

DECLARATION

I, Jeff Littlejohn, hereby declare under penalty of perjury that:

1. I am Executive Vice President-Engineering & Systems Integration of iHeartCommunications, Inc., debtor in possession (“iHeart”).

2. iHeart is a member of the AM Radio Preservation Alliance, which is submitting Comments to the Federal Communications Commission (the “Commission”) on its Second Further Notice of Proposed Rule Making, FCC 18-249, MB Docket No. 13-249 (rel. Oct. 5, 2018) (“*SFNPRM*”).

3. In the *SFNPRM*, the Commission has requested comments on two alternative proposals to reduce nighttime interference protections to Class A AM stations. *See SFNPRM* at ¶ 12. Both nighttime hours proposals set forth in the *SFNPRM* would eliminate the current interference protection to a Class A AM station’s skywave contour and substitute a protection factor based on the Class A AM station’s 0.5 mV/m nighttime groundwave contour. *See id.*

4. To provide the Commission with documentation of current, measured nighttime listening by the public to Class A AM stations’ skywave signals, which would be subject to interference under the *SFNPRM* nighttime alternatives, iHeart tapped into nationwide audience data (reported by county) in the Nielsen Audio National Regional Database, Monday-Sunday 8pm-6am, Persons Age 12+ (Spring 2018) for every Class A AM station in the 48 contiguous states (57 stations total). The resulting nighttime audience data is set forth in the attached spreadsheet labeled “P12+ Audience by Station, M-Su 8p-6a, Nielsen Audio National Regional Database, Spring 2018.”

5. For each of the 57 Class A AM stations, iHeart identified the zip codes encompassed by that Class A AM station's 0.5 mV/m nighttime groundwave contour, and tied each zip code to its county (or multiple counties if a zip code crossed county lines). All such counties were deemed as "in" the Class A AM station's 0.5 mV/m nighttime groundwave contour. Nielsen nighttime audience data for AQH and Cume (detailed below) was isolated into figures for Total (all Nielsen-rated nighttime listeners to that station) and Groundwave (all Nielsen-rated nighttime audience within the counties computed as encompassed by that station's 0.5 mV/m nighttime groundwave contour). To determine the Skywave Audience, the Groundwave audience was subtracted from the Total Audience. The percentages of measured nighttime listening within each Class A AM station's 0.5 mV/m nighttime groundwave contour and of measured nighttime listening via the Class A AM station's skywave signal were also calculated, both AQH and Cume nighttime audience data. This analysis of the proportions of Skywave versus 0.5 mV/m Groundwave nighttime listening to the 57 Class A AM stations is presented on the spreadsheet attached to this Declaration.

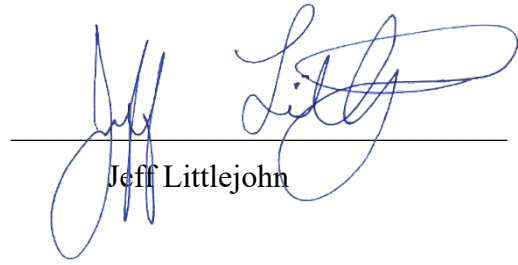
6. Note that because one single 0.5 mV/m groundwave zip code in a county was enough to include the entire county as part of the "Groundwave" audience, the analysis may *overstate* the audience listening via the station's 0.5 mV/m nighttime groundwave signal and *understate* the audience listening via the station's skywave signal. Note also, for the nine Class A AM stations broadcasting AM-FM simulcasts, the audience data may reflect listening on both services. This simulcast information inflates the size of the audience reported as "Groundwave" but does not inflate the "Skywave" audience. This may lead to a further *underreporting* of the Skywave percentages.

