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

In the Matter of	)	
Digital Television Distributed Transmission System Technologies	)	MB Docket No. 05-312

COMMENTS OF

NEW AMERICA FOUNDATION
ACORN ACTIVE MEDIA FOUNDATION
ACTION COALITION FOR MEDIA EDUCATION
ALLIANCE FOR COMMUNITY MEDIA
BENTON FOUNDATION
CENTER FOR DIGITAL DEMOCRACY
CENTER FOR NEIGHBORHOOD TECHNOLOGY
CHAMPAIGN-URBANA COMMUNITY WIRELESS NETWORK
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RECLAIM THE MEDIA
TRIBAL DIGITAL VILLAGE

TABLE OF CONTENTS

SUMMARY

In the above-captioned *DTS NPRM*, the Commission continues its unfortunate habit of making major policy decisions in a piecemeal fashion that ill-serves the public. The proposed "technical" rules will settle valuable spectrum access privileges, while permitting larger "policy" questions to languish. The current proceeding, spun off from the much larger comprehensive *Second Periodic Review of the Commission's Rules Affecting the Conversion to Digital Television*, 19 FCCRcd 18279 (2004), purports to address only a modest technical question raised in the digital transition – the use of distributed transition system technologies (DTS) to expand the number of viewers broadcasters will reach directly through their broadcast services. Absent from the *NPRM* is any reasoned consideration, or even any acknowledgement, that the proposed rulemaking will effectively transfer billions of dollars of public spectrum rights to a handful of private licensees. In doing so, this "technical" proceeding will effectively foreclose the important policy questions raised in the Commission's pending proceeding on allowing access to the broadcast "white spaces" to the benefit of the public as a whole. *See* ET Docket No. 04-186.

NAF, *et al.* do not dispute that, as a general matter, it serves the public interest to expand broadcast programming available to viewers, particularly in areas with few channels or where geography has long prevented viewers from benefiting from the availability of free over-the-air programming. But the Commission must weigh this modest general benefit against the potential for a greater harm in cutting off public access to spectrum that would otherwise become available at the conclusion of Docket No. 04-186. With increasing consumer demand for mobile high-speed data services—and with

the U.S. decline to 16th in the world in broadband penetration—the Commission must weigh whether this unassigned and currently unused "white space" would benefit consumers and the economy to a greater degree if it was reallocated for advanced wireless services under the access regime proposed in rule making 04-186.

The Commission also proposes to vastly expand the value of these public licenses without determining how commercial broadcasters will repay the public and their local communities through concrete public interest obligations. For more than ***six years*** the Commission has permitted this critically important question to languish, albeit with the important exception of the children's television rules, while continuing to move full speed ahead on the wish list of licensees. *See generally* Docket Nos. 99-360, 00-167, 00-168.

Last February, almost one year to the day on which these comments are due, the Commission stated that the pending public interest and localism proceedings were "essential components" of the Commission's strategy for transition to digital television and stated it would "move forward on these decisions within the next few months, and complete action in these dockets by the end of the year." *In re Carriage of Digital Television Broadcast Signals, Second Report & Order*, 20 FCCRcd 4516, 4537 (2005). It is therefore puzzling that the Commission has proposed to begin a new proceeding that will confer valuable new rights on broadcasters, without even beginning to "move forward" with the pending public interest and localism dockets. Certainly the Commission should "complete action" on these "essential components" before resolving the details of DTS.

The Commission should not ignore the enormous increase in the value of the free public licenses held by the licensees, and hold that the general benefit of expanding program availability to some adequately compensates the public. Because ***all*** television licensees will benefit from a Commission determination to permit use of DTS, the Commission should require genuine, concrete and measurable public interest obligations from digital broadcasters as, for example, demanded by the Public Interest, Public Airwaves Coalition.[1]

Given that this "technical" proceeding has implications for the evolution of broadcasting as a service—including the ability to derive far greater revenues from future "ancillary" broadband service than from broadcasting—the Commission should not seek to evade the policy questions raised in this proceeding. Before completing yet another item on the broadcast licensee "wish list," the Commission should move expeditiously to conclude both the "white spaces" proceeding and set concrete public interest obligations on digital broadcast licensees.

