

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

In the Matter of)	
)	
Revitalization of the AM Radio Service)	MB Docket No. 13-249

REPLY COMMENTS OF THE AM RADIO PRESERVATION ALLIANCE
ON SECOND FURTHER NOTICE OF PROPOSED RULE MAKING

The AM Radio Preservation Alliance
Members:

Alpha Media LLC
Beasley Media Group, LLC
Bonneville International Corporation
Cox Media Group, LLC
Cumulus Media Inc.
Entercom Communications Corp.
Family Stations, Inc.
Grand Ole Opry, LLC
Hearst Stations Inc.
Hubbard Radio, LLC
iHeartCommunications, Inc.
NRG License Sub, LLC
Scripps Media, Inc.
Townsquare Media, Inc.
Tribune Broadcasting Company, LLC

March 11, 2019

SUMMARY

The AM Radio Preservation Alliance (the “Alliance” or “AMRPA”) respectfully submits these Reply Comments regarding the Commission’s Second Further Notice of Proposed Rule Making, FCC 18-139, MB Docket No. 13-249 (the “*SFNPRM*”).

The Commission has advanced significantly the revitalization of the AM radio service through its actions to date adopting consensus-based reforms and initiatives formulated in this docket, including common-sense technical rule revisions and the enormously successful FM translator filing windows for AM licensees and permittees.

The remaining interference-increasing proposals being considered in the *SFNPRM* are non-consensus for a reason: the extensive record in this proceeding establishes that the potential reductions in interference protections during nighttime, critical hours and daytime hours for Class A AM stations would allow massively more interference to listeners to Class A AM stations than they would create opportunities for theoretical population gains by non-Class A AM stations. Likewise, the proposal to revise daytime interference protections for Class B, C and D AM stations to the 2 mV/m daytime contour has been documented to result in overall detrimental impacts for the AM band, contrary to the public interest in preserving and revitalizing AM radio service.

The record here also undercuts the presumption of the proponents of reductions in interference protections for Class A AM stations with *real-world evidence*, via audience data and listener responses. Such evidence establishes that good reception of Class A AM signals – and dedicated listeners – can and does exist in the zones that the Commission would subject to interference under the *SFNPRM* proposals. Moreover, such populations would be sacrificed for little theoretical gains, which are minimal not only compared to the interference to Class A AM stations that would be unleashed, but minimal also as compared to the service areas already

added through authorized FM translators.

The Commission has acknowledged the importance of considering the *SFNPRM* proposals in light of their impact on the Nation's public safety and national security communications infrastructure. The Commission must take care not to undermine the Congressional directive to the Federal Emergency Management Agency ("FEMA") embodied in the Integrated Public Alert and Warning System Modernization Act of 2015, requiring FEMA to maintain a dependable emergency communications system for Presidential messages. FEMA, in its Comments to the Commission, puts it plainly: "The changes being considered by the FCC in the (SFNPRM) to the interference protections of Class A AM stations, particularly to the protections for the Class A AM stations' nighttime and critical hours operations, would decimate the system developed, and funded, by FEMA, under the mandate of Congress, for a robust communications-distribution network so that citizens of the United States will receive, under all conditions, a Presidential message in time of national emergency."

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1/ *Revitalization of the AM Radio Service*, Second Further Notice of Proposed Rule Making, FCC 18-249, MB Docket No. 13-249 (rel. Oct. 5, 2018) (“*SFNPRM*”). *See also Revitalization of the AM Radio Service*, First Report and Order, Further Notice of Proposed Rule Making, and Notice of Inquiry, 30 FCC Rcd 12145 (2015) (“*FNPRM*”). These Reply Comments are timely filed, as the Commission extended the deadline for filings due between January 8 and February 7, 2019 (with exceptions not relevant here), such as Comments in this proceeding, until February 8, 2019, with equivalent extensions for responsive pleadings; hence reply comments are due 30 days from February 8, 2019, which is Monday, March 11, 2019. *See Public Notice*, Revisions to Filing and Other Deadlines Following Resumption of Normal Commission Operations, DA 19-26 (rel. Jan. 29, 2019).

stations would increase the likelihood of interference to PEP stations, thereby undermining the Nation's finely-tuned, and highly-invested, public safety and national security communications infrastructure.

