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Building The Wireless Future™

MAY 3 1994

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

CTIA

May 3, 1994

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Randall S. Coleman
Vice President for
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BY HAND

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

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

Dear Mr. Caton:

On Tuesday, May 3, 1994, the Cellular Telecommunications Industry Association (CTIA), represented by Mr. John T. Stupka of Southwestern Bell Mobile Systems, Mr. John K. Dion of GTE Personal Communications Services and Mr. Thomas E. Wheeler of CTIA met with Commissioner Andrew C. Barrett and his Senior Legal Advisor, Byron F. Marchant. The views expressed in this meeting, as summarized in the attached presentation materials, reflect CTIA's position as previously filed in this docket.

Pursuant to Section 1.1206(a)(1) of the Commission's Rules, an original and one copy of this letter and attached presentation materials are being filed with your office.

If you have any questions concerning this submission, please contact the undersigned.

Sincerely,

Randall S. Coleman

Attachment

No. of Copies rec'd
List ABCDE 0/1

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Building The Wireless Future™

Technology Briefing Book

**Cellular Telecommunications Industry Association
May 3, 1994**

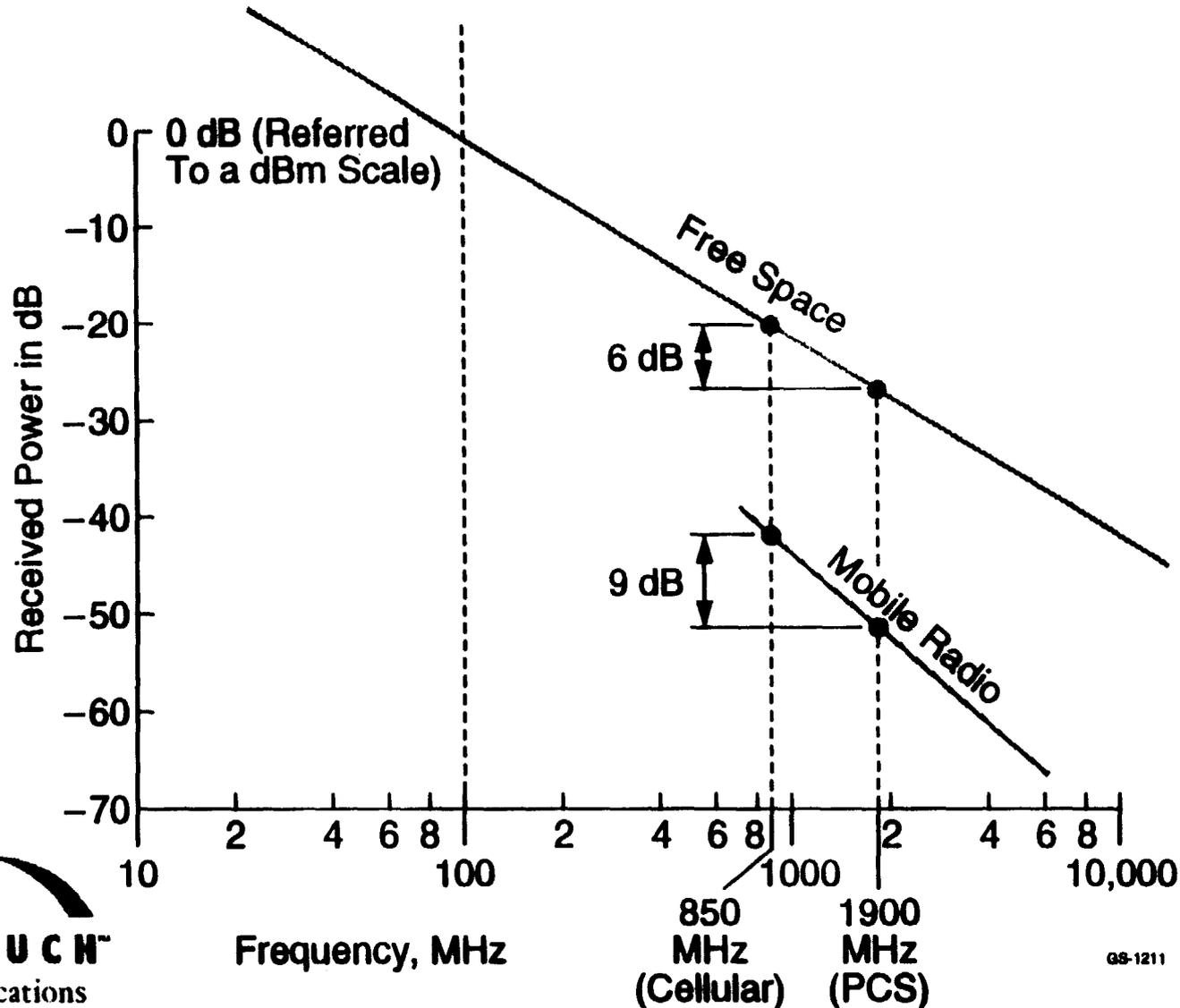
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From a technology standpoint, there is no difference between cellular and PCS

