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

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| In the Matter of: | ) | |
| | ) | |
| Digital Audio Broadcasting Systems | ) | MM Docket No. 99-325 |
| and Their Impact on the Terrestrial | ) | |
| Radio Broadcast Service | ) | |

To: The Commission

# COMMENTS OF THE RECORDING INDUSTRY ASSOCIATION OF AMERICA, INC.


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## SUMMARY OF ARGUMENT

The Recording Industry Association of America, Inc. ("RIAA") hereby submits its Comments in response to the Further Notice of Proposed Rulemaking and Notice of Inquiry in the above-captioned proceeding. As the trade association representing the U.S. recording industry, RIAA is vitally concerned with the issue the Commission has presented in the *Notice of Inquiry* as the need to adopt content protection rules as part of the regulatory regime for digital audio broadcasting ("DAB"). Content protection rules are vital to the health of America's music industry, to assure that the American public continues to have access to diverse forms of music and new talent, and potentially to assure the future of free over-the-air broadcasting. Without them, the Commission will effectively be sanctioning the unauthorized copying and redistribution of copyrighted recordings, contrary to express congressional policies.

1. Digital technology has transformed the entertainment and electronic marketplace, offering consumers a host of new options and services. However, as the Commission has recognized, use of digital technology has also permitted widespread piracy of copyrighted works. Internet-based digital piracy has already caused substantial harm to all parts of the music industry – the performing artists, composers, musicians, music publishers, retail outlets, recording companies and others who contribute to the development of music. The loss of revenue occasioned by that piracy has reduced the ability of recording companies to seek out and develop new talent, forced a reduction in the number of artists on the rosters of the record

companies, caused thousands of retail record stores to close, resulted in the layoff of thousands of employees within the music industry, and threatened the economic basis of the music industry.

2. Commission authorization of DAB without assuring that recordings and other copyrighted works enjoy a reasonable level of content protection will enable an even greater degree of digital piracy than has been experienced to date. Use of available digital technology will permit listeners to program their DAB receivers to record only selected recordings from any radio station in the market without ever listening to the radio station broadcasting the music. Equipment that will permit that cherry-picking of broadcast content is being developed and unquestionably will be available in the United States. That equipment will permit consumers to create huge personal libraries of recordings without having to pay for the content. In addition, the ability of listeners to record music of their choice without listening to the stations offering that music will, in time, undermine the advertiser support of free over-the-air audio broadcasting. Widespread unauthorized copying of DAB programming would also prejudice new, legitimate music distribution industries, such as iTunes Music Store, RealNetwork's Rhapsody, and mobile music services offered by wireless carriers.

3. The Commission's authorization of DAB without content protection would undermine long-established copyright policies. The Copyright Act grants the creators of creative works exclusive rights in those works, thereby enabling them to receive compensation for use of their works. As new technologies have created new opportunities for creative expressions and new means of exploiting existing types of protected works, Congress recognized that creators should be able to continue to reap the economic rewards from their works. Congress recognized the threat to the economics of the music industry in the Digital Performance Right in Sound

Recordings Act ("DPRA") and the Digital Millennium Copyright Act ("DMCA"), and granted recording companies a limited performance right in sound recordings in order to ensure that use of digital technology did not jeopardize the livelihood of those dependent on sound recordings. In the DMCA, Congress made it clear that newer digital technologies were also covered by the DPRA's performance right. DAB poses the very same threats to the music industry as did the interactive and other services that concerned Congress in the DPRA and DMCA. Indeed, the ability of consumers to program their DAB receivers to record selected music made possible by any Commission decision authorizing DAB without content protection is functionally equivalent to the interactive services Congress intended to remain subject to the exclusive rights of the record companies.

4. While the Commission is not charged with enforcing the Copyright Act, the public interest standard of the Communications Act does not permit it to ignore congressional policies in other areas, including in the Copyright Act. The Commission has recognized that obligation and has often tailored its rules to accommodate other federal statutes. Thus, the Commission recognized the potential harm to the creative community from use of digital technology and adopted rules granting content protection in its *Broadcast Flag* and *Plug and Play* decisions. A similar result is required here; the Commission cannot adopt a regime for DAB that will eviscerate the intellectual property rights Congress granted in the DPRA and devastate an industry that has been a leading exporter of American culture and is vital to the broadcast industry itself. Yet that is precisely what adoption of DAB rules without content protection will do.

5. The Commission has jurisdiction to adopt content protection requirements as a component of the DAB service rules under Title I and Title III of the Communications Act. Title III of the Act gives the Commission broad regulatory authority to adopt a DAB transmission standard, including a standard that is capable of embedding content protection data and information into the transmission signal, and to require that radio receivers recognize and give effect to those rules. Under its public interest mandate, the Commission must attempt to accommodate, to the extent feasible under the Communications Act, other federal policies, including the congressional policies underlying the Copyright Act. In addition to its powers under Title III, the Commission also has ancillary jurisdiction under Title I to adopt content protection rules and to require equipment manufacturers to design receivers that give effect to those rules. As the Commission held in the *Broadcast Flag Report and Order* and the *Plug and Play Second Report*, the Commission has Title I jurisdiction to adopt content protection regulations, including rules restricting the usage of material recorded from over-the-air broadcasts. Nothing before the Commission in this proceeding justifies a different conclusion regarding the Commission's ancillary jurisdiction: Title I extends to the development of DAB and compatible digital radio receivers, and content protection rules would be reasonably ancillary to the effective performance of the Commission's development of a DAB service. Content protection rules will serve the public interest by promoting federal policies underlying the Copyright Act, ensuring continued diversity of new music broadcast on DAB and protecting advertiser support for free over-the-air radio.

6. To assure that DAB operation does not eviscerate the intellectual property rights of those who have created the music broadcast by digital radio stations, reduce the diversity of

music available to the public, or threaten the survival of advertiser-supported terrestrial radio, the Commission must incorporate content protection rules in its DAB regulations. Those regulations should (i) require radio broadcasters who elect to operate digitally to transmit as part of their digital broadcast signal a mechanism to assure content protection, (ii) set forth rules establishing the permissible duplication of copyrighted content, and (iii) preclude the unauthorized distribution of content taken from a DAB transmission. In these Comments, RIAA suggests a series of usage rules that are designed to preserve consumers' current ability to record broadcast material, while assuring that copyright owners enjoy the financial returns Congress has found necessary to assure the continued creation of artistic works. Those suggested usage rules would permit users to record DAB programming manually and to record blocks of time on a pre-programmed basis. They would, however, preclude any use of the information concerning the music, the metadata, for programmed recording of songs and would preclude distribution of recorded works electronically via the Internet.

7. RIAA discusses two potential means – encryption during transmission and an audio protection flag ("APF") – through which content protection can be triggered. Under either method of triggering protection, the content protection afforded would be defined by the specific set of usage rules included in all DAB receivers pursuant to a license from iBiquity Digital Corporation, the sole provider of the in-band on-channel ("IBOC") technology approved by the Commission. Although RIAA believes that encryption of the transmission is, in general, a better means of triggering protection as it provides additional content protection as compared to an APF, either method will ensure a reasonable level of content protection.

8. While the IBOC system developed by iBiquity Digital Corporation is proprietary and thus RIAA does not know its precise specifications, publicly available documentation indicates that it can accommodate either an encryption or APF method for triggering content protection. Indeed, its president has stated publicly that iBiquity can accommodate RIAA's need for content protection. Thus, Commission adoption of content protection rules in this proceeding should not adversely affect the deployment of DAB.

9. The Commission should not wait to adopt content protection requirements for audio content until the unauthorized duplication and distribution of copyrighted recordings through DAB transmissions destroys the music industry and also harms free over-the-air audio broadcasting. Delay will only exacerbate the harm to the music industry and make resolving the problem more difficult as consumer expectations become ingrained, the penetration of legacy devices that permit automated copying of selected music increase, and the technical options to address the problems are diminished. Accordingly, the Commission should adopt content protection rules concurrently with the final DAB service rules.

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The Recording Industry Association of America, Inc. ("RIAA") hereby submits its Comments in response to the Further Notice of Proposed Rulemaking and Notice of Inquiry in the above-captioned proceeding.[1] RIAA is the trade association that represents the U.S. recording industry. Its mission is to foster a business and legal climate that supports and promotes its members' creative and financial vitality. Its members are the record companies that comprise the most vibrant national music industry in the world. RIAA members create, manufacture and/or distribute approximately 90% of all legitimate sound recordings produced and sold in the United States.

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[1] *In re Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service*, Further Notice of Proposed Rulemaking and Notice of Inquiry, MM Docket No. 99-325, FCC 04-99 (rel. Apr. 20, 2004). These Comments are largely confined to the issues raised in the Notice of Inquiry ("*Notice of Inquiry*") concerning content protection. Except as otherwise indicated, RIAA will not comment at this time on the issues posed in the Further Notice of Proposed Rulemaking ("*Further Notice of Proposed Rulemaking*") or on the international issues raised in the *Notice of Inquiry*.

The *Notice of Inquiry* is designed to explore whether to afford content protection to those who provide copyrighted music recordings for digital audio broadcasting ("DAB"). As demonstrated in these Comments, a Commission decision to launch DAB without reasonable content protection for the music industry will materially aggravate the substantial economic hardship the industry is currently experiencing from digital privacy from peer-to-peer ("P2P") services by enabling the unauthorized copying and distribution of copyrighted digital works. Such a result is manifestly inconsistent with congressional copyright policy, which the Commission has historically honored and implemented. It is also unnecessary since the in-band on-channel ("IBOC") system authorized by the Commission for DAB permits the provision of such protection. Accordingly, the Commission should require radio broadcasters who operate digitally to provide a reasonable degree of content protection for copyrighted works.[2]

## I. INTRODUCTION

The advent of digital technology has altered fundamentally the balance between the rights of copyright owners and the ability of users to duplicate and retransmit copyrighted material without compensating those who created the content. As the Commission has recognized:

> [a]s the transition from analog-based technology to digital-based technology continues, equipment manufacturers and retailers, programming creators and distributors, and consumers will benefit from the myriad advantages offered by digital technology. Arriving in tandem with these digital advantages, however, are significant questions related to access to, and appropriate use of,

[2] Set forth in Section V(B) and in the *Proposal for Copyright Protection in HD Radio, Report for RIAA prepared by Hamilton Technologies, Inc.*, attached as Appendix A at section 7 ("Hamilton Report") are suggested content protection rules for DAB. Those rules would preserve the existing recording options of consumers and allow them to record copyrighted broadcast manually and to record entire programs on a timed basis while providing copyright owners protection against the automatic, massive copying of copyrighted sound recordings.

> digital content. . . . Unlike the analog context, digital technology affords users the ability to make an unlimited number of virtually perfect copies of digital content.[3]

Use of digital technology also permits the rapid, widespread distribution of content over the Internet as well as on physical media or through other digital transmission systems, such as 3G wireless services. And, since digital operation supports the transmission of associated data that identifies the content of recordings known as "metadata" or "metatags," digital radio broadcasting permits users to select automatically precisely which broadcast material they want to record and which they do not. This unfettered ability to record and distribute virtually perfect copies of digital recordings over the Internet has already significantly weakened the music industry in the United States. Unauthorized copying and distribution of copyrighted works on P2P systems has eroded the recording industry's predominant source of revenue, sales of recordings, and in turn has stunted the growth of new legitimate models of digital distribution.

As serious as the unauthorized P2P threat is to the music industry, the threat posed by DAB without content protection will be worse. The inclusion of metadata in DAB transmissions enables users to "cherry-pick" the most popular recordings easily by programming their digital receiving devices to record automatically only the content they are interested in without ever listening to the actual broadcast. Technology is currently available that will permit this automated cherry-picking of selected songs for recording, retention and electronic distribution, and its deployment in DAB equipment is imminent. Moreover, as compared to the relative sophistication necessary for users to take advantage of unauthorized P2P technology, duplication

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[3] *See In re Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices,* Further Notice of Proposed Rule Making and Declaratory Ruling, 15 FCC Rcd. 18,199, 18,204 ¶15 (2000) ("*Plug and Play Further Notice*").

and distribution using DAB receivers with built-in recording capability and huge storage capacity will be significantly easier. Cherry-picking of music from DAB will also avoid the risks of viruses and spyware associated with unauthorized P2P services and can be done anonymously and thus with virtually no risk of being caught. It is the "perfect storm" facing the music industry.

This increase in digital music piracy will not only seriously aggravate the economic problems of the music industry, but will also further impair the industry's ability to develop new artists and music, thereby reducing the diversity of music available to the public. The enhanced recording capabilities facilitated by the broadcast of metatags also poses a threat, over time, to advertiser-supported "free" terrestrial radio as listeners will be able to record their favorite music, and even news, weather and traffic information, without ever listening to the commercials that are the predominant source of revenue for radio station licensees.

Congress recognized the threat to the music industry from the enhanced recording and distribution capabilities of digital technology when it enacted the Digital Performance Right in Sound Recordings Act ("DPRA")[4] and the Digital Millennium Copyright Act ("DMCA").[5] These two statutes establish that Congress did not want the higher quality recordings and the

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[4] Pub. L. No. 104-39, 109 Stat. 336 (1995) (codified in relevant part at 17 U.S.C. § 114(d)-(j)).

[5] Pub. L. No. 105-304, 112 Stat. 2886 (1998) (codified to amend scattered sections of 17 U.S.C. and 28 U.S.C. and codified at 17 U.S.C. §§ 512, 1201-1205, 1301-1332 and 28 U.S.C. § 4001). In addition to these two Acts, Congress enacted the Audio Home Recording Act of 1992 ("AHRA"), Pub. L. No. 102-563, 106 Stat. 4237 (1992) (codified at 17 U.S.C. §§ 1001-1010), to provide some protection to the recording industry from the potential adverse impact of digital tape recorders on record sales. In so doing, Congress acknowledged that the ability of digital technology to create virtually perfect duplicates of recorded material threatens record sales, which account for the vast majority of the revenue of record companies. *See* S. Rep. No. 102-294, at 30, 32, 35 (1992), *reprinted at* 1992 WL 133198; *see also infra* Section VI(A).

other enhancements made possible by digital technology used in ways that would deprive the creative community – and those whose income is dependent on compensation for their creative work – of legitimate compensation for the use of their intellectual product. Thus, the DPRA granted sound recording copyright owners a limited performance right[6] for digital audio transmissions, including exclusive rights with respect to interactive and subscription radio broadcasts, in order to protect the economic interests of "performing artists, record companies and others whose livelihood depends upon effective copyright protection for sound recordings."[7] And, in the DMCA, Congress acted, *inter alia,* to assure that audio streaming and Internet distribution did not jeopardize the ability of artists and recording companies to be compensated for the use of their recordings. It also provided protection against circumvention of technological protection measures that control access to and copying of creative works.

While Congress exempted nonsubscription digital over-the-air broadcasting from the performance rights granted in the DPRA, it did so because it found that artists and record companies "have benefited from airplay and other promotional activities provided by ... free over-the-air broadcasting"[8] and that "the radio industry has grown and prospered with the availability and use of prerecorded music."[9] However, Congress did not intend that exemption to

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[6] A performance right is the right, granted by Section 106(4) of the Copyright Act, that gives the copyright owner of a literary, musical, dramatic and choreographic works, pantomines, motion pictures, and other audiovisual work "the exclusive right to perform the work publicly." 17 U.S.C. § 106(4). *See* 2 Nimmer on Copyright § 8.14[A]. The composers of musical works have a performance right in the underlying music and are entitled to compensation when the work is performed on a broadcast station. The owner of the copyright in the sound recording, however, has only a defined performance right, which does not extend to broadcasting, and thus cannot control the broadcast use of the sound recording, nor is the copyright owner entitled to compensation for such use. *Id.*

[7] S. Rep. No. 104-128, at 10 (1995), *reprinted in* 1995 U.S.C.C.A.N. 356, 357 ("DPRA Report").

[8] DPRA Report at 15.

[9] *Id.*

extend beyond free over-the-air broadcasting, but rather made the DPRA applicable to interactive services and any other service it believed would threaten the economics of the music industry.[10] For example, Congress found that interactive digital services posed a serious threat to the music industry and granted owners of sound recording copyrights a performance right in digital transmissions to ensure that interactive services did not undermine the economic interests of the music industry. Thus, the Senate Report stated:

> Of all the new forms of digital transmission services, interactive services are most likely to have a significant impact on traditional record sales, and therefore pose the greatest threat to the livelihoods of those whose income depends upon revenues derived from traditional record sales. The Committee believes that sound recording copyright owners should have the exclusive right to control the performance of their works as part of an interactive service . . . .[11]

The Commission too has recognized that the use of digital technology, while offering the opportunity to expand the services available to the public, also poses a serious threat to the intellectual property rights of those who provide broadcast content. The Commission acknowledged the threat in the *Further Notice of Proposed Rulemaking* in the *Plug and Play* proceeding,[12] and, in its *Broadcast Flag Report and Order.*[13] In the latter decision, the Commission similarly held that:

> we anticipate that the potential for piracy [of digital television content] will increase as technology advances. As demonstrated by the presence today of analog broadcast content on peer-to-peer

[10] *See Bonneville Int'l Corp. v. Peters,* 347 F.3d 485 (3d Cir. 2003).

[11] DPRA Report at 16.

[12] *See Plug and Play Further Notice*, 15 FCC Rcd. at 18,204 ¶ 15.

[13] *In re Digital Broadcast Content Protection,* Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd. 23,550, 23,554-55 ¶¶ 8-10 (2003), *petitions for recons. and appeal pending* ("*Broadcast Flag Report and Order*").

> file sharing networks, we believe that content owners are justifiably concerned about protecting all DTV broadcast content . . . . We conclude that by taking preventative action today, we can forestall the development of a problem in the future similar to that currently being experienced by the music industry.[14]

These considerations apply with equal, if not greater, force in the case of DAB. Unless the Commission acts now to assure that DAB content can be protected against unauthorized, programmed recording and distribution, it will undermine the policies adopted in the DPRA and DMCA.[15] DAB without content protection will enable listeners to cherry-pick broadcast material by recording the songs of their choice and will thereby transform radio from a traditionally passive listening experience, in which users listen to material selected by others, to an on-demand music library and distribution system in which they choose the material they want to receive and keep.[16] With digital outputs built into those devices or with recording devices directly connected to receivers, users will be able to redistribute copies of recordings in near-CD quality over the Internet, including through unauthorized P2P services, and copy them onto portable media for unlimited distribution to others. Since users will be able to engage in this unauthorized copying and distribution without compensating the performing artists, musicians or copyright owners, DAB without content protection will effectively eviscerate the rights granted by the DPRA and the DMCA and undermine Congress' effort to "protect the livelihoods of the recording artists, songwriters, record companies, music publishers and others who depend upon revenues derived from traditional record sales."[17]

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[14] *Id.* at 23,554 ¶ 8 (footnote omitted) (emphasis added).