AMRPA's filings in this docket establish that the proposed changes in interference protections during nighttime, critical hours and daytime hours for Class A AM stations would allow massively more interference to listeners to Class A AM stations than they would create opportunities for theoretical population gains by non-Class A AM stations. AMRPA's *SFNPRM* Comments, as well as AMRPA's prior submissions in this proceeding, detail the destructive interference that would be unleashed on areas currently served and valued by listeners under the nighttime, critical hours and daytime proposals of the *SFNPRM* and prove – with real-world audience data and listener responses – that Class A AM stations in fact have significant listenership outside their 0.5 mV/m groundwave contours, both night and day. This evidence contradicts the presumption of the consulting engineers that discounts the fact of listenable nighttime skywave signals from Class A AM stations.

AMRPA also has referenced its prior data-based submissions in opposition to the proposal to revise daytime interference protections for Class B, C and D AM stations to the 2 mV/m daytime contour, detailing how this proposal would have overall detrimental impacts for Class B, C and D AM stations, contrary to the public interest in preserving and revitalizing AM radio service.

I. THE RECORD IN THIS PROCEEDING ESTABLISHES THAT ACTUAL AM LISTENERS WOULD BE SUBJECT TO NEW INTERFERENCE FROM THE *SFNPRM*'S PROPOSALS WITH LITTLE BENEFIT TO NEIGHBORING STATIONS, RESULTING IN A NET DETRIMENT TO THE AM BAND

Aside from AMRPA's real-world based Comments, the smattering of private-

party Comments addressing the *SFNPRM* have been submitted primarily by consulting engineering firms who have subscribed to the “myth” trope that Class A AM stations could not possibly have meaningful service or listenership outside their respective 0.5 mV/m groundwave contours due to existing interference. ^{2/} The theory of these engineering firms comes down to the argument that, in their view, the current Class A AM protection standards do not provide the interference protections they were designed to do, particularly for nighttime service, so the fix is simply to give up on the concept of protecting a Class A AM station’s skywave, or other hours’, service.

In any event, these hunches and on-paper theories that far-reaching Class A AM service is near mythical are disproved by the exhaustive presentations by AMRPA – grounded in Nielsen audience data and actual listener responses – establishing that there are significant populations of real Class A AM listeners in the areas from which the FCC would withdraw interference protections. That record is supplemented by AMRPA’s detailing through representative studies that the potential gains for non-Class A AM stations under the *SFNPRM* alternatives would be miniscule in comparison to the interference potential that would be unleashed by the *SFNPRM* options. The end result of the *SFNPRM* alternatives is clear: driving away established AM listeners for minor theoretical gains, to the detriment of the entire AM band and the listening public.

^{2/} See, e.g., *SFNPRM* Comments of du Treil, Lundin & Rackley, Inc. (“dLR”) at 2-3 (when calculated on a site-to-site basis, Class A stations average 1.5 mV/m nighttime interference-free levels, and “no Class A station in the 48 contiguous states has an interference-free level below 0.5 mV/m”); *SFNPRM* Comments of Hatfield & Dawson Consulting Engineers, LLC (“H&D”) at 2 (“There is no point in protecting a low value of groundwave contour on a single signal basis when it is clear that on all of the so-called ‘clear channels’ there are multiple existing domestic and foreign interference sources.”).

Following are some of the real-world facts established by AMRPA in this docket:

- With only 57 Class A AM stations in the 48 contiguous states, audience data documents that these Class A stations reach more than 22 million listeners per week (accounting for nearly 30% of national AM band listening) with more than half of these listeners – 14 million – choosing to listen to no other AM radio stations. 3/
- Class A AM stations serve as “Anchor Stations,” attracting consumers to visit the AM band and keeping them coming back for more: in markets where there is a Class A AM station, there is a nearly 33% increase in the AM radio listening audience. 4/
- The new interference zones to Class A AM nighttime service proposed in the *FNPRM* (which remains relevant under certain *SFNPRM* alternatives) include more than 450,000 documented Class A AM station listeners, based on Nielsen Audio audience data. 5/
- This at-risk Class A AM listenership represents a noteworthy 8.6 million hours of radio listening each month. 6/
- Based on a sampling of just 19 Class A AM stations, over 1,000 listeners from locations outside of the respective Class A AM station’s 0.5 mV/m groundwave contour responded to their favorite Class A AM station to express their interest in continued service. 7/
- Current, significant, actual listenership is at risk under the *SFNPRM*’s proposals: across the 57 Class A AM stations in the lower 48 states, the average of AQH listening via skywave reception outside each station’s 0.5 mV/m nighttime groundwave contour constitutes 11% of all nighttime listening and the average of Cume listening via skywave reception outside each station’s 0.5 mV/m nighttime groundwave

3/ See *AMRPA FNPRM* Comments at 5, n.13 and Exhibit B-1.

