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October 13, 1998

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, NW - Room 222
Washington, DC 20554

RE: Reply Comments of the Commonwealth of Pennsylvania in ET Docket No. 98-142

Dear Madam Secretary:

On behalf of the Commonwealth of Pennsylvania (hereinafter the "Commonwealth"), and pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, enclosed herewith for filing are an original and four (4) copies of the Commonwealth's Reply in response to comments submitted in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.

Kindly stamp and return to this office the enclosed copy of this filing designated for that purpose. You may direct any questions concerning this material to the undersigned, counsel to the Commonwealth of Pennsylvania

Respectfully submitted,

Lisa M. Higginbotham

Lisa M. Higginbotham

Enclosures

No. of Copies rec'd 0+4
List ABCDE

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Parts 2, 25 and 97 of the Commission's Rules with Regard to the Mobile-Satellite Service Above 1 GHz	)	ET Docket No. 98-142

To: The Commission

REPLY COMMENTS OF THE COMMONWEALTH OF PENNSYLVANIA

The Commonwealth of Pennsylvania (hereinafter, the "Commonwealth"), by its undersigned counsel, and pursuant to Section 1 415 of the Commission's Rules and Regulations,[1] hereby files its Reply to the comments submitted in response to the Commission's Notice of Proposed Rule Making in the above-captioned proceeding.[2] In the Notice, the Commission proposed, among other things, to allocate the upper 6 GHz band (6700-7075 MHz) on a co-primary basis for space-to-Earth ("downlink") transmissions to be used with Mobile Satellite Service (MSS) feeder links. For the reasons discussed below, the Commonwealth urges the Commission not to adopt its proposed rules unless and until it has satisfied itself beyond question that no

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[1] 47 C.F.R. § 1.415.

[2] Amendment of Parts 2, 25 and 97 of the Commission's Rules with Regard to the Mobile-Satellite Service Above 1 GHz, ET Docket No. 98-142, Notice of Proposed Rule Making, FCC 98-177, released August 4, 1998 ("Notice"). The Commission extended the deadline for reply comments to October 13, 1998. Amendment of Parts 2, 25 and 97 of the Commission's Rules with Regard to the Mobile-Satellite Service Above 1 GHz, ET Docket No. 98-142, Order Granting Motion to Extend Reply Comment Date, DA 98-2011, released October 5, 1998

operational constraints or interference will be inflicted upon fixed microwave service users in the upper 6 GHz band. In this respect, the Commonwealth agrees with the comments of the Fixed Point-to-Point Communications Section, Network Equipment Division, Telecommunications Industry Association regarding the need for a technical showing that the proposed sharing is feasible and will not impact adversely upon the continued use of fixed service operations on this band.[3]

I. INTRODUCTION

The Commission recently issued to the Commonwealth licenses for conventional and trunked 800 MHz channels upon recommendation of the Planning Committees of Regions 28 and 36, in accordance with the Commission's rules governing the implementation of the Public Safety National Plan The Commonwealth is using these channels to construct a state-wide public safety mobile radio communications system for use by public safety agencies throughout the state. This system will facilitate interoperability between various state and local public safety eligibles, local and local public safety eligibles, and possibly, public safety and power radio eligibles throughout the state.[4] In order for this mobile radio system to operate reliably, the Commonwealth's system, like most wide-area public safety mobile radio systems, must utilize fixed microwave service frequencies, including some within the 6 GHz band.

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[3] TIA Comments, at 1-2.

[4] On August 17, 1998, the Commonwealth and Metropolitan Edison Company, Pennsylvania Electric Company, and Jersey Central Power & Light Company, trading as GPU Energy, filed a joint request for waiver of 47 C.F.R. § 90.179 to allow public safety and power radio eligibles to share a joint communications system.

