

EXHIBIT A

COUNTY OF SUFFOLK



ROBERT J. GAFFNEY
COUNTY EXECUTIVE

DANIEL P. QUICO
POLICE COMMISSIONER

POLICE DEPARTMENT

April 27, 1992

Alfred C. Sikes, Chairman
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Dear Chairman Sikes,

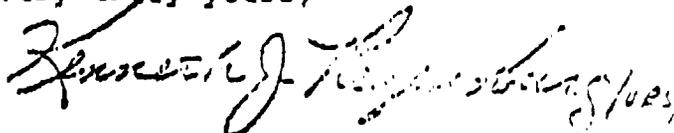
The Suffolk County Police Department currently operates private fixed microwave facilities in the 1850-1990 MHz band as part of its communications network. We are a Police Agency serving the Suffolk community on Long Island in New York State, residence of over 1.5 million people, covering approximately 600 square miles. Reliable and controllable communications are necessary to ensure public safety in Suffolk County.

Recently, Local Area Telecommunications Inc. ("LOCATE"), a potential licensee of Personal Communications Services (PCS) proposed to the County Police a relocation of our microwave facilities from the 1850-1990 MHz to higher frequencies or to non-radio media such as fiber optics. Specifically, LOCATE said they would take full responsibility for the engineering, equipment procurement, path clearance, licensing, installation, testing and cut over at no cost to the County.

Based upon the representations made by LOCATE and its offer to pay the costs of relocation and upgrade, the Suffolk County Police Department would be willing to relocate our microwave facilities to appropriate higher frequencies or fiber optics. We expect that this migration would enable us to continue to control the operations of our communications facilities, and provide us with the level of reliability needed for us to carry on with our system responsibility. Accordingly, we support and commend the Commission's proposal to encourage market based negotiations of this type as a means of reallocating spectrum in the 1850-1990

MHz band to emerging technologies.' We appreciate the special interest the Commission has shown towards the Public Safety community and their appointed charges.

Very truly yours,



Kenneth Regensburg, Inspector
Communications & Records Bureau

cc: Joseph Monteith, Chief Inspector
Vincent Sullivan, Chief of Headquarters
Vincent Stile, Police Comm. Systems Director

EXHIBIT B



LONG ISLAND LIGHTING COMPANY

EXECUTIVE OFFICES: 175 EAST OLD COUNTRY ROAD • HICKSVILLE, NEW YORK 11801

April 28, 1992

Mr. H. Franklin Wright
Frequency Liaison Branch
Office of engineering and Technology
Federal Communications Commission
Room 7322
2025 M. Street N.W.
Washington, DC 20554

Dear Mr. Wright:

Long Island Lighting Company supports the Federal Communications Commission's initiatives regarding the development of emerging communications technology including Personal Communications Services, (PCS). LILCO is presently in discussions with LOCATE and its subsidiary Personal Communications Network Services of New York (PCNS of NY) regarding the deployment of PCS throughout Long Island as both a user of PCS and as a partner in a potential joint venture.

LILCO is also a user of the 2 GHz private microwave band for internal communications. LILCO is not opposed to relocating its current 2 GHz facilities to a higher operating frequency through marketplace negotiations with LOCATE to provide LILCO with an alternate three location interconnection that fully satisfies the need and concerns of the company.

Sincerely,

A handwritten signature in dark ink, appearing to read "Arthur C. Marguardt", is written over the typed name.

Arthur C. Marguardt
Vice President

ACM:ib

EXHIBIT C



San Diego Gas & Electric

PO BOX 1831 - SAN DIEGO, CA 92112 - 619/596-2000

May 29, 1992

FILE NO

Mr. H. Franklin Wright
Frequency Liaison Branch
Office of Engineering and Technology
Federal Communications Commission
2025 M Street N.W., Room 7322
Washington D.C. 20554

Dear Mr. Wright,

San Diego Gas and Electric Company is the investor-owned utility serving San Diego County. As such, we employ 2 GHz. microwave equipment for voice and data communications throughout our service territory.

We support the Federal Communications Commission's initiatives regarding the development of emerging communications technologies including Personal Communications Services (PCS).