4/ See *id.* at 5, n.15 and Exhibit B-2.

5/ See *id.* at 7, n.21.

6/ See *id.* at 7-8, n.22.

7/ See *AMRPA Reply FNPRM* Comments at 18-20 and Exhibit R; see also *AMRPA FNPRM* Comments at 8-12 and Exhibit E (existing skywave listeners from outside the Class A AM station’s 0.1 mV/m groundwave contour).

[Footnote continued]

contour is 10% of all nighttime listening. 8/

- The percentages of skywave reception by listeners of Class A AM stations (in contrast to 0.5 mV/m nighttime groundwave reception) are even more significant for individual Class A AM stations: 100% (Cume) of the nighttime audience for KAAY, Little Rock, Arkansas; 70% (AQH) of the nighttime audience for WLAC (Nashville, Tennessee); 60% (AQH) of the nighttime audience for WWVA (Wheeling, West Virginia); 58% (Cume) of the nighttime audience for WSM (the Grand Ole Opry station, Nashville, Tennessee); and 33% (Cume) of the nighttime audience for WRVA (Richmond, Virginia). 9/
- Professional and collegiate sports teams have filed Comments in this docket to remind the Commission that these teams rely on Class A AM stations to reach their fans, and to ask the Commission to stay away from rule changes that would undercut the wide-area service of Class A AM stations. 10/
- Nielsen Audio data for daytime listening documents actual, current listening outside the 0.5 mV/m daytime groundwave contour of nearly all the 57 Class A AM stations in the 48 contiguous states: 12 Class A AM stations have daytime listening exceeding 20% in counties wholly/partially outside their respective 0.5 mV/m daytime groundwave contour; 11 additional Class A AM stations have such daytime listening at or exceeding 11% of all daytime listening, for a total of 23 Class A AM stations at or above 11%; 51 Class A AM stations exceed 3% or greater of daytime listening in counties wholly/partially outside the station's 0.5 mV/m daytime groundwave contour. 11/

Additional engineering studies in the record of this proceeding establish the overwhelming imbalance between the great harms to the listening public versus the minor

8/ See *AMRPA SFNPRM* Comments at 12-13 and Declaration of Jeff Littlejohn.

9/ See *id.*

10/ See, e.g., *FNPRM* Comments of the New York Mets; *FNPRM* Comments of the Seattle Mariners; *FNPRM* Comments of the Cincinnati Bengals; *FNPRM* Comments of the Cincinnati Reds; *FNPRM* Comments of the Cleveland Cavaliers; *FNPRM* Comments of the Cleveland Indians; *FNPRM* Comments of the University of Cincinnati; *FNPRM* Comments of the University of Northern Iowa; *FNPRM* Comments of Xavier University.

11/ See *AMRPA SFNPRM* Comments at 27-28 and Declaration of Jeff Littlejohn.

[Footnote continued]

potential benefits of the *SFNPRM* proposals:

- In seven representative Class A AM station studies, substituting the 0.5 mV/m nighttime groundwave contour as the protected contour of each Class A AM station would subject millions to new interference (including to Class A PEP/LP-1 stations), while the nearby Class D AM stations causing such interference could obtain only minimal improvements (minimal both as compared to the new interference and as compared to the populations already gained by the Class D stations via authorized FM translators), as follows: 12/

Representative Class A AM Station	Nighttime Population and Percent of Class A AM Station's Currently Protected Service Area Subject to Interference	Nearby Class D Stations' Cumulative Nighttime Population Gain	Nearby Class D Stations' Cumulative Population Gain Via Already Authorized FM Translators	Gain/Loss Ratio (Every One Class D Nighttime Person Gain For Class A Nighttime Losses)
KDKA, Pittsburgh, PA	121,275,964 (82.5%)	5,707	358,409	1:21,250
WLAC, Nashville, TN	93,123,113 (83.6%)	74,745	993,398	1:1,246
KMOX, St. Louis, MO	91,515,793 (75.5%)	40,658	1,200,545	1:2,251
WBT, Charlotte, NC	79,523,475 (79.7%)	58,009	1,437,545	1:1,371
WWVA, Wheeling, WV	65,713,349 (82%)	31,365	275,201	1:2,095
WBAL, Baltimore, MD	14,550,428 (26.4%)	186,310	800,330	1:78
KWKH, Shreveport, LA	1,802,900 (5.6%)	45,373	399,393	1:40