The Commonwealth is concerned that the Commission's proposal, if adopted, will not adequately protect fixed microwave service links in the upper 6 GHz band and, indeed, will impose significant constraints on such usage in that band. As a result, this proposed allocation could seriously hamper the operation of public safety mobile communications systems which rely on microwave frequencies in this band. This, in turn, could seriously jeopardize the ability of public safety agencies to effectively coordinate responses to emergencies and, indeed, could lead to loss of life, health or property. Accordingly, the Commonwealth urges the Commission to take steps to protect the continued use of this and other spectrum for fixed microwave use, particularly for public safety eligibles. Put another way, the Commission must not adopt its proposal unless it can ensure that no operational constraints or interference will be inflicted upon public safety communications systems that rely (or will rely) on fixed microwave service frequencies in the 6 GHz band

II. THE COMMISSION MUST ENSURE THE PROTECTION AND CONTINUED AVAILABILITY OF FIXED MICROWAVE SERVICE FREQUENCIES FOR PUBLIC SAFETY USES.

The Commonwealth is currently constructing a new 800 MHz mobile radio communications system that will serve as an integrated public safety dispatch communications network for use by all Commonwealth agencies throughout the state. This new high capacity radio communications system will be capable of providing mobile radio coverage throughout 95% of the state, eventually serving 50,000 mobile and portable units, including over 20,000 currently in use by the Commonwealth's agencies.

This facility will enable communications between state agencies and, therefore, will facilitate improved coordination of inter-agency activities in both emergency and day-to-day operations. In addition, the system will allow interoperability communications between state and local agencies, and between local governments which elect to use the system. Moreover, the system will permit communications between public safety agencies and public utilities that elect to use the system,[5] thereby facilitating improved coordination between public safety eligibles and electric utility companies in cases of natural disaster emergencies, such as severe weather storms which result in severe power outages and fallen, but charged power lines. Finally, the 800 MHz state-of-the-art system will be accessible to public safety eligibles located in remote areas that do not have access to a modern public safety communications system.

In addition to the public safety land mobile frequencies which the Commonwealth has been authorized to operate, this state-wide system will also utilize Fixed Service (FS) microwave frequencies in the 6 GHz band to interconnect the base stations of the state-wide mobile radio network. As schematically demonstrated in Exhibits 1 and 2, these FS links will play an integral role in the operation of the state-wide mobile radio system by carrying communications traffic between hundreds of base station tower sites located throughout the state. This interconnection function will facilitate communications among public safety personnel in various parts of the state which will, in turn, enable more rapid responses to emergencies affecting wide areas,

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[5] See note 4, infra.

particularly where such responses must be coordinated among different governmental agencies or different levels of government agencies.

For example, mobile radio communications between a local police officer and public safety personnel in another part of the state will be carried over the system's FS microwave system. These communications will not reach their destination without support from a reliable fixed microwave system. In other words, the operation of **all** components of the system must not be jeopardized by interference from other spectrum users, including co-frequency MSS feeder links. In this regard, the upper 6 GHz band is a critical spectrum resource, especially in recent years because reliance on spectrum in the lower FS bands (e.g., 2 GHz band) is not possible because those bands have become unavailable[6] due to the Commission's decision to reallocate them for use by new technologies.[7]

The Commission previously has recognized the special communications needs of public safety agencies. As the Commission observed in 1995, "[w]ireless communications provides a vital component in the nation's public safety and emergency medical infrastructure. Agencies involved in the protection of life and property are able to do their jobs effectively and efficiently only by making extensive

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[6] See Final Report of the Public Safety Wireless Advisory Committee, 1, 59 (September 11, 1996) ("PSWAC Final Report").

