding. Copies of the following (attached hereto) were provided to the Commission's staff:

- A position paper entitled, PCS Action's Position on Reconsideration of Docket No. 90-314;
- An agenda of the topics discussed at the meeting, entitled "PCS Action Seminar";
- A PCS Action membership roster;
- A list of anticipated attendees of the meeting.

In accordance with the Commission's rules, I hereby submit one original and one copy of this letter and its enclosures.

Sincerely,



Ronald L. Plesser

RLP/plq

cc: Ralph Haller
Richard Engleman
Donald Gips
Robert Pepper
Gregory Rosston
Julia Kogan
Geraldine Matisse
David Siddall
John Williams
Peter Tenhula

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PCS ACTION, INC.

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PCS Action's Position on Reconsideration of Docket No. 90-314

PCS Action urges the Commission to retain the key elements of its PCS *Second Report and Order*, including the designation of two 30 MHz licenses in Major Trading Areas ("MTAs"). The allocation of adequate spectrum to independent PCS licensees is crucial to providing effective competition to existing wireless and wireline providers.

The Commission, as it has done, must establish a PCS licensing scheme that is workable from the outset. The practicality and market viability of the Commission's licensing scheme cannot depend on a slow and inefficient aftermarket of gradual aggregation.

The amount of spectrum allocated to each PCS license block will critically affect both the *timing* of PCS deployment and the *viability* of PCS as an industry. Without adequate spectrum, delays in clearing spectrum would keep PCS from being launched until the end of the decade. By then, PCS could find itself chasing a market that existing service providers will have consolidated within existing monopolies and duopolies. The window of competitive opportunity would close, and the loser would be the American public with less competition, fewer jobs, and a small vision of PCS.

Recognizing this, NTIA recommended allocation of 30 MHz blocks, and the Commission has decided to issue two 30 MHz PCS licenses in MTA service areas. This will create greater certainty that an economically viable system will be created.

Frequency parity with incumbent wireless telecommunications providers also is essential if new PCS entrants are to provide effective competition. In-region cellular interests are entering the PCS era with 25 MHz of spectrum clear of microwave incumbents and will have the ability to bid for an additional 10 MHz of PCS spectrum in their cellular markets. Under the Commission plan, this will give cellular incumbents a total of 35 MHz. Independent PCS licensees would have just 30 MHz of spectrum encumbered by existing users, which is the minimum amount of spectrum needed to establish frequency parity.

To provide all potential licensees with 20 MHz of spectrum would result in the in-region cellular incumbents having a total of 45 MHz of spectrum. Independent licensees would be left with only 20 MHz. This disparity would jeopardize the rollout of PCS and crush the potential for new competition.

PCS must be licensed in blocks of 30 MHz or greater for the following reasons:

- Core markets are effectively blocked by existing microwave users (two way, 10 MHz each way), making service fatally defective in allocations of less than 30 MHz until all relocations have been accomplished.
- Incumbents have an absolute right to stay for three years (five years in the case of public safety, which constitutes 20 to 25 percent of all incumbents). Relocations will be time-consuming and difficult: five relocations per year per PCS licensee is the maximum that can be expected.
- Therefore, rolling out a competitive PCS service, even with an extremely aggressive relocation process, will require at least 30 MHz. The FCC has estimated that \$5 billion annually would be saved by consumers if cellular had effective competition.
- PCS also will never have the capacity to compete with local exchange carriers unless it has at least 30 MHz per licensee. Mercury One-2-One, which is attempting local loop competition in London, is at capacity in residential areas with 30 MHz of clear spectrum after only months of operation just because of the capacity needed for residential voice traffic.
- Equipment manufacturers support the need for licenses of at least 30 MHz.
- A licensing scheme predicated on the aggregation of 20 MHz splinters would delay and obstruct the creation of a viable independent PCS industry. It also would significantly reduce PCS auction revenues to the federal government. The FCC has an obligation to issue viable licenses in the first instance.

The FCC's allocation plan in the *Second Report and Order* has the dual virtue of competition and of workability at the outset. It results not in the *beginning* of deployable PCS systems, which must be completed through accumulation of "building blocks," but rather in *readily deployable and competitive* PCS systems. It should be maintained.

PCS ACTION, INC.

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PCS Action Seminar

March 23, 1994

Agenda

I.

Allocation of 30 MHz per PCS licensee is essential to permit the industry to realize the vision of PCS that consumers demand.

*Russell Coffin, Director, PCS Product Evolution
Northern Telecom*

II.

Microwave incumbency is a reality that would delay PCS for years if allocations are less than 30 MHz.

*Jeff Rosenblatt, Director of PCS
Comsearch, Inc.*

III.

Requiring the industry to aggregate 20 MHz blocks would result in misallocation of licenses and would permit rivals to use the auction to prevent their competitors from succeeding.

*David Lax, Ph.D, Principal
The Conifer Group L.P.
Associate, Harvard Business School Negotiation Roundtable*

IV.

If PCS is delayed, it will miss a crucial market window and never be competitive with cellular or the local loop.

*Barry Goodstadt, Ph.D, Vice President
EDS Management Consulting Services*

V.

Markets will not fund the PCS industry unless it is structured to be viable from the outset.

*Mark A. Roberts, Communications Research Analyst
Alex Brown & Sons
David S. Schechner, Vice President
Bear, Stearns & Co., Inc.*

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Membership Roster

Service Provider Members:

- American Personal Communications/
The Washington Post Company
- Associated PCN Company
- Cox Enterprises, Inc.
- Crown Media
- MCI Telecommunications Corporation
- Omnipoint Corporation
- Providence Journal Company
- Times Mirror Cable Television, Inc.
- Time Warner Telecommunications

Manufacturing Members:

- Motorola Inc.
- Northern Telecom
- QUALCOMM, Inc.

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Emilio Cividanes
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Counsel to PCS ACTION, INC.

PCS ACTION, INC.