- An analysis of the *FNPRM* proposal to reduce protected Class A AM

12/ See *AMRPA SFNPRM* Comments at Engineering Exhibits. These studies analyze the impact of *SFNPRM* Nighttime Alternative 1, except for the study of Class A Station KMOX, where the nighttime population of KMOX's currently protected skywave contour is evaluated also under *SFNPRM* Nighttime Alternative 2. See *AMRPA SFNPRM* Comments at n.39 and KMOX Engineering Exhibits. For KMOX, in comparison to Alternative 1, under *SFNPRM* Nighttime Alternative 2, an additional 26 million persons, for a total of over 117.7 million, would face service protection losses. *Id.* Thus, the losses to interference can be expected to be magnified under *SFNPRM* Nighttime Alternative 2.

[Footnote continued]

nighttime service to the 0.1 mV/m groundwave contour documents that Class A AM stations would face service protection losses *to millions of persons per station, with rural and American Indian areas disproportionately hard hit.* 13/

- An analysis of the seven Cumulus Media Inc. Class A AM stations establishes that, if the Commission protected only each station's 0.5 mV/m nighttime groundwave contour, populations in rural areas and on Native American Tribal Lands would be particularly hard hit by potential interference, with the potential percentage of population loss in rural areas ranging from 67% to 96%, and the potential percentage of population loss on Tribal Lands reaching between 98 and 100% for each station. 14/
- Regarding the *SFNPRM's* proposed daytime reduction in interference protection for Class A AM stations, representative engineering studies document that significantly many more persons with current AM service would be subject to interference in contrast to the modest populations potentially gained in the direction of the studied Class A AM station by the (generally) Class D AM stations increasing daytime power, as follows: 15/

13/ See *AMRPA FNPRM* Comments at 6-7 and Exhibits C and D.

14/ See *SFNPRM* Comments of Cumulus Media Inc. ("Cumulus") at 12-16 and Appendices A, B.

15/ See *AMRPA SFNPRM* Comments at 28-30 and Engineering Exhibits. As previously noted, these Engineering Exhibits document the potential daytime population gain under the *SFNPRM* daytime proposal solely in the direction of the studied Class A AM station, as other stations may limit power gains in other directions. Moreover, any population gains in directions *other* than the limiting Class A AM station can be accomplished under the current rules with a directional antenna, and thus should not be counted as a gain made possible by the *SFNPRM* daytime proposal. Cf. *SFNPRM* Comments of Carl T. Jones Corporation ("CTJC") at 7-8 (for studies of hypothetical Class B/D daytime non-directional power increases under the *SFNPRM* daytime proposal "only the interference protection to the co-channel Class A station was considered when determining the potential daytime power increase," which "is likely to overestimate the daytime power that may be possible for many stations because the maximum power of each Class B or D station is likely to be further constrained by daytime interference protection requirements toward other co-channel Class B and D stations as well as adjacent channel stations.").

Representative Class AM Station	Daytime Population and Percent of Class A AM Station's Currently Protected Service Area Subject to Interference	Class D Stations' Cumulative Daytime Population Gain in Direction of Class A AM Station	Gain/Loss Ratio (Every One Class D Daytime Person Gain For Class A Daytime Losses)
KWKH, Shreveport, LA	5,813,685 (70.4%)	335,167	1:17.3
WWVA, Wheeling, WV	4,796,299 (41.8%)	245,831	1:19.3
WBT, Charlotte, NC	4,268,297 (47.9%)	256,473	1:16.6
KMOX, St. Louis, MO	2,860,373 (33.4%)	434,606	1:6.6
KDKA, Pittsburgh, PA	1,984,602 (16.5%)	343,950	1:5.8
WBAL, Baltimore, MD	1,037,110 (4.9%)	446,198	1:2.3
WLAC, Nashville, TN	826,117 (22.2%)	531,522	1:1.6

- Regarding critical hours, representative studies establish that the elimination of critical hours protections for Class A AM stations (*SFNPRM* Critical Hours Alternative 1) would result in increasing interference to the Class A AM station's 0.1 mV/m and its 0.5 mV/m daytime groundwave contours. ^{16/} For example, at one-quarter hour before sunset, populations served by these representative stations would be subject to the following interference levels:

^{16/} See AMRPA *FNPRM* Comments at 24-33 and Exhibit P; AMRPA *SFNPRM* Comments at 22-26 and Engineering Exhibits.