[15] The content protection rules proposed in the Hamilton Report will not preclude users from continuing to record broadcast material in the current manner.

[16] *See* Thomas M. Lenard, *The Economic Impact of Digital Audio Broadcasts on the Market for Recorded Music* ¶ 22, attached as Appendix C ("Lenard Report").

[17] DPRA Report at 14.

While the Commission is not charged with enforcing the Copyright Act, it is well established that it cannot ignore or act in a manner contrary to established congressional policies. Rather, it must take those policies into consideration when it regulates.[18] The Commission has historically recognized that obligation and acted to give effect to congressional policies, including those in the Copyright Act. It did so when it adopted the sports blackout rules,[19] in the *Broadcast Flag Report and Order* and in the *Plug and Play Second Report.*[20] Similar action is required here. Any other course will result in the Commission treating material broadcast digitally by terrestrial radio stations less favorably than it has treated digital television and digital cable.[21] There is no reasoned basis on which the Commission can justify that disparate treatment, especially in the face of the clear congressional policy established in the Copyright Act.

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[18] *In re Application of QVC Network, Inc. for Commission Consent to Interim Transfer of Control of Paramount Communications, Inc.*, Memorandum Opinion and Order, 8 FCC Rcd. 8485, 8487 ¶ 7 (1993) ("*QVC Memorandum Opinion and Order*") (citing *Nat'l Broad. Co. v. United States*, 319 U.S. 190, 222-23 (1943) (Commission should consider purposes of Sherman Act in administering its regulatory powers); *Storer Communications, Inc. v. FCC*, 763 F.2d 436, 443 (D.C. Cir. 1985) (Commission must attempt to implement the Communications Act in a manner as consistent as possible with corporate and federal security laws' protection of shareholders' rights); and *LaRose v. FCC*, 494 F.2d 1145, 1146 n.2 (D.C. Cir. 1974) (Commission should endeavor to reconcile Communications Act and federal bankruptcy law)); *see also infra* Section IV.

[19] *See In re Carriage of Sports Programs on Cable Television Systems,* Report and Order, 54 F.C.C.2d 265, *aff'd on reconsideration*, 56 F.C.C.2d 561 (1975) ("*Sports Blackout Order*").

[20] *In re Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Computability Between Cable Systems and Consumer Electronics Equipment,* Second Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd. 20,855 (2003) ("*Plug and Play Second Report*").

[21] This preferential treatment of digital television is particularly anomalous since, as the Lenard Report demonstrates, sound recordings are far more likely to be copied than video programming. Moreover, they take up far less space and many, many more songs can be recorded on a digital storage medium than video programs. *See* Lenard Report ¶¶ 33-34.

Further, the technical specifications for the IBOC technology developed by iBiquity Digital Corporation ("iBiquity"), which the Commission has sanctioned as the sole standard for DAB transmission technology,[22] demonstrate that iBiquity has incorporated into its IBOC specifications the capability to control the use of material broadcast.[23] Publicly available documentation indicates that the iBiquity standard will enable broadcasters and others to control the duplication and redistribution of selected content through either encryption or "flag" or both. iBiquity itself has indicated that it has plans to use this capacity to facilitate new and enhanced services,[24] including the sale of sound recordings.[25] Consequently, imposing a content protection requirement now, before final technical rules are in place and before there are large numbers of legacy DAB receivers in the marketplace, will minimize any delay at the rollout of terrestrial digital radio. On the other hand, failure to act now will effectively give users a government-sanctioned license to copy and distribute copyrighted material that Congress never intended. Moreover, the uncertainty as to the legality of devices designed to facilitate unauthorized

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[22] Press Release, FCC Approves iBiquity Digital's IBOC Technology for Digital AM and FM Radio Broadcasting (Oct. 10, 2002), *available at* http://www.ibiquity.com/press/pr/101002.htm (last accessed June 14, 2004).

[23] *See* Hamilton Report §§ 4. 6.1.

[24] iBiquity states that advanced applications will offer the following services, among others:

> *Listener controlled main audio services* providing the ability to pause, store, fast-forward, index, replay audio programming via an integrated program guide with simplified and standard user interface options.
>
> *Secondary audio services* will be delivered in addition to the main audio service for quick and easy listener playback.
>
> *Supplementary data delivery* that will allow providers of in-vehicle telematics, navigation and rear-seat entertainment systems to take advantage of the existing nationwide reach of existing broadcasters to cost-effectively and automatically update their systems with new information services.

http://www.ibiquity.com/technology/data.htm (last accessed June 14, 2004).

[25] *See* Lenard Report ¶ 23.

copying and distribution of copyright works resulting from a Commission decision to authorize DAB operations on a permanent basis, without first resolving the issue of content protection, could chill investment in digital radio technology, thereby delaying the availability to the public of many of the enhancements DAB offers and threatening the very objectives the Commission seeks to achieve in this proceeding.[26]

* * *

In the following sections of these Comments, we describe the technology currently available to permit consumers to engage in the programmed cherry-picking of individual recordings, demonstrate that its incorporation in DAB devices is imminent, and show how permitting DAB broadcasts without content protection will undermine the economics of the recording industry, constrain the music industry's ability to discover and invest in diverse music and artists, threaten new, developing markets for the lawful distribution of digital music files (*e.g.*, Apple's iTunes Music Store), and potentially jeopardize the existing, free over-the-air radio broadcast industry.

We then discuss the Commission's jurisdiction to adopt rules addressing this substantial threat to the music industry and potentially to free over-the-air radio broadcasting, propose rules concerning the usage of material recorded over the air that address the music industry's concerns, and discuss two potential ways in which the necessary content protection can be provided. We also address three specific questions asked by the Commission in the *Notice of*

[26] *See id.* ¶¶ 81-87.

*Inquiry* and finally urge the Commission to adopt the content protection rules at the same time it adopts the operational rules for DAB.

## II. THE COMMISSION'S AUTHORIZATION OF DIGITAL AUDIO BROADCASTING WITHOUT CONTENT PROTECTION POSES A SUBSTANTIAL THREAT TO THE MUSIC INDUSTRY, THE DIVERSITY OF BROADCAST MUSIC, AND POTENTIALLY FREE OVER-THE-AIR RADIO BROADCASTING.

### A. The Commission's Authorization of DAB Without Content Protection Will Permit Widespread Duplication and Redistribution of Copyrighted Sound Recordings.

In its *Notice of Inquiry,* the Commission concludes that it is "likely" that "future digital audio broadcast receivers will include advanced features such as digital recorders capable of storing audio content" and that DAB broadcasts will in addition "include specific song identifications in the 'metadata' within the digital stream."[27] That is manifestly correct: as demonstrated in the attached report from Cherry Lane Digital LLC ("Cherry Lane Report"),[28] these functionalities are *already* being designed into the latest generation of DAB receivers available today in foreign markets, and broadcasters both here and in Europe will unquestionably include metadata in their broadcasts.[29] This combination of transmitted multimedia content with metadata and technologically sophisticated devices – particularly in light of geometric increases in digital media storage capacity and steadily decreasing storage costs – make DAB a

[27] *Notice of Inquiry* ¶ 67.

[28] *Report of Cherry Lane Digital LLC on Digital Audio Broadcasting for the Recording Industry Association of America, Inc.*, attached as Appendix B.

[29] Some of these functions are being introduced now for analog transmissions. Gotuit Audio has announced that it will begin offering Gotuit Radio this year which will permit "listeners to . . . record, and listen to content from all their favorite FM and AM radio stations – listening to what they want, when they want." *See* http://www.gotuit.com/audio/agradio.html (last accessed June 14, 2004).

"completely new technology" that represents "the most radical development in radio broadcasting" in decades.[30]

As discussed in detail in the Cherry Lane Report, DAB is fundamentally different from traditional radio. First, DAB receivers today include file caching by means of internal RAM chips that can store about 10 minutes of audio, supporting pause, "rewind" and "recording/playback" functions.[31] Second, current DAB chipsets "have the ability to read and write to [digital] memory cards."[32] DAB receivers available in Europe, such as those from Blaupunkt (Woodstock DAB54) and PURE Digital (The Bug), already allow listeners to record DAB broadcasts, either in real time or from the internal cache, and to store recordings digitally for later playback on a PC or portable player.[33]

Third, DAB transmissions include both ID3 "tags" identifying the artist, title of recordings and a broader range of program-associated data[34] that encompasses an Electronic

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[30] World DAB Forum, *DAB Digital Radio: Building for Success: Aiding Implementation and Roll-Out of T-DAB* 14 (Summer 2003), *available at* http://www.worlddab.org/images/DRAFTBROCHURE_5_FINAL.pdf (last accessed June 14, 2004) ("World DAB Forum Overview"). The World DAB Forum is an international nongovernmental organization established to "co-ordinate the implementation of DAB Digital Radio services based on the Eureka 147 DAB system." *See* http://www.worlddab.org (last accessed June 14, 2004).

[31] Cherry Lane Report at 15, 19.

[32] *Id.* at 15 (quoting Texas Instruments literature describing its second-generation TMS320DRE310 chipset, *available at* http://focus.ti.com/pdfs/vf/audio/ dre310_prod_bill_06_12.pdf (last accessed June 14, 2004)).

[33] Cherry Lane Report at 19 (quoting PURE Digital literature describing The Bug, *available at* http://www.worlddab.org/images/PURE-Digital-Launches-Bug.pdf (last accessed June 14, 2004)).

[34] iBiquity reports that its IBOC specification includes a broader range of data known as "Program Associated Data" that "is a key element in the introduction of HD Radio Data Services." *See* http://www.ibiquity.com/technology/TechnologyProgramAssociatedData.htm (last accessed June 15, 2004). "In the first generation receivers, PAD will offer broadcasters the opportunity to insert song, title, and artist information into their studio automation process. In turn, receiver manufacturers will be able to rely on this innovation to explore new avenues in

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Program Guide ("EPG") modeled on cable and satellite television program listings.[35] As the Commission explained in the *Further Notice of Proposed Rulemaking*, the iBiquity standard supports "listener controlled main audio services providing the ability to pause, store, fast-forward, index, and replay audio programming via an integrated program guide with standard user interface options."[36] Fourth, computer equipment manufacturers have developed and are shipping modular DAB-enabled sound cards that integrate digital radio into PCs.[37] Thus, "[i]n combination with a portable MP3 player, the EPG integration" means that users can record

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product development that meet consumer demand for more information and control of their radio listening experience." *Id. See generally* iBiquity, *HD Broadcast Multimedia Language Specification, Draft 1.00* (Apr. 3, 2003), *available at* http://www.ibiquity.com/technology/documents/SY_AAS_5033.pdf (last accessed June 15, 2004). The Eureka 147 system, which has been adopted by the International Telecommunications Union (ITU-R Recommendations BS-1114 and BO-1130) and ETSI, the European telecommunications standards body (ETS 300401), also includes PAD embedded in the audio bitstream, to support the transmission of full-text data together with the audio content (*e.g.*, lyrics and phone-in telephone numbers). The amount of PAD is adjustable (min. 667 bit/s), restricted only by the bandwidth required for the coded audio signal within the chosen audio bit-rate. World DAB Forum, *Eureka 147 Digital Broadcasting* 3, *available at* http://www.worlddab.org/images/eureka_brochure.pdf (last accessed June 14, 2004). Typical examples of PAD applications are dynamic range control information, a dynamic label to display song titles or lyrics, speech/music indication and text with graphic features. *Id.* at 5.

[35] *Further Notice of Proposed Rulemaking* ¶ 26 & n.53. ID3 is a tagging format associated with MPEG compression that allows metadata such as the title, artist, album, track number, etc., to be added to digital content encoded as an MP3 file. *See* ID3v2, *The Short History of Tagging*, *available at* http://www.id3.org/history.html (last accessed June 14, 2004).

[36] *Further Notice of Proposed Rulemaking* ¶ 26.

[37] *See* Cherry Lane Report at 8. Wireless firms are also planning to capitalize on DAB's ability to handle multimedia content, including text and video, to provide a more content-rich experience for consumers using mobile phones. British Telecom, for instance, plans to make multimedia content available to wireless subscribers using DAB by 2005. Leigh Phillips, *BT Announces Mobile Media Content Platform* (May 5, 2004), *available at* http://www.dmeurope.com/default.asp?ArticleID=1694 (last accessed June 14, 2004).

selected DAB programming automatically, either on their DAB receiver or computer, "creating a huge pool of listen-on-demand" music.[38]

All of this demonstrates quite clearly that DAB technology is moving rapidly toward the introduction of digital radio receivers that include a wide range of functions beyond the passive radios familiar to U.S. consumers today.[39] As hard disk costs decrease and capacity increases, integrating massive digital storage capabilities into DAB receivers becomes economically feasible and technically trivial. Consequently, as the Cherry Lane Report explains, DAB technology is transforming radio from a "push" business, in which content is selected by broadcasters, to a "pull" business, in which content is automatically selected and stored by intelligent, software-powered devices based on the personal music preferences of the user.[40] Just as PC users today can filter, capture and store streaming Internet radio broadcasts using off-the-shelf software – such as Replay Music, BoomBox Internet Radio Player, Blaze Audio, RipCast, Inet Stream Archiver, StreamRipperX, Audio Hijack Pro and PoGo! – DAB users will be able to do the same thing with the CD-quality broadcasts made possible with digital radio.[41]

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[38] Rupert Goodwins, *Modular Technology DAB Digital Radio* (Aug. 21, 2002), *available at* http://reviews.zdnet.co.uk/hardware/audio/0,39023770,10001752,00.htm (last accessed June 14, 2004).

[39] For instance, the latest generation of PC card receivers in Europe, such as Hauppauge's Win-TV Nova-T, support reception of both satellite video and digital radio on a personal computer and come with software offering "schedule and record" capabilities for storing video and audio to the PC hard drive. *See, e.g.*, http://www.hauppauge.co.uk/ pages/products/data_nova-t-usb.html (last accessed June 14, 2004).

[40] Cherry Lane Report at 26.

[41] Cherry Lane Report at 27-28. Unlike DAB, of course, streaming radio transmitted over the Internet requires companies offering the service to pay copyright royalties. *Bonneville Int'l Corp. v. Peters*, 347 F.3d 485 (3d Cir. 2003).

This fundamental transformation of radio technology – from a passive, noninteractive experience to one where the listener exercises control over what music to receive – indicates that the *Notice of Inquiry* actually understates the threat of "indiscriminate recording and Internet redistribution" of copyrighted sound recordings.[42] As the Commission has recognized, "the potential for piracy will increase as technology advances."[43] Using devices being developed with technology that exists today, DAB users will be able to "automatically search for and record a large amount of the music of an individual artist or group,"[44] in a similar manner to the way in which consumers use personal video recorders ("PVRs") to search for a television program by title or actor. As technology advances in the radio industry in a parallel manner toward the development of the personal media recorder ("PMR"), the relative technological sophistication necessary to compile personal libraries of digitally broadcast music will decrease, permitting everyday consumers to collect all the music they want (or indeed may ever want) with a few simple commands.[45] Moreover, as the Cherry Hill Report makes clear, the PMR devices coming to market will be able to eliminate DJ chatter at the beginning of any broadcast music and compensate for fading in or out of music that is broadcast.[46] And like PVRs, which permit users to skip or fast-forward over advertisements and have created new pressures on advertiser-supported commercial television, PMRs could present a long-run threat to advertiser-supported radio.[47] It is therefore no understatement to say, as the World DAB Forum reports, that "the

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[42] *Notice of Inquiry* ¶ 67.
[43] *Broadcast Flag Report and Order* ¶ 8.
[44] *Notice of Inquiry* ¶ 67.
[45] *See* Cherry Lane Report at 10.
[46] *See* Cherry Lange Report at 29 (discussing the MP3 Magic software).

implications of introducing" DAB means that "any country considering its implementation must rethink its regulatory environment."[48]

B. The Commission's Authorization of DAB Will Adversely Affect the Music Industry and Program Diversity.

1. *The Economic Structure of the Record Industry Makes It Uniquely Vulnerable to Piracy.*

Copyright provides the economic backbone of the music industry by conferring upon creators certain limited rights, subject to various exemptions and certain compulsory licenses, that assure creators compensation but not control. Every copyright owner receives a bundle of exclusive rights, which are set forth in Section 106 of the Copyright Act.[49] In the case of most types of works, the bundle includes reproduction and distribution rights, as well as a broad performance right that encompasses all kinds of live and transmitted performances to the public, including analog and digital broadcasting, cable, satellite and Internet uses. However, while creators of sound recordings enjoy reproduction and distribution rights generally the same as other copyright owners, sound recording creators received no performance right at all until 1995, and the performance right granted in 1995 is severely limited.[50] As noted in the attached Lenard

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[47] Gary Hamel & Lloyd Switzer, *The Old Guard vs. the Vanguard*, Wall St. J., Feb. 23, 2004, at A17, *available at* 2004 WL-WSJ 56920834; Lenard Report ¶ 72.

[48] World DAB Forum Overview, *supra* note 30, at 14.

[49] 17 U.S.C. § 106.

[50] Unlike the performance right for every other kind of work, the sound recording performance right is limited to digital transmissions, and then many digital transmissions – including over-the-air broadcasts – are exempted, and others are eligible for compulsory licensing. *See* 17 U.S.C. §§ 114-115; 2 Nimmer on Copyright § 8.14[B][1].

Report, the result is that creators of other kinds of works enjoy diverse income streams,[51] but the creators of recordings enjoy principally one – the sale of recordings, such as CDs.[52]

For example, unlike movie studios and those who create works for television, who are compensated by broadcasters for the use of their works, the recording industry does not receive any revenue from the terrestrial broadcast of its recordings.[53] Broadcast radio stations are free to play any sound recording released by a record company an unlimited number of times without paying the record company or the recording artists any compensation. Deprived of compensation for performances through analog and digital radio broadcasts, record companies must finance the creation of new works and the development of new talent almost exclusively through sales of sound recordings.[54]

As indicated in the Lenard Report, the recording industry is a risky business as commercial success eludes the vast majority of sound recordings released each year. For example, RIAA certifies Diamond, MultiPlatinum, Platinum and Gold Awards for recording releases that sell units of 500,000 or more. Only a small percentage of all releases generate

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[51] For example, the songwriters and music publishers who own the copyrights to the musical compositions (songs) embodied in recordings enjoy a performance right for live performances and performances through analog radio and television transmissions. *See* 17 U.S.C. § 106(4). They are compensated for all those performances from other sources. Creators of sound recordings enjoy almost none of those kinds of performance income.

[52] *See* Linda McLaughlin, Nat'l Econ. Research Assocs., *Recording Industry Revenues and Costs 1991-2001* tbl.1 (Dec. 23, 2003) ("McLaughlin Report"). The recording industry earns limited revenue from record club and MTV fees, royalties paid under the AHRA and license fees paid pursuant to the DPRA and DMCA. These sources of revenue account for less than 20% of the record industry's gross revenue. *Id.* at 3 & tbl.1.