7. Nielsen Audio is an independent source of radio measurement relied upon by the radio industry and advertisers to make programming and advertising-placement decisions. See <http://www.nielsen.com/us/en/solutions/capabilities/audio.html>. AQH, or Average Quarter-Hour Persons, is defined by Nielsen as "[t]he average number of persons listening to a particular station for at least five minutes during a 15-minute period." See http://www.arbitron.com/downloads/terms_brochure.pdf. Cume Persons is defined by Nielsen as "[t]he total number of

different persons who tune to a radio station during the course of a daypart for at least five minutes.” *Id.*

8. The first attached table, labeled “P12+ Audience by Station, M-Su 8p-6a, Nielsen Audio National Regional Database, Spring 2018,” documents that across all 57 Class A AM stations in the lower 48 states, the average of AQH nighttime listening via skywave reception constitutes 11% of all nighttime listening and the average of Cume nighttime listening via skywave reception is 10%. Therefore, substantial portions of measured nighttime listening would be subject to interference under either of the *SFNPRM*’s alternative options for reduced nighttime protections to Class A AM stations. Also as reported in the attached spreadsheet, skywave reception over groundwave reception constitutes even greater percentages of the nighttime audience for individual Class A AM stations, including 70% (AQH) of the nighttime audience for WLAC (Nashville, TN), 60% (AQH) of the nighttime audience for WWVA (Wheeling, WV), 58% (Cume) of the nighttime audience for WSM (the Grand Ole Opry station, Nashville, TN), and 33% (Cume) of the nighttime audience for WRVA (Richmond, VA). Class A AM Station KAAY (Little Rock, AR) primarily reaches its nighttime audience for its religious programming through its skywave signal, with 100% (Cume) of KAAY’s nighttime audience coming from skywave reception.

9. The second attached table, labeled “Percentage of Daytime Listening, Weekly Cume P12+, M-Su 6a-7p (Source: Nielsen National Regional Database, Spring 2018),” reflects Nielsen Audio National Regional Database *daytime* measured listening for all 57 Class A AM stations in the lower 48 states. This Nielsen Audio daytime data is reported by county. For each analyzed station, that reported Cume daytime audience data has been segregated to determine listening from counties that are outside, in whole or in part, each station’s 0.5 mV/m daytime groundwave contour, and the percentage of such listening is listed on the table. For example, for Class A AM Station KAAY, Little Rock, Arkansas, 34.8% of all measured daytime listening to KAAY is wholly outside KAAY’s 0.5 mV/m daytime groundwave contour. When factoring in listening data for counties that are partially outside KAAY’s 0.5 mV/m daytime groundwave contour, up to 35.9% of KAAY’s daytime audience is outside that zone.



Jeff Littlejohn

Dated: January 29, 2019

P12+ Audience by Station, M-Su 8p-6a, Nielsen Audio National Regional Database, Spring 2018