Representative Class AM Station	Population and Percent of Class A AM Station's 0.1 mV/m Groundwave Contour Service Area Subject to Interference With No Critical Hours Protection	Population and Percent of Class A AM Station's 0.5 mV/m Groundwave Contour Service Area Subject to Interference With No Critical Hours Protection
WBAL, Baltimore, MD	14,622,912 (68.8%)	4,016,441 (37.7%)
WWVA, Wheeling, WV	7,730,489 (67.4%)	961,919 (20.5%)
KWKH, Shreveport, LA	6,990,944 (84.7%)	540,234 (29.9%)
WBT, Charlotte, NC	6,397,340 (71.8%)	459,115 (15.3%)
KMOX, St. Louis, MO	4,643,922 (54.3%)	662,196 (14.4%)
KDKA, Pittsburgh, PA	4,067,768 (33.8%)	11,349 (0.2%)
WLAC, Nashville, TN	1,904,525 (51.2%)	303,639 (14.4%)

- *SFNPRM* Critical Hours Alternative 2 would also negatively impact the public by authorizing interference to the receipt of a Class A AM station's 0.1 mV/m and its 0.5 mV/m daytime groundwave contours, with these representative studies documenting the interference at one-quarter hour before sunset: 17/

17/ See *AMRPA SFNPRM* Comments at 24-26 and Engineering Exhibits.

Representative Class AM Station	Population and Percent of Class A AM Station's 0.1 mV/m Groundwave Contour Service Area Subject to Interference Under Critical Hours Alternative 2	Population and Percent of Class A AM Station's 0.5 mV/m Groundwave Contour Service Area Subject to Interference Under Critical Hours Alternative 2
WBAL, Baltimore, MD	10,845,097 (51%)	314,669 (3%)
WWVA, Wheeling, WV	6,931,561 (60.4%)	310,049 (6.6%)
KWKH, Shreveport, LA	6,101,970 (73.9%)	59 (0.003%)
WBT, Charlotte, NC	5,613,567 (63%)	26,001 (0.9%)
KDKA, Pittsburgh, PA	3,884,520 (32.3%)	389 (0.007%)
KMOX, St. Louis, MO	3,243,831 (37.9%)	25,160 (0.5%)
WLAC, Nashville, TN	1,667,686 (44.9%)	59,067 (2.8%)

- Representative studies document that the proposal to reduce the protected daytime primary service contour for Class B, C and D AM stations to the 2 mV/m contour would result in Class B, C and D stations being subjected to an arms race of high implementation and operating costs for power increases merely to partially stave off encroaching signals, with the listening public being deluged with significantly more, not less, interference on the AM band. 18/

Faced with the fact-based record of this proceeding, some consulting engineers concede that there may be Class A AM service that would be harmed by drawing back from the current interference protections, but they still are fine with disenfranchising such listeners by the desire for Class B and D power increases no matter the impact on existing listeners. For example, dLR concedes that “[g]ood reception is possible in many locations much of the time within secondary nighttime coverage areas of Class A stations despite the presence of calculated, or ‘on paper,’ interference levels within areas overlapped by 0.025 mV/m 10% of the time

18/ See AMRPA *FNPRM* Reply Comments at 23-36 and Exhibit S.

contours from other stations, as is evident from the number of listener comment messages cited in the Alliance comments for various stations that have higher than 0.5 mV/m site-to-site nighttime interference free limits...” 19/ Others theorize over which *SFNPRM* proposal would do the *least* harm to the public, such as CTJC opining: “Although the [*SFNPRM* Nighttime] Alternative 2 criteria would result in even greater nighttime improvement potential for co-channel Class B and D stations, it would be at the cost of increased interference to the majority of the Class A stations’ nighttime service areas. Further, because of interference protection constraints imposed by other co-channel Class B stations, the potential for further nighttime improvement for Class B and D stations, potentially offered by the proposed Alternative 2 rules, may never be realized.” 20/

And while many consulting engineering firms agree with AMRPA that it would be ill-advised to eliminate critical hours protections for Class A AM stations, 21/ they still favor loosening those protections notwithstanding the additional interference for the AM band. 22/

19/ See dLR *FNPRM* Reply Comments at 3.