[53] The video industry also has other revenue streams, including payments from movie theaters, premium cable, basic cable, broadcast television and sales of DVDs. These additional revenue streams exist, in part, because video enjoys a public performance right which the record industry does not have and in part because of differences in the way in which audiovisual works are used as compared to recordings. *See* Lenard Report ¶ 16.

[54] *See* Lenard Report ¶ 15.

enough sales to receive an RIAA-certified award. By contrast, the vast majority of sound recordings sell relatively few units, and never recover their production, recording, promotion and distribution costs.[55] The record companies spend a minimum of $6.3 million in upfront cost on albums that are not hits for every artist that produces a hit.[56]

According to a recent economic analysis of recording contracts, of 244 artists who signed record contracts with major labels during 1994-1996, only 12 had released albums that were certified "gold," *i.e.* sold at least 500,000 units, or "platinum," *i.e.* sold one million or more units, by the end of the year 2000.[57] Thus, for every artist who released a hit album, there were 19 artists who did not succeed – 14 released albums that were not a commercial success and five artists whose records never made it to market. That analysis also found that a label could expect only five out of a randomly selected group of 100 new artists to release hit albums for the label over the next five to seven years.[58] Indeed, only 10 artists even remained under contract seven years after they were first signed.[59]

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[55] Ninety percent of the total revenue generated by sales of recordings is devoted to the costs associated with production and distribution of the recordings. These include artist royalties from sales and licensing and associated union payments, royalties for artists and song writers, advances and recording costs, marketing, manufacturing, distribution and overhead. *See* McLaughlin, *Recording Industry Revenues and Costs*, at 2 & tbl.1. The major labels have stated that they often must sell 500,000 or more copies of an album to make a profit. *See* Jennifer Ordonez, *Courting the Aging Rocker: Independent Labels Offer Acts Creative Freedom, Hope Fans Will Bring in Steady Profits*, Wall St. J., Apr. 23, 2002, at B1; *see also* Steven S. Wildman, *An Economic Analysis of Recording Contracts* at 9 (2002).

[56] *See* Wildman, *An Economic Analysis of Recording Contracts* at 10-11. The average upfront costs of producing the first album for artists signed in 2000 was about $450,000, yet only a small fraction of all sound recordings earn a profit for the recording company. Lenard Report ¶ 14.

[57] *See* Wildman, *An Economic Analysis of Recording Contracts* at 8.

[58] *Id.* at 9.

[59] *Id.* at 8.

However, the successful recordings – and in particular those that become gold records or better – must necessarily finance all of the other sound recordings in which record labels invest.[60] As a result, as explained in the Lenard Report, any loss in the sale of hit recordings disproportionately imperils the ability of record companies to develop new talent.[61] Yet, the most popular recordings – that appear on the albums and singles that actually result in a profit for the record companies – is also the most likely music to be pirated.[62]

2. *Unauthorized Peer-to-Peer File Services Have Seriously Hurt the Music Industry.*

The evolution of digital technology developed through the 1990s has fundamentally altered the music distribution landscape and facilitated the widespread piracy of music. During that period, record companies migrated from vinyl to CDs to take advantage of enhanced audio quality and popular features, such as random access to materials. In addition, computer storage capacity expanded exponentially; compression algorithms improved, permitting faster downloading, distributing and copying of works; and high-speed broadband was made available to the home.[63] These developments all culminated in the explosive growth of infringing P2P services, initially by Napster in 1999. By February 2001, 60 million users reportedly were

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[60] *Id.* at 10-11.

[61] Lenard Report ¶¶ 11-17 (citing Wildman, *An Economic Analysis of Recording Contracts*).

[62] *Id.* ¶ 50. In addition, studies show that people who download digital music from the Internet are less likely to purchase not only CDs of the music they download, but any CDs at all. *Id.* ¶ 42.

[63] As improvements in bandwidth capacity and technology hardware have further evolved, it has become even easier, faster and cheaper to pirate copies of digital music. For instance, CD-R burners can be purchased for a small cost at every major home electronics store and installed in computers by the user, making it simple to download digital music from the Internet and burn multiple CDs of the pirated digital music. As noted in the Lenard Report, sales of blank CDs shot up 30% in 2000 alone, outstripping the sale of music CDs by better than two to one. *See* Lenard Report ¶ 52.

illegally downloading copies of digital sound recordings from Napster.[64] Other services followed Napster's lead. After the original Napster service shut down, numerous other unauthorized P2P services, including KaZaA and Gnutella, emerged to offer individuals the opportunity to obtain copies of sound recordings for free.[65]

The millions of users who use these unauthorized P2P services for illegally distributing sound recordings clearly view the music they obtain for free as a substitute for purchasing a CD.[66] From 1999, when P2P software first became available, to 2003, record company sales declined by more than 30 percent in terms of units shipped and about 19 percent in terms of dollar value.[67] Likewise, sales of the top selling albums for each of the past three years has steadily decreased, with the total number of CDs shipped decreasing each year since 2000.[68] The number of units of the top ten albums shipped declined from 60 million in 2000 to 34 million in 2003 -- a 44% reduction in only 3 years.[69] And the number of albums released certified in the same year fell from a total of 174 in 1999 to 137 in 2003, a decline of 21%. Moreover, use of

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[64] *See* Janelle Brown, *Napster's Wake*, Salon.com, May 17, 2002, *available at* http://www.salon.com/tech/feature/2002/05/17/napster_wake/index.htlm (last accessed June 14, 2004).

[65] According to estimates of IFPI, as of June 1, 2004, a total of 800 million infringing music files are available on the Internet worldwide at any one time. 700 million of these files are on unauthorized P2P services and 100 million more are on web and FTP sites. *See* Press Release, IFPI, Inc., Recording Industry Shows First Results of International Campaign Against File Sharing (June 8, 2004), *available at* http://www.ifpi.org/site-content/press/20040608.html (last accessed June 14, 2004).

[66] *See* Brown, *supra* note 64.

[67] Lenard Report ¶ 40.

[68] Lenard Report ¶ 41. According to SoundScan, the 10 top selling albums sold 60.4 million units in 2000, 40.4 million units in 2001, 38.8 million units in 2002, and 33.5 million units in 2003. *See* Press Release, Soundscan 2000 Year-End Music Industry Report (Jan. 3, 2001); Press Release, Soundscan 2001 Year-End Music Industry Report (Jan. 3, 2002); Press Release, Soundscan 2002 Year-End Music Industry Report (Jan. 2, 2003).

[69] Lenard Report ¶ 41.

P2P services affect more than just the top songs as studies show that those who download from P2P services are not only not purchasing the music they download, but are also less likely to purchase any music at all.[70]

The revenue loss occasioned by this reduction in sales of CDs affects not only the record companies themselves, but the rest of the music industry as well. Record companies have reported rounds of layoffs, with thousands of employees having lost their jobs in recent years.[71] Over a thousand retail outlets that sold CDs have closed in 2003;[72] with major chains such as Wherehouse, Sam Goody, FYE and Tower Records seeing the biggest casualties. Lost sales

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[70] *Id.* at ¶ 44 (citing Alejandro Zetner, *Measuring the Effect of Music Downlaods on Music Purchases*, Dept. of Economics, University of Chicago (April 2004)).

[71] According to a report in the Washington Post, Warner Music Group reportedly fired 20 % of its employees in March 2004, cut a number of artists from its roster and has plans to cut approximately 85 more artists. *See* Frank Ahrens, *A Major Change in Their Tunes*, Washington Post, May 28, 2004, at E1; Ed Christman, *Inside Bronfman's Deal for WMG: Confidential Buyout Details Surface*, Billboard Magazine, May 29, 2004, at 1; Ethan Smith and Martin Peers, *Cost Cutting Is An Uphill Fight at Warner Music*, Wall St. J., May 24, 2004, at B1. Other press reports indicate that EMI, Universal Music and Sony Music each planned to eliminate more than 1,000 jobs in 2004 and BMG recently laid off 150 employees. *See* Tony Smith, *EMI to Axe 1,500 Jobs, 300 Artists*, The Register, March 31, 2004, *available at* http://www.theregister.com/2004/03/31emi_to_axe_1500_jobs/print.html (last accessed June 14, 2004); *Sony Music Set to Shed 1,000 Jobs*, New York Daily News, Feb. 21, 2003, at 80; Jeff Leeds, *Universal Music Plans Cutbacks*, Los Angeles Times, Oct. 16, 2003, at C1; Alex Veiga, *BMG Restructuring Its U.S. Music Operation*, Associated Press, Mar. 24, 2004; *see also* Andrew Simons, *Cuts Crimp L.A.'s Music Business Further*, Los Angeles Business Journal, Apr. 19, 2004, at 20. These are only recent layoffs; additional employees have lost their jobs in prior years.

[72] *See* Ed Christman, *Closings, Ch. 11 Filings Rampant in Retail*, Billboard Magazine, Dec. 27, 2003, *available at* http://www.billboard.com/bb/billboard_members/currenteditorials/article_display.jsp?vnu_content_id=2056232 (last accessed June 14, 2004); Jenny Eliscu, *CD Chains Struggle to Survive,* Rolling Stone, Aug. 13, 2003, *available at* http://www.rollingstone.com/news/story?id=5935445 (last accessed June 14, 2004); Jeff Leeds, *Record Retailers Face Music, Plan Closures*, Los Angeles Times, Jan. 8, 2003, at C1; *Bankrupt Wherehouse Eyes Layoffs*, Variety, Jan. 21, 2003; Joshua Tompkins, *Chain Retailers Taking Biggest Hit as Customers Take to Web (The Music Piracy Riddle)*, Los Angeles Business Journal, Jan. 30, 2003, at 17 (citing music piracy as one of main reasons for Wherehouse bankruptcy); Deborah Belgum, *Tower Records Is Latest Westwood Music Store Casualty*, Los Angeles Business Journal, Jan. 13, 2003, at 7.

have also contributed to a reduction in royalties paid to artists, songwriters, union musicians and music publishers.[73]

Moreover, the adverse economic impact on the record companies reduces their ability to invest in new and emerging artists. In the last four years, three of the five major record companies have cut approximately 38% of the artists on their rosters, with one label cutting 56% of its roster.[74] Press reports indicate that additional cuts may be forthcoming.[75] Further, new album releases have declined substantially since 1999. According to data from the recording industry, at least two labels have decreased the number of new releases by at least 40% since 1999. According to press reports, WMG's 2004 new album releases will be lower than 2003.[76] As another example, Universal Music Group also has curtailed spending to promote artists, such as funding for music videos, radio promotion, travel and subsidies for tours.[77]

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[73] *See* David Bernstein, *Songwriters Say Piracy Eats Into Their Pay*, New York Times, Jan. 5, 2003, at C6.

[74] This data for three of the five major labels was the only data available as of the date of these comments.

[75] According to press reports, WMG's Atlantic-Elektra label plans to cut in half its 170-act roster, Warner Music International is cutting 150 of its 600 acts and other WMG labels are also trimming down rosters. *See* Ahrens, *supra* note 71; Christman, *supra* note 71; *see also Recording Industry Demands Names of 29 File-Swappers*, Canada AM, Mar. 12, 2004, *available at* 2004 WL 64888908 (stating that many of recording industry cutbacks have come at artists' expense).

[76] Christman, *supra* note 71.

[77] Leeds, *supra* note 71.

### 3. *The Commission's Authorization of DAB Without Content Protection Will Further Undermine the Economics of the Recording Industry and Threatens the Diversity of Music Available to the Public.*

The recording industry has aggressively attempted to mitigate unauthorized P2P piracy, first by seeking to stop companies offering unauthorized P2P services[78] and, when that proved unsuccessful, by bringing lawsuits against individuals distributing large numbers of copyrighted sound recordings.[79] In addition, RIAA has engaged in an extensive campaign to educate the public as to the legality of duplicating and distributing copyrighted recordings without authorization. Those efforts have some limited success, but, despite the risks associated with unauthorized P2P usage, such as spyware, computer viruses, etc., consumers continue to use unauthorized P2P services to obtain copyrighted sound recordings for free.[80]

The recording industry's experience with unauthorized P2P piracy demonstrates that people will go to great lengths to get music for free. The kinds of metadata-based recording and Internet distribution identified in the *Notice of Inquiry* and discussed above will unquestionably aggravate this piracy threat as the hit recordings that drive the economics of the music business are the ones played on the radio with the greatest frequency.[81] Thus, automated cherry-picking of music from DAB transmissions, which results in no compensation to creators, is likely to replace sales of hit recordings, which finance the whole enterprise of creating new recordings.[82]

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[78] *See Recording Indus. Ass'n of Am., Inc. v. Verizon Internet Servs., Inc.*, 351 F.3d 1229 (D.C. Cir. 2003).

[79] To date, RIAA has commenced litigation against approximately 2500 individuals who have engaged in extensive downloading of copyrighted music. In addition, RIAA has sent instant messages to millions of infringers, while they were online, warning them that they were in violation of the Copyright Act.

[80] Lenard Report ¶¶ 53-58.

[81] *Id.* ¶¶ 67, 78.

[82] *Id.* ¶¶ 11, 78.

Indeed, as explained in the Lenard Report, the Commission's authorization of DAB without content protection will fundamentally change the manner in which recordings are distributed from one in which the music industry is compensated for its creative efforts to one in which, basically, it is not. Currently, a listener's ability to hear the music he or she likes is dependent on the selection of the music broadcast by the radio station; one cannot listen to the precise recordings when one wants because the disc jockey or station management determines which recordings will be broadcast when. If listeners want to listen to a particular piece of music at times of their choosing, they must purchase the song, either on a CD or through one of the Internet-based music services, or subscribe to an on-demand music service. DAB will change that calculus and allow consumers to acquire and listen to the music they want when they want it without having to compensate anyone in the music industry. It is a new – and free – distribution mechanism with which legitimate services cannot compete successfully.[83]

Moreover, there is little question but that consumers, especially those who purchase music,[84] will use the cherry-picking capacities of DAB. According to a recent survey conducted for RIAA by Public Opinion Strategies, 65% of the adults surveyed indicated that they would use the cherry-picking features of DAB to record their favorite music and 72% stated that they would use the feature to save their favorite recordings "in your personal music library and listen to them in the future." In addition, 50% indicated that they would "transfer your favorite songs" to friends and family, and 56% indicated that they would purchase less music if they could record selected music off-the-air.

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[83] *Id.* ¶¶ 11-17.
[84] *Id.* ¶ 77.

The Commission's authorization of DAB without content control will also create a better mechanism for copying than the piracy currently available on unauthorized P2P services.[85] DAB without content protection offers users the ability to compile automatically and catalog extensive libraries of CD-quality music limited only by available digital storage capacity. Users who are leery of using a computer or uncomfortable with unauthorized P2P software will easily be able to program their radio receivers to record the music they want to hear. As noted in the Lenard Report, it is not difficult to imagine that DAB will replace unauthorized P2P as the choice for stealing music. DAB stations will offer a similar variety of music as is available on unauthorized P2P services, but the Commission's action allowing DAB without content protection will offer consumers many advantages over unauthorized P2P services. Among other things:

- Radio stations often play recordings before they are released commercially for sale. Thus, a consumer could duplicate a CD-quality recording without waiting for the sound recording to be available in stores.[86]

- DAB receivers on the immediate horizon also will offer consumers the ability to program their DAB receivers to seek out selected broadcast music automatically, without having to listen to the broadcast, and record that music on the receiver's hard drive or on an attached recording device to create a music library of the consumer's favorite music.

- iBiquity's DAB service will provide consistently superior audio fidelity to the files available on unauthorized P2P services.[87]

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[85] *Id.* ¶¶ 59-78.

[86] As noted in the Lenard Report, the ability to copy these pre-releases could result in the market for the recordings to become saturated before the CD is released. Lenard Report ¶¶ 49-52.

[87] According to iBiquity, DAB transmissions will be "near-CD quality," which is superior to the MP3 format of sound recording files currently available on unauthorized P2P services. *See* Jon Healey, *Radio Tunes In Warily to Its Digital Future*, Los Angeles Times, Apr. 7, 2003, at C1; *Further Notice of Proposed Rulemaking* ¶ 2.

- A consumer could create his or her own personal library of digital music, saved to memory cards, hard disks, CD-Rs or portable devices like iPods without any of the costs or risks associated with unauthorized P2P music piracy, such as spyware or computer viruses.

- DAB also does not reveal private information about the listener to others because a hard drive is not made available to outsiders and does not expose a listener's radio or other consumer electronics device to viruses or spyware.

Further, unlike Internet-based piracy, the recording industry has no means of determining who is engaged in unauthorized copying of DAB as no trail will exist to find the violators. Consequently, as noted in the Lenard Report, the threats to the economic foundation of the music industry posed by DAB without content protection are much greater than unauthorized P2P, and the impact on the industry's ability to foster new talent even more severe.[88]

4. *The Ability to Freely Record Broadcast Music Using Programming Technologies Will Threaten New Legitimate Music Distribution Industries.*

In addition to aggravating the harms caused by unauthorized P2P piracy, the ability of listeners of DAB to engage in programmed recording and redistribution of DAB transmissions without content protection will undermine the new, legitimate distribution channels of copyrighted music that are beginning to develop. Download music services (including music services offered by cellular companies) and Internet streaming radio services have developed inventive ways to bring a diverse selection of music to consumers and to offer legitimate music downloads. At the same time, these services respect the copyright laws, compensating record companies, artists and publishers for sales and public performances of the sound recordings. Moreover, "[t]here is no telling what effect the prominent offering and marketing of lawful and

[88] Lenard Report ¶¶ 59-78.

affordable Internet-based alternatives could have on offsetting piracy, particularly in light of recent efforts to step up consumer education and enforcement."[89]

Digital music services, like Apple's iTunes Music Store, Musicmatch's Musicmatch Downloads and RealNetworks' Rhapsody – to name a few – account for a small, but growing, fraction of music sales.[90] Depending on their business model, these services and others enable consumers to download digital recordings for a per download fee or offer music services for a monthly subscription fee. Users can create their own mixes of custom selected music, transfer music to an iPod or similar type of device, and burn CDs. In its first year, iTunes subscribers downloaded more than 70 million recordings. Analysts predict that the download music service market may grow to $250 million in 2004.[91] Because the Commission's authorization of DAB without content protection would enable listeners automatically to record the music they desire for free, it could undermine these and other nascent download and streaming services and siphon away legitimate compensation to the music industry.

The Commission's authorization of DAB without content protection also could threaten non-interactive Internet webcasting services and mobile music offerings that several wireless carriers are now beginning to offer under a statutory license.[92] These entities currently pay

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[89] *Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,617 (statement of Commissioner Adelstein).

[90] According to their websites, iTunes offers individual downloads for 99 cents, while Rhapsody offers an all access subscription pass for $9.95 per month. *See* http://www.apple.com/itunes/store/ (last accessed June 14, 2004); http://www.listen.com/rhap_about.jsp?sect=catalogs (last accessed June 14, 2004). These download services compete most directly with music sales.