SDG&E is not opposed to relocating it's current 2 GHz. facilities to higher operating frequencies through marketplace negotiations with PCS licensees, providing these licensees and the Commission fully satisfy our needs and concerns.

These needs and concerns include, among others: fair and equitable compensation, frequency availability, and new system performance at least as good as existing systems in critical areas of quality, capacity, and reliability.

Sincerely,

Russell H. Collins, P.E.
Manager - Telecommunications Department
San Diego Gas and Electric Company
P.O. Box 1831
San Diego, California 92112

bcc: Stephen Curtin
Vice President, Marketing and Development
Personal Communications Services
Locate, Incorporated
17 Battery Place, Suite 1200
New York, New York 10004-1256

EXHIBIT D



THE CITY OF
SAN DIEGO

CITY ADMINISTRATION BUILDING • 303 C STREET • SAN DIEGO, CALIFORNIA 92101

OFFICE OF THE
CITY MANAGER
(619) 236-6363

May 26, 1992
FCC0118

Ms. Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: ET Docket No. 91-9

In the Matter of the Notice of Proposed
Rule Making Concerning the Redevelopment of
Spectrum to Encourage Innovation in the Use
of New Telecommunications Technologies

Dear Secretary Searcy:

The City of San Diego is licensed for and operates a 2 GHz Microwave System primarily for the Public Safety Radio Service with nine (9) paths located in the City of San Diego and vicinity.

We are grateful for the opportunity to submit the attached comments on the subject matter.

Coleman Conrad
Deputy City Manager

CC/DW/PS
Enclosure

cc: Steven Curtin, Vice President PCS, LOCATS
Gary Gray, Chairman CPRA Frequency Advisory Committee
Art McDole, Chairman APCO FCC Dockets Committee
Ronnie Rand, APCO President
Judith Bauer, Director Intergovernmental Relations
Terry Flynn, Director General Services
David Wood, Deputy Director CS/Communications and Electrical Div.
Paul Salter, Sr. Communications



DIVERSITY

Before the
Federal Communications Commission
Washington, D.C. 20534

In the Matter of)
)
Notice of Proposed Rule Making)
Concerning Redevelopment of Spectrum) ET Docket No. 92-9
to Encourage Innovation in the Use of)
New Telecommunications Technologies)

To: The Commission

COMMENTS ON THE ABOVE REFERENCED PROCEEDINGS

The City of San Diego wishes to submit the following limited comments on the above referenced proceedings:

The City of San Diego, California is a municipal corporation duly organized and existing under the constitution and laws of the State of California, having within its corporate boundaries 1,144,347 persons and having jurisdiction of approximately 398 square miles.

The City operates a nine (9) path, 2 GHz microwave radio system licensed under Part 94 of Article 47, Code of Federal Regulations (CFR). This microwave network is the primary system for connecting the multiple dispatch and remote base station sites for the City's Public Safety Radio Service, two-way mobile radio system.

The City was recently approached by an official of Local Area Telecommunications Inc. (LOCATE), a firm which has been granted an experimental license for use of the 2 GHz spectrum in the San Diego, California area. They are a potential licensee of Personal Communications Services (PCS) nation wide. They proposed to start negotiations with the City to move our microwave facilities from 1850-1990 MHz and 2110-2150 MHz bands, to higher frequencies

Specifically, LOCATE said they would take full responsibility for the engineering, equipment procurement, path clearance, licensing, installation, testing and cut over at no cost to the City. Alternately, they indicated a willingness to work with the City in these matters in any way satisfactory to the City.

Based upon successful negotiation of a detailed contract with a potential licensee of Personal Communications Services (PCS) and their being granted a license to develop a PCS system in this spectrum, the City would be willing to relocate our microwave facilities to higher frequencies. Accordingly, we support and commend the Commission's proposal to encourage market based negotiations of this type as a means of reallocating spectrum in the 1850-1990 MHz and 2110-2150 MHz bands to emerging technologies.

The City is an active member of the Associated Public Safety Communications Officers (APCO) and have recently supported their opposition to proposals to reallocate this spectrum to other services for emerging technologies. However, the City can accept reallocation to other frequencies providing there is offsetting compensation; and we appreciate the special interest the Commission has shown towards the Public Safety community.