20/ See CTJC *SFNPRM* at 5 (preferring adoption of *SFNPRM* Nighttime Alternative 1). In contrast, Communications Technologies, Inc. disfavors Nighttime Alternative 1 and is pro-Nighttime Alternative 2. See *SFNPRM* Comments of Communications Technologies, Inc. at 2.

21/ See, e.g., dLR *FNPRM* Reply Comments at 1, 11 (“We agree with the Alliance that critical hours protection should not be eliminated for Class A stations.”); H&D *SFNPRM* Comments at 1 (“Skywave propagation does not undergo a ‘switch’ at sunrise and sunset, and of course those times are determined by geographic location. Such protection during the transitional hours of sunrise and sunset is appropriate.”); CTCJ *FNPRM* Comments at 3-4 (opposes *FNPRM* proposal to eliminate Critical Hours protection entirely); *SFNPRM* Comments of Radiotechniques Engineering, LLC, at 5 (“Simple elimination of the [Class A critical hours protection] rule may not be ideal, at certain times AM stations can cause severe ‘daytime skywave’ interference.”).

22/ See, e.g., dLR *SFNPRM* Comments at 2 (favors *SFNPRM* Critical Hours Alternative 2 on a site-to-site basis); H&D *SFNPRM* Comments at 1 (supports *SFNPRM* Critical Hours Alternative 2); see also CTJC *SFNPRM* Comments at 9 (“We continue to support maintaining

[Footnote continued]

Likewise, the Class B, C and D “arms race” under the 2 mV/m contour proposal is discounted by many of those firms, notwithstanding the documented warnings of AMRPA and others that this proposal equals a lose-lose-lose-lose situation: the upgrading station loses from increased costs and increased interfering contour overlap; its neighbors lose even if they upgrade due to increased interfering contour overlap; the public loses from increased signal interference to their favored stations; and the AM band loses from the departure of frustrated listeners.

On the other hand, engineering, design and manufacturing firm Kintronic Laboratories, Inc. (“Kintronic Labs”), succinctly puts to bed the debate within the consulting engineering community as to the favored alternative to *degrade* AM interference protections: “The proposed radical changes to the AM protection contours are totally unjustified.” 23/ Kintronic Labs observes: “The traditional engineering standards originally promulgated by the Commission for the AM band, based on realistic physics and engineering considerations, have been similarly adopted worldwide by the ITU and WARC organizations and are fully endorsed by the world’s radio engineering bodies.” 24/ If any business would stand to gain mightily from adoption of the *SFNPRM* proposals, it would be Kintronic Labs, a leading designer and manufacturer of AM antenna systems, 25/ which such AM antenna systems would need to be re-configured – with expert help such as Kintronic Lab’s – to take advantage of the *SFNPRM*

critical hours protection however, in line with our comments on the daytime protected contour for a Class A station ... we support protection to the 0.2 mV/m groundwave contour.”).

23/ See Kintronic Labs *SFNPRM* Comments at 2, *SFNPRM* Reply Comments at 2.

24/ See Kintronic Labs *SFNPRM* Comments at 2.

25/ See Kintronic Labs at <https://www.kintronic.com/> (“As the oldest continually operating AM antenna system provider in the U.S., the engineering staff at Kintronic Labs have learned through accumulated wisdom and experience to specify the most reliable and cost-effective communication solutions (...from initial concept to fully operational) for both broadcast and non-broadcast applications.”).

proposals. Yet, Kintronic Labs' President Thomas F. King, M.S.EE, and Consultant Stephen F. Smith, Ph.D.EE, exhort the Commission: "**For the foreseeable future, we strongly encourage the Commission to defer any such irreversible allocation actions until all of the initial measures we have proposed (noise regulation, synchronization, and advanced DSP-based receivers) have truly had sufficient time to work.** *If these protection limits are reduced now, there will be no later chance of ever recouping the lost coverage areas — the zones previously denied by noise will simply now be squashed by added co-channel (and adjacent-channel) interference from other stations.*" 26/

Radio enthusiast/listener Kevin Tekel wisely states: "We have learned from past history that allowing AM stations to increase their nighttime power in an attempt to cut through the interference to serve their local listeners only ends up creating **more** of that same interference due to skywave propagation, which will continue to exist as a result of the nature of radio wave physics even if the FCC tries to dismiss it as 'sporadic and unreliable.'" 27/