[91] *See* John Healey and Jeff Leeds, *Online Music Alters Industry Sales Tempo*, Los Angeles Times, May 3, 2004, at C1.

[92] *See, e.g.*, Press Release, Musicmatch, Inc., Musicmatch and RIAA Sign Webcast Licensing Deal (July 16, 2001 *available at* http:///www/musicmatch.com/info/company/press/releases/?year=2001&release=16 (last

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performance fees to record companies and artists for the use of sound recordings. Overall, more than 16 million listeners currently access Internet webcasts each week – an increase of five times the number of listeners from 1999.[93] The top 10 streaming music websites and networks generated, on average, 101.7 million aggregate tuning hours per month in 2003, a 53.2% rise from 2002.[94] The Radio@AOL Network, one of the largest webcasting services, reaches 4.5 million visitors per month, with individual users averaging five hours of listening time each week.[95]

The streaming of music on these services creates a new revenue stream for artists and labels. However, if consumers are able to create their own libraries of copyrighted recordings from DAB without content protection and then playing those recordings in customized playlists or randomly, there may be no need for consumers to listen to these on-line services, choking off another new income stream for the music industry and stranding the millions of dollars invested to develop these services.

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accessed June 14, 2004) (announcing agreement with RIAA establishing terms for the webcasting of music performances on the Musicmatch Radio service pursuant to a statutory license).

[93] Brian Garrity, *AOL to Add Advertising to Its Dial-up Radio Streams*, BPI Entertainment News Wire, Mar. 22, 2004, *available at* 2004 WL 59280444 (citing Arbitron report).

[94] *See Research and Markets: Streaming Media 2003: Brand, User and Audience Share Analysis*, Business Wire, May 11, 2004.

[95] *See America Online and Ronning Lipset Radio Sign Agreement to Bring Online Radio Advertising to Mainstream*, Business Wire, Mar. 22, 2004.

5. *Widespread Unauthorized Copying and Redistribution of Music Can Adversely Affect the Existing, Free Over-the-Air Broadcast Industry.*

Currently, over-the-air radio stations rely on advertising dollars as their principal source of revenue. As the Commission knows advertising revenue is directly related to a station's ratings. DAB operation without content protection potentially threatens that revenue source since those who might otherwise listen to a station for its music will be able to program their DAB receivers to create digital music libraries without ever listening to the station, listening to the entire radio program in its original intended order, or hearing the commercials. Although it may take a few years after the introduction of DAB for these more sophisticated receivers to penetrate the market and to affect station ratings, the value of advertising on radio will gradually diminish along with the revenue radio stations once enjoyed from advertising. As such, DAB has the potential to adversely affect the existing, free over-the-air radio industry.

The potential impact of these sophisticated, software-powered digital recording devices is already manifest in the television industry where PVRs allow viewers to record programs automatically and to mask or skip through advertising segments.[96] With the proliferation of PVR devices, "consumers will increasingly be able to avoid the advertising on which media companies so desperately depend."[97] Indeed, it is estimated that viewers using PVRs skip

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[96] Some PVRs are equipped with a 30-second skip feature to facilitate a user's ability to skip through entire commercials. *See, e.g.*, TiVo Digital Video Recorder, *available at* http://www.tivo.com (last accessed June 14, 2004).

[97] Gary Hamel and Lloyd Switzer, *The Old Guard vs. the Vanguard*, Wall St. J., Feb. 23, 2004, at A17, *available at* 2004 WL-WSJ 56920834. By 2007 (analysts predict that there will be 19 million PVRs in use around the world). *See* Farhad Manjoo, *Replay It Again, Sam*, Salon.com, Dec. 9, 2002, *available at* www.salon.com/tech/feature/2002/12/09/pvr (last accessed June 15, 2004).

approximately 50-75% of television commercials.[98] One analyst estimates that in the next few years, television advertising will drop by $7 billion.[99] "Conventional wisdom is that the [PVR] . . . device allowing consumers to fast-forward through commercials will erode the very foundation of the TV business because it relies so heavily on ad revenue."[100] The introduction of DAB without content protection poses a similar threat to the traditional broadcast radio industry. The survey conducted by RIAA indicates that 82% of those interviewed stated that they would "skip past the commercials and automatically go to songs by your favorite artists" if they had the capacity to do so and 69% stated that they would program their DAB receiver "to record a specific program or for a certain period of time so that you could listen to it later and skip over all the commercials."[101]

The Commission should not authorize a DAB standard that could undermine free over-the-air radio. As the Commission recognized in the *Broadcast Flag Report and Order* and in the adoption of other rules affecting the broadcast industry, including its rules regarding digital tuners[102] and cable carriage,[103] it does not have to wait until the harm is felt and stations go off

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[98] Megan Larson, *To Each His Own: DVR Owners, Watching What They Want, When They Want, Are Changing the Face of TV Programming*, Adweek, May 3, 2004, *available at* 2004 WL 64805335.

[99] *See* Sarah Sennott, *Gone in 30 Seconds; Changing Technology and Viewing Habits Are Replacing the Old TV Spot with Longer (and Shorter) Ad Forms*, Newsweek International, Feb. 23, 2004, at 52, *available at* 2004 WL 65299384.

[100] *See* Larson, *supra* note 98; *see also* Julia Angwin *et al.*, *Viewers Flock to the Devices, But Advertisers May Flee: Debating Ad-Skip Features*, Wall St. J., Apr. 26, 2004, *available at* 2004 WL-WSJ 56927162.

[101] The practice of many radio stations to broadcast several recordings in a row without commercial interruption is also evidence that consumers prefer to listen to the music and avoid commercials.

[102] *See In re Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Second Report and Order and Second Memorandum Opinion and Order, 17 FCC Rcd. 15,978 (2002).

the air before adopting regulations that protect the radio industry. "While it is true that the FCC must 'do more than simply posit the existence of the disease sought to be cured', the Commission is entitled to 'appropriate deference to predictive judgments that necessarily involve the expertise and experience of the agency.'"[104]

Indeed, in the *Broadcast Flag* proceeding, the Commission did not have empirical evidence that the television industry was presently harmed from unlimited copying and distribution of video content, yet it adopted the redistribution limitations based on the harm to the music industry from unauthorized P2P services.[105] Similarly, the Commission adopted its initial rules limiting the ability of cable systems to import distant television stations in order to protect local television service before any adverse impact had been shown[106] and imposed limitations on

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[103] *See, e.g., In re Amendment of Subpart L, Part 11, to Adopt Rules and Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems,* First Report and Order, 38 F.C.C. 683 (1965); *In re Amendment of Subpart L, Part 11, to Adopt Rules and Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems*, Memorandum Opinion and Order, 1 F.C.C.2d 524 (1965); *In re Amendment of Subpart L, Part 11, to Adopt Rules and Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems*, Second Report and Order, 2 F.C.C.2d 725 (1966); *In re Regulations Relating to Community Antenna Television Systems*, Cable Television Report and Order, 36 F.C.C.2d 143 (1972).

[104] *See Consumer Elecs. Ass'n v. FCC*, 347 F.3d 291, 300 (D.C. Cir. 2003) (citing *Time Warner Entm't Co.*, 240 F.3d 1126, 1133 (D.C. Cir. 2001) (quoting *Turner Broad. Sys. v. FCC*, 512 U.S. 622, 664 (1994)) (upholding FCC's rules requiring digital tuners in all televisions).

[105] *See Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,554 ¶ 8. Notably, the adverse affects of unauthorized P2P services impact the music industry far more than video industry because unauthorized P2P services are used primarily for music piracy, rather than video piracy.

[106] *See, e.g., In re Amendment of Subpart L, Part 11, to Adopt Rules and Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems,* First Report and Order, 38 F.C.C. 683 (1965); *In re Amendment of Subpart L, Part 11, to Adopt Rules and Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems*, Memorandum Opinion and Order, 1 F.C.C.2d 524 (1965); *In re Amendment of Subpart L, Part 11, to Adopt Rules and Regulations to*

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newspaper/broadcast cross-ownership based on its predictive judgment that common ownership of broadcast facilities and newspapers in the same market would adversely affect the range of news and public affairs offered in the market.[107] The Supreme Court in *FCC v. National Citizens Committee for Broadcasting*,[108] upheld the Commission's decision based on its predictive judgment because "evidence of specific abuses by common owners is difficult to compile" and "the possible benefits of competition do not lend themselves to detailed forecast."[109]

The Court of Appeals for the D.C. Circuit also acknowledged, when upholding the syndicated exclusivity rules, that it would have been difficult to prove with direct, empirical evidence "the degree to which programs are currently *not* being produced because of the lack of syndex protection."[110] Instead, the court affirmed the Commission's prediction linking lack of program diversity and lowered broadcast revenues because of the lack of exclusivity rules as consistent with accepted economic theory, without the need for empirical evidence.[111] When "working in new and rapidly developing fields," in particular, the Commission need not act with "total assurance."[112] As the court recognized:

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*Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems*, Second Report and Order, 2 F.C.C.2d 725 (1966); *In re Regulations Relating to Community Antenna Television Systems*, Cable Television Report and Order, 36 F.C.C.2d 143 (1972).

[107] *In re Rules Relating to Multiple Ownership of Standard, FM, and Television Broadcast Stations*, Second Report and Order, 50 F.C.C.2d 1046 (1975), *as amended on recons.*, 53 F.C.C.2d 589 (1975).

[108] 436 U.S. 775 (1978).

[109] *Id.* at 796-97.

[110] *See United Video, Inc. v. FCC*, 890 F.2d 1173, 1180 (D.C. Cir. 1989).

[111] *Id.*

[112] *Melcher v. FCC*, 134 F.3d 1143, 1152 (D.C. Cir. 1998) (upholding FCC's rules prohibiting incumbent local exchange carriers from holding licenses for local multipoint distribution services in the same geographic areas in which they provide telephone service).

> Where, as here, the FCC must make judgements about future market behavior with respect to a brand-new technology, certainty is impossible. The Commission must rely (within the limits of reason and rationality) on its expertise and its evaluation of the existing evidence in deciding whether the risk of harm is large and/or important enough to merit regulatory action.[113]

This case entails similar considerations. The Commission has not yet adopted final service rules for DAB and very few stations have begun actual digital broadcast operations. In addition, the PVR-type devices for digital radio have not yet been introduced in the United States and are only now being introduced in Europe.[114] However, it is clear that the copying and redistribution that concerns RIAA will take place: the experience with unauthorized P2P services demonstrates that large numbers of users prefer to get their music for free rather than paying for it (to the extent it is necessary to demonstrate that point); there is significant evidence from the television industry that the ability to skip commercials will result in reduced advertising revenue; the availability of devices in the United States that will permit programmable recording is obviously just around the corner as those devices are on the market in Britain and elsewhere; and recording applications have been introduced for Internet services here. Thus, there is a more than sufficient basis for the Commission to make the predictive judgment that DAB, absent content protection, threatens to erode the revenue base upon which radio stations rely[115] and that DAB without content protection will threaten the availability of broadcast radio as we know it.[116]

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[113] *Id.*

[114] *See* Section VI(B) *infra*.

[115] The fact that consumers have not used analog radio to engage in widespread copying and distribution of sound recordings does not question this conclusion. First, digital broadcasting offers a far superior audio quality than analog and, as the Commission stated, permits the duplication of the music with virtually no loss in quality. Thus, recordings of digital broadcasts are an effective substitute for CDs. Second, digital broadcasting includes information, metatags, which can be used to select the material the user wants to record. Thus, digital broadcasting offers listeners the ability to create their own personal libraries efficiently. Analog broadcasting has not, until recently, had that capacity and creating a library has required the manual recording

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## III. THE DUPLICATION AND REDISTRIBUTION OF COPYRIGHTED WORKS FACILITATED BY DAB IS INCONSISTENT WITH CONGRESSIONAL COPYRIGHT POLICIES.

The underlying premise of copyright law throughout U.S. history, as reflected in the very language of the copyright clause of the Constitution, is that the creation of artistic works is dependent on granting the creators of those works exclusive rights to their works, and hence the ability to receive compensation for use of their works.[117] Time and again, Congress has acted to assure that technology that enhances the ability of users to duplicate and transmit creative works does not deprive the creators of those works of the compensation that is necessary to assure that the public will receive the benefit of a steady supply of new works. This pattern has manifested itself in at least two ways. First, as new technologies have given rise to new opportunities for creative expression and the exploitation thereof, Congress has extended protection to new types of works.[118] In addition, as new means of exploiting of existing types of protected works have

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of the music and the laborious requirement to re-record the desired material on a single cassette or compact disc. While RDS technology may enable selected recording of broadcast material, that technology has not been available until fairly recently, and equipment capitalizing on its capacity has only come on the market recently. Thus, Gotuit Radio is just now offering a receiver that will permit listeners to record what they want to hear without listening to the original broadcast. *See* note 29, *supra*; *see also* Lenard Report ¶¶ 60-70.

[116] DAB will permit broadcasters to abandon the current, free over-the-air service and offer solely a subscription services, so that they are not dependent on advertising revenue to support their operations. However, the Commission has made it clear that the use of broadcast spectrum solely for a subscription service in which the signal is "unreceivable without special antenna converters and/or decoding equipment supplied by the licensee or programmer" does not meet the statutory definition of broadcasting. *Nat'l Ass'n for Better Broad. v. FCC,* 849 F.2d 665, 668 (D.C. Cir. 1988).

[117] "The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. Const., art. I, § 8, cl. 8.

[118] For example, photographs in 1865, Act of Mar. 3, 1865, 13 Stat. 540, motion pictures in 1912, Act of Aug. 24, 1912, Pub. L. No. 62-303, 37 Stat. 488, and sound recordings in 1971, Act of Oct. 15, 1971, Pub. L. No. 92-140, 85 Stat. 391.

become significant, whether due to changing technologies or changing business models, Congress has responded by extending rights to ensure that creators are entitled to reap a fair return from their creative investment.[119] The details of these numerous statutes vary widely, but one overarching policy is clear: to stimulate creative effort – creators should be able to reap economic rewards from the exploitation of their works. The Commission's authorization of a DAB system that would facilitate the unauthorized duplication and distribution of copyright works is inconsistent with this 150 years of congressional copyright policy.

### A. Compensation to Creators Is Necessary to Assure the Public's Access to New Music and Congress Has Responded with Music-Specific Legislation to Maintain Creative Incentives.

Compensation to creators for the use of recordings is certainly necessary to assure the health of America's historically vibrant music industry. Record companies are responsible for discovering, signing, promoting and developing recording artists and for producing, releasing and marketing sound recordings. These activities are expensive. As noted above, the upfront cost of a new recording release can easily be several hundred thousand dollars.

The exclusive rights granted under the Copyright Act are the only thing that makes it possible for record companies to make the kinds of investments necessary to produce, distribute and market recordings. Music is ubiquitous, and its exploitation through reproduction, redistribution or transmission is easy. If everyone was at liberty to exploit the music of others without paying, few would pay, and it would be impossible to finance new music. If there is one

[119] For example, the right of public performance in 1856, Act of Aug. 18, 1856, 11 Stat. 138, rights of translation and dramatization and the right to reproduce musical works mechanically in 1909, Act of Mar. 4, 1909, Pub. L. No. 60-349, 35 Stat. 1075, and the digital performance right in sound recordings in 1995, Pub. L. No. 104-39, 109 Stat. 336.

thing P2P has made clear, it is that if people can get music for free, they will take it rather than pay for it. Accordingly, just as it has done with respect to other types of works and industries, Congress has responded to this basic economic reality of the music industry with a string of legislation gradually extending copyright protection for sound recordings, with each act reflecting the basic policy that to stimulate creative effort, creators should be able to reap economic rewards from the exploitation of their works.

Sound recordings did not receive federal copyright protection until 1971,[120] largely because uncompensated performances of sound recordings by broadcasters and others quickly became well entrenched as the commercial recording industry developed.[121] Once a minimal level of protection was provided in federal law, it became apparent that new home taping technologies coupled with an emerging record rental business threatened to deny creators the compensation essential to stimulate creative effort. Congress responded by giving recording artists and record companies the right to control record rentals, and ensuring that songwriters and music publishers also would be compensated to make up for lost income from decreased record sales caused by home taping of rented records.[122]

More recently, as digital technology enhanced the ability of users to duplicate recordings without degradation and the Internet created new opportunities for the distribution of music without compensating the copyright owners, Congress took steps to ensure these technological developments did not deprive the public of new creative works by denying creators the

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[120] Sound Recording Act of 1971, Pub. L. No. 92-140, 85 Stat. 391 (1971).
[121] *See* S. Rep. No. 104-128, at 10 (1995); S. Rep. No. 92-72, at 3 (1971).
[122] Record Rental Amendment of 1984, Pub. L. No. 98-450, 98 Stat. 1727 (1984), codified at 17 U.S.C. §§ 109(b)(1)(A), 115(c)(4).

compensation necessary to fuel creative effort. Thus, in the Audio Home Recording Act ("AHRA"),[123] Congress acted to give the recording industry limited protection from the potential loss of revenue associated with digital audio tape recorders. As explained in greater detail in Section VI(A), that Act requires equipment manufacturers to include a copy protection system in digital audio tape recorders and to pay a royalty to compensate creators partially for lost revenue occasioned by the use of those devices.

Congress acted in a more comprehensive way in the DPRA and supplemented that action in the DMCA. In the DPRA, Congress granted sound recording copyright owners a limited performance right with respect to certain digital transmissions, thereby requiring a license for those digital transmissions. Congress was particularly concerned about interactive transmissions, as it concluded that those transmissions posed the most serious threat to the economic interests of "performing artists, record companies and others whose livelihood depends upon effective copyright protection for sound recordings."[124] In creating that performance right, Congress distinguished traditional, over-the-air broadcast operations, which were not subject to the performance right, from interactive or subscription services, which were. Thus, the Senate Committee stated: "The underlying rationale for creation of this limited [performance] right is grounded in the way the market for prerecorded music has developed, and the potential impact on that market posed by subscription and interactive services – but not by broadcasting and related transmissions."[125] The Committee explained:

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[123] Pub. L. No. 102-563, 106 Stat. 4237 (1992), codified at 17 U.S.C. §§ 1001-1010.
[124] DPRA Report at 10.
[125] DPRA Report at 17.

