



DC

July 25, 2000

**DELIVER VIA COURIER TO MELLON BANK**

James R. Burtle, Chief  
Federal Communications Commission  
Office of Engineering and Technology  
The Portals  
445 Twelfth Street, SW  
Washington, D.C. 20554

Re: Request of XM Radio Inc. for Special Temporary Authority in the  
Experimental Radio Service to Conduct Test Operations of S-band  
Digital Audio Radio Service Terrestrial Repeaters in the  
Washington, DC Area

Dear Mr. Burtle:

XM Radio Inc. ("XM Radio"), one of the two Digital Audio Radio Service ("DARS") licensees in the U.S., hereby requests six-month Special Temporary Authority ("STA") under Section 5.61 of the Commission's rules to conduct tests of terrestrial repeater transmitters at nine fixed locations around the Washington, DC area in its licensed frequency band (2332.5-2345 MHz). XM Radio requests authority to initiate this testing by August 25, 2000.

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). XM Radio is currently conducting tests of terrestrial repeater transmitter facilities in metropolitan areas throughout the United States pursuant to the national experimental authorization granted by the Experimental Licensing Branch on August 17, 1999. See FCC File No. 0199-EX-PL-1999 (Call Sign WB2XCA). These ongoing tests are a critical part of the technical planning required for a successful launch of XM Radio's DARS service.

XM Radio now proposes to conduct new tests of terrestrial facilities in the Washington, DC metropolitan area. XM Radio will operate repeaters at nine fixed locations in order to simulate the operation of its planned repeaters in its final DARS network. These experimental operations will help to facilitate the efficient design and deployment of XM Radio's prospective DARS repeater network. The technical parameters of the transmitters proposed herein deviate

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sufficiently from the repeater operations authorized under XM Radio's current national experimental license to require a new experimental STA for these Washington, DC operations. This STA will in no way prejudice the Commission's pending rulemaking addressing terrestrial repeaters.

The attached exhibits, listed below, provide the operational and technical details of XM Radio's proposed experimental operations at the nine fixed locations around Washington, DC:

- Exhibit A: Experiment Objectives and Operations
- Exhibit B: Transmitter Locations and Transmitter Technical Parameters
- Exhibit C: Radio-frequency Exposure Compliance
- Exhibit D: Emission Isolation to Existing Systems

In particular, Exhibit B provides detailed information concerning the technical parameters of the proposed transmitters. This information includes frequency, EIRP, and modulation of the proposed signals.

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. XM Radio has detected no interference problems during the tests conducted pursuant to its national experimental authorization. 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 by August 25, 2000. If testing beyond the six-month term of the proposed STA is necessary, XM Radio will file an STA extension request and an application for a two-year experimental license by the applicable deadlines. *See* 47 C.F.R. 5.61(b).

The required filing fee of \$45.00 and FCC Form 159 are enclosed with this request. XM Radio hereby certifies that no party to this application is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 853(a).

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Please direct any questions regarding this matter to the undersigned.

Very truly yours,

A handwritten signature in black ink, appearing to read "Lon C. Levin", with a stylized flourish at the end.

Lon C. Levin  
Senior Vice President, Regulatory