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PCS Action Seminar

March 23, 1994

Attendees

FCC:

Karen Brinkmann, Special Assistant to Chairman Reed E. Hundt
Richard Engleman, Chief, Technical Standards Branch, Office of Engineering & Technology
Donald Gips, Deputy Chief, Office of Plans and Policy
Ralph Haller, Chief, Private Radio Bureau
Geraldine Matise, Chief, Legal Branch, Mobile Services Division
David Siddall, Chief, Frequency Allocation Branch, Office of Engineering & Technology
John Williams, Electronic Engineer, Office of Plans and Policy
John Winston, Director, Office of Small Business Activities

Industry:

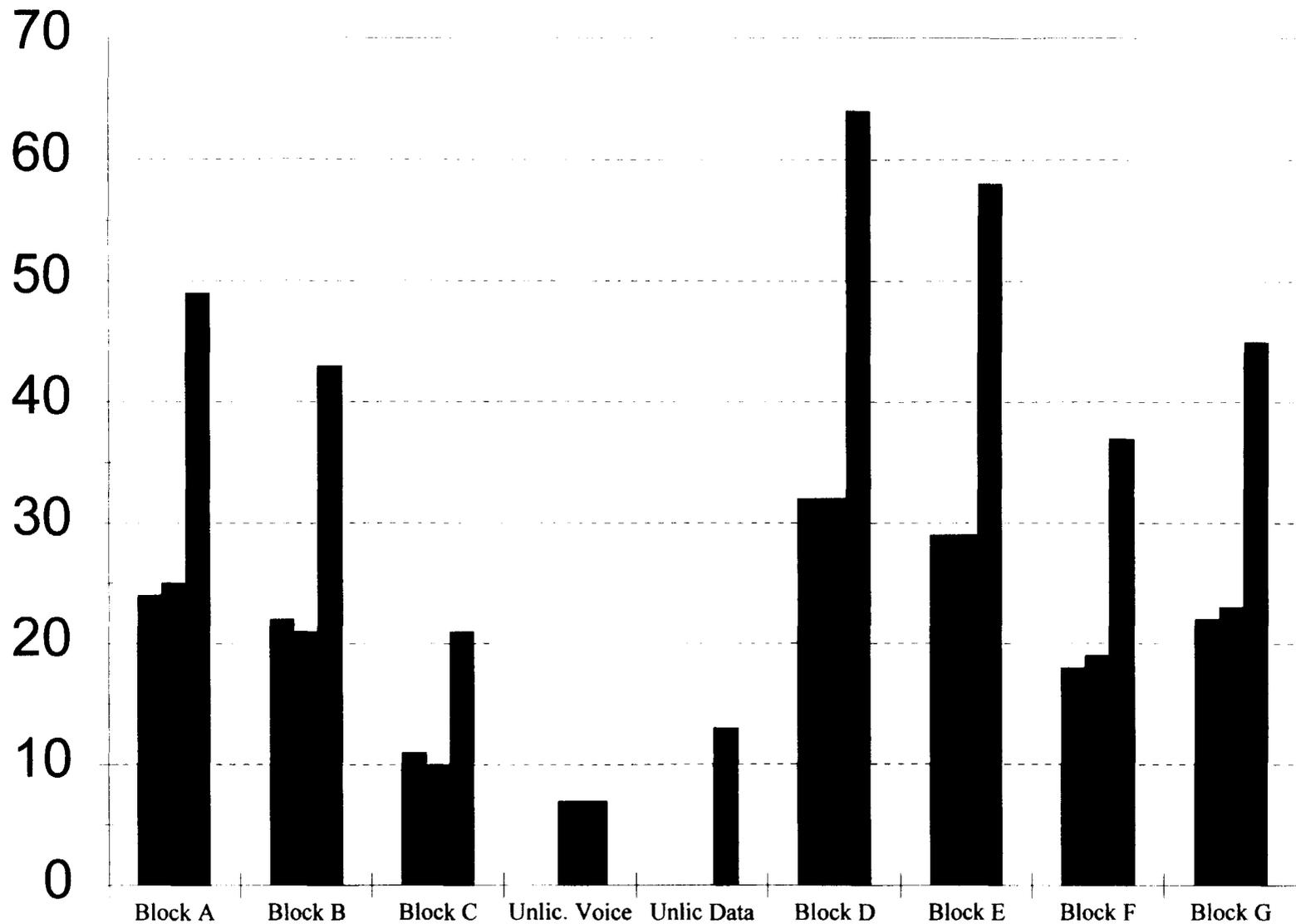
Ronald Plessner, Partner, Piper & Marbury
Jonathan Blake, Partner, Covington & Burling
Lisa Hook, Executive Vice President, Time Warner Telecommunications
Russell Coffin, Director, PCS Product Evolution, Northern Telecom
Jeff Rosenblatt, Director of PCS, Comsearch, Inc.
Barry Goodstadt, Ph.D, Vice President, EDS Management Consulting Services
David Lax, Ph.D, Principal, The Conifer Group L.P., Associate, Harvard Business School
Negotiation Roundtable
Mark A. Roberts, Communications Research Analyst, Alex Brown & Sons
David S. Schechner, Vice President, Bear, Stearns & Co., Inc.
J. Barclay Jones, Vice President, American Personal Communications, Inc.
Mark O'Connor, Associate, Piper & Marbury

FILTER INFORMATION FOR SOME OF THE MOST COMMON ANALOG MICROWAVE RADIOS

EQUIPMENT Make/Model	Channel Loadings	Threshold (dB)	IF Filter 3dB Bandwidth (MHz)
Motorola MA372	300/480	-82.0	16.0
Motorola MA372	600	-78.0	16.0
Motorola MA372	252	-85.0	10.0
Motorola MA372	132	-88.0	10.0
Motorola ABZ89FC6602	600	-82.4	18.0
Motorola ABZ89FC6602	480	-86.8	18.0
Motorola ABZ89FC6602	300	-92.8	10.0
Harris/Farion FAS2000	600	-81.5	16.0
Harris/Farion FAS2000	480	-86.5	14.0
Harris/Farion FAS2000	300	-90.0	14.0
Harris/Farion FL1-2	300	-88.0	12.0
Farion FM2000	300	-87.5	12.0
Lenkurt 79F1	300/480	-84.0	22.0
Rockwell MIR-2	300	-95.5	15.0
Rockwell MIR-2	480/600	-87.9	28.0