ARGUMENT

This proceeding proposes a radical change in the architecture of the local broadcast TV industry, with huge potential consequences. These consequences include both the specific rule changes proposed in this rulemaking and the economic and political forces this rulemaking would put in play.

Unfortunately, the *NPRM* does not seek to place this issue in context. Permitting more intensive and more profitable use of the public spectrum is treated here by the Commission as a technical issue divorced from some of the most extensively debated

[1] *See*, e.g., Letter from James A Bachtell to Marlene Dortch, MM Docket Nos. 03-15, 00-186, 99-360 (June 24, 2004) (providing processing guide, model disclosure form, and memo in support of proposal).

policy questions surrounding the DTV transition—the ability of the public to access the spectrum directly and concomitant benefit to the public this would provide (as discussed in pending Docket No. 04-186), and the public interest obligations incumbent upon broadcasters as a consequence of their increased use of public spectrum (Docket Nos. 99-360, 00-168 and 03-15).

The two most important and interlinked changes proposed in this rulemaking would grant broadcasters 1) the right to transmit their signals within their service area via countless synchronized low power transmitters, with each transmitter in this service area required to carry exactly the same signal at the same time, and 2) a redefinition of broadcasters' service areas to include many of the white spaces not currently covered by a broadcaster's current, single, high-powered, digital transmitter.[2]

These changes have two drastic impacts on spectrum policy the *NPRM* fails to consider. Although the *NPRM* extensively describes the benefits of "digital television distributed transmission system technologies" (DTS) to enhance the ability of existing licensees to broadcast, there is minimal mention of the huge opportunity costs entailed by granting such valuable new spectrum rights to broadcasters. Nor does the *NPRM* discuss how giving broadcasters such valuable rights may alter the nature of the broadcasting industry from a service focused on local broadcasting to a service whose primary revenue derives from "ancillary" use of spectrum for non-broadcast uses.

[2] As the broadcasters themselves acknowledge, these rights are fundamentally different from the current analog booster right because an analog booster signal must be completely isolated from the main signal (e.g., behind a mountain) to avoid interference and is a secondary service. Whereas an analog TV market may have at most a handful of booster transmitters, it's entirely possible that with the new digital technology there could eventually be tens of thousands of transmitters. *See* comments of Merrill Weiss Group in the Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, MB Docket No. 03-15, April 22, 2004.

In addition, the *NPRM* focuses on the benefits of allowing broadcasters to enhance their service to viewers—those dwindling over-the-air (OTA) viewers that remain. While such a benefit is certainly cognizable, it begs a greater question. Given the large number of television viewers that receive their television via MVPD, the Commission should ask to what extent expanding the coverage of the over-the-air signal through DTS will genuinely increase viewership. If the benefit in terms of increased viewers is marginal, the opportunity cost to the public should count more heavily.

It is not that NAF *et al.* disagree that the rights the broadcasters seek will allow them to reach some additional over-the-air viewers and to provide new, valued services to those customers. The point, however, is that there is a cost attached to these benefits and the *NPRM* should attempt to carefully weigh both the benefits ***and*** the costs as part of its analysis. With increasing consumer demand for mobile high-speed data services—and with the U.S. decline to 16th in the world in broadband penetration—the Commission must weigh whether this unassigned and currently unused "white space" would benefit consumers and the economy to a greater degree if it was reallocated for advanced wireless services under the access regime proposed in rulemaking ET Docket No. 04-186.

Further, even if the Commission does decide to expand the power of broadcast voices via DTS, it must likewise expand the public interest obligations broadcasters owe to these viewers. With the limited exception of children's broadcasting, the Commission has consistently acted to expand the value of the broadcasters' public licenses without creating any new return to the public. For more than six years, the Commission has had pending before it recommendations on how to ensure that the expanded digital rights of broadcast licensees measurably improve the service these licensees provide to their

communities. In each new proceeding, the Commission has reiterated its commitment to settle the question of public interest obligations of digital broadcasters, but never does.[3] To once again address the "technical" questions—such as DTS—that increase the value of licenses, while again deferring the issue of the service to the public these new benefits should entail, is to short-change the viewing public and the public interest.