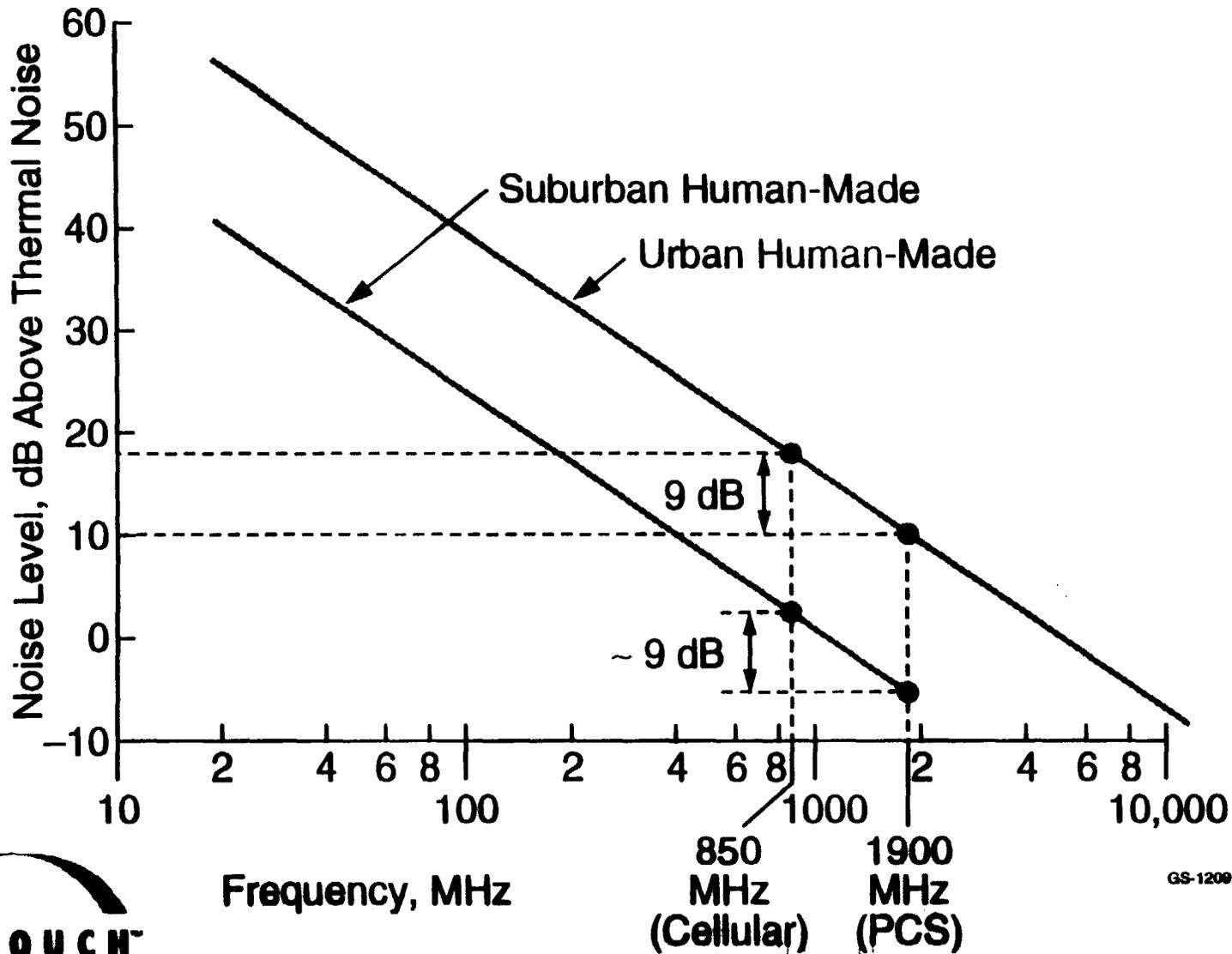
Received Carrier Power (C) Between Cellular And PCS



