



**MM Docket No. 99-325
Report & Order**

Highlights

- In-Band-On-Channel officially "selected" as the digital operation for AM & FM broadcasting.
- Standard setting to be determined in later FNPRM
- NRSC recommended the iBiquity IBOC system to be adopted as the DAB standard
- The Eureka 147 system (using out of band approach) is not feasible.
 - no suggested spectrum is readily available
- Specifically reject VCCP's contention that the industry needs 25 years to adopt DAB

FM Specific discussion:

- Some question exists as to interference to subcarrier services
 1. 2.6% of receivers may experience undesirable interference
 2. FNPRM to come seeking comments on measures to protect established services
 3. Believe that interference issues can be resolved on case-by-case basis
- Confident that early tests reflect similar results as recent tests using PAC
 1. Early tests done using MPEG-2 AAC coding
 2. Recent tests used Lucent PAC

AM Specific discussion:

- Tests in the AM band generally very favorable
 1. need further study of night time first adjacent interference
 - "significant" issue
 2. reduces the host S/N
 - should not degrade listening unduly
 3. potential benefits "far outweigh" small increase in interference
- Not compatible with C-QUAM AM Stereo
- Issues with bandwidth
 1. reduce analog signal to 5 kHz bandwidth
 2. most receivers today use 5 kHz filters

- Voluntary nature of broadcasting with AM IBOC
 1. may continue to broadcast with full analog 10 kHz bandwidth
 2. may continue to broadcast with analog stereo
- Approach to sideband power levels
 1. AM may commence DAB using approved STA procedure
 2. When interference occurs, power levels may be reduced as much as 6 db
 3. Licensees must notify the FCC of adjustments
- For actual interference to protected contour, an official complaint must be filed
 1. Document extent of tests, measurements
 2. Bureau will resolve complaint within 90 days, or interfering station shall reduce its primary digital carrier by 6 dB
- Pre-sunrise and post-sunset stations may use IBOC between 6am & 6pm at authorized power

Unresolved issues & Conclusion

- Mandate to require "main audio program" in digital stream will be considered in future
- iBiquity "states that it will adhere to the Commission's patent policy" in regard to licensing issues - (wait and see policy for now).
- Unresolved issues of auxiliary data services
- Unresolved issues of all digital broadcasting - requires more impartial testing
- DAB use on booster and translator stations requires more testing
- Environmental impact issues can be dealt with using the existing requirements
- **Interim operation may be authorized with stations using a "hybrid" (Analog/DAB) facility.**
 1. **Same main channel program in analog & digital transmission.**
- no "multicasting" allowed at this time
 2. **Must use same "authorized" antenna system (not separate antenna)**
- **Public Notice will be issued after approval by OMB, allowing stations to file for IBOC operation**