

Date: August 21, 2002

To: Public Radio and Television Managers

From: The Digital Radio & Television Consultation Panels

Subject: Final Recommendations Regarding the Allocation of CPB Digital Funding

NOTE: This memo contains important information regarding the joint recommendations of The Digital Radio and Television Consultation Panels.

### Digital Radio Conversion

The FCC is currently reviewing the AM & FM In-band/On-Channel (IBOC) transmission standard developed by Ibiquity, an organization largely owned by the major commercial radio broadcasters\*. The National Radio Standards Committee has urged adoption of the IBOC standard. As soon as the standard is adopted, which may be as early as October of 2002 or later in 2003, commercial stations are expected to place orders for digital transmission equipment and begin their conversion. The first of these stations will be located in thirteen radio markets identified by Ibiquity as seed markets\*\*. These markets will serve as a test bed for consumer acceptance of digital radio. For this reason Ibiquity has planned significant marketing and promotional efforts, prepared for rapid deployment of digital radio receivers, and organized other activities designed to jump-start the roll out of digital terrestrial radio.

It is imperative that public radio stations located in these seed markets-five of which are joint licensees-are able to transition to digital broadcast at the same time as their commercial counterparts, with whom they share a common audience. Public radio stations serving these thirteen communities collectively provide service to more than 30% of public radio's total national audience. By leveraging the rollout of public radio's digital service in concert with commercial operators that have a vested interest in its successful implementation, public radio substantially increases its probability of success. Public radio will also gain critical information about the rate and degree of consumer acceptance, knowledge that will help stations develop a realistic timetable and plan for digital conversion in the rest of the country.

Rather than commit to an imposed or artificial deadline, public radio will have an opportunity to assess the risks and benefits of further deployment. Key market indicators such as the retail availability of digital radio, OEM and after-market installations of digital radio receivers in automobiles, and equipment orders

placed by stations that share audiences with public radio will help guide decisions about the rollout of digital radio and public radio's investment therein.

The Digital Radio Panel has proposed that those public radio stations in the seed markets that serve a significant audience should be given preference for funding assistance. It is estimated that the cost to convert the fifty or so stations that meet this criterion is in excess of \$5.3 million. Based on a requirement that local stations fund between 25% and 50% of their cost of conversion (rates previously adopted by PTFP and CPB's Digital Distribution and Digital Universal Service Funds) public radio would require \$3.5 million to fund seed market conversion.

Our Recommendation:

The joint panels recommend, therefore, that \$3.5 million be made available for the conversion of public radio stations in seed markets. In view of the urgent need by public television stations to meet a May, 2003 conversion deadline, the joint panels propose that radio seed market funding be allocated from the FY 2003 digital appropriation.

Until the availability of FY 2003 funding, sufficient to meet this obligation, is assured, the joint panels further recommend that \$3.5 million in FY 2002 funding be held in reserve for this purpose. Once FY 2003 funding is confirmed, the joint panels recommend that the \$3.5 million in FY 2002 funds, held in reserve, be made available for use in CPB's DDF and DUSF programs for public television. In the event FY 2003 funding is not forthcoming the panels have agreed to review what options may exist to address the immediate needs of radio and television.

The joint panels have been advised that CPB intends to re-convene the consultation process once the outcome of FY 2003 digital funding is known, and at that time they anticipate the opportunity to consider the best and highest uses of FY 2003 funds remaining after the \$3.5 million pay out for digital radio seed market conversion.

Support for Digital Distribution:

AM Radio Distribution and Testing

One out of every ten public radio licensees operate at least one AM station. Unlike the majority of commercial radio operators, most public stations were assigned frequencies that require the use of multiple towers, directional antennas, and other transmission configurations which may complicate conversion to the digital AM In-Band On-Channel (IBOC) transmission standard now under review by the FCC,

and could result in substantial additional conversion costs. In addition, potential interference issues, as yet untested and unresolved, could limit digital AM transmission to daytime hours only, over what could be a protracted transitional period extending several years. Neither the FCC nor the National Radio Standards Committee (NRSC) anticipates conducting further tests of the AM IBOC standard prior to its adoption. As a result, the feasibility of full service AM IBOC and the costs to convert analog AM stations, a significant number of which serve rural communities, are unknown.