> This legislation is a narrowly crafted response to one of the concerns expressed by representatives of the music community, namely that certain types of subscription and interactive audio services might adversely affect sales of sound recordings and erode copyright owners' ability to control and be paid for use of their work. ...
>
> The limited right created by this legislation reflects changed circumstances: the commercial exploitation of new technologies in ways that may change the way prerecorded music is distributed to the consuming public. It is the Committee's intent to provide copyright holders of sound recordings with the ability to control the distribution of their product by digital transmissions, without hampering the arrival of new technologies, and without imposing new and unreasonable burdens on radio and television broadcasters, which often promote, and appear to pose no threat to, the distribution of sound recordings.[126]

The Committee went on to note:

> Of all the new forms of digital transmission services, interactive services are most likely to have a significant impact on traditional record sales, and therefore pose the greatest threat to the livelihoods of those whose income depends upon revenues derived from traditional record sales. The Committee believes that sound recording copyright owners should have the exclusive right to control the performance of their works as part of an interactive service, ....[127]

Similarly, in the DMCA, Congress clarified that the rights of copyright owners extend to certain noninteractive, nonsubscription uses, particularly Internet webcasting, "to ensure that recording artists and record companies will be protected as new technologies affect the ways in which their creative works are used."[128] That Act clarified certain provisions of the DPRA and created a statutory license for Internet-based radio stations, but narrowly limited their ability,

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[126] DPRA Report at 15.
[127] *Id.* at 16.
[128] H. Conf. Rep. No. 105-796 at 79-80 (1998), reprinted at 1998 U.S.C.C.A.N. 639, 655-656.

under the statutory license, to webcast recordings in order to minimize any risks that large quantities of music might be copied.[129] In particular, Congress noted that

> Recording artists and record companies were particularly concerned certain types of programming, without certain limitations, might harm recording artists and record companies. For example, some webcasters offer "artist-only" channels that perform the recordings of one artist continuously 24 hours a day. Yet another example are webcasters which engage in programming techniques that permit listeners to select or hear repeatedly and on-demand particular sound recordings .... In order to address some of these concerns ... the new statutory license is conditioned on certain programming limitations and other provisions . . . .[130]

One of the new requirements added by the DMCA is a requirement that webcasters and certain other kinds of services:

> take[] no affirmative steps to cause or induce the making of a phonorecord by the transmission recipient, and if the technology used by the transmitting entity enables the transmitting entity to limit the making by the transmission recipient of phonorecords of the transmission directly in a digital format, the transmitting entity sets such technology to limit such making of phonorecords to the extent permitted by such technology.[131]

Thus, Congress specifically indicated that recording from digital transmissions is not to be encouraged, and where a webcaster's transmission technology contains digital rights management capabilities – as does iBiquity's IBOC technology – that technology is to be used to limit copying to the extent of the technology's capability. The DMCA also provided protection

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[129] *See* Staff of House Comm. on the Judiciary, 105th Cong., Section-by-Section Analysis of H.R. 2281 as Passed by the United States House of Representatives on August 4, 1998, at 51 (Comm. Print 1998).

[130] *Id.* at 52.

[131] 17 U.S.C. § 114(d)(2)(C)(vi). Note that "phonorecord" is a term of art in copyright law essentially meaning a copy of a sound recording (as the term "copy" is used in ordinary parlance). *See* 17 U.S.C. § 101.

against circumvention of technological protection measures that control access to and copying of creative works. All this legislation makes clear that Congress did not want to see digital technology deprive creators of music of compensation for the use of their works. Yet, a Commission decision authorizing DAB without adequate content protection would undermine this congressional decision.

### B. The Metadata-Enabled Duplication and Redistribution of Copyright Works Enabled by DAB Without Content Protection Is Inconsistent with These Congressional Copyright Policies.

The automated recording of music broadcast digitally in CD-quality or near CD-quality, which will be possible with receiving/recording devices that will be available in the near term, is functionally equivalent to on-demand interactive services as to which copyright owners have exclusive performance rights under the DPRA. In an on-demand interactive service, the user sends an electronic message to a server or equivalent device maintained by the service and receives a transmission of a requested song. With unprotected DAB transmissions, the receiver/recording device is programmed to record the works of certain artists, genres, or songs and does so whenever they are broadcast by any station in the receiving range of the receiver/recorder. The automated recording of music broadcast digitally in CD-quality thus would permit a consumer to convert a noninteractive broadcast transmission into an enormous collection of copyrighted recordings, giving the consumer the ability to control what she listens to and when. There is no meaningful difference between a true on-demand service and this kind of DAB receiver/recorder: in both the consumer is able "to select or hear repeatedly and on-

demand particular sound recordings ..." when she wants and without ever purchasing a CD or downloading a song from a legitimate service.[132]

Although Congress exempted free, over-the-air digital broadcast operations from the performance right, it is clear that it did not intend that exemption to eviscerate the primary purpose of the DPRA or the subsequent DMCA. Indeed, to the contrary, Congress expressly noted, when it enacted the DPRA, that other means of digital duplication and retransmission could develop and indicated that it intended the DPRA to reach those new technologies. Thus, the Senate Report provided:

> The Committee anticipates that the relevant technologies will continue to advance. The bill has been carefully drafted to accommodate foreseeable technological changes. However, to the extent that the language of the bill does not precisely anticipate particular technological changes, it is the Committee's intention that both the rights and the exemptions and limitations created by the bill be interpreted in order to achieve their intended purposes.[133]

Further, in *Bonneville International Corp. v. Peters,* the Court of Appeals held that the exemption should be narrowly construed to apply to traditional, free over-the-air broadcasting, and that webcasting by radio broadcasters was subject to the performance right granted in the DPRA. The Court noted that "it is Congress' intent that [the provisions of the DMCA extending the DPRA performance right to digital transmissions] apply generally to otherwise nonexempt nonsubscription digital audio services on the Internet and in other media,"[134] and that "the

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[132] Staff of House Comm. on the Judiciary, 105th Cong., Section-by-Section Analysis of H.R. 2281 as Passed by the United States House of Representatives on August 4, 1998, at 52 (Comm. Print 1998).

[133] DPRA Report at 17.

[134] 347 F.3d at 499 (quoting the 1998 House Manager's Report at 50).

exemptions the DPRA afforded to radio broadcasters were specifically intended to protect only traditional radio broadcasting, and did not contemplate protecting AM/FM webcasting." [135] It went on to hold that: "[t]he legislative history shows that DPRA § 114(d)(1)(A)(iii) created a nonsubscription broadcast transmission exemption for traditional over-the-air broadcasting in order to preserve the symbiotic relationship between broadcasters and the recording industry."[136]

Authorizing DAB without content protection would manifestly be inconsistent with this legislative scheme and will frustrate Congress' intent of assuring "that copyright owners of sound recordings should enjoy protection with respect to digital subscription, interactive and certain other such performances."[137] As the *Bonneville* case held with respect to webcasting by radio broadcasters, the Commission adoption of DAB without content protection would undermine clear congressional intent to differentiate between over-the-air digital broadcast contemplated at the time from the essentially on-demand interactive services that will be available with unprotected DAB.

## IV. THE COMMISSION HAS JURISDICTION TO ADOPT CONTENT PROTECTION REQUIREMENTS.

The Commission has jurisdiction to adopt content protection requirements as part of its DAB rules under Title I and Title III of the Communications Act. Section 2(a) of the Act gives the Commission jurisdiction over

> all interstate and foreign transmission of energy by radio, which originates and/or is received within the United States, and to all persons engaged within the United States in such communication

[135] *Id.*
[136] *Id.*
[137] DPRA Report at 15.

> or such transmission of energy by radio, and to the licensing and regulating of all radio stations.[138]

Title III of the Act gives the Commission regulatory authority to "[p]rescribe the nature of the service to be rendered by" radio stations and to "[s]tudy new uses for radio . . . and generally encourage the larger and more effective use of radio in the public interest."[139] These provisions give the Commission expansive authority to prescribe the manner in which broadcast stations operate.[140] Indeed, it is well established that the Commission's authority under the public interest standard is not limited to preventing interference among broadcast stations but extends to "the scope, character, and quality of [their] services"[141] in order "to secure the maximum benefits of radio to all the people of the United States."[142] The Commission has historically recognized that broad mandate and has acted to promote congressional policies established in other federal statutes, including federal intellectual property laws.[143]

The Commission also has ancillary jurisdiction under Title I to adopt content protection rules and to require that equipment manufacturers include in receivers mechanisms to give effect to those rules. The Supreme Court's decisions in *United States v. Southwestern Cable Co.*,[144] and again in *FCC v. Midwest Video Corporation*,[145] established that the Commission has jurisdiction under Title I of the Act to adopt regulations that are reasonably ancillary to the

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[138] 47 U.S.C. § 152(a).
[139] 47 U.S.C. § 303(b), (g).
[140] *FCC v. Pottsville Broad. Co.*, 309 U.S. 134, 137 (1940).
[141] *Nat'l Broad. Co. v. U.S.*, 319 U.S. at 216 (quoting *Fed. Radio Comm'n v. Nelson Bros. Bond & Mortgage Co.*, 289 U.S. 266, 285 (1933)).
[142] *Id.* at 217.
[143] *See, e.g.*, *Sports Blackout Order*, 54 F.C.C.2d at 265.
[144] 392 U.S. 157 (1968).
[145] 440 U.S. 689 (1979) (upholding FCC regulations requiring cable companies to originate programming in order to promote diversity).

effective performance of the Commission's various responsibilities.[146] The Commission relied on that power in its *Broadcast Flag Report and Order* and its *Plug and Play Second Report* to require equipment manufacturers to recognize and give effect to the broadcast flag and to limit the extent of the copy protections multichannel video program distributors may impose on cable subscribers. Those decisions clearly establish that the Commission may adopt content protection and usage rules for DAB as well.

### A. The Commission Has Authority Under Title III of the Communications Act to Require Content Protection as a Component of the Digital Radio Transmission Standard.

The Communications Act "expresses a desire on the part of Congress to maintain, through appropriate administrative control, a grip on the dynamic aspects of radio transmission."[147] Pursuant to that grant of authority, the Commission has long interpreted Title III to include the authority to regulate radio transmissions broadly.[148] Indeed, nothing in Title III circumscribes the Commission's jurisdiction over radio transmissions. Rather, Section 301 gives the Commission plenary jurisdiction over all radio transmissions,[149] and Section 303 grants the

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[146] *Southwestern Cable*, 392 U.S. at 172-73 (affirming the Commission's ancillary jurisdiction under Section 2(a) to regulate cable operators); *see also Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,563 ¶ 29 (applying two-part analysis from *Southwestern Cable* in determining that FCC has ancillary jurisdiction to adopt content protection rules for DTV that regulate consumer electronics manufacturers).

[147] *Pottsville Broad.*, 309 U.S. at 138.

[148] *See, e.g., In re Preemption of State Entry Regulation in the Public Land Mobile Service*, Report and Order, CC Docket No. 85-89, FCC 86-112, ¶ 20 n.38 (rel. Mar. 31, 1986) (rejecting argument that Section 301 limits Commission's jurisdiction to preventing radio interference and stating that Congress has made clear "that the Commission's jurisdiction over radio communications extends to all the channels of radio transmission").

[149] 47 U.S.C. § 301 ("It is the purpose of this chapter, among other things, to maintain the control of the United States over all the channels of radio transmission . . . ."); *see In re Joseph Frank Ptak San Marcos, Texas*, Decision, 14 FCC Rcd. 9317, 9320 ¶ 13 (1999) ("Section 301 explicitly sets forth the Commission's jurisdiction over all radio transmissions").

Commission authority to classify radio stations, prescribe the nature of service, assign frequencies, define service areas, develop new radio uses and establish regulations to implement the Act.[150] These provisions give the Commission jurisdiction to require that licensees of radio stations who wish to broadcast digitally must include as part of their digital transmission content protection requirements which the Commission determines are in the public interest.

Moreover, the Commission's public interest mandate is not limited to serving "as a kind of traffic officer, policing the wave lengths to prevent stations from interfering with each other . . . [Rather, it] puts upon the Commission the burden of determining the composition of that traffic."[151] "It is settled that in reaching its public interest determination, the Commission must attempt to accommodate, to the extent possible under the Communications Act, other federal policies."[152] Additionally, the Commission has held that "formulation of communications policies – with myopic disregard of other important national policy objectives" does not further the public interest.[153] Thus, in adopting its pioneer preference rules, the Commission stated:

> [I]t is entirely appropriate for the Commission to take cognizance of [the policies underlying federal patent, trademark, and copyright laws] when making spectrum allocation and licensing decisions.

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[150] 47 U.S.C. § 303(a)-(c), (g)-(h), (r); *see In re Applications of Midwest Corp. and Two-Way Radio of Carolina, Inc. for Construction Permits in the Multipoint Distribution Service for a New Channel 1 Station at Charlotte, N.C.*, Memorandum Opinion and Order, 53 F.C.C.2d 294, 302 ¶ 13 (1975) (rejecting contention that FCC's Title III jurisdiction "is limited to the technical aspects of radio transmission") ("*Midwest Corp. Memorandum Opinion & Order*").

[151] *Nat'l Broad. Co.*, 319 U.S. at 215-16.

[152] *QVC Memorandum Opinion and Order*, 8 FCC Rcd. at 8487 ¶ 7 (citing *Nat'l Broad. Co.*, 319 U.S. at 222-23; *Storer Communications, Inc.*, 763 F.2d at 443; *LaRose*, 494 F.2d at 1146-47 n.2).

[153] *In re Tender Offers and Proxy Contests*, Policy Statement, MM Docket No. 85-218, FCC 86-67, ¶ 20 (rel. Mar. 17, 1986) ("*Tender Offer Policy Statement*"), *appeal dismissed sub nom. Office of Communications of the United Church of Christ v. FCC*, 826 F.2d 101 (D.C. Cir. 1987).

> Nothing in the Constitution or in the patent, trademark, and copyright laws precludes us from doing so. Indeed, the Communications Act specifically states that the FCC should "encourage the provision of new technologies and services to the public."[154]

The Commission has acted to incorporate in its rules policies enacted in the Copyright Act. For example, it adopted the sports exclusivity rule[155] in order to give effect to legislation enacted to protect the interests of sports teams against the importation by cable systems of games from distant cities. The Commission held:

> Since the inception of this proceeding, Congressional policy has been the primary element of our concern and the main thrust of our inquiry has been directed toward a determination of Congressional intent. *The existence of clear Congressional intent concerning the issues relevant to this proceeding would be strong evidence of public policy which we must follow in reaching our final determination.*[156]

The Commission found that the cable carriage of distant television stations undermined the gate receipts of sports teams and restricted cable companies from importing certain distant sports programs in situations where it concluded that sale of tickets would be adversely affected.[157] The Commission adopted those rules even though it concluded that "there is not sufficient evidence in the record to warrant restrictive measures aimed at protecting television broadcast revenues by preserving the audiences of stations which televise sports events . . . ."[158]

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[154] *See In re Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services*, Report and Order, 6 FCC Rcd. 3488, 3492 ¶ 33 (1991) (citations and subsequent history omitted).

[155] *See* 47 C.F.R. §§ 76.111, 76.127.

[156] *Sports Blackout Order*, 54 F.C.C.2d at 278 ¶ 43 (emphasis added).

[157] *See* 47 C.F.R. § 76.111.

[158] *Sports Blackout Order*, 54 F.C.C.2d at 278 ¶ 43.

The Commission has recognized the need to honor federal policies in adopting other rules under the Act. For instance, in developing transfer of control procedures for hostile corporate takeovers, the Commission attempted to harmonize its implementation of the Communications Act with federal laws and policies concerning corporate governance.[159] The Commission analyzed the policy objectives underlying relevant securities laws, determined that its then-existing procedures would effectively frustrate those laws and endorsed an alternative approach that both furthered the Act and comported with the policy goals underlying the federal securities laws.[160] The Commission likewise has accommodated bankruptcy laws,[161] antitrust laws,[162]

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[159] *Tender Offer Policy Statement*, FCC 86-67, ¶ 7 ("While we recognize that our primary mission is to implement the Communications Act, we believe that, in doing so, it is both necessary and appropriate for us to harmonize our actions with other federal policies and objectives."). *See also Storer Communications, Inc.*, 763 F.2d at 443 ("The Commission has a duty to implement the Communications Act but also must attempt to do so in a manner as consistent as possible with corporate and federal security laws' protection of shareholders' rights."); *QVC Memorandum Opinion and Order*, 8 FCC Rcd. at 8487 ¶ 7 (FCC tender offer policy was developed to harmonize the Communications Act with purposes underlying the federal securities laws governing tender offers); *In re Applications of CNCA Acquisition Corp. for Commission Consent to a Transfer of Control of American Cellular Network*, Memorandum Opinion and Order, 3 FCC Rcd. 6088, 6089 ¶ 15 (1988) (same).

[160] *Tender Offer Policy Statement*, FCC 86-67, ¶ 44.

[161] *See, e.g., LaRose*, 494 F.2d at 1146 n.2 ("[A]gencies should constantly be alert to determine whether their policies might conflict with other federal policies and whether such conflict can be minimized.").

[162] *See, e.g., Nat'l Broad., Co. v. United States*, 319 U.S. at 223-24 (the Commission should consider purposes of Sherman Act in administering its regulatory powers); *In re Radiofone, Inc. v. Bellsouth Mobility, Inc.*, Memorandum Opinion and Order, 14 FCC Rcd. 6088, 6101 ¶ 32 (1999) (the Commission must consider pro-competitive policies underlying antitrust laws within its "public interest" determination) (subsequent history omitted); *RCA Global Communications v. FCC*, 758 F.2d 722 (D.C. Cir. 1985).

national security and law enforcement policies,[163] and international trade agreements entered by the Executive Branch.[164]

Pursuant to this well-established principle, the Commission has jurisdiction to require that broadcasters who wish to operate digitally must do so in a manner that recognizes the intellectual property rights of copyright owners. The Copyright Act represents Congress' determination of the appropriate balance between the rights of the authors of the intellectual property and the rights of others to use that intellectual property.[165] And, as explained above, Congress has indicated that digital technology poses a new and significant threat to the intellectual property rights of creators of sound recordings and has acted to limit the ability of users to copy and distribute that material without compensating the copyright owners. The Commission cannot ignore that congressional determination in establishing the DAB transmission standard,[166] particularly where, as here, the transmission standard under consideration can accommodate rules that limit copying and distribution.[167]

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[163] *See, e.g., In re Applications of XO Communications, Inc.*, Memorandum Opinion, Order and Authorization, 17 FCC Rcd. 19,212, 19,229 ¶ 39 (2002) (conditioning consent to transfer of control on compliance with agreement with Department of Justice and the Federal Bureau of Investigation).

[164] *See, e.g., In re Rules and Policies on Foreign Participation in the U.S. Telecommunications Market*, Report and Order and Order on Reconsideration, 12 FCC Rcd. 23,891 (1997) (a component of public interest analysis is the consistency of the Commission's policies regarding foreign participation in the U.S. telecommunications market with the United States' commitments under the World Trade Organization Basic Telecom Agreement and General Agreement on Trade in Services); *In re Rules and Policies on Foreign Participation in the U.S. Telecommunications Market*, Order on Reconsideration, 15 FCC Rcd. 18,158 (2000) (same).

[165] 17 U.S.C. § 106 (giving copyright owners the exclusive right, *inter alia,* to reproduce and distribute copies of copyrighted works).