I. THE COMMISSION MUST CONSIDER THE IMPACT OF THIS PROCEEDING ON THE AVAILABILITY OF WHITE SPACES PROPOSED FOR PUBLIC ACCESS IN ET DOCKET NO. 04-186.

Too often, the Commission has simply allowed new rights to pass to broadcasters because their exclusive right to use the spectrum makes them the most obvious candidate to enjoy the benefits of new spectrum technologies. This is like arguing that a cattle rancher licensed to graze cattle on a piece of federal land should also be given rights to extract timber, oil and metals from the same federal land because those services are valued by the public. What such an argument in favor of a rights giveaway obviously overlooks is that others besides cattle ranchers could just as readily be granted access to these federally managed natural resources—with potentially a greater payoff to the public.

The same reasoning should also apply in this proceeding, except substituting the term "broadcaster" for "cattle rancher." The unused natural spectrum resources that this rulemaking contemplates allocating to the broadcasters could also be allocated to other users to provide new services to the American public. No law of nature says these rights can or should only be granted to incumbent broadcasters. Indeed, the Commission has repeatedly stated that enhanced broadband service is its top priority in allocating new

[3] *See, e.g., Carriage of Digital Broadcast Signals, Second Report & Order*, 20 FCCRcd 4516, 4537 (2005).

spectrum rights,[4] yet nowhere in this rulemaking does the FCC justify why enhanced broadcast service should come at the expense of enhanced broadband service.

Nor does the *NPRM* acknowledge that some of the proposed uses of the white space advocated by the broadcasters comes in direct conflict with the potential uses of the white spaces proposed in the ET Docket 04-186, *In re Unlicensed Operation in the Broadcast Bands*. If broadcasters win all the rights they hope to win in this proceeding, then the potential bandwidth freed up for advanced wireless services and unlicensed innovation under the rules proposed in Docket No. 04-186 proceeding will be substantially diminished. The currently unassigned and unused spectrum capacity in the areas outside broadcasters' grade B contours, but within their DMA lines, would no longer be available for advanced wireless services. **At a minimum, therefore, the Commission should complete Docket No. 04-186 before granting broadcasters any spectrum usage rights outside their current Grade B contours.**

Granting broadcasters the right to fill white spaces ("gaps") within their Grade B contours is also a huge giveaway of spectrum rights resulting in an unjust enrichment to the broadcasters – who received these benefits for free. For example, low power unlicensed broadband services could just as easily be provided over that spectrum as broadcast services. Indeed, broadcasters currently have no more right to use the white spaces within their Grade B contours than the white spaces outside their Grade B contours. In both cases, incumbent broadcasters and everyone else were historically precluded from using the white space because of primitive spectrum technologies, with the result that today they are simply a no man's land. But as new technology makes that spectrum usable, the federal government should allocate it just as it allocates any other

[4] *See* Spectrum Policy Task Force Report, November 2002.

swath of virgin spectrum; there should be no presumption that it should be given away to the broadcasters.

II. THE COMMISSION SHOULD REQUIRE AN INCREASE IN PUBLIC INTEREST OBLIGATIONS COMENSURATE WITH THE INCREASE IN VALUE TO THE LICENSEES.

Although the Commission does not engage in extensive discussion or analysis of benefits conferred upon incumbent broadcast licensees from vastly expanding their coverage area and spectrum access rights, the Commission did note that unlimited expansion would threaten the nature of the broadcasting service and fail to convey suitable benefits to the public. Specifically, in rejecting the approach recommended by MWG, the Commission observed:

> We are troubled by the implications of allowing significantly greater coverage for DTS than the coverage that can be achieved by a traditional single-transmitter station. ***We do not believe it is appropriate to expand significantly the coverage rights of some stations by allowing DTS operation anywhere within a station's DMA.*** (emphasis added) Many DMAs cover extensive areas and the DMA approach could allow some stations to provide service into communities 100 or more miles away from their current station location. Such service could be inconsistent with our traditional focus on localism.
>
> *NPRM* at ¶18.