[7] See Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, ET Docket Nos. 92-9 and 95-18, First Report and Order and Third Notice of Proposed Rule Making, 7 FCC Rcd 6886, 6890 (1992), Second Report and Order, 8 FCC Rcd 6495 (1993), Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd 6589 (1993).

use of a wide array of wireless communications options."[8] In its recent decision reallocating 24 MHz of spectrum from broadcast television to public safety uses, the Commission stated that its action would "help meet the need of public safety to ensure interoperable communications among various public safety organizations, provide for growth of existing systems, and accommodate new types of services that will strengthen and enhance public safety."[9] In its recent decision adopting service rules for this spectrum, the Commission stated that it had taken "an important step in advancing the goal of creating a national public safety wireless network," but that "[a]chieving a flexible, efficient and effective framework to fully meet the communications needs of the public safety community on an ongoing basis, . . . will require, the long-term coordinated efforts of public safety radio users and spectrum administrators at the Federal, state and local levels of government."[10]

Fixed microwave frequencies play an integral part in the operation of public safety communications systems. Indeed, in its Final Report, PSWAC noted a need for additional point-to-point frequencies to support public safety mobile radio links.[11] In

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[8] Report and Plan for Meeting State and Local Government Public Safety Agency Spectrum Needs Through the Year 1020, Report and Plan, 10 FCC Rcd 5207, 5217 (1995)("Report and Plan").

[9] Reallocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket No. 97-157, Report and Order, 12 FCC Rcd 22953 (1998).

[10] The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, WT Docket No. 96-86, First Report and Order and Third Notice of Proposed Rule Making, FCC 98-191 ¶ 12, released September 29, 1998.

[11] PSWAC Final Report, at p. 56

doing so, the PSWAC Final Report stated that fixed microwave systems are "vital to the operation of area-wide systems."[12] The Commission has also noted the reliance on fixed microwave frequencies by public safety communications systems.[13]

Most of the Commission's efforts to address public safety communications needs have been focused on the provision of additional land mobile spectrum. However, as the PSWAC Final Report suggests, such efforts must also focus on fixed microwave spectrum for public safety uses. As with any radio communications system, the reliability of the Commonwealth's (and other public safety agencies') communications system will only be as good as its weakest link. If after having specifically recognized and addressed the land mobile spectrum needs of public safety communications systems, the Commission were to allow interference to such systems by MSS feeder links, the Commission would seriously undermine its laudable efforts to create a "nationwide public safety network" and to achieve a "flexible, efficient, and effective framework to fully meet the communications needs of the public safety community."[14]

It is for these reasons that the Commonwealth is vitally concerned about the implication of the proposal for MSS feeder links to share in the upper 6 GHz band. Furthermore, as more and more FS operations are moved out of the 2 GHz band, there will be an ever-growing need to utilize the higher fixed microwave service bands specified in Part 101 of the Commission's rules, including the upper 6 GHz band.

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[12] Id, at p. 59.

[13] See Report and Plan, 10 FCC Rcd at 5225

[14] First Report and Order, at ¶ 12.

Accordingly, the Commission must protect and preserve existing and future use of the upper 6 GHz band by fixed users, particularly the public safety community.

III. CONCLUSION

This proposed allocation, if adopted, could have significant adverse effects for fixed microwave users in the upper 6 GHz band, particularly public safety users, which could jeopardize the reliable operations of critical public safety mobile radio systems. For this reason, the Commonwealth strongly urges the Commission not to adopt its proposal for shared use of the upper 6 GHz band by MSS feeder links unless and until it is certain that such sharing will not impede fixed microwave service operations in the band.