EXHIBIT E

THE PORT AUTHORITY OF NY & NJ

One World Trade Center
New York, N.Y. 10048

(212) 426-7000
(201) 632-2800

November 14, 1991

R.C. Roos
Chief Executive Officer
Personal Communications Network
Services of New York
Subsidiary of LOCATE, Inc.
17 Battery Place - Suite 1200
New York, N.Y. 10004-1256

Dear Craig:

Based on our meeting on September 27, 1991 and a subsequent meeting with several of your staff on October 21st, the Port Authority of New York and New Jersey is interested in continuing discussions with LOCATE on the potential of providing new public services through a Personal Communications Network (PCN) within and between Port Authority facilities. It is our understanding that the backbone for such a proposed service offering could entail migrating Port Authority circuits from our existing 2 GHz system to the LOCATE common carrier microwave network. LOCATE has stated that it would absorb the costs involved with this migration, and such facilities would be of equal or superior quality to our existing system. LOCATE has also indicated that it could provide the Port Authority with increased communications capacity, route diversity, and multiple access to other carriers as part of its planned proposal.

Please let me know when we can set up another meeting.

Sincerely,



Timothy J. Mockler
Network Support Manager
Telecommunications Services

/lm

Writer's direct dial telephone _____

EXHIBIT F



Leming Telecommunications Consultants

June 7, 1992

Mr. Craig Roos, CEO
Personal Communications Network Services
of New York A LOCATE Company
17 Battery Place
New York, N. Y. 10004-1256

RE: Design, Engineering and Construction of
Replacement Networks for 2 GHz Licensees to
Provide Equivalent Reliability

Dear Mr. Roos,

In response to your request, I am pleased to provide you with the following opinion on the reliability of microwave facilities in the 4 and 6 GHz bands. Over the past 40 years I have been responsible for the engineering and design of over 8000 microwave facilities throughout the United States and worldwide. During the formative years of MCI, I planned, developed and constructed MCI's nationwide interexchange network that relied extensively on the use of microwave in the 4 and 6 GHz bands as well as frequency bands above 10 GHz. I have also provided engineering services to utilities and other private network operators in their development of microwave systems, including 2 GHz systems. Furthermore, I have extensive experience in international systems including foreign PT&T's. (A copy of my resume is attached.)

Earlier this year, the FCC issued a Notice of Proposed Rulemaking to establish an emerging technologies band. The FCC has proposed that existing 2 GHz microwave facilities operating in those bands be relocated to the 4 or 6 GHz bands and to higher frequencies if the path lengths are appropriate. In response to the FCC's proposal, a number of existing users have claimed that the 4 and 6 GHz bands will not provide reliability equivalent to the reliability available from the 2 GHz band.

Based on my personal experience in the design and construction of more than 8000 paths operating in the 4 and 6 GHz bands, it is my opinion that microwave facilities operating in these bands can be engineered to provide reliability equivalent to that provided in the 2 GHz band. The reliability in the 4 and 6 GHz band has been proven through extensive use by common carriers. One of the largest users of these bands is AT&T. MCI also has extensive microwave facilities operating in these bands. MCI has placed many digital 4 GHz paths into service using high modulation efficiency (64 QAM) equipments. MCI also has extensive microwave facilities operating at 6 GHz. I have been responsible for the design and construction of the paths for MCI in the 4 and 6 GHz bands that do provide reliability greater than 99.99%.

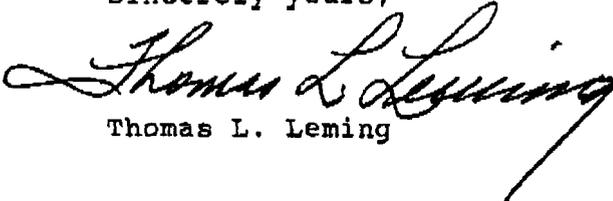
The 4 and 6 GHz bands are particularly well suited for the point-to-point microwave operations of the utilities, railroads and public safety organizations. Microwave facilities operating on these frequencies are more efficient because of their ability to focus the beam and/or use smaller antennas. Of course, in engineering microwave systems, allowances must be made for the unique characteristics of the frequency bands. Equipment is available and networks can be designed to incorporate these characteristics and provide a network capable of operating at least 99.99% reliability.

