



July 14, 1999

DELIVERY VIA COURIER TO MELLON BANK

James R. Burtle, Acting Chief
Federal Communications Commission
Office of Engineering and Technology
Experimental Licensing Branch
445 12th St. S.W.
Washington DC 20554

**Re: XM Satellite Radio Inc.
Form 442
Request for Experimental Authorization to Test S-band
Digital Audio Radio Service Terrestrial Repeater Network**

Dear Mr. Burtle:

XM Satellite Radio Inc. ("XM Radio"), one of the two Digital Audio Radio Service ("DARS") licensees in the United States, hereby files this Form 442 for a national experimental authorization pursuant to Part 5 of the Commission's rules to conduct tests of a multi-transmitter terrestrial repeater network in its licensed frequency band (2332.5-2345 MHz). The transmitters to be used in this experiment will be portable and cannot be made part of or converted into a permanent terrestrial repeater network. XM Radio requests authority to initiate this testing by August 1, 1999. The required filing fee of \$45.00 and FCC Form 159 are enclosed with this request.

XM Radio's proposed testing of this multi-transmitter network is a critical part of the technical planning required for a successful launch of its DARS service. Consistent with the Commission's March 1997 Further Notice of Proposed Rulemaking, XM Radio expects to deploy "gap-filler" terrestrial repeaters as part of its DARS network in most major cities. *See* Report and Order, Memorandum Opinion and Order, and Further Notice of Proposed Rulemaking, Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, 12 FCC Rcd 5754 (1997). The proposed testing is needed to validate the RF planning methodology of its terrestrial repeater facilities, thereby facilitating the efficient design and deployment of its prospective DARS repeater networks. This experimental authorization will in no way prejudice the Commission's pending rulemaking addressing terrestrial repeaters.

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In April 1999, the Commission granted XM an experimental STA to conduct tests at three fixed sites in the Washington, D.C. area and to perform additional testing with up to thirty portable terrestrial repeater transmitters throughout the Washington, D.C. metropolitan area. *See* FCC File No. 0110-EX-ST-1999.

XM Radio is authorized to operate its DARS system in the U.S. in the 2332.3-2345 MHz frequency band on an exclusive basis, and it believes that it can conduct the proposed testing without causing interference to any existing radio operators. During the testing conducted in 1998 by Stanford Telecom and by XM pursuant to its STA, no interference problems were detected. Moreover, XM Radio will work with any existing radio operators to assure protection of those systems. As indicated above, XM Radio hopes to initiate testing on August 1, 1999.

Please direct any questions regarding this matter to the undersigned.

Very truly yours,



Lon C. Levin

Enclosure

cc: Carl Huie, FCC (w/enclosure)