Respectfully submitted,

COMMONWEALTH OF PENNSYLVANIA

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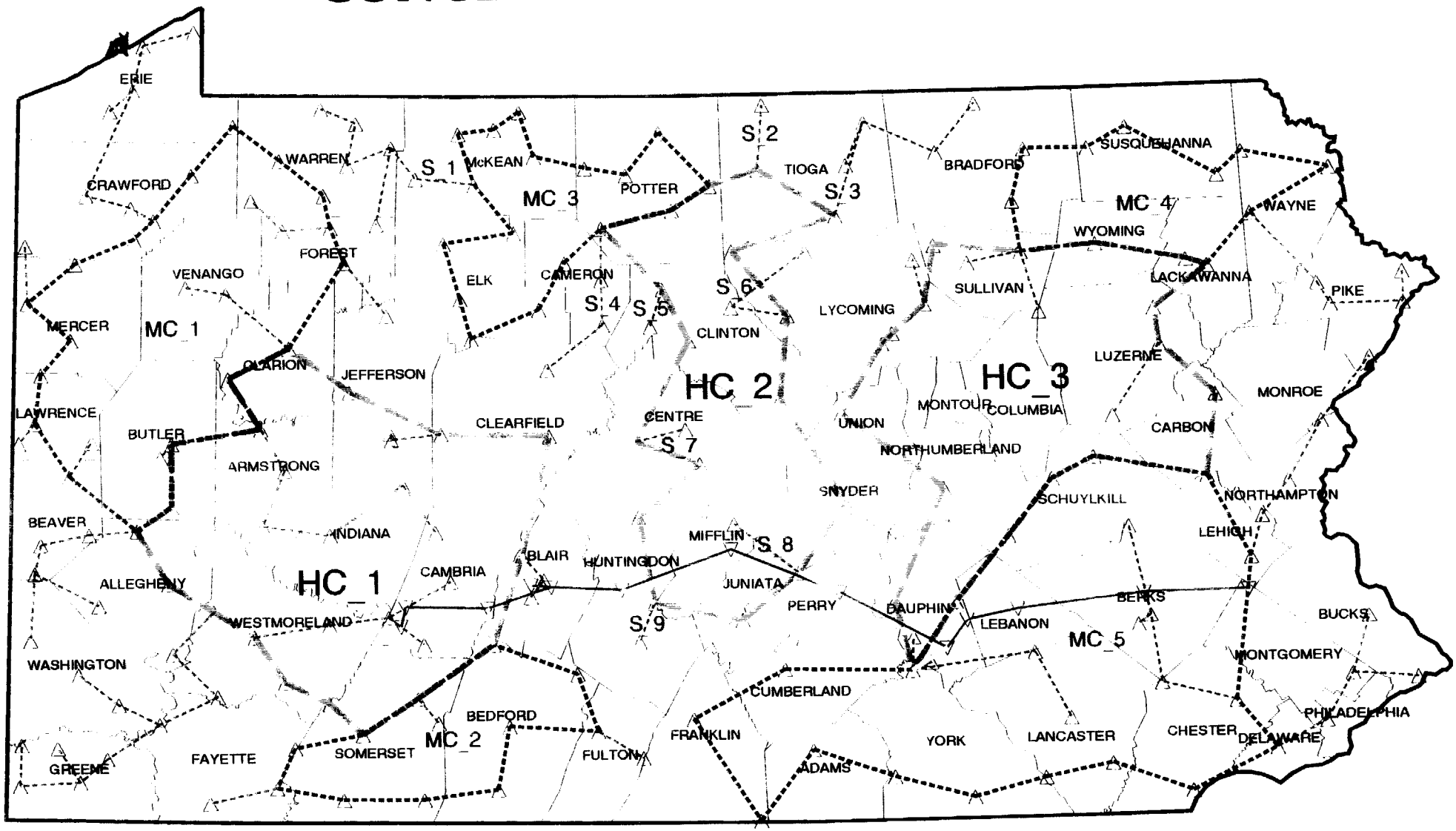
October 13, 1998

COMMONWEALTH OF PENNSYLVANIA
CONCEPTUAL MICROWAVE SYSTEM



LEGEND

TOWER SITES	HIGH CAPACITY RINGS	FIBER INTERCONNECTS
FIBER REPEATER SITES	LINEAR SPURS & HUBS	COUNTY BOUNDARIES
MEDIUM CAPACITY RINGS	LINEAR FIBER HUBS	STATE BOUNDARY

RCC Consultants, Inc.
100 Woodbridge Center Drive, Suite 701
Woodbridge, New Jersey 07095-1126