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GS-1211

Human-Made Noise Between Cellular And PCS

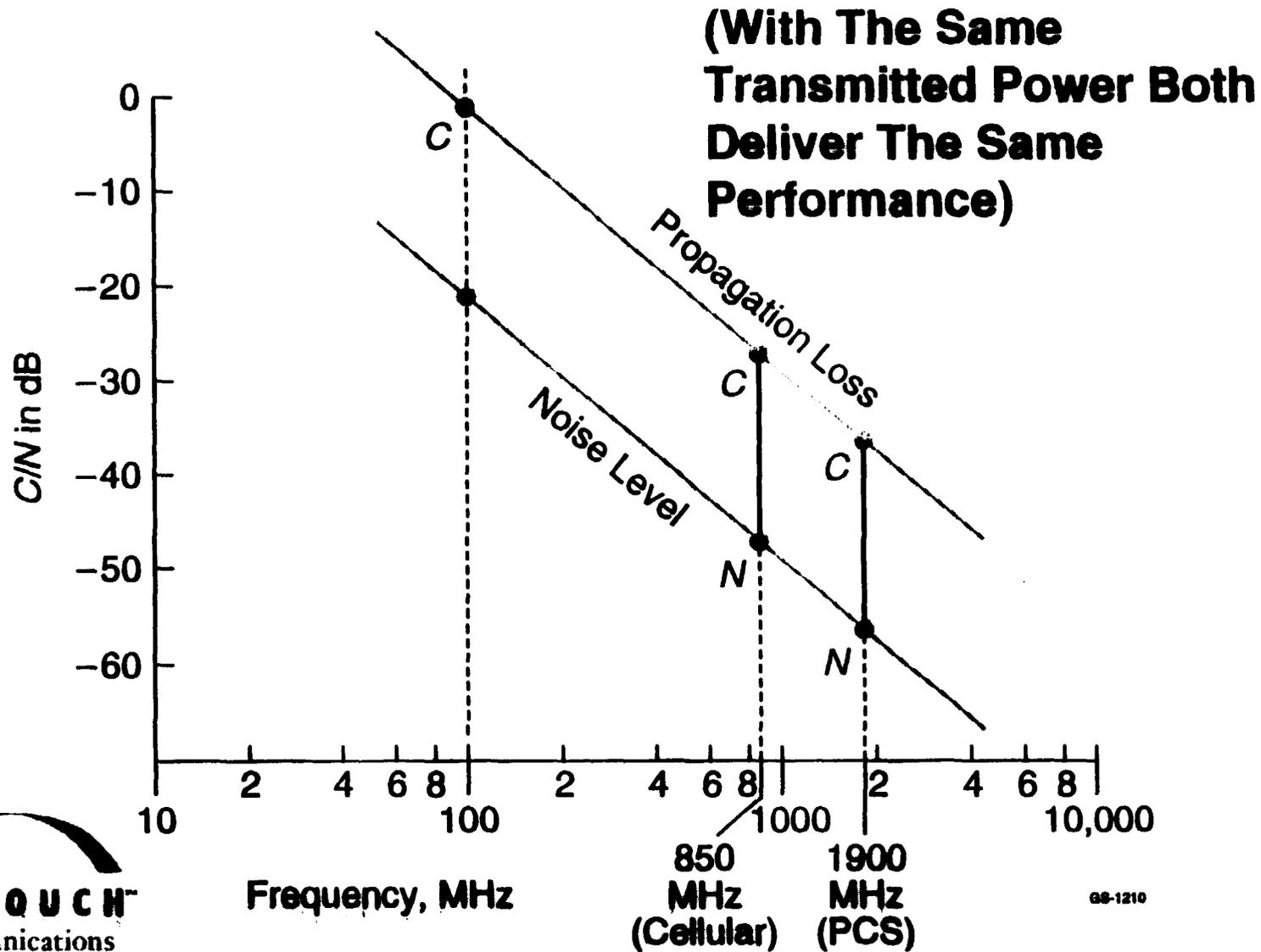


GS-1200



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C/N Remains Constant Between 850 MHz And 1900 MHz



