



University of Colorado at Boulder

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November 12, 1992

Federal Communications Commission  
1919 M Street, N.W.  
Washington, DC 20554

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OFFICE OF THE SECRETARY  
DOMESTIC FACILITIES DIVISION  
COMMUNICATIONS AND INFRASTRUCTURE

Attention: Office of the Secretary

Dear Secretary:

Enclosed please find an original and nine (9) copies of the comments of the University of Colorado at Boulder Interdisciplinary Telecommunications Program in support of the Application of Satellite CD Radio (File No. 44/45-DSS-AMEND-92).

Respectfully submitted,

Joseph N. Pelton, Director  
University of Colorado at Boulder  
Interdisciplinary Telecommunications Program

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of  
the Application of

SATELLITE CD RADIO, INC.

For Authority of Construct, Launch  
and Operate Space Stations for  
Digital Audio Radio Services

File Nos. 49/50-DSS-P/LA-90,  
58/59-DSS-AMEND-90,  
44/45-DSS-AMEND-92

COMMENTS OF THE UNIVERSITY OF COLORADO GRADUATE  
TELECOMMUNICATIONS PROGRAM  
IN SUPPORT OF THE APPLICATION OF  
SATELLITE CD RADIO, INC.

The University of Colorado Graduate Telecommunications Program is involved in many aspects of aerospace and telecommunications related endeavors. These aspects include satellite system research, determinations of the feasibility of new technologies, and analyses of the impacts of those new technologies on society. We have in the past commented on various aspects of satellite communications filings including comments concerning the Satellite CD Radio System. Accordingly, the Graduate Telecommunications Program considers itself qualified to comment on the Application of Satellite CD Radio.

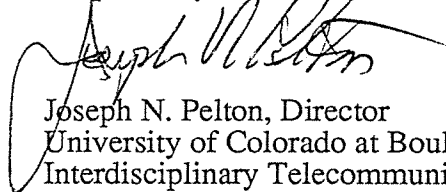
Satellite CD Radio would initially provide up to 30 channels of narrowcast programming via satellite to automobiles and fixed locations. Known as Digital Audio Radio Services (DARS). CD Radio proposes to use two Hughes 376W class satellites within the proposed S-Band frequency allocation and with CONUS coverage to deliver this services. A frequency sharing scheme would permit efficient use of the available frequency and allow multiple entry. MUSICAM, Dolby AC-2, and number of other algorithms will allow digital program encoding on a flexible basis.

The complete system as proposed by CD Radio can be implemented using proven technologies and a minimum of technical risk.. The two-satellite configuration for reducing multipath and blockage through frequency and spatial diversity is a particularly noteworthy aspect of the Satellite CD Radio filing..

The Satellite CD Radio System, and other potential satellite-DARS systems, can serve all areas of the continental United States equally and to reach people and areas which are currently underserved. This may be most important for tele-educational applications which our program is researching under NASA, NSF and Northern Telecom Funding.

It is important for the United States to move forward with the implementation of new technologies and services for the benefit of educators, providers of remote health services as well as the general public. The FCC should also provide leadership in the advancement of U.S. technology in these areas rather than limiting new market expansion. The U.S. should thus move forward through a favorable review of the Application of Satellite CD Radio and other similar such systems.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Joseph N. Pelton", is written over the typed name and title.

Joseph N. Pelton, Director  
University of Colorado at Boulder  
Interdisciplinary Telecommunications Program,