EXHIBIT 1

CONCEPTUAL MICROWAVE SYSTEM

RINGS, HUBS, SPURS & INTERCONNECTS

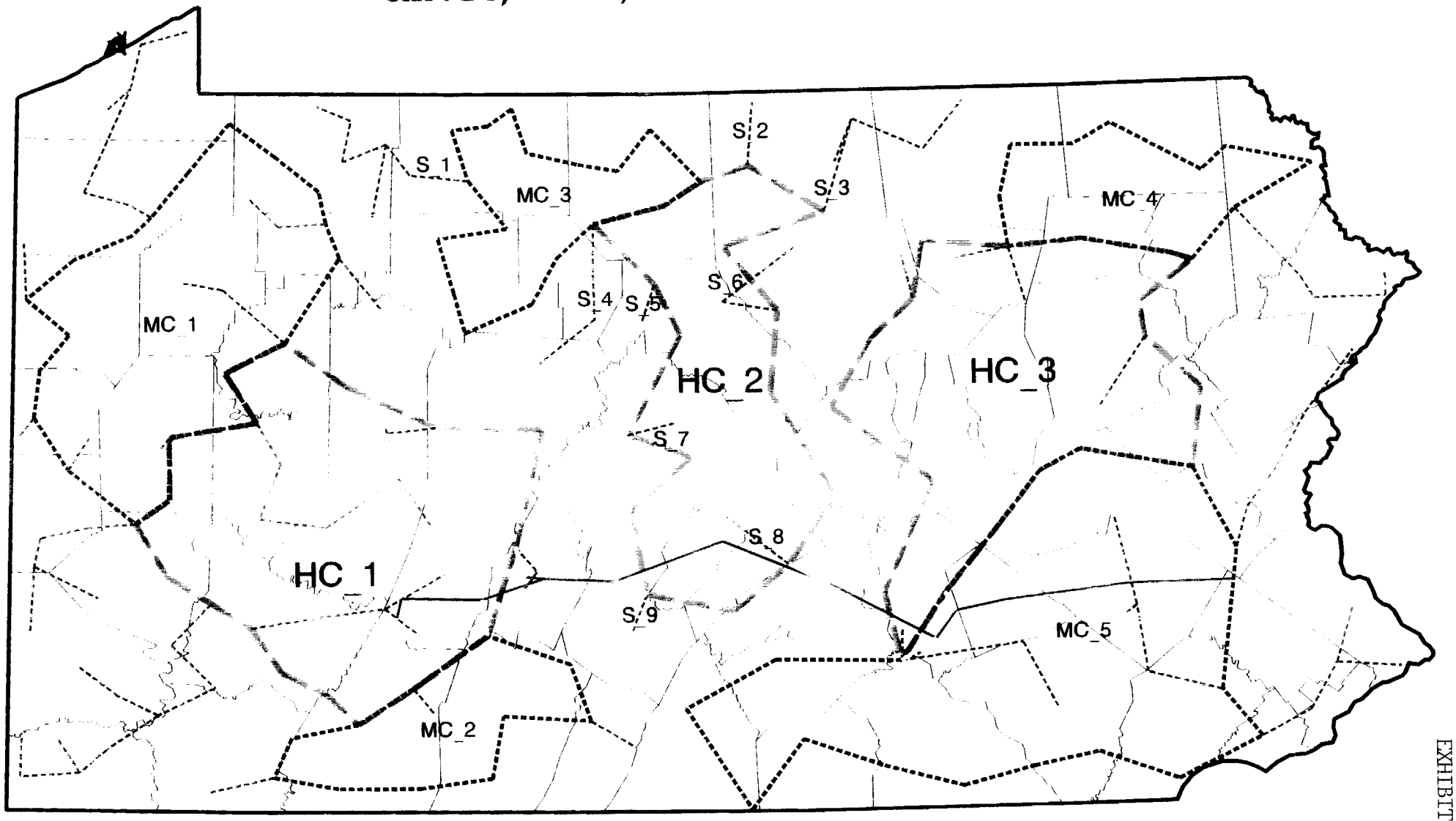


EXHIBIT 2

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on this 13th day of October, 1998, I caused copies of the foregoing document to be served by first-class U.S. mail to the following:

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