For example, in areas of high humidity with temperature inversions, the installation of diversity antennas supported by stronger and taller towers will permit users to minimize the behavior commonly referred to as fading. Certain types of fading are sometimes erroneously called "ducting". The implication is that ducting occurs when the transmitted signal is trapped between layers in the atmosphere and misses the receiving antenna. Studies have shown that this is not the mechanism but that the effective earth radius is changed by a variation in a parameter known as N_S . (N_S is dependent on the atmospheric temperature, pressure and humidity.) Excursions of this parameter are such that the radio wave is bent (refracted) and the distant antenna misses the main lobe of the antenna beam or, in some cases no signal at all is received. These variations are contingent on

the atmospheric conditions and may vary quite rapidly or hardly at all. Fading is not unique to frequencies above 3 GHz. Indeed, 2 GHz signals suffer the same malady. However, in the 2 GHz band, the larger beamwidth masks the phenomenon creating an impression that fading is much less or non-existent. In all the bands, 2, 4, or 6 GHz, space diversity will ameliorate this problem so that no significant impairment is ordinarily experienced.

The central tenet of engineering any microwave network is to engineer solutions that will cope with the problem in a satisfactory manner. With proper engineering, the quality and reliability of transmission on either 4 or 6 GHz paths will be virtually the same as transmission on 2 GHz paths.

Sincerely yours,

A handwritten signature in cursive script that reads "Thomas L. Leming". The signature is written in black ink and is positioned above the printed name.

Thomas L. Leming

T. L. LEMING
410 St. Andrews Drive
Napa, California 94558
707 257-0434/707 257-0905

PERSONAL DATA:

Born: June 9, 1924, Sparta, Illinois Married 4 grown children

EDUCATION:

BS:	University of Illinois, Urbana, Ill.	1950
Graduate Courses:	Roosevelt University, Chicago, Ill.	1950-53
	University of San Francisco, San Francisco, California	1953-54
	University of California, Berkeley, California	1953-54
	Southern Methodist University, Dallas, Texas	1955-60
	MIT, Cambridge, Massachusetts	1956
	UCLA, Los Angeles, California	1965

MILITARY SERVICE:

Navy: Radar Technician I/C, 1943-46

EXPERIENCE:

6/86 to Present: Leming Telecommunications Consultants
410 St. Andrews Drive
Napa, California 94558 (707) 257-0434

Position: President

Duties: Consulting with major telecommunications manufacturing and service companies. Provided assistance to AT&E (a San Francisco Company) as Senior Vice-President in developing a wrist watch paging system. Provided guidance in further development programs for PCN systems. Provided expert witness testimony in several litigation matters re telecommunications systems. Assisting several investment consortia concerning international projects in Eastern Europe and Asia. These projects are pre-dominately fiber optic projects for public and private networks.

T. L. LEMING

4/71-6/86

**MCI Telecommunications Corporation
1133 19th Street, N. W.
Washington, D. C. 20036 (202) 886-1600**

Position:

Senior Vice President

Duties:

Planning, development and construction of MCI Microwave, Satellite, Fiber Optic, Multiplex and Switching systems to compete with AT&T and other common carriers for common carrier services. Responsibilities included management of longhaul portion of network and basic system integration into Telco network; recruitment and development of engineering staff; major contracting and sub-contracting efforts and general program development, including legal support, expert witness testimony and partial responsibility in Telco relationship and FCC liaison. Responsible for approximately \$1 billion annual capital budget. One of key officers in company startup. Major player in initial financing and FCC activities.

4/70-4/71

**Continental Telephone Company
222 South Central Street
St. Louis, Missouri 63105**

Position:

Vice-President and General Manager of subsidiary corporation: Continental Telecommunications Corp.

Duties:

Organized and supervised Continental's proposed entry into the private line communications systems business. Not pursued due to untimely death of CEO.

10/67-4/70

**Hughes Aircraft Company
Culver City, California**

Position:

Communications Program Manager

Duties:

Developed commercial communications systems business to support Hughes Aircraft's Satellite and CATV (Teleprompter) interests.