Mr. Tekel also observes: "the solution that has proven to work best at revitalizing AM stations is allowing them to operate FM translators. This is what AM stations are actually asking for, not a marginal increase in power on their existing AM signal." 28/ As summarized by AMRPA in its *SFNPRM* Comments, the cross-service FM translator windows reserved for AM stations were greeted with prodigious participation from the AM community: in the first two

26/ See Kintronic Labs *SFNPRM* Reply Comments at 6-8 (emphasis in original) (advocating that "Revitalizing AM broadcasting must begin with active enforcement by the Commission of these Part-15 and Part-18 noise regulations" along with improvements in AM receiver performance).

27/ See *SFNPRM* Comments of Kevin Tekel ("Tekel") at 1 (emphasis in original).

28/ See *id.*

windows, the Commission authorized over 1,000 translator station modifications, representing more than 90 percent of the applications received, to relocate FM translators to improved locations to rebroadcast primary AM stations; and over 1,850 applications for new cross-service FM translators were filed in the third and fourth windows. 29/

The Commission has significantly advanced the cause of revitalizing the AM radio service with its consensus-based technical initiatives and strengthening of AM stations with FM translator opportunities. Real-world audience data and listener responses submitted in this proceeding establish that Class A AM stations have significant listenership outside their 0.5 mV/m groundwave contour, both night and day. This record contradicts the engineering consulting firms' claims that Class A AM listenership is mythical outside the respective 0.5 mV/m groundwave contours. Such inaccurate presumptions must not serve as the predicate for additional, unwarranted Commission action in this proceeding that would increase interference in the AM band for little benefit.

II. COMMENTERS, INCLUDING FEMA, CONFIRM THAT CLASS A AM STATIONS PLAY A VITAL ROLE IN THE NATION'S PUBLIC SAFETY AND NATIONAL SECURITY COMMUNICATIONS INFRASTRUCTURE; INCREASING INTERFERENCE TO CLASS A AM STATIONS AS PROPOSED IN THE *SFNPRM* WOULD JEOPARDIZE THIS SYSTEM AND FRUSTRATE CONGRESSIONAL INTENT IN ENACTING THE INTEGRATED PUBLIC ALERT AND WARNING SYSTEM MODERNIZATION ACT OF 2015

AMRPA and other Commenters responded to the Commission's request in the *SFNPRM* to address the effect of the proposals to limit interference protections to Class A AM stations on the functioning of IPAWS as managed by FEMA and on the Commission's EAS. 30/

29/ See FCC News, Final FM Translator Window For AM Stations Closes, Action is Commission's Most Recent Effort to Assist AM Broadcasters (Feb. 2, 2018).

30/ See *SFNPRM* at ¶ 14.

AMRPA cited to instances in which Class A AM stations have fulfilled their vital role in response to emergencies, natural and otherwise, including the tragedies of Hurricane Katrina, the Boston Marathon bombing, and the 2018 Southern California Woolsey and Hill Fires and the Northern California Camp Fire. ^{31/} Robert C. Crane of C. Crane Inc., a consumer radio company founded in 1983, concurs: “Powerful AM radio stations and local radio stations currently serve a critical part of our communication system because it can be relied on. Radio was the only working system in the 2017 Santa Rosa fire and it saved lives. The 2018 Paradise Camp Fire overwhelmed all services leaving radio as a primary source of information. Radio has played a critical part in all major natural disasters. It has a massive amount of coverage compared to any other available service. ... Why would you reduce the potential effectiveness of the only system that continues to work in a situation where other systems have been proven to fail?” ^{32/}

AMRPA’s *SFNPRM* Comments also cited to FEMA’s IPAWS Program Management Office’s earlier comments stressing the critical role of the wide range of Class A AM PEP stations in emergency communications given that “FEMA has made significant efforts to assure PEP stations have resilient transmission facilities and that they will be available if called upon even if the power grid and most of the country’s broadband infrastructure are not

^{31/} See AMRPA *SFNPRM* Comments at 6-7.