Unfortunately, rather than applying this logic to the expansion of spectrum access rights DTS will generally confer on licensees, the *NPRM* proposes "limiting" the expansion of rights to the area a single transmitter will, in theory, cover. *Id.* at ¶21. Further, the Commission proposes to permit broadcasters to expand coverage in areas that would be otherwise inaccessible due to features of terrain. *Id.* at ¶22. While not as

tremendous an expansion of spectrum rights as the MWG proposal properly rejected by the Commission, it still constitutes an enormous expansion of rights.

Repeatedly, the Commission has promised to resolve the long-standing proceedings that will give substance to the Congressional command that digital broadcasters provide public service in exchange for the billions of dollars in free public spectrum they receive. 47 USC §336(d). On February 10, 2005, on adopting the *Second Report and Order on Carriage of Digital Signals*, 20 FCCRcd 4516 (2005), the Commission stated:

> Nothing in this *Order* diminishes the Commission's commitment to completing action on the multiple open proceedings on localism and the public interest obligations of digital broadcasters. ***We believe the public interest and localism proceedings are essential components*** of the Commission's efforts to complete the transition to digital television. ***The Commission intends to move forward on these decisions within the next few months and complete action in these dockets by the end of the year.***

Id. at 4537 (emphasis added).

It is understandable that in a year as tumultuous for the Commission as 2005 that the Commission should fall behind schedule in resolving the public interest and localism dockets. What is ***not*** understandable is why the Commission has begun yet another proceeding that will ensure the digital transition benefits broadcasters without explaining how the digital transition will confer measurable improvement in their service to the public. The general and modest gain that will accrue to some members of the public from an increase in available over-the-air programming does not begin to recompense the public for the vast benefits the DTS proceeding potential confers on all broadcasters.

The Commission should therefore move expeditiously to complete the pending public interest and localism dockets, as it has repeatedly committed to doing. In

particular, the Commission should adopt the type of measurable, verifiable, enforceable, and non-renegotiable public interest obligations proposed by the Public Interest, Public Airwaves Coalition (PIPAC) and submitted in Docket Nos. 03-15, 00-186, and 99-364. If additional *Notices* would be required to implement the proposed rules, the Commission should begin any such required proceedings and conclude them before conferring new benefits on broadcasters.

III. THE COMMISSION SHOULD ADOPT POLICIES THAT ADDRESS THE DIGITAL TRANSITION AS A WHOLE, RATHER THAN CONTINUE TO ALLOCATE IMPORTANT RIGHTS IN A PIECEMEAL FASHION.

The Commission should cease artificially bifurcating resolution of "technical" issues, such as adoption of DTS, from "policy" issues such as unlicensed access and public interest obligations. The Commission must recognize that, whatever validity such a distinction had in the analog world, resolution of "technical" issues in the digital transition amounts to a resolution of rights and establishment of policy. The decisions made in this *NPRM* will have huge impact on the ability of others to use the spectrum, and on the value broadcasters provide to viewers.

With regard to the public interest obligations on traditional broadcasting services, NAF, *et al.* have already directed the Commission's attention to the PIPAC proposal. In addition, however, NAF, *et al.* make the following specific policy recommendations with regard to the possible use of digital spectrum to provide broadband services, whether by non-broadcasters via Part 15 devices approved pursuant to Docket No. 04-186 or by broadcasters themselves as "ancillary services."

1. The Commission should not go ahead with this rulemaking because the opportunity costs of precluding advanced wireless services clearly outweigh the benefits to OTA television households.

This rulemaking contemplates a radical increase in the amount of spectrum allocated exclusively for broadcast use at a time when the market for broadcast programming is in long-term and irrevocable decline. Notably, when consumers are given the option, they prefer to have an expansive menu of programming choices, including picking what they watch and when they watch it. These are choices that broadcast delivery technology—digital or not—cannot offer, but which advanced wireless broadband services on these same TV band frequencies *will* offer once the Commission affirmatively concludes its pending rule making in the matter of Unlicensed Operation in the Broadcast Bands (Docket 04-186).