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COMSEARCH STUDIES

The answer depends on the question asked

Detroit and San Francisco

1 watt power (above safety standard)

TDD

Tower heights

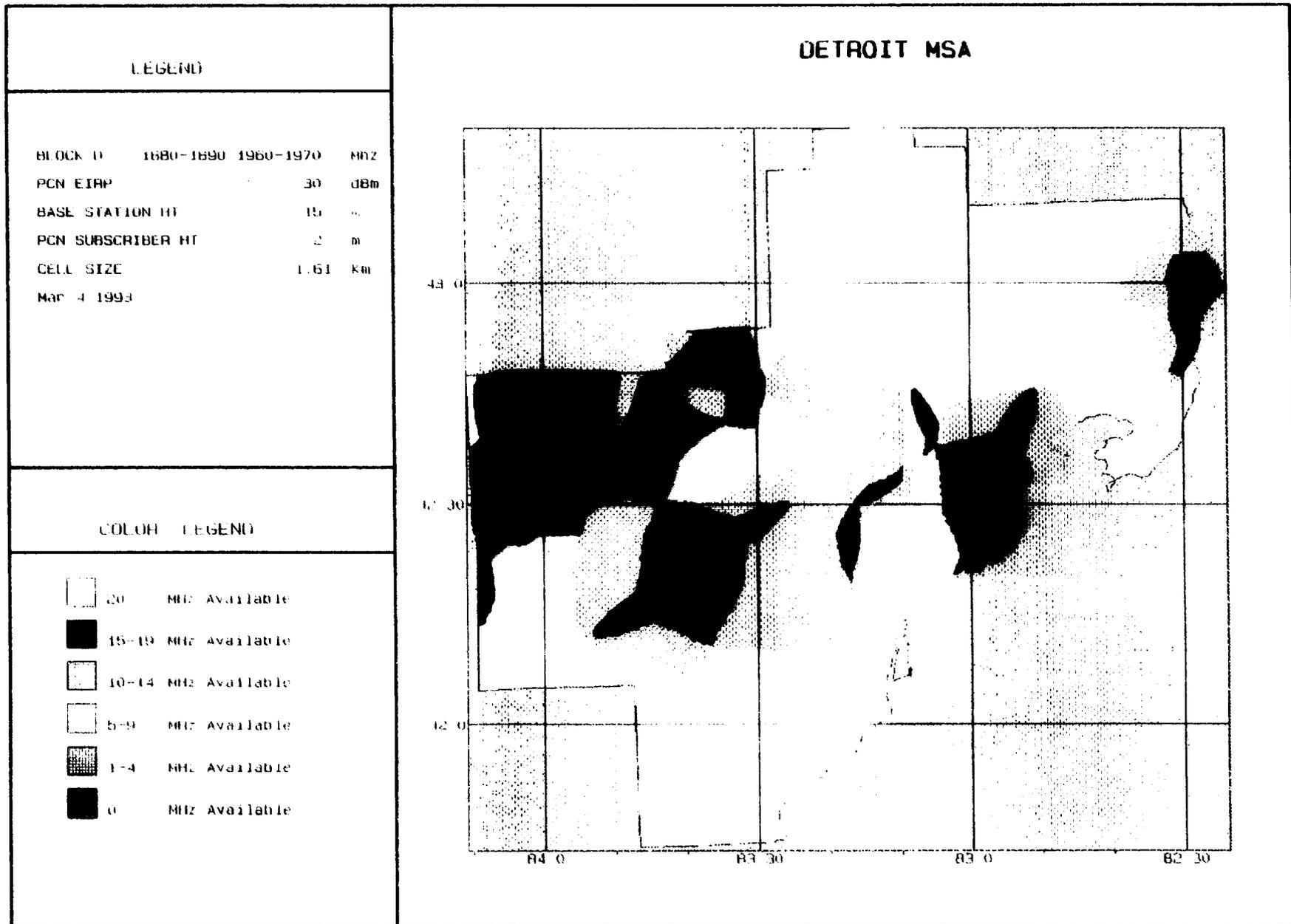
No mitigation (i.e., filter installation)