10/54-7/67

**Collins Radio Company
1200 Alma Road
Richardson, Texas 75080**

Position:

Director of Telecommunications Engineering

Duties:

Directed product development and determination of future market requirements. A \$50 million per year business in 1967.

T: L. LEMING

5/54-1054 **Ampex Electric Company**
Redwood City, California

Position: **Engineer**

Duties: **Development of multiplex techniques for**
tape recorders and systems integration.

3/53-5/54 **Lenkurt Electric Company**
San Carlos, California

Position: **Project Engineer**

Duties: **Development engineering for various types**
of multiplex systems.

1/50-3/53 **Motorola Inc.**
Chicago, Illinois

Position: **Engineer**

Duties: **Development of both microwave and multiplex**
systems hardware.

6/46-1/50 **Western Electric, Inc.**
Chicago, Illinois

Position: **Installer**

Duties: **Installation and test of central office**
equipment, C, H, J, K, L carrier, central
office main power plants.

5/43-5/46 **U. S. Navy**

Position: **RT 1/C**

Duties: **Taught radar on Treasure Island for approxi-**
mately 1½ years, and spent one year at sea.

T. L. LEMING

THOMAS L. LEMING, born, June 9, 1924, Illinois

Military service, U. S. Navy, 1943-46. Taught radar at Treasure Island, California during World War II. In 1957 became Director of Telecommunications Engineering for the Collins Radio Company, Dallas, Texas, managing R&D and systems engineering and construction of microwave, multiplex and other telecommunications products, including some military and avionics programs. Subsequently joined Hughes Aircraft on staff of the General Manager to develop satellite communication systems as well as specialized microwave and classified military programs.

1971 through 1986 was a Senior Vice President of Engineering at MCI Telecommunications. Responsible for the engineering and construction of the network. The total expenditures over the period exceeded \$6 billion with budgets running in excess of \$1 billion per year during the last four years. Was also responsible for budgeting of all major capital asset expenditures as well as additional activities relating to technical customer liaison and support for various financing activities.

From 1986 has been a Telecommunications Consultant and former Senior Vice-President of AT&E Corporation regarding the development of the wrist watch paging system and PCN systems. Major clients have included Rockwell International, MCI, General Signal, Fujitsu Corp., Andrew Corp., QWEST, Communications Transmission, Inc., and others.

CERTIFICATE OF SERVICE

I, Margaret M. Charles, hereby certify that on this 8th day of June, 1992, a copy of the attached comments was hand-delivered to the following:

Alfred C. Sikes, Chairman
Federal Communications Commission
1919 M Street, N.W. - Room 814
Washington, D.C. 20554

James H. Quello, Commissioner
Federal Communications Commission
1919 M Street, N.W. - Room 802
Washington, D.C. 20554

Sherrie P. Marshall, Commissioner
Federal Communications Commission
1919 M Street, N.W. - Room 826
Washington, D.C. 20554

Andrew C. Barrett, Commissioner
Federal Communications Commission
1919 M Street, N.W. - Room 844
Washington, D.C. 20554

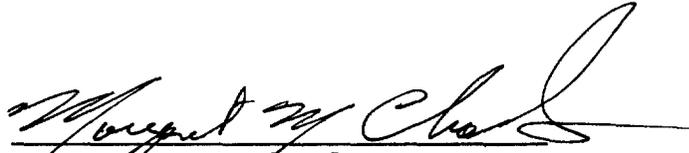
Ervin S. Duggan, Commissioner
Federal Communications Commission
1919 M Street, N.W. - Room 832
Washington, D.C. 20554

Dr. Thomas P. Stanley
Federal Communications Commission
2020 M Street, N.W. - Room 7002
Washington, D.C. 20554

David Sidall
Federal Communications Commission
2025 M Street, N.W. - Room 7102
Washington, D.C. 20554

Robert M. Pepper
Federal Communications Commissions
1919 M Street, N.W. - Room 822
Washington, D.C. 20554

Downtown Copy Center
1919 M Street, N.W. - Room 246
Washington, D.C. 20036


Margaret Charles

June 8, 1992