| Station | Station ID | Total AQH | Groundwave AQH | Skywave AQH | Skywave AQH % | Total Cume | Groundwave Cume | Skywave Cume | Skywave Cume % |
|-----------------|------------|-----------|----------------|-------------|---------------|------------|-----------------|--------------|----------------|
| WLAC-AM | 18637 | 1,000 | 300 | 700 | 70% | 17,100 | 10,200 | 6,900 | 40% |
| WWVA-AM | 21749 | 500 | 200 | 300 | 60% | 7,900 | 4,500 | 3,400 | 43% |
| WSM-AM | 20801 | 3,400 | 1,800 | 1,600 | 47% | 43,900 | 18,500 | 25,400 | 58% |
| WTAM-AM | 21757 | 6,900 | 5,100 | 1,800 | 26% | 241,700 | 204,200 | 37,500 | 16% |
| KXEL-AM | 14832 | 400 | 300 | 100 | 25% | 9,800 | 8,700 | 1,100 | 11% |
| KSL-AM/FM | 13909 | 2,800 | 2,200 | 600 | 21% | 110,200 | 102,100 | 8,100 | 7% |
| KOMO-AM/FM | 13112 | 2,400 | 1,900 | 500 | 21% | 131,600 | 118,700 | 12,900 | 10% |
| WFED-AM | 33248 | 500 | 400 | 100 | 20% | 30,800 | 25,400 | 5,400 | 18% |
| WRVA-AM | 20576 | 2,400 | 2,000 | 400 | 17% | 30,600 | 20,500 | 10,100 | 33% |
| KSTP-AM | 14018 | 600 | 500 | 100 | 17% | 33,200 | 23,800 | 9,400 | 28% |
| WCKY-AM | 20626 | 600 | 500 | 100 | 17% | 28,200 | 22,700 | 5,500 | 20% |
| WBAL-AM | 15589 | 1,900 | 1,600 | 300 | 16% | 63,500 | 53,900 | 9,600 | 15% |
| WLS-AM | 18869 | 2,900 | 2,500 | 400 | 14% | 101,300 | 89,900 | 11,400 | 11% |
| WJR-AM | 18092 | 4,800 | 4,200 | 600 | 13% | 133,500 | 121,200 | 12,300 | 9% |
| KFAQ-AM | 14537 | 800 | 700 | 100 | 13% | 9,800 | 8,900 | 900 | 9% |
| WOAI-AM | 19641 | 2,500 | 2,200 | 300 | 12% | 88,500 | 84,800 | 3,700 | 4% |
| WABC-AM | 15233 | 7,600 | 6,800 | 800 | 11% | 280,100 | 270,000 | 10,100 | 4% |
| WLW-AM | 18944 | 7,800 | 7,000 | 800 | 10% | 221,100 | 203,300 | 17,800 | 8% |
| WCBS-AM | 15977 | 14,900 | 13,400 | 1,500 | 10% | 561,600 | 550,700 | 10,900 | 2% |
| WMVP-AM | 19341 | 2,000 | 1,800 | 200 | 10% | 167,800 | 151,800 | 16,000 | 10% |
| WBT-AM/FM | 15870 | 1,000 | 900 | 100 | 10% | 67,000 | 57,800 | 9,200 | 14% |
| WWL-AM/FM | 21082 | 2000 | 1800 | 200 | 10% | 51200 | 47500 | 3,700 | 7% |
| KOA-AM | 13022 | 5,500 | 5,000 | 500 | 9% | 194,700 | 177,000 | 17,700 | 9% |
| WTIC-AM | 21058 | 2,300 | 2,100 | 200 | 9% | 75,000 | 68,200 | 6,800 | 9% |
| WBRR-AM | 15623 | 1,200 | 1,100 | 100 | 8% | 67,100 | 61,400 | 5,700 | 8% |
| WHO-AM | 17533 | 3,700 | 3,400 | 300 | 8% | 48,000 | 42,100 | 5,900 | 12% |