2. If the FCC does decide to pursue distributed transmission system technology for the broadcast band, it should first carefully weigh the relative benefits of granting more spectrum for broadcasting as opposed to unlicensed broadband use.

The Commission should justify why, given its own past statements concerning the importance of broadband as well as the decades-long decline in viewing TV via terrestrial, over-the-air broadcasting, it enhances efficiency to allocate more spectrum to broadcasters at the expense of broadband use.[5] In particular, the Commission should consider the extensive record compiled in Docket No. 04-186 with regard to other, valuable non-interfering uses for the spectrum if the Commission declines to adopt its proposed DTS rules.

[5] Some have advocated that the FCC and Congress should cease trying to preserve over-the-air television altogether as an inefficient use of spectrum better used for other purposes. *See* J.H. Snider, *Speak Softly and Carry a Big Stick* (iUniverse, 2004), Chapter 3. While not all commenters here necessarily agree with this position, the Commission should carefully weigh the opportunity cost of enhancing broadcasting at the expense of other uses in light of increasing reliance by the public on MVPD services rather than free TV.

3. <u>If the FCC grants broadcasters the right to build a low power DTS network within the broadcast band, a quid pro quo should be that broadcasters must give up their high power rights after a suitable transition period</u>.

Currently, the broadcast industry "pollutes" far more spectrum than it can make productive use of on its own by requiring extensive guard bands and otherwise preventing use of spectrum to avoid possible interference. This is due to the physical characteristics of high power electromagnetic waves. Broadcasters are only protected from interference from other high power TV stations within their Grade B contours. But there is a huge amount of buffer spectrum between the Grade B contours of two stations. This buffer zone is essentially a spectrally-polluted no mans land—but these adjacent and co-channel frequencies also represent the underutilized "white space" where low-power and unlicensed WiFi and other advanced services could be providing valuable new telecommunications services to *all* households in that area. With a network of low power transmitters, however, this buffer zone is no longer needed. Indeed, that's a centerpiece of the broadcasters' argument that their protected spectrum rights should extend from the Grade B contour all the way out to the DMA line.

If the FCC does grant broadcasters a spectrum windfall within their Grade B contours, it should condition that windfall on a massive reduction in the amount of spectrum the broadcasters are allowed to "pollute" outside their Grade B contours. The bottom line goal must be to reduce the amount of energy broadcasters are allowed to send past their Grade B contour, thereby reducing the opportunity loss associated with *potential* services that could be provided considering the evolution of "smart" radio devices. One way to do this is to require that after a particular date the broadcast industry

must fully convert itself to a low power network, at least in the area immediately adjacent to the Grade B contour.

4. If broadcasters are granted rights to transmit outside their Grade B contours, or in "gaps" within their Grade B contours, then each transmitter covering such areas should be required to receive a temporary site license, with the FCC requiring a statement of cause and inviting proposals for better competing uses of the spectrum.

The FCC proposes that "DTS transmitters will not be separately licensed, but will be part of a linked group that will be covered by one construction permit and license." *NPRM* ¶28. But such blanket licenses may not be in the public interest. Consider a college, hospital, or business campus that doesn't currently receive a broadcast signal and would prefer to use the white space for its own internal broadband services rather than to receive over-the-air broadcast TV service. These entities should be able to make the case that a broadcast station should not be able to extend its spectrum rights into such an area. At a minimum, a site-based registry and approval notice period (of 60 days or longer) should be required, so that other users of adjacent and co-channel frequencies can assess the impact on the configuration and quality of their services—and challenge the expansion during the notice period, if need be.