Atlanta

Power levels

Antenna heights

Original Study With Misleading Assumptions



COMSEARCH

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

Same Data Re-run With Valid Assumptions

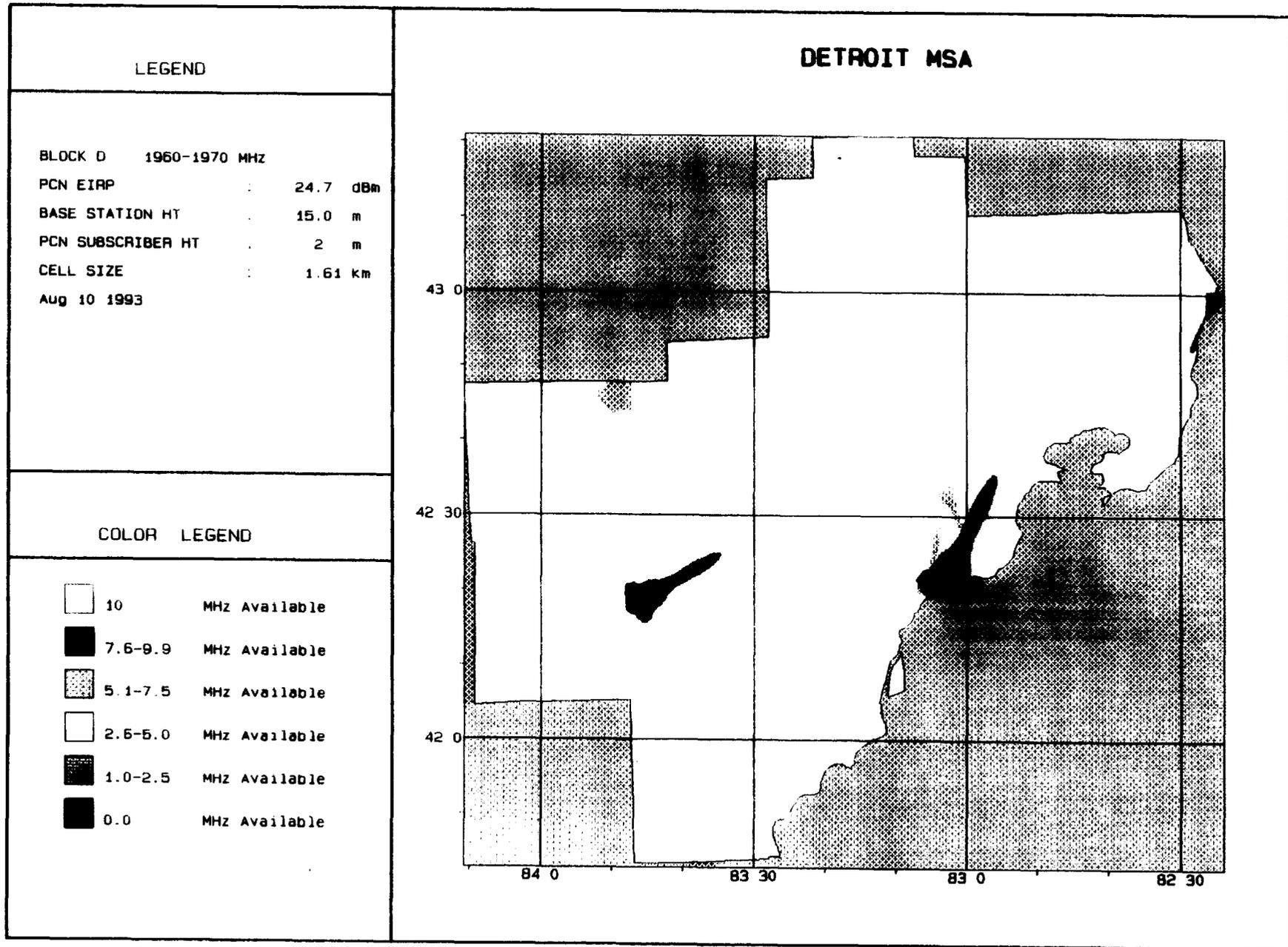
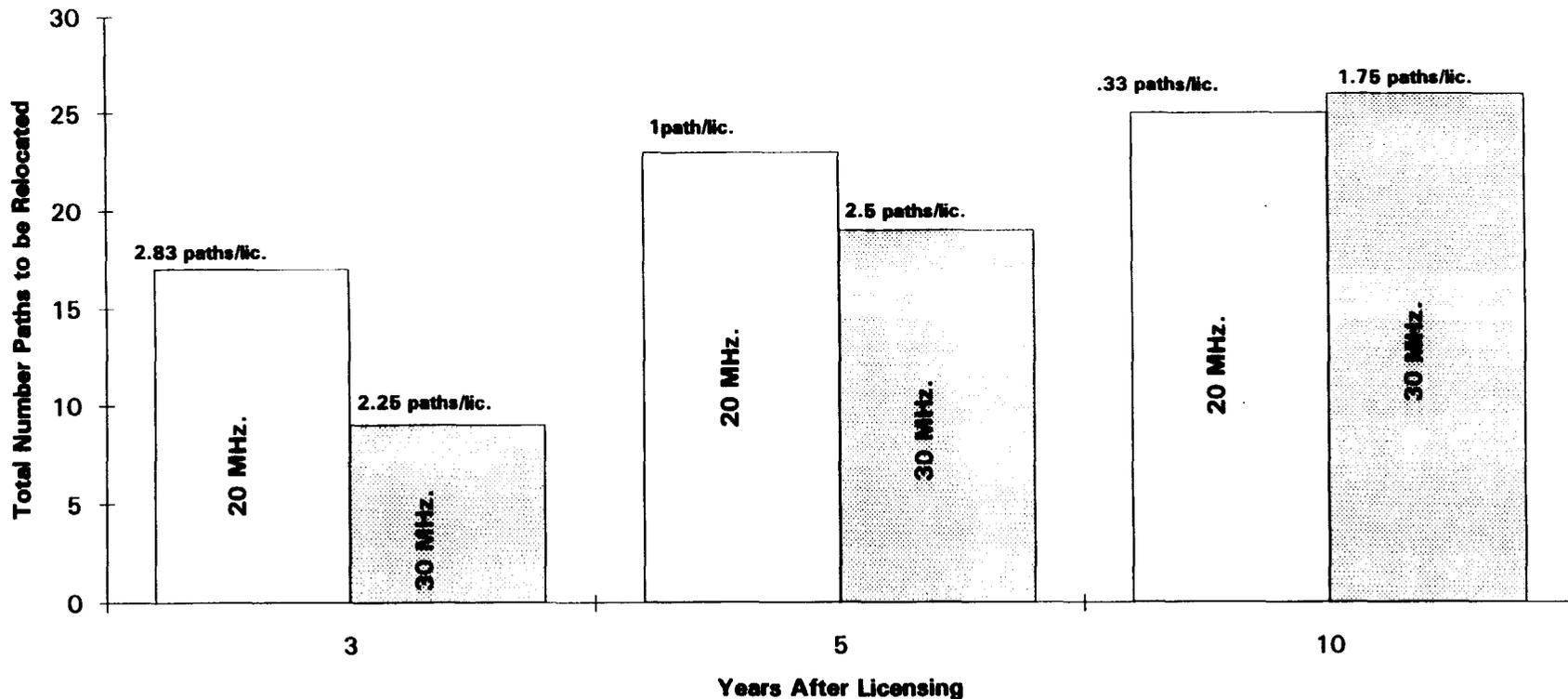