| WBZ-AM | 15934 | 10,300 | 9,500 | 800 | 8% | 241,500 | 224,300 | 17,200 | 7% |
| KMOX-AM | 12758 | 6,500 | 6,000 | 500 | 8% | 267,000 | 240,200 | 26,800 | 10% |
| KGO-AM | 11626 | 4,600 | 4,300 | 300 | 7% | 110,800 | 104,600 | 6,200 | 6% |
| KFBK-AM | 11371 | 4,700 | 4,400 | 300 | 6% | 123,000 | 114,600 | 8,400 | 7% |
| WBAP-AM | 15592 | 3,200 | 3,000 | 200 | 6% | 128,700 | 119,600 | 9,100 | 7% |
| WHAS-AM | 17380 | 3,400 | 3,200 | 200 | 6% | 57,200 | 51,800 | 5,400 | 9% |
| KEX-AM | 11301 | 1,700 | 1,600 | 100 | 6% | 45,200 | 43,800 | 1,400 | 3% |
| WSB-AM/WSBB-FM | 20637 | 10,800 | 10,200 | 600 | 6% | 317,200 | 304,600 | 12,600 | 4% |
| WPHT-AM | 17243 | 1,900 | 1,800 | 100 | 5% | 73,500 | 68,700 | 4,800 | 7% |
| KFI-AM | 11400 | 25,800 | 24,500 | 1,300 | 5% | 594,800 | 578,000 | 16,800 | 3% |
| KFAB-AM | 11352 | 2,000 | 1,900 | 100 | 5% | 43,000 | 40,300 | 2,700 | 6% |
| WHAM-AM | 17377 | 2,500 | 2,400 | 100 | 4% | 37,000 | 36,200 | 800 | 2% |
| KNBR-AM | 12861 | 7600 | 7300 | 300 | 4% | 302000 | 286700 | 15,300 | 5% |
| KIRO-AM | 11961 | 2,700 | 2,600 | 100 | 4% | 166,900 | 165,300 | 1,600 | 1% |
| WGY-AM/FM | 17362 | 2,900 | 2,800 | 100 | 3% | 40,100 | 39,000 | 1,100 | 3% |
| KRLD-AM | 13590 | 3,300 | 3,200 | 100 | 3% | 121,000 | 118,700 | 2,300 | 2% |
| WFAN-AM/FM | 16860 | 23200 | 22500 | 700 | 3% | 910700 | 885400 | 25,300 | 3% |
| KDKA-AM | 11074 | 4,000 | 3,900 | 100 | 3% | 79,900 | 74,900 | 5,000 | 6% |
| WGN-AM | 17249 | 8,100 | 7,900 | 200 | 2% | 227,400 | 218,000 | 9,400 | 4% |
| WBBM-AM/WCFS-FM | 15616 | 17,000 | 16,600 | 400 | 2% | 522,200 | 506,200 | 16,000 | 3% |
| KNX-AM | 13013 | 9,000 | 8,800 | 200 | 2% | 465,000 | 454,400 | 10,600 | 2% |
| KYW-AM | 15053 | 7,600 | 7,500 | 100 | 1% | 284,900 | 278,100 | 6,800 | 2% |
| WOR-AM | 19785 | 11,500 | 11,400 | 100 | 1% | 407,500 | 401,800 | 5,700 | 1% |
| WSCR-AM | 20667 | 12,500 | 12,400 | 100 | 1% | 474,200 | 466,300 | 7,900 | 2% |
| WCCO-AM | 15996 | 6,300 | 6,300 | 0 | 0% | 170,900 | 165,700 | 5,200 | 3% |
| WFME-AM | 20108 | 4,300 | 4,300 | 0 | 0% | 31,700 | 30,500 | 1,200 | 4% |
| KNZR-AM | 13020 | 100 | 100 | 0 | 0% | 4,000 | 4,000 | 0 | 0% |
| KWKH-AM | 14682 | 100 | 100 | 0 | 0% | 2,700 | 2,100 | 600 | 22% |
| WWKB-AM | 21653 | 200 | 200 | 0 | 0% | 4,100 | 3,700 | 400 | 10% |
| KOKC-AM | 13107 | 100 | 100 | 0 | 0% | 4,800 | 4,400 | 400 | 8% |
| KAAY-AM | 10207 | 0 | 0 | 0 | n/a | 700 | 0 | 700 | 100% |