5. Broadcasters should not be allowed to redline regardless of whether they are delivering conventional or new services.

Traditional, universal service or anti-redlining requirements were not a concern in the broadcast bands. But as broadcasters migrate to a network structure, such as that of a cable or telephone network, which allows fine-tuned service discrimination, these issues become a concern. Although the *NPRM* is sensitive to the dangers of "cherry picking," given the incentives created by the emerging broadcast architecture, its focus is limited to

preserving the existing level of universal service for traditional broadcast services rather than ensuring that any expansion of service will equally benefit the community of license. There is no serious consideration of whether there should be a universal service requirement for the new services that will be offered with the new network. Yet when cable or telephone franchise deals are negotiated with local municipalities, these types of questions are typically central concerns.

The FCC has also proposed no credible mechanism for enforcing universal service requirements even for existing broadcast service, let alone the new contemplated services such as mobile TV. The FCC must fully recognize the implications of the fact that, within the 210 local TV markets in the U.S., enforcing laws for potentially millions of broadcast TV transmitters would be much harder than enforcing the same laws for the current world of little more than a 1,000 broadcast TV transmitters. Thus, it cannot rely on enforcement mechanisms that have worked in the past.

CONCLUSION

The *NPRM* represents a radical change in the current regulatory regime for broadcasting. Compared to the current and historic site-based licensing model, with spectrum use roughly bounded by the statutory value of localism in broadcasting, the proposed DTS technologies will likely result in a substantial expansion of low-frequency spectrum occupied by a broadcast technology that is serving a tiny and declining number of American households. While this change is not without benefits to the public, it is also not without costs. Yet these potential costs have been all but ignored.

Before granting new spectrum rights to broadcasters, the Commission must properly address the opportunity costs such grants will have. In doing so, the

Commission should be mindful of the new opportunities created by technologies that would permit direct access to the airwaves by the public.

Finally, before conferring yet new benefits to broadcasters as part of the digital transition, the Commission should finish its pressing business with regard to public interest obligations and localism. Until the pending rulemakings are completed, and any new proceedings necessary to adopt rigorous public interest obligations are concluded, the Commission should refrain from giving licensees any further enrichments at the expense of the public.

Respectfully submitted,

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APPENDIX A. COMMENTING PARTIES

Acorn Active Media Foundation engages in software, website and technical development in support of the global social and economic justice movement. www.acornactivemedia.com

Action Coalition for Media Education (ACME) is a nonprofit member-supported continental media education coalition championing critical media literacy education, independent media production, and grassroots media reform and justice initiatives. www.acmecoalition.org

The mission of the **Alliance for Community Media** (ACM) is to advance democratic ideals by ensuring that people have access to electronic media and by promoting effective communication through community uses of media. www.alliancecm.org

The mission of the **Benton Foundation** is to articulate a public interest vision for the digital age and to demonstrate the value of communications for solving social problems. Current priorities include: promoting a vision and policy alternatives for the digital age in which the benefit to the public is paramount; raising awareness among funders and nonprofits on their stake in critical policy issues; enabling communities and nonprofits to produce diverse and locally responsive media content. www.benton.org

The **Center for Digital Democracy** (CDD) is committed to preserving the openness and diversity of the Internet in the broadband era, and to realizing the full potential of digital communications through the development and encouragement of noncommercial, public interest programming. www.democraticmedia.org/index.html

The **Center for Neighborhood Technology** (CNT), founded in 1978, is a Chicago-based organization dedicated to promoting livable, sustainable communities. The Wireless Community Networks (WCN) project, an effort of the CNT and its partners, uses wireless technologies in an innovative network design to provide low-cost broadband

connectivity and related opportunities such as job searching capability and skill development, to underserved households, community groups, and small businesses. http://wcn.cnt.org

The **Champaign-Urbana Community Wireless Network** (CUWiN), a project of the Urbana-Champaign Independent Media Center Foundation, has deployed an extensive mesh network using Part 15 spectrum in the Champaign-Urbana metro area. The three-part mission is to (a) connect more people to Internet and broadband services; (b) develop open-source hardware and software for use by wireless projects world-wide; and, (c) build and support community-owned, not-for-profit broadband networks in cities and towns around the globe. www.cuwireless.net