[166] *Cf. F.C.C. v. NextWave Personal Communications Inc.*, 123 S. Ct. 832 (2003).

[167] As noted above, iBiquity has acknowledged publicly that it can accommodate copy protection rules. *See Digital Radio Developer Says Content Protection Possible*, Communications Daily, Apr. 19, 2004, at 5.

B. The Commission Has Ancillary Jurisdiction to Adopt Content Protection Rules for Digital Audio Broadcasting.

The Supreme Court's decisions in *Southwestern Cable Co. v. United States*,[168] and in *Midwest Video Corporation v. FCC*,[169] establish that the Commission has ancillary jurisdiction to adopt content protection rules and to require that equipment manufacturers include mechanisms in DAB receivers that will honor those rules. As the Commission held in the *Broadcast Flag Report and Order* and the *Plug and Play Second Report,* it has jurisdiction under Title I of the Act to adopt regulations that are reasonably ancillary to the effective performance of the Commission's responsibilities under the Act.[170] Digital radio content protection rules satisfy both of these requirements: Title I manifestly extends to digital radio service and to receivers for digital broadcasts, and content protection rules are reasonably ancillary to the development of a digital radio service and to the promotion of "the larger and more effective use of radio in the public interest."[171] Similarly, as the Commission held in the *Plug and Play Second Report,* that ancillary jurisdiction extends to usage rules.

1. *Title I of the Communications Act Extends to the Development of Digital Radio Service and Compatible Digital Radio Receivers.*

The Communications Act confers upon the Commission "'a unified jurisdiction' and 'broad authority'" over the nation's communications policies.[172] In particular, pursuant to

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[168] 392 U.S. 157 (1968).

[169] 440 U.S. 689 (1979) (upholding FCC regulations requiring cable companies to originate programming in order to promote diversity).

[170] *See Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,563 ¶ 29; *see also Southwestern Cable*, 392 U.S. at 172-73 (affirming the Commission's ancillary jurisdiction under Section 2(a) to regulate cable operators).

[171] 47 U.S.C. § 303(g).

[172] *See Southwestern Cable Co.*, 392 U.S. at 172 (quoting legislative history of the Act) (citations omitted).

Section 1 of the Act, the Commission was established "to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service" and "for the purpose of promoting safety of life and property through the use of wire and radio communications . . . ."[173] Section 2(a) gives the Commission authority over all interstate communication by wire or radio.[174] Section 4 provides that the "Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions."[175] Furthermore, the terms "radio communication" and "wire communication" set forth in Sections 3(33) and 3(52) of the Act are "broadly defined" to give the Commission regulatory authority over radio transmissions as well as equipment used for the "receipt, forwarding and delivery" of such transmissions.[176] The Commission's decision in the *Broadcast Flag* proceeding leaves little doubt that these provisions give the Commission general authority to adopt content protection rules and to regulate radio equipment to give effect to such rules. Relying on *Southwestern Cable*, the Commission held that it had ancillary jurisdiction to regulate equipment manufacturers in order to effectuate DTV content protection rules.[177] With respect to the first

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[173] 47 U.S.C. § 151.

[174] *Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,563 ¶ 29.

[175] 47 U.S.C. § 154(i); *see also* 47 U.S.C. § 303(r) ("The Commission from time to time, as public convenience, interest, or necessity requires, shall . . . [m]ake such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act . . . .").

[176] *See Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,563 ¶ 29; *see also In re Orth-O-Vision, Inc. Petition for a Declaratory Ruling*, Memorandum Opinion, Declaratory Ruling, and Order, 69 F.C.C.2d 657, ¶ 19 (1978) (finding same). "Radio communication" or "communication by radio" means "the transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission." 47 U.S.C. § 153(33).

step in the jurisdictional analysis, the Commission found the statutory definitions of radio communication and wire communication cover television equipment and, therefore, such equipment falls within the Commission's general authority set forth in Section 2(a).[178]

Nothing in Title I distinguishes television or cable carriage from radio so as to justify a different interpretation with respect to radio equipment. The definitions of radio communication and wire communication include both pictures as well as sounds of all kinds.[179] Moreover, Sections 1 and 2(a) cover all wire and radio communications and Section 4(i) confers on the Commission authority to act as necessary to execute all of its functions under the Act. Thus, the Commission's rationale for interpreting these provisions to cover television equipment is equally persuasive for concluding that Title I extends to radio equipment.

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[177] *See Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,563 ¶ 29. The Commission has relied on its ancillary jurisdiction to adopt other regulations as well. *See, e.g., In re Promotion of Competitive Networks in Local Telecommunications Markets, Wireless Communications Association International, Inc., Petition for Rulemaking to Amend Section 1.4000 of the Commission's Rules*, First Report and Order, 15 FCC Rcd. 22,983, 23,028-35 ¶¶ 101-116 (2000) (adopting rules to ensure telecommunications competition in multiple tenant environments); *In re Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996*, Report and Order and Further Notice of Inquiry, 16 FCC Rcd. 6417, ¶¶ 13-15 (1999) (adopting rules to ensure that telecommunications equipment and services are accessible to persons with disabilities). And in its *Plug and Play Second Report*, the Commission adopted specific copy protection rules for various kinds of cable program distribution businesses. *Plug and Play Second Report,* 18 FCC Rcd. at 20,909-10 ¶¶ 55-56. Although the Commission found it had explicit authority under Section 629 to adopt those rules, it also concluded that even absent Section 629, the Commission could have relied on its ancillary jurisdiction.

[178] Notably, the Commission rejected the argument that the definition of "radio communication" refers only to apparatus used for the *transmission*, and not the *reception*, of radio. *Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,564 ¶ 30 n.75. The Commission also rejected the argument that its assertion of jurisdiction over equipment manufacturers must be tied to an explicit grant of authority. *Id.* ¶¶ 32-33.

[179] 47 U.S.C. § 153(33), (52).

Similarly, in the *Plug and Play Second Report,* the Commission found that adopting usage rules applicable to multichannel video program distributors'

> content distribution falls within the Communications Act's mandate over "all interstate and foreign communications by wire or radio," and the Commission's broad authorization "to make available to all Americans a radio and wire communications service." In furtherance of these goals, the Commission can adopt regulations that are consistent with the public interest and not inconsistent with other provisions of the Communications Act or other law. Not only are the encoding rules "not inconsistent" with other provisions of the Act or law, we believe they will significantly advance Section 629's stated goal.[180]

Just as the *Plug and Play* encoding rules advance the goals of Section 629 of the Act, so too the usage rules urged here will promote the goals Congress established in the DPRA and amplified upon in the DMCA.

Accordingly, based on the broad language of Title I and the Commission's analysis in the *Broadcast Flag Report and Order* and the *Plug and Play Second Report*, the Commission has Title I general authority to adopt content protection regulations that extend to radio equipment manufacturers. Under *Southwestern Cable*, the Commission can exercise its ancillary jurisdiction if digital radio content protection rules would be reasonably ancillary to the effective performance of the Commission's responsibilities under the Communications Act.

[180] *Plug and Play Second Report*, 18 FCC Rcd. at 20,909 ¶ 55 (footnotes omitted).

2. *Content Protection Rules Would Be Reasonably Ancillary to the Effective Performance of the Commission's Development of a Digital Radio Service.*

a. Content Protection Rules Advance Congressional Copyright Policy.

Content protection regulations for digital radio would be reasonably ancillary to the Commission's effective implementation of its stated goal to develop a "'vibrant and vital terrestrial radio service for the public' and [] ensur[ing] to the extent possible that existing broadcasters have the opportunity to implement [DAB]."[181] In 2002, the Commission adopted an interim policy permitting radio stations to commence digital radio broadcast using the iBiquity standard. The Commission currently is granting special temporary authorizations so that radio stations may commence digital radio operations pending the outcome of this rulemaking to develop final DAB rules.[182]

In authorizing this service, the Commission is required to find that the transmission standard and the service are in the public interest.[183] And, as noted above, one component of the Commission's public interest examination requires it to consider whether authorizing a digital radio service is consistent with the policies underlying the Copyright Act. Adoption of a formal digital radio standard without incorporating content protection technology, however, runs

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[181] *In re Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service*, First Report and Order, 17 FCC Rcd. 19,990, 19,993 ¶ 7 (2002) ("DAB *First Report and Order*").

[182] *Id.* ¶ 54.

[183] *See, e.g.*, 47 U.S.C. § 303(g) ("[T]he Commission from time to time, as public convenience, interest, or necessity requires shall . . . [s]tudy new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest."); 47 U.S.C. § 151 (establishing the Commission for the purpose of "mak[ing] available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service"); 47 U.S.C. § 153(33), (52) (defining "radio communication" and "wire communication" to give FCC jurisdiction over transmission and reception of radio signals).

contrary to that obligation, undermining congressional policies designed to assure that use of digital technology does not impair the ability of copyright owners and artists to be compensated for the use of their creative efforts in an interactive or functionally equivalent service.

The Commission cannot effectively implement a digital radio service in a manner that serves the public interest unless it gives effect to these policies of the federal copyright laws. Content protection rules for digital radio represent the appropriate balance between enabling the public to realize the benefits of a new, exciting radio service and preserving the interests granted to copyright owners under the federal copyright laws. Thus, content protection rules would be reasonably ancillary to the Commission's effective performance of its public interest obligation in developing DAB. Indeed, without content protection rules, the Commission would be sanctioning the very type of digital copying and retransmission Congress intended to limit when it enacted the DPRA and the DMCA.

b. Content Protection Rules Will Promote Music Diversity.

Because the sale of recordings is the predominant source of revenue for the record companies, the loss of record sales resulting from the unauthorized copying and redistribution of DAB will aggravate the recording industry's existing financial problems, thereby diminishing its ability to promote and develop new talent and to release new recordings by established and new talent. The reduction in the number of new recordings and the decreased investment in discovering and developing new talent will effectively reduce the diversity of sound recordings available to the public, reduce the diversity of music available over the radio, and undermine the Commission's clear mandate to promote broadcast content diversity.[184] Adopting content

[184] *FCC v. Nat'l Citizens Comm. for Broad.*, 436 U.S. 775 (1978).

protection rules will avoid, or at least minimize, that result by protecting the economic base of the music industry from the misuse of DAB transmissions to copy and distribute broadcast content.

c. Content Protection Rules Will Protect Advertiser Support for Free Broadcast Radio.

Finally, the cherry-picking of sound recordings transmitted on DAB will, over time, adversely affect the advertising base upon which nonsubscription broadcast radio stations depend for survival. Advertising is sold based on ratings, and it is unlikely that advertisers will continue to purchase advertising at their current volumes or to support the multiplicity of radio stations in a market if the audience declines. As demonstrated above, the television industry is already facing these issues as a result of the loss of audience ratings and the widespread availability of PVRs that permit viewers to skip commercials.[185] The broadcast radio industry will not be immune to similar advertiser concerns.

While the adverse impact from the loss of advertising revenue may take some time to be felt, the Commission's ability to address the impact of the unauthorized copying and distribution of broadcast content on broadcast radio stations will be substantially diminished. The public will have become accustomed to creating their own digital collections through the recording of digital broadcasts and any effort to roll back the clock and halt that activity will be difficult, if not impossible. Indeed, the technological options available to the Commission will also be much more limited than they are currently. Given the Commission's statutory charge "to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-

[185] *See supra* Section II(B)(5).

wide, and world-wide wire and radio communication service" and to "generally encourage the larger and more effective use of [broadcast] radio in the public interest,"[186] it has jurisdiction to require content protection rules in order to promote programming diversity and the continued provision of free, over-the-air radio services. Indeed, the Commission rules upheld by the Supreme Court in *Southwestern Cable*, were predicated on essentially the same rationale: that the importation by cable systems of programming from distant television stations would undermine the economic support for local stations.[187] There is no basis to distinguish between the Commission's jurisdiction to act to protect broadcast television and to protect broadcast radio services.

### 3. *Adoption of Content Protection Rules Will Serve the Public Interest Mandate of the Communications Act.*

The Commission cannot formulate the final digital radio standard "with myopic disregard"[188] of the significant threat that over-the-air broadcasting of digital sound recordings without content protection will cause to copyright owners. Title III authorizes the Commission to approve a digital radio transmission standard, including a standard that is capable of embedding content protection data and information into the transmission signal, and to require that radio receivers recognize and give effect to those rules. Even if the Commission concludes that it does not have an explicit grant of authority to adopt content protection rules, under *Southwestern Cable*, the Commission clearly has ancillary jurisdiction to do so. As in the

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[186] 47 U.S.C. § 151.
[187] *Southwestern Cable*, 392 U.S. at 175-77.
[188] *Tender Offer Policy Statement*, FCC 86-67, ¶ 20.

*Broadcast Flag* proceeding, the Commission's broad Title I authority provides general jurisdiction to adopt such rules.

## V. THE COMMISSION SHOULD ADOPT CONTENT PROTECTION RULES THAT LIMIT THE ABILITY OF LISTENERS TO ENGAGE IN CHERRY-PICKING OF SELECTED RECORDINGS AND IN REDISTRIBUTION OF COPYRIGHTED WORKS.

### A. Content Protection Rules Precluding Cherry-Picking of Selected Recordings and Their Electronic Retransmission Will Further Congressional Policies.

To assure that DAB operation does not eviscerate the intellectual property rights of those who have created the music broadcast by digital radio stations, reduce the diversity of music available to the public over the broadcast media, or threaten the survival of advertiser-supported terrestrial radio, the Commission should incorporate content protection rules in its DAB regulations. Those regulations should (i) require radio broadcasters, who elect to operate digitally to transmit as part of their digital broadcast signal a mechanism to assure content protection, (ii) set forth rules establishing the permissible duplication of copyrighted content, and (iii) preclude the unauthorized distribution of content taken from a DAB transmission. Suggested usage rules designed to achieve these results – while respecting existing consumer expectations concerning the duplication of broadcast content – are set forth in the Hamilton Report and summarized in the following section of these Comments.

Adoption of such content protection rules is essential if the Commission's decision to authorize DAB is not to undermine congressional copyright policy and further aggravate the financial posture of the music industry. Since record companies do not have a performance right in their sound recordings, broadcasters are free to broadcast any sound recording without compensating or seeking the consent of the copyright owner. Thus, the Commission

authorization of DAB without content protection will in effect sanction unauthorized copying and redistribution of copyrighted recordings, which will inevitably harm the music industry. Without those rules, consumers will be able to engage in the massive indiscriminate, unauthorized copying and distribution of the copyrighted works. Given the established congressional policies to prevent the harms which use of digital technology can impose on the music industry, the Commission may not authorize a DAB system which subverts those policies.

### B. The Commission Should Adopt Usage Rules that Limit the Ability of Users to Program DAB Receivers/Recorders to Create Libraries of Digital Recordings from DAB Operations.

Set forth in the Hamilton Report are suggested usage rules for the recording and use of recorded DAB broadcasts. Those rules will allow users to continue to record and use broadcast music manually, to time shift, and to record entire programs. At the same time, they afford copyright owners the protection Congress found necessary to assure the continued creation of artistic works. The suggested rules provide:

- Receivers may only record or permit recording of covered content[189]: (a) in direct and immediate response to a consumer pressing a record button; (b) based on a date and time preprogrammed by the consumer.
- Preprogrammed recordings shall be for a minimum period of 30 minutes in duration.
- A replay buffer may be used to initiate recording of a previously broadcast transmission provided that the buffer does not exceed 30 minutes in duration.
- Each recording of covered content shall be stored and retrieved as a single continuous session and may not be divided into recordings of individual songs on

[189] Covered content is defined as "Copyrighted sound recordings contained in a non-subscription broadcast transmission for which protection has not been waived." Hamilton Report § 5.

an automated or non-automated basis using ID information[190] or audio characteristics.

- The application of these usage rules to covered content shall be stored and associated in a ROBUST manner with any recordings of such covered content.
- ID information shall be recorded only in a manner that effectively limits its use to display during simultaneous audio playback.
- No recording device shall record covered content based on ID information.
- All recordings of covered content must employ robust encryption methods to bind and limit playback to the recording device.
- Playback of covered content shall be solely on a session basis and shall not be linked in any way to ID information.
- Playback of covered content shall be at normal speed (defined as within 10% of the speed at which the content was originally recorded). Playback may skip forward and backward at higher speeds within the recorded session without playing any sound provided that no skipping, either forward or backward, shall be permitted to the beginning or end of a song using ID information.[191]

RIAA believes that these rules appropriately balance the interests of users in recording material off-the-air while protecting the interests of the music industry against unauthorized copying and redistribution. Under them, users will be permitted to record digital broadcasts manually and to record blocks of time on a programmed basis. The proposed rules would, however, preclude programmed or automatic recording of specified music, artists or genre using the metadata to parse the recorded material and create a digital jukebox of individual sound

[190] ID information is defined as "Any descriptive information associated with COVERED CONTENT, including song title, artist name, album name, genre, standard or proprietary identifying code or other content descriptive information. The term, 'metadata' is synonymous." *Id.*.

[191] Hamilton Report § 7. The limitation on "playing any sound" at higher speeds is designed to prevent users from circumventing the usage rules by duplicating a work at a higher speed and then playing it back at a lower speed, *e.g.*, copying the work at twice the normal speed and then playing it at half the normal speed.

recordings. They would also preclude users from using the metadata to disaggregate specific recordings from programs that were recorded in their entirety. Neither of these features is possible today, yet their introduction on commercially available products would enable users to create the music libraries that concern RIAA and the music industry generally.

RIAA believes that this approach is narrowly tailored to protect the interests identified by Congress in the DPRA and the concerns identified by the Commission in the DTV and digital cable proceedings. It will preserve the current expectations of listeners to record music off the air, while protecting the legitimate interests of copyright owners to prevent the creation of digital jukeboxes and libraries which would obviate the need to acquire any recordings through means that compensate the artists and other members of the music industry who are dependent on the sales of sound recordings for their livelihood. Indeed, the proposed usage rules will permit consumers to do more than they can do today. Further, adoption of these rules will advance the deployment of digital radio by removing any uncertainties as to whether the marketing of devices capable of cherry-picking recording and unauthorized distribution violates copyright law. And, as noted above, limiting the ability of users to program the duplication of broadcast sound recordings will protect the free over-the-air radio business by avoiding the inevitable loss of advertising revenue that will follow from a reduction in audience when listeners can automatically record, store and listen solely to the music they want without ever listening to commercials.

C. The Commission Has a Number of Ways to Provide Content Protection.

As the Commission noted in the *Broadcast Flag Report and Order*, there are a variety of ways in which content protection for audio material can be achieved.[192] There are two elements to any solution. The first is a method to indicate which content should be protected. The second is any means of implementing restrictions on what can be done with that content. The methods for triggering protection include, for example, encryption of only the audio content that should be protected and a broadcast flag. The method for implementing restrictions on the use of the content include encryption of selected information such as metadata, limitations on the use of the metadata (without encryption), restrictions on disaggregation of protected content in recordings, and restrictions on digital output. Each of these methodologies raises different policy issues and has different pluses and minuses. It is ultimately for the Commission to determine which balance of the various policy issues best serves the public interest.