TOTAL

11%

10%

Percentage of Daytime Listening, Weekly Cume P12+, M-Su 6a 7p (Source: Nielsen National Regional Database, Spring 2018)

| Station | Weekly Cume P12+, M-Su 6a-7p | Listening in Counties Wholly Outside the 0.5 mV/m Daytime Groundwave Contour | Listening in Counties Outside + Partially Outside the 0.5 mV/m Daytime Groundwave Contour |
|----------------|---|---|--|
| KAAY | 9,200 | 34.8% | 35.9% |
| WRVA | 100,900 | 25.0% | 34.0% |
| KFBK | 361,300 | 1.6% | 30.1% |
| KSL | 373,000 | 1.4% | 30.1% |
| KOMO | 375,500 | 3.5% | 24.3% |
| WSM | 64,400 | 13.4% | 24.2% |
| KFI | 1,404,400 | 1.3% | 23.9% |
| WFED | 27,400 | 15.3% | 23.0% |
| WBBR | 180,700 | 3.7% | 22.5% |
| KXEL | 35,400 | 4.2% | 21.2% |
| WLAC | 67,400 | 9.3% | 21.1% |
| WFME | 60,300 | 2.2% | 20.6% |
| WBZ | 701,900 | 4.1% | 18.2% |
| WCBS | 1,317,900 | 1.1% | 17.5% |
| KSTP | 110,500 | 11.5% | 17.1% |
| WWVA | 29,100 | 7.6% | 16.2% |
| KNX | 1,297,300 | 1.7% | 15.4% |
| WOR | 925,600 | 2.3% | 14.4% |
| WFAN | 1,786,100 | 1.7% | 12.6% |
| WBT | 193,800 | 4.6% | 12.5% |
| WOAI | 284,900 | 4.6% | 12.2% |
| WCCO | 431,800 | 4.7% | 12.1% |
| WABC | 648,800 | 2.6% | 11.0% |
| WSB | 841,600 | 3.2% | 9.2% |
| WWKB | 12,300 | 0.0% | 8.9% |
| KNBR | 761,400 | 3.0% | 8.5% |
| KOA | 465,800 | 1.8% | 8.4% |
| WLS | 364,700 | 6.2% | 7.9% |
| WTIC | 182,500 | 2.4% | 7.8% |
| KGO | 312,400 | 0.6% | 7.2% |
| KIRO | 395,900 | 1.5% | 6.9% |
| WCKY | 71,900 | 3.6% | 6.8% |
| KEX | 123,100 | 1.2% | 5.8% |
| WPHT | 206,200 | 1.3% | 5.8% |
| WWL | 168,500 | 3.4% | 5.2% |
| WGY | 118,900 | 1.4% | 5.1% |
| WHAM | 114,500 | 1.0% | 5.0% |
| WBAL | 178,000 | 2.7% | 4.9% |

Percentage of Daytime Listening, Weekly Cume P12+, M-Su 6a 7p (Source: Nielsen National Regional Database, Spring 2018)

| Station | Weekly Cume P12+, M-Su 6a-7p | Listening in Counties Wholly Outside the 0.5 mV/m Daytime Groundwave Contour | Listening in Counties Outside + Partially Outside the 0.5 mV/m Daytime Groundwave Contour |
|----------------|---|---|--|
| WGN | 636,300 | 3.4% | 4.9% |
| KYW | 746,600 | 1.4% | 4.7% |
| WBAP | 421,100 | 3.3% | 4.7% |
| WMVP | 390,400 | 3.8% | 4.3% |
| KWKH | 11,700 | 2.6% | 4.3% |
| WHO | 154,000 | 2.6% | 4.0% |
| WJR | 396,100 | 2.4% | 3.9% |
| KFAQ | 36,600 | 2.2% | 3.8% |
| KDKA | 215,500 | 1.8% | 3.6% |
| WTAM | 383,200 | 2.0% | 3.5% |
| WBBM | 1,279,500 | 1.6% | 3.4% |
| KMOX | 525,100 | 2.0% | 3.4% |
| WLW | 449,600 | 2.1% | 3.1% |
| KFAB | 149,500 | 1.6% | 2.8% |
| WSCR | 1,028,000 | 0.0% | 2.3% |
| KRLD | 436,800 | 1.0% | 2.3% |
| WHAS | 180,600 | 1.2% | 2.2% |
| KNZR | 22,600 | 0.0% | 2.2% |
| KOKC | 11,100 | 0.0% | 0.0% |