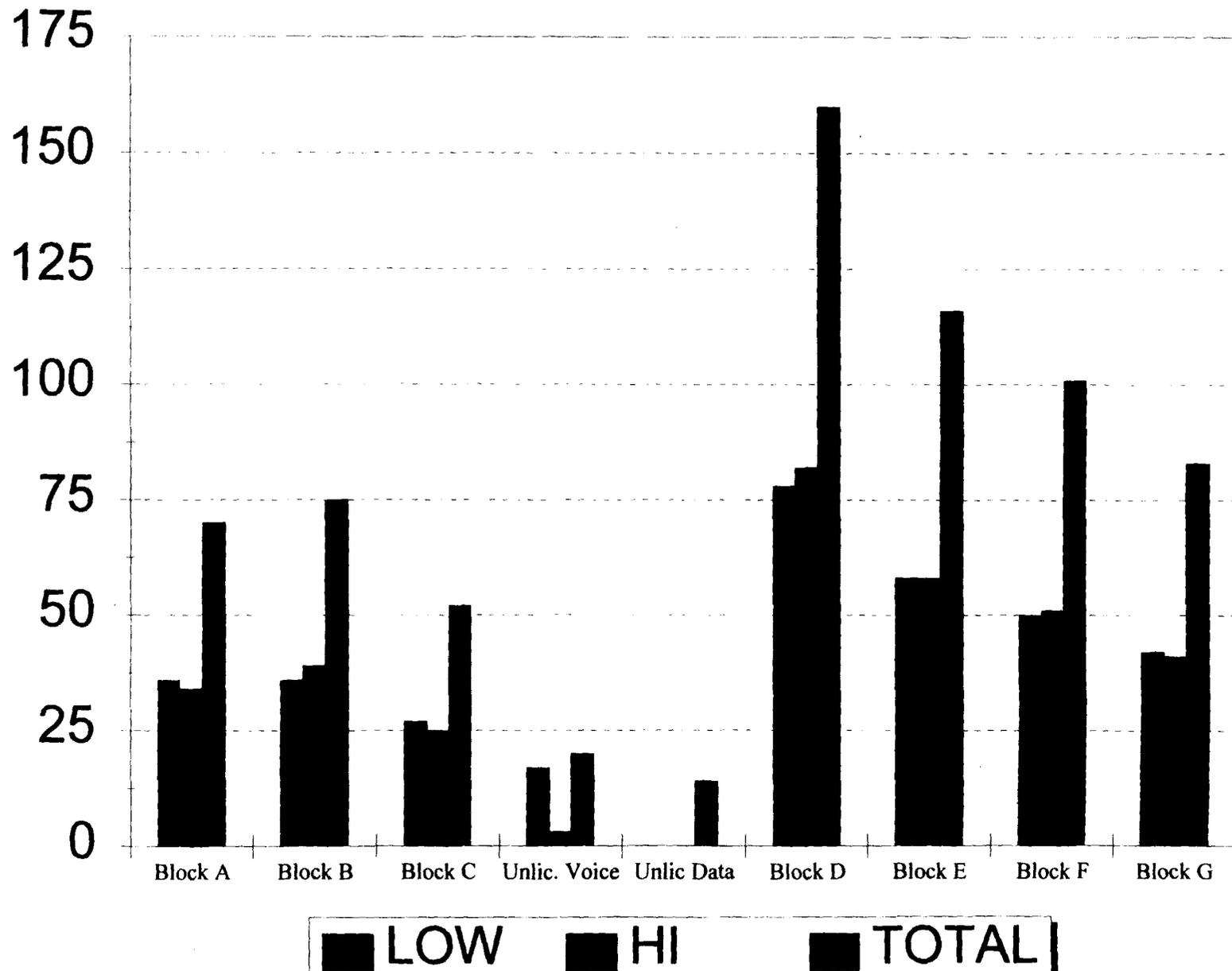


Receiver Counts within 125 mi of Oklahoma City, OK



■ LOW ■ HI ■ TOTAL

Receiver Counts within 125 mi of Richmond-Petersburg, VA



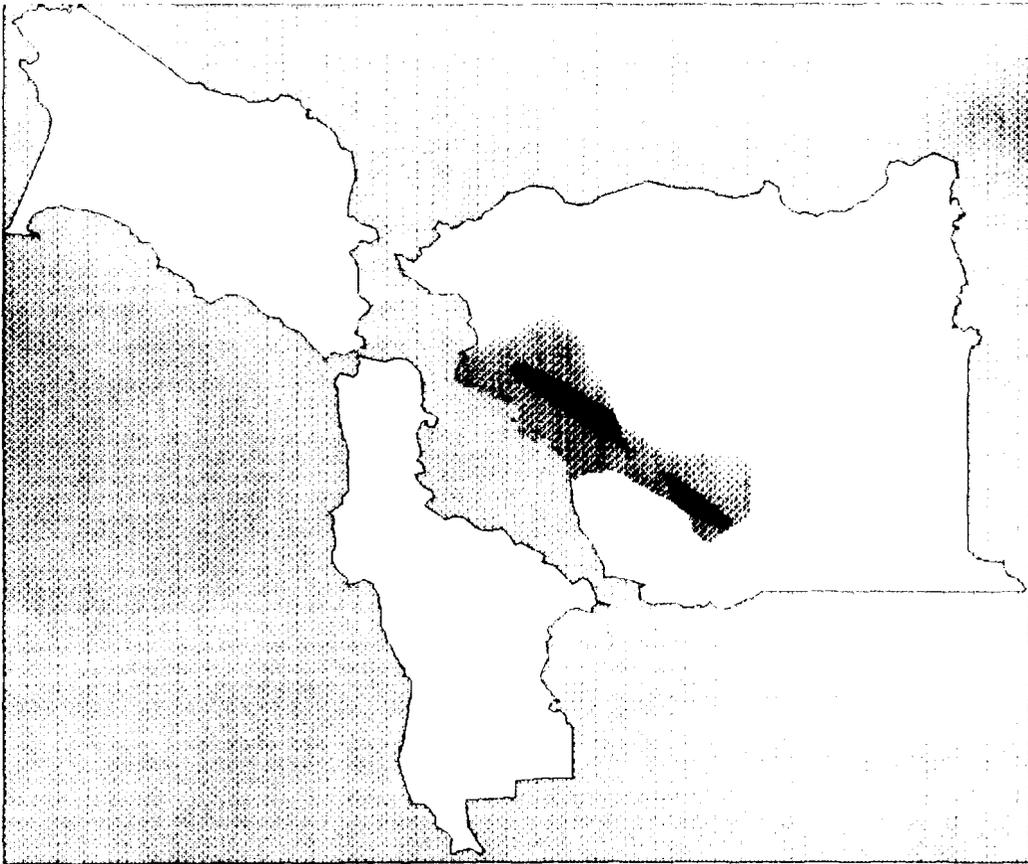
SAN FRANCISCO, CA MSA

continued

1997-1998 1997-1998 1997-1998 MHz
 MAX EIRP : 30 dBm
 MAX STATION HT : 15 m
 MAX ANTENNA HT : 2 m
 CELL CLIP : 1.61 km
 JAN 5, 1993