Digital AM IBOC would provide a significant improvement in audio quality to radio listeners. Moreover, the acquisition of additional analog AM stations could offer public radio stations opportunities to increase their reach and capacity in many markets where spectrum is otherwise unavailable or prohibitively expensive, but only if digital AM can be deployed in a cost effective and technically sound manner.

#### Our Recommendation:

The joint panels recommend, therefore, that \$1 million be made available for the engineering development, conversion, and testing of up to four public radio AM stations that currently rely on analog transmission configurations known or suspected to pose challenges for digital conversion. The panels further recommend that, where possible, candidate stations should be selected from those located in the thirteen seed markets where digital radio will be launched following adoption of the standard. The results of this implementation and testing should provide workable solutions for digital AM transmission, and precise information about the costs to convert public radio's AM stations.

#### Support for Advanced Public Services:

##### Digital Radio Receivers

Integral to the design of digital IBOC radio are various capabilities that would extend the capacity and range of public services public radio could provide. These include the provision of an additional audio channel over which public radio broadcasters could offer second language services, reading services for the vision impaired, and other new content. Additionally, public radio anticipates being able to use a portion of the digital bandwidth for datacasting services that could provide traffic, weather, public safety and other listener services.

Radio receiver manufacturers have yet to determine which features of the digital radio standard they will implement in consumer sets, or what level of demand there may be for advanced services. Nor have they considered the public service

implications of including or excluding certain functions that would benefit important constituencies. While the cost to implement many of these functions would appear to be nominal, there is insufficient data available today to suggest the potential audience for advanced features, much less the cost/benefit manufacturers might enjoy should they choose to include any of the capabilities.

The joint panels support public radio's belief that manufacturers may be prepared to adopt those functions that would permit public radio to extend its service if reliable information could be provided as to its need, financial viability, and desirability. It is estimated that the cost to develop this data is about \$100,000.

### Digital Radio conversion cost

In 1997, when public broadcasting began its requests for federal support for digital conversion it was necessary to establish an accurate assessment of the station-by-station costs. Because digital television was much further along in its development at that time it was possible to establish what proved to be a very reliable projection of the anticipated conversion costs for public television stations. In each year since, public television's conversion costs have been reviewed and the baseline data has been updated to reflect market changes, as well as the remaining costs of conversion yet to be funded.

By necessity, in 1997 public radio could only estimate the cost to convert its 787 transmitters and 716 translators to a digital broadcast standard. Since then the estimate has not been revised because until recently there was no reliable information on which to base a new calculation. Now that a standard is imminent and transmission equipment is being offered for sale, public radio's conversion costs can and must be more accurately determined. Accurate station-by-station cost data will make it possible for public radio stations to develop a realistic conversion plan and assess their future capital funding requirements.

It is estimated that given the number of stations involved, the cost to establish this baseline data will be similar to what was provided by CPB for the public television assessment in 1997, \$250,000.

### Our Recommendation:

The joint panels recommend, therefore, that \$350,000 be provided for both these urgent needs. Respectful of Congressional report language accompanying the FY 2002 digital appropriation, which provides FY 02 funds for "equipment and facilities" necessary for the digital conversion, the joint panels recommend to the CPB Board that funds for this purpose be allocated by CPB from a source other

than the FY 02 digital appropriation.

\* The IBOC standard was recently re-named HD Radio.

\*\*The thirteen seed markets include: Los Angeles, New York, San Francisco, Chicago, Seattle Miami, Boston, Dallas, Denver, Atlanta, Detroit, Las Vegas, and Washington, DC.

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