RIAA is submitting with these comments a technical report from Hamilton Technologies which outlines two potential means of triggering content protection[193] – encryption and an audio protection flag ("APF"). RIAA believes these two options are practicable and reasonably effective, although others might work as well.[194] Regardless of the method of triggering

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[192] *See Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,555 ¶ 10 ("[M]any different content protection and recording technologies, including but not limited to digital rights management, software-based, and non-encryption alternatives, will emerge to facilitate these [innovative] uses.").

[193] *See* Hamilton Report §§ 9-10.

[194] It is important to note that encryption does not make the DAB transmission a non-broadcast service. While the Commission has held that subscription operation is not broadcasting under Section 3(o) of the Communications Act, *In re Subscription Video,* Report and Order, 2 FCC Rcd. 1001 (1987), *aff'd sub nom. Nat'l Ass'n for Better Broad. v. FCC*, 849 F.2d 665 (D.C. Cir. 1988), and encryption is used in any subscription service, they are different concepts. As the Court of Appeals decision makes clear, the factor that takes a subscription service out of the definition of broadcasting is that consumers must pay the broadcaster or programmer for the right to receive the content. *Nat'l Ass'n for Better Broad.*, 849 F.2d at 668. Here, however,

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protection, the content protection afforded would be defined by a specific set of usage rules that would be included in all DAB receivers. Since all equipment manufacturers of DAB receivers will be required to obtain a license from iBiquity to design and manufacturer compatible DAB receivers, the usage rules can, with Commission approval, be made a part of the iBiquity license. As RIAA indicated in its Reply Comments in the *Broadcast Flag* proceeding,[195] encryption of the transmission is, in general, a better means of triggering protection as it provides additional content protection as compared to simply using a flag. Encryption is also a more rigorous content protection system, as indicated in the Hamilton Report, and could be implemented to enable renewability if security is compromised. It also offers more flexibility than other content protection methods as it will permit new and different technologies to be deployed and can facilitate varying the rules over time or with the particular content of the program involved.

The encryption approach described in the Hamilton Report would require broadcasters operating digitally to encrypt all copyrighted content, subject to exceptions discussed below, in accordance with an encryption system consistent with iBiquity's technology, if not developed by iBiquity.[196] It would also require that any DAB receiver marketed, imported or shipped in the United States incorporate the decoding algorithm so that any encrypted content could be heard

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encryption is not being used to limit access to the programming – to establish a conditional access regime – but to assure that the content protection rules are honored and not evaded by hackers. Since all DAB receivers will be required to use iBiquity-licensed technology and thus will be able to decode the encrypted DAB broadcasts, those broadcasts will be available to all and constitute broadcasting under Section 3(o) of the Communications Act.

[195] *See* Reply Comments of the Recording Industry Association of America, Inc. in *In re Digital Broadcast Content Protection*, MM Docket No. 02-230 (filed Feb. 19, 2003).

[196] As discussed in Section V(D), *infra,* RIAA believes, based on iBiquity's publicly available papers and public statements, that it can accommodate an encryption system along the lines described in the Hamilton Report.

on the radio and subject to the applicable usage rules. As noted in the Hamilton report, this approach would protect against hackers who might "develop software that uses [low cost tuner cards] ... to capture the raw signal" of a DAB station and engage in the kinds of copying and distribution of concern to RIAA. With the adoption of applicable design considerations and appropriate software built into the receivers, this approach could also be implemented to permit stations to modify the encryption codes in the event they are broken so that the content protection system continues to be effective.

The other option discussed in the Hamilton Report – APF – is not as robust as encryption, but can be used to trigger content protection. Under this approach, stations operating digitally would be required to include in any DAB transmissions a flag or similar mechanism that would trigger the usage rules when copyrighted material is broadcast. This approach is similar to the flag adopted in the *Broadcast Flag Report and Order* for digital television, except that, the requirement to use APF would be mandatory and not at the discretion of the broadcaster.[197]

Indeed, under both methods of triggering protection, the Commission should adopt a default rule requiring that any copyrighted content broadcast digitally be subject to whatever content protection regime the Commission adopts. Use of a default will avoid the cumbersome and potentially expensive process of requiring copyright owners to notify every broadcast station that they want their material content protected. However, RIAA also recognizes that radio stations broadcast material that may not be copyrighted, such as Presidential addresses, coverage

[197] *See* Hamilton Report § 7. Unlike with digital television, the record industry does not have a performance right with respect to non-subscription over-the-air radio broadcasting. Therefore, the Commission should not leave content protection to the radio broadcasters' discretion because the record industry will not have any means to withhold music content if the radio licensee declines to insert the APF into the DAB transmission.

of legislative sessions, etc., or that some copyright owners might want their material to be available freely. As RIAA understands iBiquity's technology, it is capable of distinguishing between genres and types of programs, and thus material in the public domain can be available for copying and redistribution. Similarly, RIAA is confident that the music industry can develop mechanisms that will permit copyright owners that wish their works to be freely duplicable and distributable to let broadcasters know that fact.

Under either approach, all DAB receivers should be designed and constructed to provide robust protection of any copyrighted content and to resist circumvention or compromise of the usage rules adopted by the Commission. The means of protecting content shall include methods to limit the number of copies of copyrighted music and to assure that the usage limits apply to any removable medium. Similarly, as is the case with the DTV flag, receiving devices should not be allowed to output the digital signal, except to another device that will honor the content protection usage rules.[198] These limitations are essential to prevent the unauthorized distribution of DAB transmitted works that threaten the music industry and the availability of broadcast music adversity. Finally, the Commission should use the mechanism it is developing for certification of DTV receiving devices to approve DAB receivers in order to assure that the content protection requirements are honored and effectively implemented.

D. The iBiquity Specifications Can Accommodate Content Protection Rules.

As indicated in the Hamilton Report, the published iBiquity specifications indicate that the IBOC standard includes parameters for incorporating authentication, encryption and other digital rights management ("DRM") technologies into DAB transmissions and IBOC-compatible

[198] *Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,570 ¶ 40.

DAB receivers.[199] iBiquity's public statements concerning its "HD Radio™" technology clearly demonstrate that it can restrict the duplication or retransmission of copyrighted music and other content. As the Commission noted in the *Further Notice of Proposed Rulemaking*, Synchronized Multimedia Application Services ("SMIL"), a protocol used by iBiquity as the foundation for what it calls Advanced Application Services ("AAS"), provides

> the foundation for the creation and delivery of innovative DAB services. Such advanced services will include commercial applications like: (1) enhanced information services such as breaking news, sports, weather, and traffic alerts delivered to DAB receivers as a text and/or audio format; (2) listener controlled main audio services providing the ability to pause, store, fast-forward, index, and replay audio programming via an integrated program guide with simplified and standard user interface options; and (3) supplementary data delivery that will spur the introduction of in-vehicle telematics, navigation and rear-seat entertainment programming.[200]

These types of services, presumably to be offered on a paid, subscription basis,[201] necessitate technological support for the very types of content protection regimes (encryption, "flags" on copyrighted content, etc.) the Commission has considered and adopted for DTV and digital cable services. AAS includes application programming interfaces ("APIs") for both "service provider authentication" and "encryption."[202] Likewise, the AAS "Framework

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[199] Hamilton Report § 3, 6.

[200] *Further Notice of Proposed Rulemaking* ¶ 26 (footnotes omitted). The Commission refers in that paragraph to iBiquity's web site for "a general discussion of new datacasting opportunities."

[201] *See* Transcript attached to Letter to Mary Beth Murphy, FCC, from Theodore Frank, Counsel for RIAA (Oct. 2, 2003) at 17-22, *cited in Notice of Inquiry* ¶ 67.

[202] iBiquity, Advanced Application Services: Service Provider Application Programming Interface, Rev. A, at 8 (Sept. 30, 2003) *available at* http://www.ibiquity.com/technology/documents/SY_AAS_5035servicesAP19-30-03.pdf (last accessed June 15, 2004). This technical specification explains that the API set for AAS "represent[s] revenue streams to be established for service providers, broadcasters and receiver manufacturers." *Id.* at 19.

Functional Capabilities," as established by iBiquity, includes authentication, "conditional access" and "decryption" functionalities for consumer electronics manufacturers.[203] In short, iBiquity contemplates the potential for incorporation of content protection into DAB services and equipment and has provided for that functionality in its specifications.[204]

Moreover, in 2002 iBiquity published a paper indicating that it was building DRM functionality in the compression algorithms ("codecs") and associated IBOC applications. That system, called PAC™, included what iBiquity termed "PAC Store and Play" applications, including content protection using DRM techniques.[205] The PAC specification stated that "the primary goal of implementing *.pac* format is to provide the consumers with a digital listening experience, which they can carry wherever they want while enabling music distributors to set the permissions on digital music files and prevent illegal duplications and distribution."[206] The PAC white paper also indicated that supplemental content protection and marking schemes that could be incorporated into the digital content itself:

> The DRM suite supported by *.pac* may also optionally be supplemented by audio waveform watermarking at the discretion of copyright owners and/or media distributors. iBiquity may make

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[203] iBiquity, An Advanced Application Services Framework for Application and Service Developers Using HD Radio Technology, at 7 (Feb. 1, 2003) *available at* http://www.ibiquity.com/technology/papers.htm (last accessed on June 15, 2004)..

[204] *Supra* note 202. This technical specification explains in section 5.3 that functional capabilities envisaged for the EOC services API include encryption, pending implementation.

[205] iBiquity, PAC™ V4.0 Store and Play Applications Using the .PAC Digital Audio File Format (2002 ("PAC Specification"). Trade press reports indicate that iBiquity has replaced PAC with a new, higher quality codec referred to as HDC. *See, e.g.,* J,. Yoshida, *Last-Minute Change Casts Doubt on U.S. Digital Radio Spec,* EETimes (Aug. 15, 2003), *available at* http://www.eetimes.com/showArticle.jhtml?articleID=18309109 (last accessed June 15, 2004). It does not appear that HDC removes or overrides any of the DRM functionalities included in PAC.

[206] PAC Specification at 3 (emphasis added).

> such waveform watermarking technology available in future as industry requirements dictate.[207]

While RIAA understands that iBiquity has changed its codec, it is clear from the literature released in 2002 and from its related public statements (for instance, promoting the additional options its technology offers broadcasters and others[208]) that iBiquity recognizes the benefits of DRM and intends to offer that capability. Indeed, iBiquity's press statements clearly establish that it has business interests in DRM in order to enable broadcasters and others to use DAB as a means of marketing and offering subscription and other revenue-producing digital radio services to consumers. As the Hamilton Report concludes, iBiquity "incorporate[s] either an encryption or broadcast flag content protection regime in its technology."[209]

Ironically, these content protection functionalities may be implemented to benefit (and compensate) the DAB broadcasters and their business partners, through the sales of new services, such as those identified in the *Further Notice of Proposed Rulemaking*. Yet both the radio licensee and its partners are basing their business in large part, if not in whole, off audience attracted by the copyrighted recordings that would be copied without authorization. The copyright owners of the recordings that form the backbone of the radio industry should not be placed in a less favorable position than other content providers by the lack of content protection or become the mechanism by which broadcasters secure an audience and market for these other services.

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[207] *Id.* at 3 (emphasis in original).
[208] *See* Lenard Report ¶¶ 23-24.
[209] Hamilton Report § 4.

## VI. RESPONSE TO COMMISSION QUESTIONS

### A. The AHRA Does Not Preclude, and Its Policies Support, Commission Action in this Proceeding

In the *Notice of Inquiry,* the Commission sought comment on the relationship between the AHRA and any action the Commission might take in this proceeding. Briefly stated, the AHRA is not significantly related to any action the Commission might take in this proceeding. The AHRA principally addresses "serial copying" by digital audio tape ("DAT") recorders. While DAB without content protection may present a similar, but distinctly different and greater, threat, the devices that will be used in the DAB content are unlikely to be regulated by the AHRA. The AHRA certainly was not intended to address this new threat, and it does not do so.

The determination of whether a particular device is subject to the AHRA is heavily fact-based, and it is unlikely that the AHRA would apply to many, or any, of the DAB receiver/recorders described in the *Notice of Inquiry*.[210] Even if the AHRA applies, however, the limited case law under that statute suggests that (a) compliance with the AHRA probably will not insulate users of hard-drive based AHRA-compliant devices from claims of copyright infringement[211] and (b) that compliance with the AHRA would not prevent the automated recording and Internet redistribution from destroying the incentives for artists and labels to create new sound recordings. Thus, the AHRA does not preclude, and its policies generally are

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[210] That the reach of the AHRA is limited is demonstrated in practice by experience with the AHRA's filing requirements. The importer or manufacturer of a device covered by the AHRA is required to file a notice in the Copyright Office before distributing a device "within a product category or utilizing a technology with respect to which such manufacturer or importer has not previously filed a notice . . . ." 17 U.S.C. § 1003(b). We understand that no new notices have been filed in the Copyright Office since the year 2000.

[211] *See, e.g., A&M Records, Inc. v. Napster, Inc.,* 239 F.3d 1004, 1024-25 (9th Cir. 2001); *RIAA v. Diamond Multimedia Sys. Inc.,* 180 F.3d 1072, 1077 (9th Cir. 1999) (AHRA does not "include songs fixed on computer hard drives.")

consistent with, the actions the RIAA seeks from the Commission in this proceeding. Indeed, the relationship of the AHRA to the relief sought here by RIAA is analogous to the relationship between the Copyright Act and the Commission's syndicated exclusivity rules, network nonduplication rules and the rules adopted in the *Plug and Play Second Report.*[212]

1. *Background and Structure of the AHRA.*

The AHRA was enacted in 1992 to resolve a specific dispute concerning the ability of DAT recorders to make multiple generations of high-quality, or "serial", copies of recorded works that the consumer had purchased. Music publishers and songwriters sued Sony to block the introduction of a DAT recorder, and other manufacturers did not make recorders widely available.[213] The AHRA resolved the serial copying dispute by giving equipment manufacturers a limited safe harbor from infringement suits for the limited class of devices it addresses.

The key elements of the AHRA are as follows:

- Certain "digital audio recording devices" and "digital audio interface devices" must "conform to" either (1) the Serial Copy Management System ("SCMS"), (2) a system with "the same functional characteristics" as SCMS (with a verification procedure therefor to be established by the Secretary of Commerce), or (3) an alternative system certified by the Secretary of Commerce.[214]

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[212] *See Plug and Play Second Report*, 18 FCC Rcd. at 20,908, 20,915-6 ¶¶ 54, 69.

[213] H.R. Rep. No. 102-780 (I), at 18-19 (1992).

[214] 17 U.S.C. § 1002(a), (b); SCMS is a technology "intended to prohibit DAR [digital audio recording] devices from recording 'second-generation' digital copies from 'first-generation' digital copies containing audio material over which copyright has been asserted via SCMS." H.R. Rep. No. 102-780 (I), at 32 (1992). SCMS is specified in a "Technical Reference Document" ("TRD") set forth in the legislative history of the AHRA. *Id.* at 32-50. The Technical Reference Document ("TRD") contains both general and specific provisions. Parts I.A and II.A set forth functional characteristics for implementing SCMS in digital audio interfaces and DARDs in general. The remainder of the TRD sets forth specific requirements for implementing SCMS in the IEC 958 nonprofessional digital audio interface format and non-professional model DAT recorders. *Id.* at 33. As noted above, the Secretary of Commerce is to establish a procedure to verify protection systems for other interfaces or recorders that

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- The importer or manufacturer of a digital audio recording device must pay a royalty of 2% of the "transfer price" (but not less that $1 or more than $8), and the importer or manufacturer of a "digital audio recording medium" must pay a royalty of 3% of the "transfer price."[215]

- Copyright owners are prohibited from bringing an infringement action "based on the manufacture, importation, or distribution" of a digital audio recording device, digital audio recording medium, analog recording device or analog recording medium (such as the case against Sony noted above) "or based on the noncommercial use by a consumer of such a device or medium for making digital musical recordings or analog musical recordings."[216]

It is important to recognize that the AHRA applies, to the extent relevant here, solely to "digital audio recording devices" ("DARDs"),[217] and the definition of a DARD entails deciphering a number of complex definitions in the AHRA. However, the key requirement is that a DARD is:

> any machine or device of a type commonly distributed to individuals for use by individuals, whether or not included with or as part of some other machine or device, the digital recording function of which is designed or marketed for the primary purpose of, and that is capable of, making a digital audio copied recording for private use, except for . . . audio recording equipment that is designed and marketed primarily for the creation of sound recordings resulting from the fixation of nonmusical sounds."[218]

Accordingly, to determine whether a particular device is subject to the AHRA, one must apply these copious definitions to the device. After that factual inquiry, if the device is a DARD,

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purportedly have the same functional characteristics as SCMS. 17 U.S.C. § 1002(b). The Secretary has not done so. The Secretary also may certify alternative systems as prohibiting unauthorized serial copying. 17 U.S.C. § 1002(a). The Secretary has neither done that nor prescribed a process for seeking such certification. Thus, SCMS is fully defined only for the IEC 958 interface and non-professional model DAT recorders.

[215] 17 U.S.C. §§ 1003(a), 1004(b).

[216] 17 U.S.C. § 1008. This provision "does not purport to resolve, nor does it resolve, whether the underlying conduct is or is not infringement." S. Rep. No. 102-294, at 52 (1992).

[217] The AHRA also deals with a number of other items, such as digital audio interface devices, digital audio recording media and analog devices and media, which are not germane here.

[218] 17 U.S.C. § 1001(3). The definition of a DARD also depends upon further statutory definitions, including "digital audio copied recording," 17 U.S.C. § 1001(1), and "digital musical recording." 17 U.S.C. § 1001(5).

it must conform to SCMS; a royalty is payable; and an infringement suit cannot be brought against the manufacturer or against a noncommercial user of the device for making "digital musical recordings." If the device is not a DARD, it need not conform to SCMS; no royalty is payable; and the limitation on infringement actions does not apply. While the AHRA provides for the payment of a royalty to the Copyright Office for the benefit of interested copyright parties,[219] the AHRA was designed to address a narrow issue – serial copying by a limited class of devices. Congress never intended it to serve as a comprehensive legislative solution to the issues posed by digital copying or distribution, particularly not on a wide-scale basis as made possible by DAB without content protection.[220]

2. *It is Unlikely that the AHRA Would Apply to Digital Audio Broadcast Receivers with Automated Recording Capabilities.*

Given the tight definition of a DARD in the AHRA and the rapidly developing technology of digital radio, it is unlikely that DAB receivers with the kind of recording capabilities described in the *Notice of Inquiry* would constitute DARDs. As an initial matter, the devices described in the *Notice of Inquiry* and coming to market now would not be limited to sound recordings, but would be capable of recording sports, talk and other nonmusical programming, and those features are likely to play prominently in any advertising of such devices. However, a device is not a DARD if it is designed or marketed primarily to create "sound recordings resulting from the fixation of nonmusical sounds."[221] Thus, a DAB receiver/recorder designed and marketed primarily for recording sports, talk and other

[219] 17 U.S.C. §§ 1005-1006.
[220] *See* Brief for the United States as *Amicus Curiae, A&M Records, Inc. v. Napster*, 239 F.3d 1004, 1024-25 (9th Cir. 2001) (Nos. 00-16401 & 00-16403).
[221] 17 U.S.C. § 1001(3)(B).

nonmusical programming in addition to music programming would not be a DARD. As such, the AHRA would not apply.