COLOR LEGEND

- 20 MHz Available
- 15-19 MHz Available
- ▨ 10-14 MHz Available
- 5-9 MHz Available
- 1-4 MHz Available
- 0 MHz Available



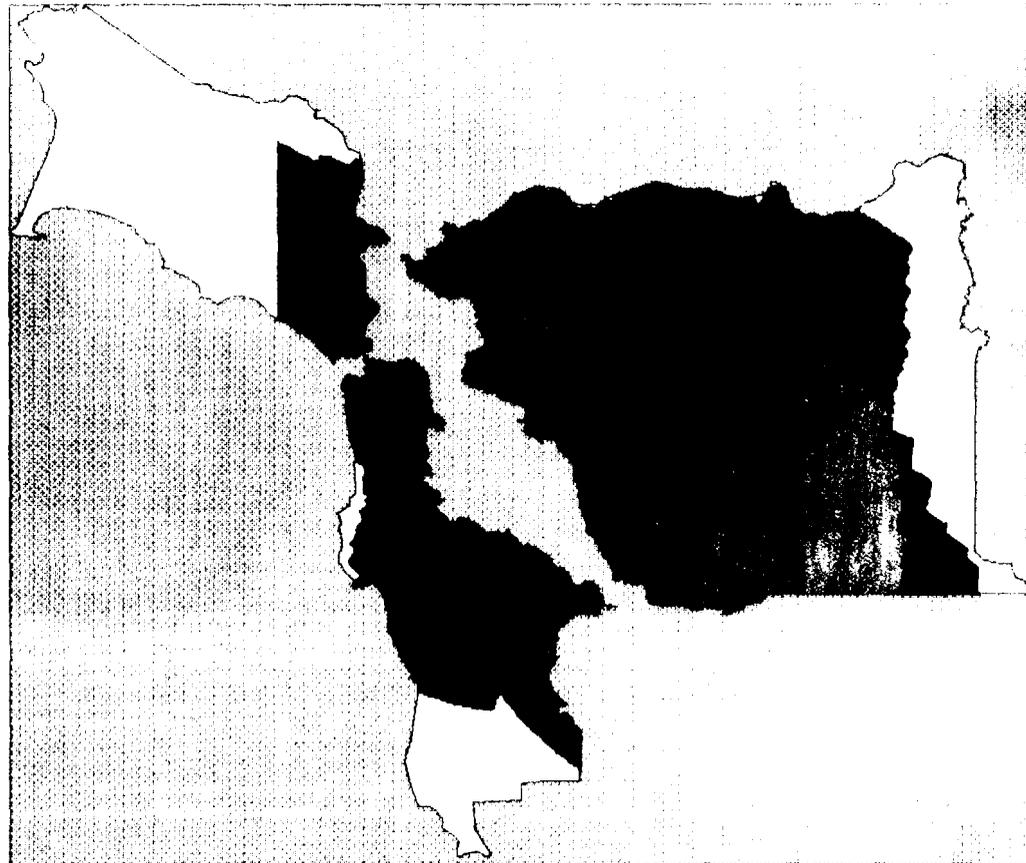
SAN FRANCISCO, CA MSA

11/01/93

BLOCK 1895 1914 1975 1994 MHz
 PCN EIRP 1 30 dBm
 BASE STATION HT 15 m
 PCN SUBSCRIBER HT 2 m
 CELL SIZE 1.61 km
 Jan 5 1993

COLOR LEGEND

	30	MHZ Available
	25-29	MHZ Available
	20-24	MHZ Available
	15-19	MHZ Available
	10-14	MHZ Available
	5-9	MHZ Available
	1-4	MHZ Available
	0	MHZ Available



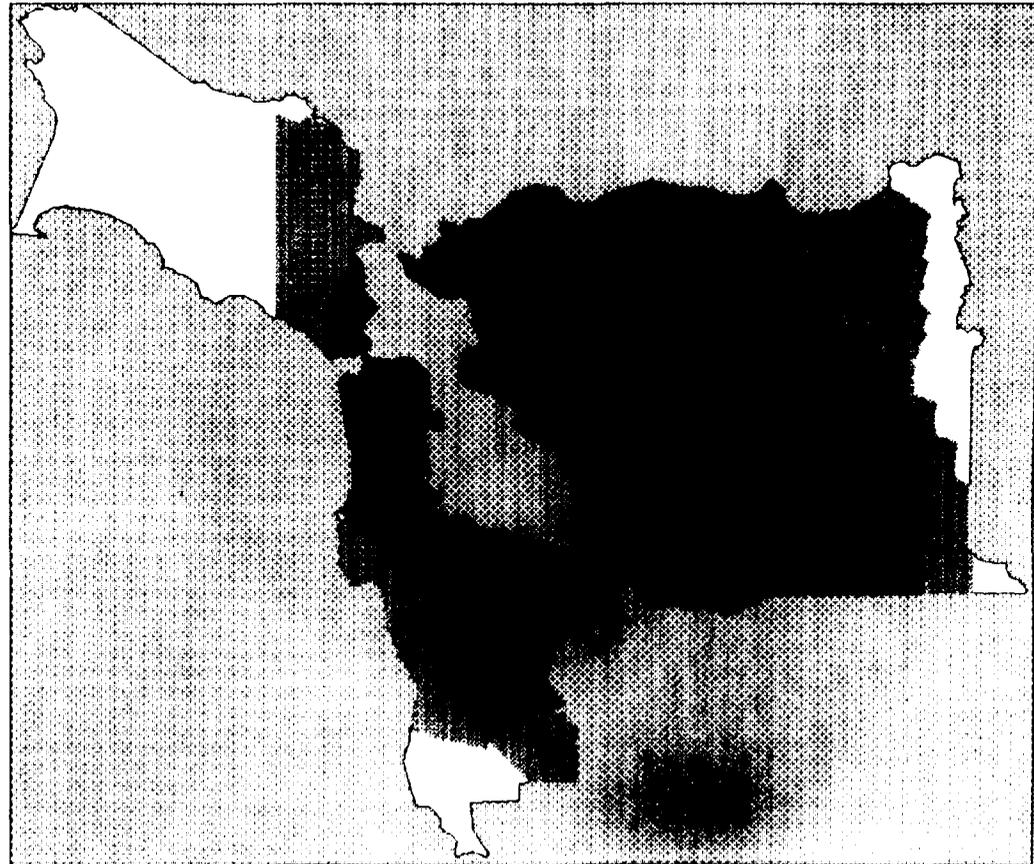
LEGEND

BLOCK F	1900-1910	1980-1990	Mhz
PCN EIRP	1	30	dBm
BASE STATION HT	1	15	m
PCN SUBSCRIBER HT	1	2	m
CELL SIZE	1	1.61	km
Jan 1, 1993			