Citizens for Independent Public Broadcasting (CIPB) is a national membership organization dedicated to putting the PUBLIC back into public broadcasting so that we can all join in the debate about our nation's future. www.cipbonline.org

Common Cause is a non-partisan non-profit dedicated to holding power accountable and encouraging citizen participation in democracy. Common Cause has nearly 300,000 members and supporters throughout the country, and state organizations in 38 states. www.commoncause.org

Consumer Federation of America (CFA) is the nation's largest consumer advocacy group, composed of two hundred and eighty state and local affiliates representing consumer, senior citizen, low-income, labor, farm, public power and cooperative organizations, with more than 50 million individual members. www.consumerfed.org

FreeNetworks.org is a volunteer cooperative association dedicated to education, collaboration, and advocacy for the creation of FreeNetworks. A FreeNetwork is any computer network that allows free local transit. FreeNetworkers have been meeting since 2000 to organize, share information, and pool resources to find the best way to build community networks. Members include community advocates, system administrators, RF

engineers, writers, lawyers, programmers, business owners, and many others who want to help build FreeNetworks in their local communities. www.freenetworks.org

Free Press is a national nonpartisan organization working to increase informed public participation in crucial media policy debates, and to generate policies that will produce a more competitive and public interest-oriented media system with a strong nonprofit and noncommercial sector. www.freepress.net

The **Future of Music Coalition** is a not-for-profit collaboration between members of the music, technology, public policy and intellectual property law communities. The FMC seeks to educate the media, policymakers, and the public about music / technology issues, while also bringing together diverse voices in an effort to come up with creative solutions to some of the challenges in this space. The FMC also aims to identify and promote innovative business models that will help musicians and citizens to benefit from new technologies. www.futureofmusic.org

Hawaii Consumers is a public interest research and advocacy organization addressing issues of concern to consumers in the State of Hawai'i.

MediaChannel.org is a nonprofit, public interest Web site dedicated to global media issues. MediaChannel is concerned with the political, cultural and social impacts of the media, large and small. MediaChannel exists to provide information and diverse perspectives and inspire debate, collaboration, action and citizen engagement. www.mediachannel.org

Media Access Project (MAP) is a 30 year-old non-profit tax exempt public interest telecommunications law firm which promotes the public's First Amendment right to hear and be heard on the electronic media of today and tomorrow. MAP's work is in the courts, the FCC, and in active outreach as a coalition builder among other public interest organizations. MAP is the only Washington-based organization devoted to representing listeners' and speakers' interests in electronic media and telecommunications issues

before the Federal Communications Commission, other policy-making bodies, and in the courts. www.mediaaccess.org

Media Alliance is a 29 year-old media resource and advocacy center for media workers, non-profit organizations, and social justice activists. Our mission is excellence, ethics, diversity, and accountability in all aspects of the media in the interests of peace, justice, and social responsibility. www.media-alliance.org

The **New America Foundation** (NAF) is a nonpartisan, non-profit public policy institute based in Washington, DC, which, through its Wireless Future Program, studies and advocates reforms to improve our nation's management of publicly-owned assets, particularly the public airwaves. www.newamerica.net

Prometheus Radio Project is a Philadelphia-based unincorporated collective of radio activists committed to expanding opportunities for the public to build, operate and hear low power FM radio stations. www.prometheusradio.org

Reclaim the Media is a Seattle-based media advocacy nonprofit with a three-part focus on media policy reform, media literacy education and support for a vibrant community media sphere. www.reclaimthemedia.org

Tribal Digital Village (TDV) connects and serves more than 7,600 Native Americans living on reservations in isolated and scattered rural communities stretching from the California-Mexico border into Riverside County—an area that encompasses 150 miles and takes 4 ½ hours to visit by car. Nearly 30 percent of the tribal community's population lives below the poverty line, and 50 percent are unemployed. Tribal Digital Village's work, enabled by a grant from Hewlett-Packard, connects the 18 American Indian reservations in southern California to a high-speed, wireless Internet backbone and uses the Internet to build communities of interest among tribal members in ways that resemble family and community networks. www.sctdv.net