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(draft 9/27/99)

DAB SUBCOMMITTEE
IBOC DAB System Test Guidelines (Part I – Laboratory Tests)

Addendum #4
Inclusion of "Mode" signal in data report

This addendum provides additional information regarding specific data being requested for inclusion in an IBOC system data submission. Proponents intending to submit IBOC system performance data to the NRSC for evaluation are asked to consider the information in this addendum as they prepare their submission.

At the August 13, 1999 meeting of the Evaluation Working Group, a need was identified for a "mode" signal to be included as part of a proponents submission of test results. This group has determined that such information will be instrumental in characterizing the operation of IBOC systems which utilize different modes based on transmission conditions.

This mode signal would indicate the particular mode of an IBOC audio signal versus time (for example, as part of a field test run) or versus operating point (as in a laboratory adjacent channel test), and would be analogous to the stereo pilot indicator provided by an analog FM stereo receiver. This information would apply to all tests, i.e., the IBOC audio signal mode is of interest for all modes of operation and under any test conditions.

Based on the technical disclosures made by the current IBOC proponents, it is expected that for USA Digital Radio, the mode indicator would indicate when the IBOC audio had "blended to analog," and for Lucent Digital Radio, the number of streams actually being used in the multi-stream audio processing at the receiver (*e.g.*, from 1 to 4 for their FM system). For Digital Radio Express, it is not presently known if a mode signal would be appropriate, however, DRE is requested to make this evaluation based on the needs of the NRSC as expressed herein and on the particulars of their system's design.

Proponents are also encouraged to submit any auxiliary information which would help to characterize the audio quality represented by a particular mode (as indicated by the mode signal), for example, by conducting subjective evaluations on data for which the mode signal information has been collected.