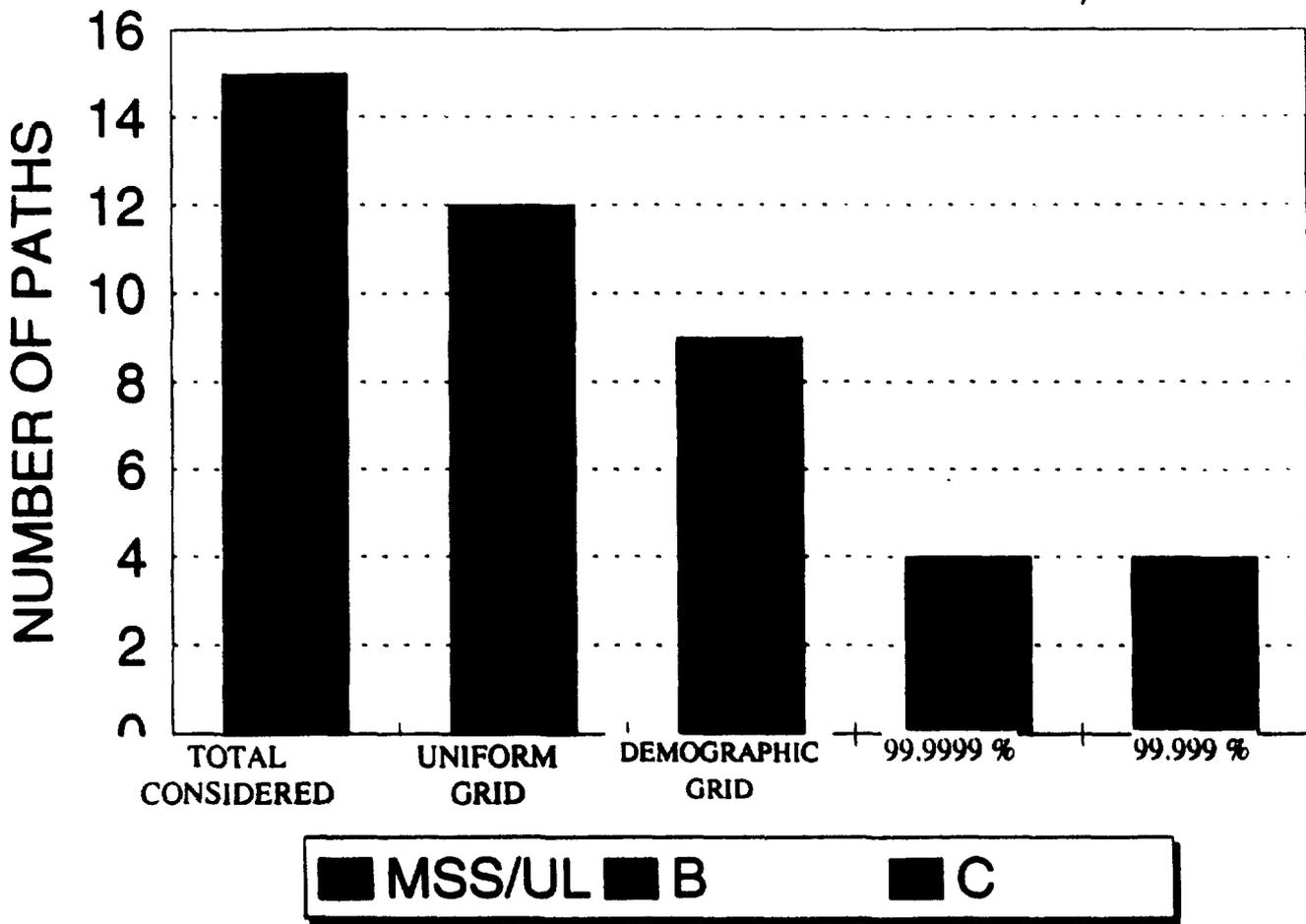
SOLID LEGEND

	29	MHz Available
	15-19	MHz Available
	10-14	MHz Available
	5-9	MHz Available
	1-4	MHz Available
	0	MHz Available

SAN FRANCISCO, CA MSA

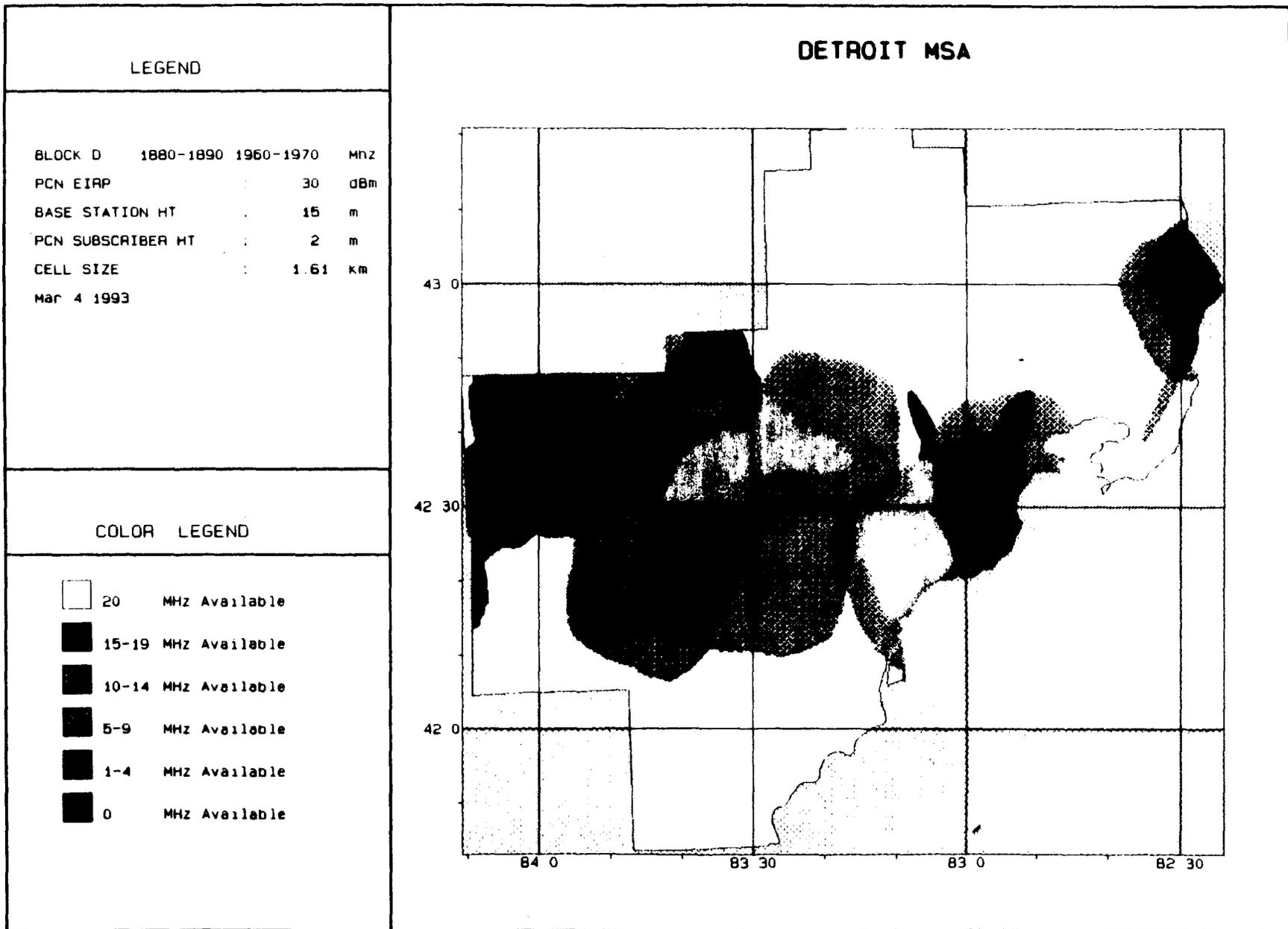


ADJACENT CHANNEL BREAKDOWN