Figure 3.2-7 20 MHz - Block D (1960-1970 MHz) Current Spectrum Available COMSEARCH



Paths per Licensee to be Relocated

"Relocations will be time-consuming and difficult: five relocations per year per PCS licensee is the maximum that can be expected."



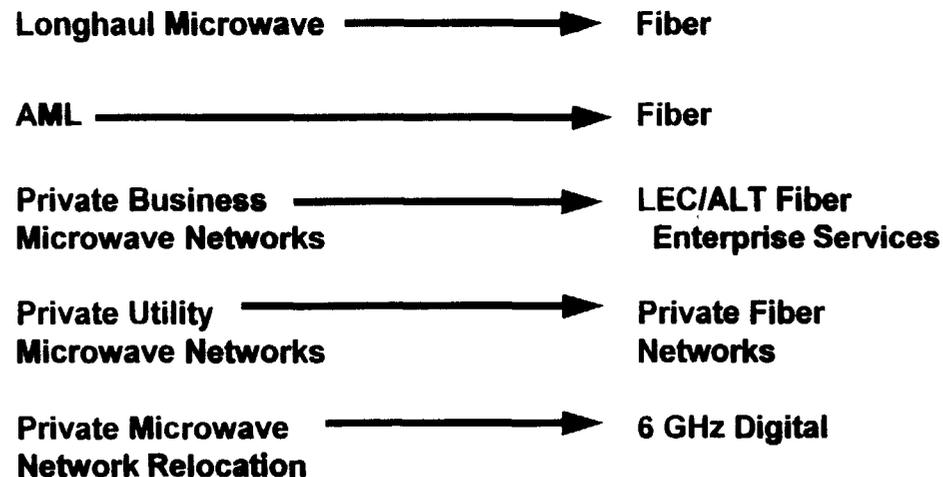


"LICENSED" SPECTRUM DOESN'T MEAN "USED" SPECTRUM

Detroit offending paths

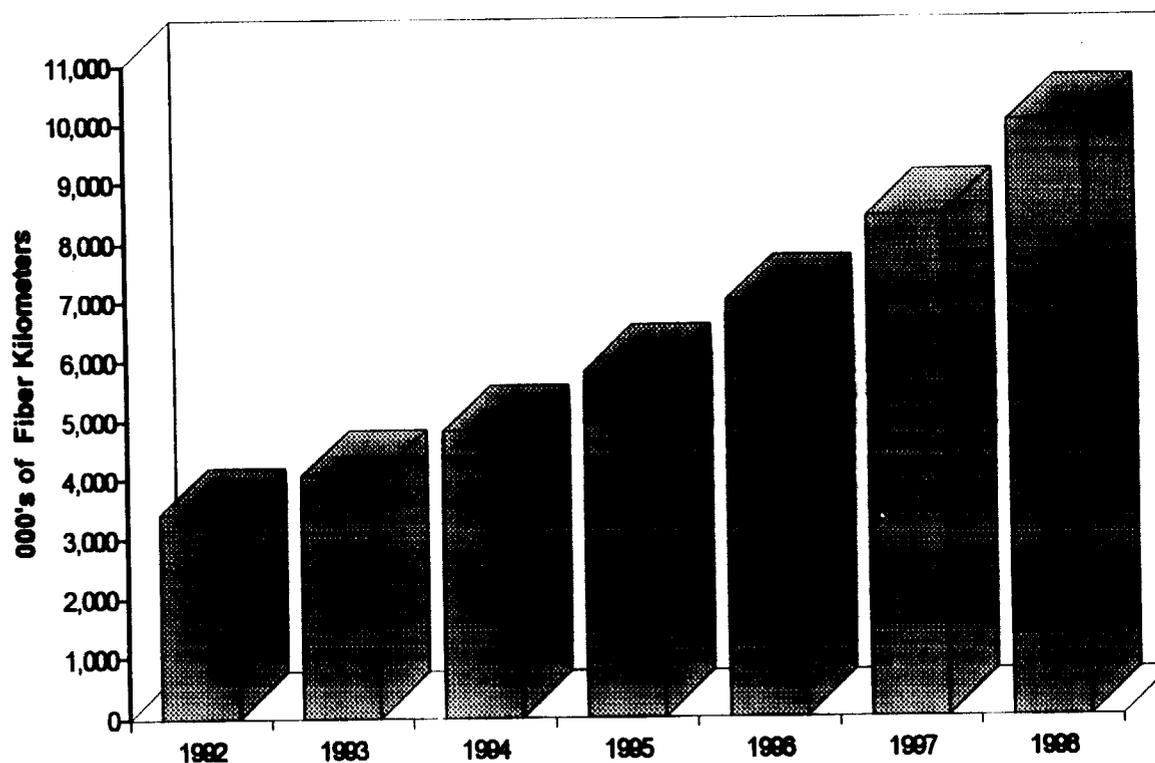
- only 20 to 50 percent loaded

Spectrum Migration Trends





U. S. Singlemode Fiber Deployment



Source: KMI corp.

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SERVICE DOES NOT REQUIRE BIG SPECTRUM

CDMA TDMA AMPS

2.5 MHz = 7.5 MHz = 25 MHz

Thus, in 20 MHz block to equal total cellular capacity:

12.5 percent CDMA

37 percent TDMA



POLICY CONCLUSIONS

- **No need for a technology-based "adjustment"**
 - **800 MHz and 2 GHz functionally equivalent**
 - **Solving the "incumbency problem"**
 - **Back-end solution: large spectrum blocks**
 - **Front-end solution: facilitate rapid clearing**
 - **Advantages of front-end solution**
 - **Spectrum efficiency**
 - **Rapid deployment**
 - **Maximum opportunity**
 - **Maximum competition**
-



POLICY CONCLUSIONS (CONTINUED)

- **Instead of big blocks, encourage clearing of reasonably-sized blocks**
 - **Use tax certificates aggressively**
 - **Tie tax certificates to voluntary movement only**
 - **Value of tax certificate decreases with time**
 - **Discourage foot-dragging**
 - **Compensation only if move is within 90 days of being offered**
-

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RHETORIC V. ACTIONS

PCS Order provides "only" 10 MHz in the "worst" spectrum bloc with the greatest "microwave interference"

Yet, cellular industry is

- Not saying 10 MHz is too little
- Not saying others shouldn't aggregate spectrum
- Not saying technical characteristics are no good
- Not saying microwave is debilitating

Give us the tools

- To develop new vertical services
 - To grow out of core business (like the others)
 - To do more than "more voice"
 - To move from POTS to PANS
-