Moreover, while receiver/recorders that are designed or marketed primarily for purposes of recording music might qualify as DARDs, the primary judicial decision interpreting the AHRA suggests that the AHRA's limitation on infringement actions may not apply to a consumer's use of such a device because it employs a hard drive. *RIAA v. Diamond Multimedia Systems Inc.*[222] involved the application of the AHRA to a portable music device that made serial copies of digital music from the hard drive of a computer. The court held that the device was not a DARD based on a detailed parsing of the definitions in the AHRA.[223] Key to this decision was the Court's finding that the term "digital musical recording" does not include "songs fixed on computer hard drives."[224] That decision may indicate that DAB receiving/recording devices capable of performing the functions described in the *Notice of Inquiry* with hard drives would not qualify as DARDs, since they may not make "digital audio copied recordings." However, even if they do qualify as DARDs, a user of such a device still would be subject to an infringement claim because, under the holding in *Diamond*, the AHRA's limitation on infringement actions does not apply to any recording on a hard drive.[225]

It also is unlikely that a device manufacturer could confidently comply with the requirement to implement SCMS in a digital audio broadcast receiver/recorder, because SCMS is

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[222] 180 F.3d 1072, 1077 (9th Cir. 1999).
[223] *Id.* at 1078.
[224] *Id.* at 1077.
[225] *See* 17 U.S.C. § 1008; *A&M Recordings, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1024-25 (9th Cir. 2001) (AHRA inapplicable to copies downloaded to hard drive using peer-to-peer service).

only defined specifically in the Technical Reference Document for DAT players. It might be possible to develop a system that has the same functional characteristics as SCMS for purposes of a receiver/recorder, or to obtain the Secretary of Commerce's certification for another approach to prohibiting serial copying in such a device,[226] but the Secretary has prescribed neither a procedure for verifying compliance with the functional characteristics of SCMS nor a process for obtaining such certification.

For all these reasons, once there are DAB receivers with the kind of recording capabilities described in the *Notice of Inquiry*, so that their specific circumstances can be rigorously analyzed under the AHRA, it is unlikely that the AHRA would be found to apply to them. Development of a coherent policy for DAB should not await the day when that becomes more clear.

### 3. *Compliance with the AHRA Would Not Prevent the Harm Discussed Elsewhere in These Comments.*

As described above, the AHRA was motivated primarily by concern that DAT recorders permitted "serial copying" that had not previously been practicable in the analog domain and that would lead to a proliferation of infringing hard goods. Its requirements are targeted to that concern. Digital broadcasting raises different concerns and the AHRA was not intended to, and does not, address them. While serial copying from digital radio is a possibility, the greater threat to creative incentives is the assembly of enormous collections of first generation recordings directly off the air that would give everyone on-demand access to essentially all popular music – as well as subsequent Internet redistribution – without a payment ever being made to the creators

[226] *See* 17 U.S.C. § 1002(a)(2), (3).

of the recordings. Moreover, the effectiveness of SCMS to achieve its intended purpose depends upon recordings staying in the digital domain on consumer electronics products implementing SCMS. Thus, even if it was possible to implement a system that has the same functional characteristics as SCMS in a DAB receiver/recorder, and to do so absent the verification procedure that was to have been established by the Secretary of Commerce,[227] the functional characteristics of SCMS would not seem to prevent the infringing reproduction and Internet redistribution of digital radio broadcasts that is at issue here.

4. *Commission Action Would Further the Policies of the AHRA.*

As described above, it is unlikely that the AHRA applies to any or many DAB receiver/recorders, and even if some such devices may be covered by the AHRA, under the *Diamond* and *Napster* decisions, copyright owners still would be permitted to bring infringement actions against consumers who use devices with hard drives to make infringing reproductions and distributions. Thus the AHRA, and in particular its limitation on infringement actions, poses no impediment to Commission actions targeted at preventing such infringement.

Through the AHRA, Congress manifested an intention "to respond to the threat that the perfect copying capability of the digital audio recorder presents to those engaged in creating and introducing music into commerce in the United States."[228] In the AHRA, Congress responded to that threat by requiring use of a copy-control technology adapted to that threat and also requiring compensation to creators. That decision manifests a clear congressional policy to protect the intellectual property interests of sound recording copyright holders. The widespread infringing

[227] *See* 17 U.S.C. § 1002(b).
[228] H.R. Rep. No. 102-780 (I), at 19 (1992).

use of DAB receiver/recorders, with their perfect copying capability, presents a similar and greater threat to those engaged in creating music than posed by DAT recorders. Congress' decision to regulate one class of devices – DARDs – to meet a certain threat thus not only should not deter the Commission from acting here to protect the music industry but actually established that the Commission must act to protect that policy objective in this proceeding.

### B. The Experience in Europe Does Not Question the Risk to the Music Industry Detailed In These Comments.

In the *Notice of Inquiry*, the Commission asked, in connection with its request for comment on whether DAB posed a meaningful threat to the recording industry here, whether digital broadcasting in Great Britain has resulted in economic injury to the music industry there.[229] While DAB has been deployed in the United Kingdom ("UK") for some period of time, the experience there does not inform the ultimate question posed by the Commission because the technology that facilitates piracy of DAB was not present in Great Britain or elsewhere until recently. As demonstrated in the attached declaration of Jay Berman, Chairman and CEO of the International Federation of the Phonographic Industry ("IFPI"), an international organization representing the recording industry worldwide, the UK is now witnessing the deployment of DAB receiving devices with functionalities that pose an "extremely serious threat . . . to the worldwide recording industry."[230] As a result, "the establishment of the adequate technological and legal framework to ensure the protection of the DAB signal will be one of IFPI's highest-priority issues in the coming months," and IFPI is working urgently with various industry groups

[229] *Notice of Inquiry* ¶ 69.
[230] Berman Declaration ¶ 6.

(including broadcasters, collecting societies, and technology providers) to resolve the "DAB security" problem.[231]

While unprotected DAB was introduced in the UK in the mid-1990's, there was minimal risk of unauthorized use of DAB-transmitted content because there was no commercially available equipment capable of misappropriating and misusing such content. Until recently, the available devices for receiving DAB permitted only passive listening.[232] However, as in the U.S., the UK is now facing the development of devices that permit users to search, selectively record and redistribute digital content contained within the broadcasts. Without security in the DAB standard, these new devices will change the traditional radio experience from one of mere reception into the acquisition and "librarying" of content for permanent storage and "on demand" replay.[233]

In addition to the development of such devices, the UK is also experiencing the development of related technologies that will augment the user's capabilities, and therefore aggravate the harm from unauthorized activity. For instance, following are some of the current or developing technologies that, in the UK marketplace and beyond, will contribute to unauthorized use of DAB:

a) MASS STORAGE is becoming increasingly inexpensive and will allow devices to record not only individual DAB tracks, but to speculatively record entire days of broadcasting for later analysis, which could include "track splitting" and track database creation;

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[231] *Id.* ¶ 8.
[232] *Id.* ¶ 7.
[233] *Id.*; *see generally* Cherry Lane Report.

b) FINGERPRINTING technology will allow sound recordings to be identified from their digital characteristics and subsequently indexed; this will also permit devices to recognize the start and end of broadcast tracks;

c) PROGRAM ASSOCIATED DATA ("PAD") being transmitted with DAB broadcasts can be used to identify tracks being played, trigger selective recording, and index the resulting databases of tracks; and

d) CONSUMER BROADBAND INTERNET ACCESS and WIRELESS NETWORKING will permit users to access fingerprint databases or databases created by third parties of station "playlists," further enhancing the ability for selective recording and indexing of tracks.[234]

The technologies above can be combined to allow recording, storage, track-splitting, identification, indexing, and distribution of sound recordings on massive scale. It is for these reasons that IFPI believes "that recent technological developments will soon cause clear and severe damage to the economic interests of rights-holders" in the UK and elsewhere.[235]

Because of this threat, IFPI is making urgent efforts to migrate UK DAB from the current unprotected form to a protected one, and is raising these concerns with broadcasters, technology providers and others. For instance, IFPI has an ongoing dialogue regarding this issue with the European Broadcasters Union, which represents all European public broadcasters. IFPI is also contacting technology providers to assess the available options for including security in DAB transmissions.[236] The DAB security issue has also affected the latest round of licensing negotiations between the British Broadcasting Corporation (the "BBC") and the Phonographic Performance Limited ("PPL") (the UK's broadcast royalties collection society for the record companies and performers). BBC and PPL have negotiated a clause to be included in their

[234] Berman Declaration ¶ 12.
[235] *Id.* ¶ 8.
[236] *Id.* ¶ 15-19.

agreement, which specifically refers to the piracy threat from unprotected DAB, and the need to work together to address the problem.[237] Similar discussions have taken place between and amongst other industry groups, and IFPI fully anticipates that additional efforts will be undertaken – both in the UK and other countries – to address the problem of unprotected DAB.

Thus, the Commission should not rely on the past history of DAB in the UK (or Europe) as a predictor of the immediate problems that will be seen from implementation of an unprotected iBiquity standard in the U.S. As mentioned above, the relevant technology for massive pirating of DAB-transmitted content was not available in the UK or the U.S. until very recently. Due to these technological changes, IFPI concurs with RIAA that unprotected DAB is likely to promote widespread copying and distribution of copyrighted works, and to substitute the legal channels for the distribution of sound recordings – namely, CD sales and online distribution.[238] IFPI echoes the "urgent need" to address this problem, and also encourages the Commission to act promptly because the migration to a secure DAB standard will become much more difficult as digital radio services roll out and devices become widely available on the market.[239]

### C. The Commission Need Not Address Satellite Digital Radio In This Proceeding.

In the *Notice of Inquiry*, the Commission asked whether RIAA's concerns over the duplication and redistribution of music applied to satellite digital radio as well.[240] The

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[237] *Id.* ¶ 17.
[238] *Id.* ¶ 21.
[239] *Id.* ¶ 8.
[240] *Notice of Inquiry* ¶ 68.

unauthorized copying and distribution of digital material broadcast by satellite radio operators raise very similar concerns as those presented by DAB, and RIAA has approached them to discuss the issue.

There are, however, major differences between terrestrial and satellite radio that warrant Commission treatment in separate proceedings. First, neither XM Satellite Radio, Inc. ("XM") nor Sirius Satellite Radio ("Sirius") currently allows their subscribers to program their receivers to record the material broadcast.[241] Similarly, neither XM nor Sirius has licensed consumer electronics manufacturers to make devices with functions that raise similar concerns as addressed in these Comments. As subscription services, they have an economic incentive not to allow programmed recording, lest their subscribers develop their personal music collections and then terminate their subscriptions. Thus, RIAA believes that there may be a mutuality of interest between the copyright owners and the satellite radio operators that should lead to a commercial solution to the problem.

Second, RIAA's concerns with respect to DAB are immediate and the Commission is in a position to act on them now, before legacy problems and consumer expectations make addressing the issue more difficult and contentious. Should RIAA, XM and Sirius fail to achieve

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[241] In fact, the customer service agreements for both Sirius and XM prohibit recording and transmitting of recordings broadcast on the services. *See* XM Satellite Radio: Customer Service Agreement § 1.b, *available at* http://www.xmradio.com/get_xm/customer_service.html (last accessed June 15, 2004) ("You may not reproduce, rebroadcast, or otherwise transmit the programming, record the programming, charge admission specifically for the purpose of listening to the programming, or distribute play lists of the programming"); Sirius Satellite Radio: Terms & Conditions § 1.b, *available at* www.sirius.com/servlet/contentServer?pagename=Sirius/Cached Page&c=Page&cid=1019257316747 (last accessed June 15, 2004) ("You may not make commercial use of, reproduce, rebroadcast, or otherwise transmit our programming, or record, charge admission for listening to or distribute play lists of our programming.").

an industry-negotiated resolution, the Commission can address the satellite content protection issues in a separate proceeding. Indeed, once rules are in place for terrestrial DAB operation, a rule requiring satellite digital audio radio services to include content protection systems in their transmissions can be resolved expeditiously. Delay in adopting rules here will only aggravate the legacy problems and increase the risk of added harm to the music industry.

## VII. THE COMMISSION SHOULD ADOPT CONTENT PROTECTION RULES CONCURRENTLY WITH FINAL SERVICE RULES.

The Commission's 2002 *DAB First Report and Order* authorized interim digital radio services, using the IBOC specification, pending the completion of final service rules for DAB.[242] Yet the current *Notice of Inquiry* suggests that content protection, *i.e.*, "digital audio content control," is "not [an] appropriate subject[] for a rulemaking at this stage of the DAB conversion process."[243] To the contrary, the Commission should not promulgate final service rules for DAB without full consideration of and decision on the content protection issues. As noted in these Comments, authorizing DAB now without any content protection requirements will effectively sanction the deployment and use of receivers/recorders that can engage in the cherry-picking of selected recordings transmitted by DAB and undermine clear congressional policies designed to assure that use of digital technology does not undermine the economics of the music industry and frustrate new musical efforts.

Failure to act now will also exacerbate the very problems identified in the *Notice of Inquiry* and explained in these Comments. As the *Notice of Inquiry* correctly concludes, "certain

[242] *DAB First Report and Order*, 17 FCC Rcd. at 20,004-06 ¶¶ 41-44.
[243] *Further Notice of Proposed Rulemaking* ¶ 1.

available options may be extremely difficult to implement later after a significant base of equipment has been deployed and consumer expectations have developed."[244] That is, by acting now the Commission can avoid the significant issue of the proliferation of incompatible, legacy consumer equipment associated with its digital television proceeding, in which the Commission adopted a broadcast flag content protection approach in 2003 in part because legacy devices would "remain functional under a flag regime, allowing consumers to continue their use without the need for new or additional equipment to receive and view signals."[245] As the *Broadcast Flag* decision explained:

> [T]he window of opportunity for adopting a flag based redistribution control regime for digital broadcasting is closing. The number of legacy devices existing today is still sufficiently small that content owners remain willing to provide high value content to broadcast outlets. At some point, however, when the number of legacy devices becomes too great, that calculus will change. By acting now, the Commission can protect both content and consumers' expectations.[246]

There is also a high likelihood, as there was in the DTV arena, that "consumers' expectations" regarding permissible use of copyrighted content will unnecessarily be expanded if consumers are permitted to move from the type of copying allowed today to the sort of automated music filtering and librarying enabled by current and future DAB receivers. There will certainly be

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[244] *Notice of Inquiry* ¶ 68.

[245] *Broadcast Flag Report and Order*, 18 FCC Rcd. at 23,556-7 ¶ 14. Indeed, in the *Broadcast Flag* proceeding, the Commission rejected encryption at the source as an alternative in large part because it "view[ed] the obsolescence of legacy equipment as particularly burdensome on consumers." *Id.* ¶¶ 24; *but see id.* ¶ 21 n.47 (noting that "content recorded onto a DVD with a flag-compliant device will only be able to be viewed on other flag compliant device and not on legacy DVD players").

[246] *Id.* ¶ 19 (footnote omitted).

greater resistance to content protection rules adopted at a later date if consumers, in the interim, are permitted to engage in copying and Internet distribution of copyrighted sound recordings.

The Commission should also promulgate content protection rules contemporaneously with final DAB rules because, as noted in the Lenard Report, deferring content issues would only exacerbate uncertainty regarding potential copyright liability for equipment manufacturers and broadcasters. Legal uncertainty surrounding copyright will necessarily increase if the Commission implements digital radio service rules without content protection because DAB technology will enable consumers to go beyond the types of music copying and redistribution permitted today.[247] Perhaps more significantly, legal uncertainty surrounding copyright in digital radio will likely create marketplace uncertainty, thus chilling DAB investment and deterring at least some broadcasters from converting to digital radio and equipment manufacturers from manufacturing digital receivers. Therefore, delay in finalizing content protection rules may threaten the very DAB transition that the Commission expects to accelerate in this proceeding.

Just as in the DTV market, for digital radio the Commission is "reaching a critical juncture in the transition."[248] Because "the potential for piracy will increase as technology advances," the Commission will best serve the public interest by "taking preventative action today . . . [to] forestall the development of a problem in the future similar to that currently being experienced by the music industry."[249] Indeed, as discussed above in Section II(A), the threat to copyrighted sound recordings presented by DAB exceeds the music industry's current

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[247] *Id.* ¶ 9 (Broadcast Flag regime does not curtail consumers' ability to copy broadcast television programs for time-shifting purposes).
[248] *Id.* ¶ 8.
[249] *Id.*

unauthorized P2P piracy "problem" by an order of magnitude. Accordingly, because "the line separating communications law and copyright law is not always a clear one,"[250] the Commission should move to protect copyright interests in the realm of digital radio by adopting content protection standards concurrently with final service rules for DAB. The Commission should act now because its window of opportunity to resolve digital radio content protection is closing very quickly. If it does not act soon, then the Commission will be unable to protect the legitimate expectations of content owners, broadcasters, equipment manufacturers and consumers, thus presenting a serious risk of delaying the adoption of DAB in the United States.

## VIII. CONCLUSION

For the reasons set forth above, RIAA urges the Commission to adopt content protection requirements as part of its DAB regulations. The usage rules suggested here by RIAA create an appropriate balance between the expectations of listeners to record broadcasts and the statutorily recognized reproduction and distribution interests of copyright owners. At the same time, RIAA's proposed usage rules are consistent with congressional policy to limit the copying and distribution of copyrighted sound recordings transmitted digitally in order to protect the intellectual property rights of creators and to promote the underlying purposes of the Copyright Act of assuring new creative work by providing compensation to composers, artists and labels. Because the iBiquity technical standard was developed specifically with the ability to provide content protection, adoption of these requirements should not delay the rollout of DAB or

[250] *Plug and Play Second Report*, 15 FCC Rcd. at 20,909 ¶ 54 (citing *United Video, Inc. v. FCC*, 890 F.2d 1173, 1184 (D.C. Cir. 1989) (Congress "did not imagine copyright law and communications law to be two islands, separated by an impassable sea.")).

impose undue burdens on iBiquity, broadcasters or equipment manufacturers. In short, the adoption of content protection rules will further the more effective use of radio in the public interest and advance the Commission's mandate under the Communications Act.

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