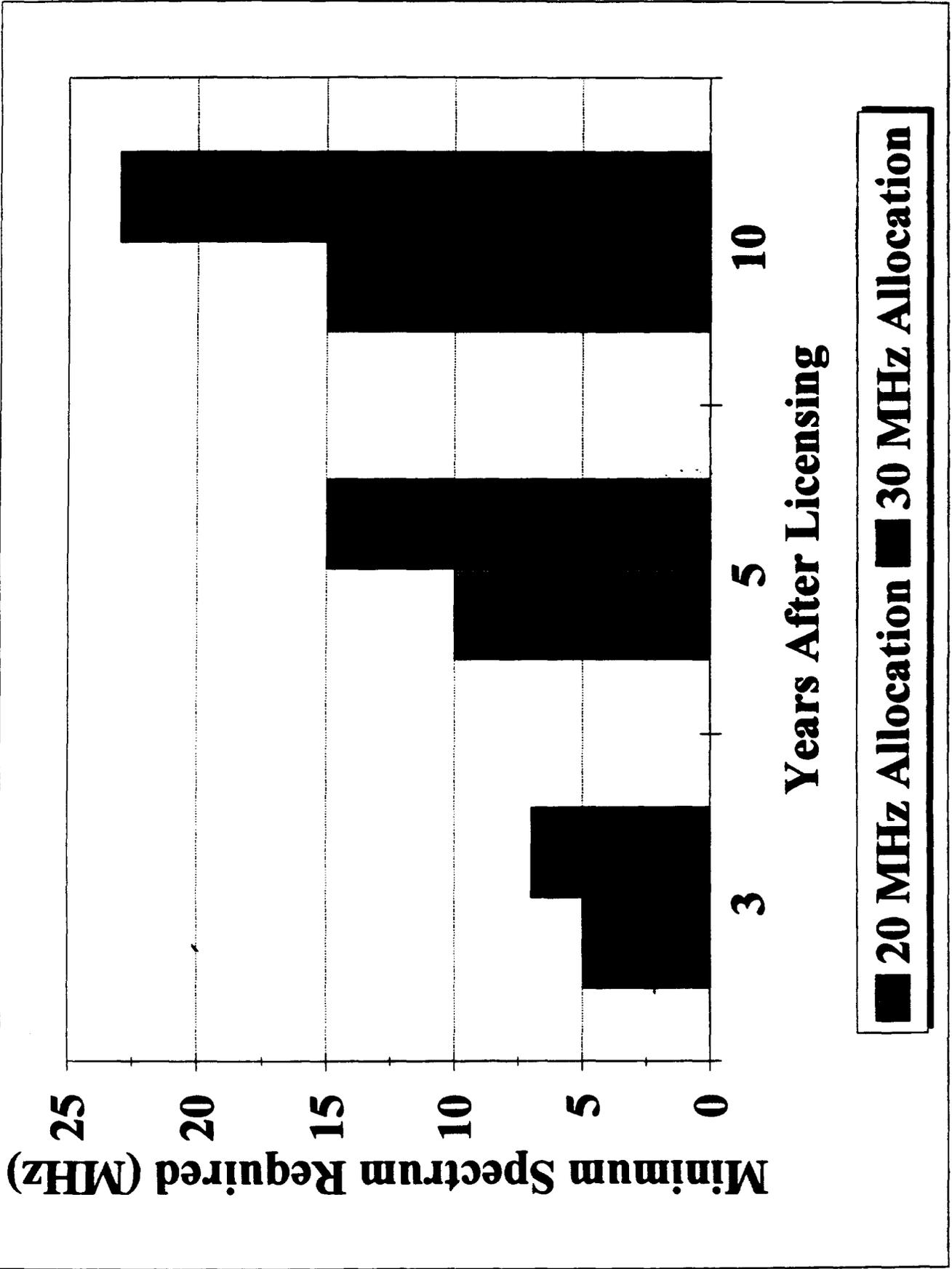
INTRODUCTION

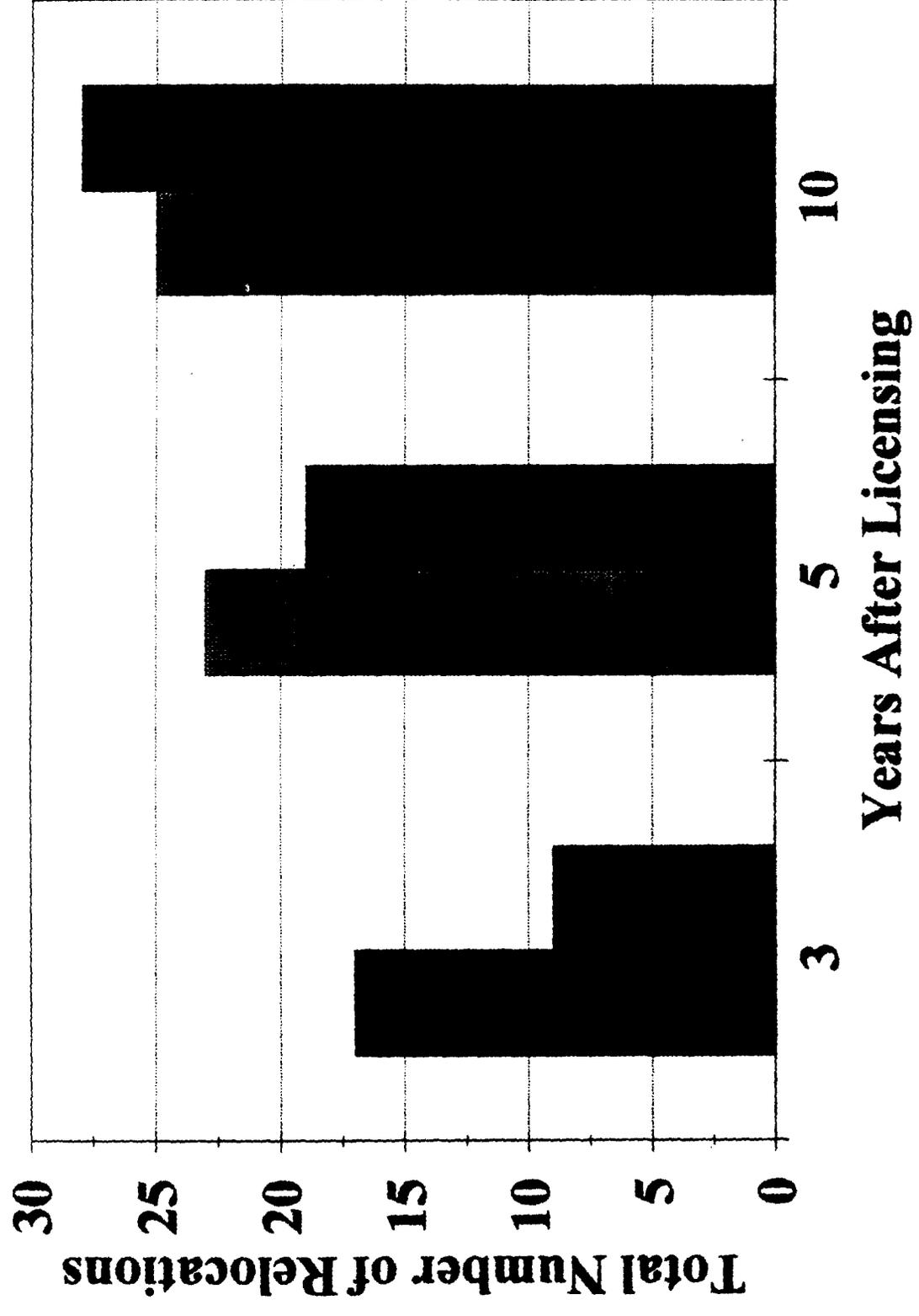
- **Conducted a study of the Detroit MSA to examine effect of spectrum allocation plans**
- **Must consider when to relocate in addition to number of locations**
- **Number & timing of relocations varies with market & frequency allocations**
- **Not all spectrum allocations are created equal**
- **The value of an allocation varies with the required relocations**



COMET ARCH

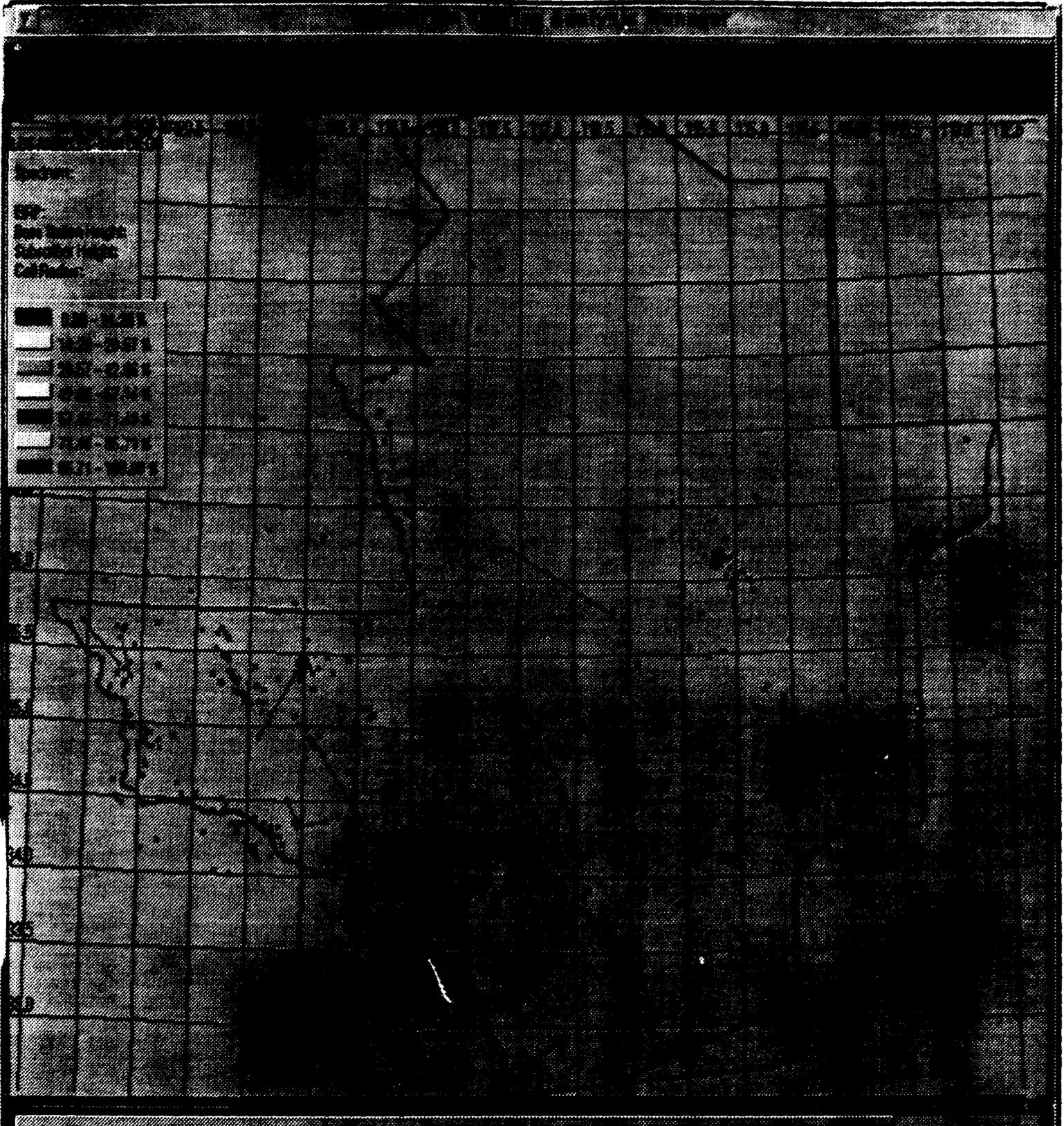
Figure 4.1-1 20 MHz Allocation, Block D, Current Spectrum Availability





■ 20 MHz Allocation ■ 30 MHz Allocation





1977
 San Bernardino
 Riverside
 California

0.0 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
1.00 - 1.25
1.25 - 1.50
1.50 - 1.75
1.75 - 2.00
2.00 - 2.25

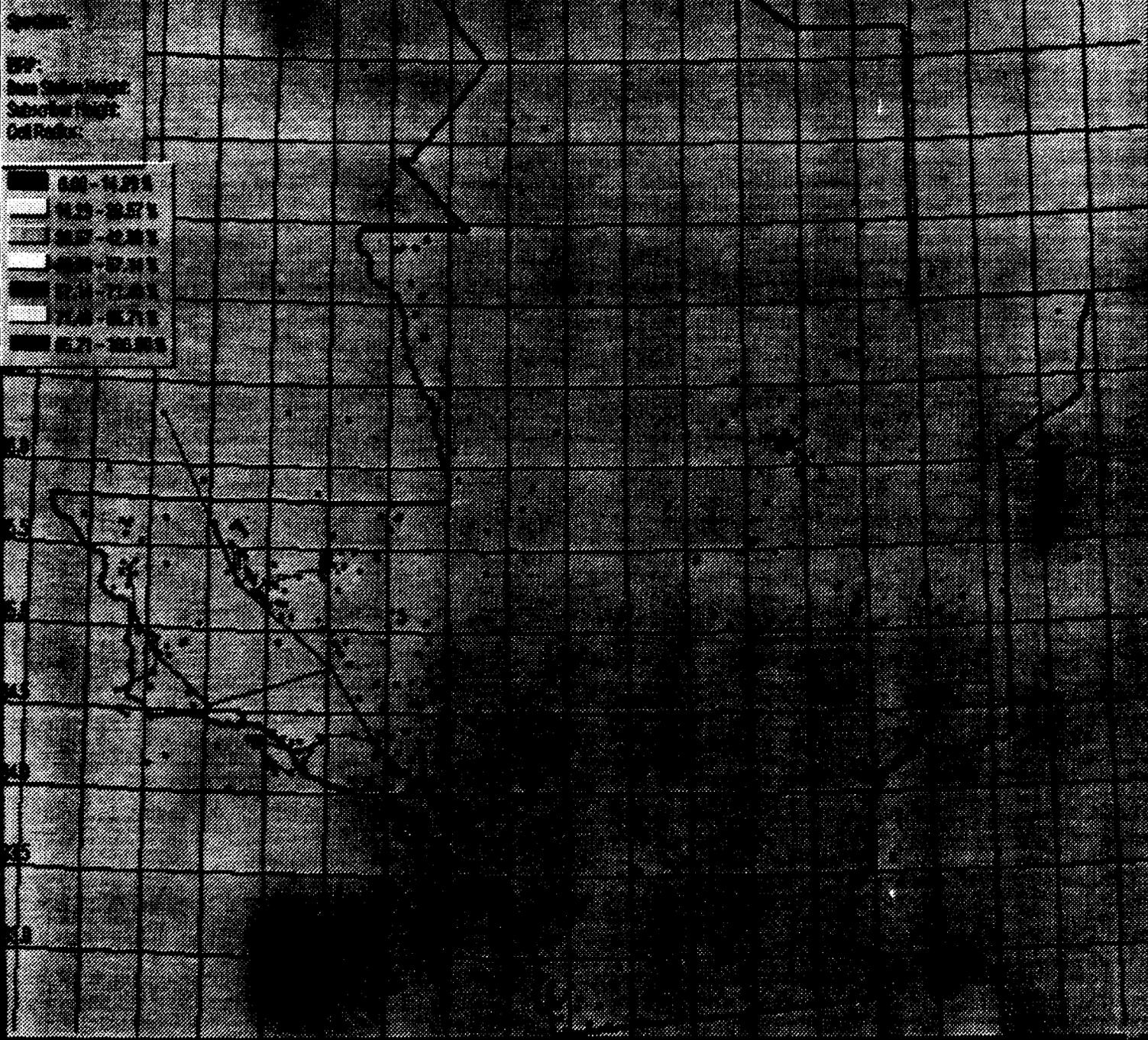
This study was prepared for the California State Board of Education
 by the California State Board of Education, Sacramento, California

Loading Address
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CALIFORNIA STATE

100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995 1000



System:
Date:
Data Source:
Subarea:
Cell Range:

6.00 - 6.25
6.25 - 6.50
6.50 - 6.75
6.75 - 7.00
7.00 - 7.25
7.25 - 7.50
7.50 - 7.75

Map Data Source: ...
Data Source: ...

Loading Antennas
Loading Nodes
Loading Microcell Paths for selected



Map Title: ...

Loading Antennas
 Loading Radius
 Loading Microwave Paths for selected ...

**Effects of Delay on
PCS Market Potential**

Briefing To FCC PCS Study Group

**Barry Goodstadt, Ph.D.
EDS Management
Consulting Services**

March 23, 1994

Effects of Delay on PCS Market Potential

Over the past three years, there has been much discussion and debate as the FCC has deliberated regarding spectrum alternatives, licensing rules and auction procedures regarding PCS

- As part of this process, the Commission has made considerable progress in reaching a variety of conclusions regarding how and when PCS will be available to the American public
- At this time, the Commission is attempting to deal with Reconsideration issues in the context of initiating PCS spectrum auctions in the next few months
- To provide input into this process, EDS Management Consulting Services has prepared material focused on the impact of licensing and start-up delays on PCS market development and size