^{32/} See *SFNPRM* Comments of C. Crane Inc. at 1; see also Tekel *SFNPRM* Comments at 1 (focusing on FM translators for AM stations allows the smaller AM stations to “improve their local service without affecting the vast daytime and nighttime coverage area of the 50 kW clear channel stations, which is especially important now that natural disasters are happening with increasing frequency and severity, often disrupting mobile phone and Internet service and leaving radio as the only reliable means of disseminating critical emergency information to the public.”).

functioning properly. Under these circumstances it will be critically important that there is as little interference to PEP station's signals as possible.” ^{33/} FEMA emphasized IPAWS's reliance on Class A AM PEP stations: “Twenty five PEP stations are Class A AM stations with significant nighttime skywave service beyond the normally reported groundwave signal. In MB Docket No. 13-249 *Revitalization of the AM Radio Service* the Commission is currently evaluating a proposal to lower co-channel skywave protection to Class A AM stations. This proposal, if enacted, will have the effect of creating extended areas where stations with which FEMA does not have direct communications pathways may cause interference to currently protected skywave service areas.” ^{34/} In those Comments, “FEMA urges the FCC not to authorize reduced protection to Class A AM skywave service.” ^{35/}

FEMA has filed additional Comments on the *SFNPRM* proposals, summarizing the disastrous impact of such proposals on the Nation's emergency communications infrastructure as follows:

The changes being considered by the FCC in the (SFNPRM) to the interference protections of Class A AM stations, particularly to the protections for the Class A AM stations' nighttime and critical hours operations, would decimate the system developed, and funded, by FEMA, under the mandate of Congress, for a robust communications-distribution network so that citizens of the United States will receive, under all conditions, a Presidential message in time of national emergency. The United States government has invested, and will continue to invest, millions of dollars in this communications-distribution network, which is reliant on skywave signal coverage by Class A AM stations. ^{36/}

^{33/} *FNPRM* Comments of FEMA IPAWS Program Management Office (“FEMA”) at 2 (Jun. 8, 2016).

^{34/} *Id.*

^{35/} *Id.*

^{36/} FEMA *SFNPRM* Comments at 1 (emphasis added).

FEMA elaborated on the *SFNPRM* Class A AM proposals:

There exists only one means by which FEMA can fulfill its Congressionally-mandated responsibility to ensure that FEMA can deliver a message from the President to the American people under all circumstances during overnight hours, that is through the cooperative use of the privately-owned Class A AM broadcast stations in the Primary Entry Point (PEP) program. The Class A AM nighttime skywave signals currently reach every point in the country. Millions of AM receivers are already in the hands of the public and nearly every automobile in the country has a highly survivable mobile battery powered AM radio. ...FEMA has spent millions of dollars bolstering the emergency operations of PEP stations by providing long-term backup power, protected redundant transmission, High Altitude Electromagnetic Pulse (HEMP) protection and program origination facilities to PEP stations, with a focus on Class A AM stations. All other means of mass electronic communication require from hundreds to thousands of nodes or network relay points, a significant portion of which would require backup power and HEMP protection for that means of communication to survive during austere conditions. The PEP station mission being implemented by FEMA ensures the availability and operation of fortified PEP stations on a very bad day trans- and post- a national security or catastrophic event, including a solar flare or a man-made EMP event. 37/

and:

FEMA is concerned that the Commission's SFNPRM Class A AM interference-protection proposals, including alternatives, will have a negative effect on the PEP system's ability to provide direct groundwave and/or skywave service from surviving PEP stations to the entire country during times of grave national security concerns or following a catastrophic event which interrupts power and terrestrial communications on a very large scale. Should that national security or catastrophic event result in a breakdown of a State EAS Plan's monitoring chain, EAS Participants may become isolated from their sources of a national EAS message. 38/

37/ *Id.* at 1-2 (emphasis added; footnote omitted).

38/ *Id.* at 4-5 (emphasis added).

[Footnote continued]

concluding with:

In a major national security crisis or national disaster, even if only some of the Class A AM PEP stations survive, only they, with the back-ups and fortifications implemented by FEMA, can be relied upon to provide the wide-area coverage via interference free skywave that will be vital to the emergency communications network. ^{39/}

AMRPA's *SFNPRM* Comments also observed that the Commission is obligated not to undermine Congress' mandate to FEMA with its enactment of the Integrated Public Alert and Warning System Modernization Act of 2015 (the "IPAWS Modernization Act"). ^{40/} With that Act, Congress directed FEMA to modernize the IPAWS system to ensure that the President can under "all conditions," "alert and warn the civilian population in areas endangered by natural disasters, acts of terrorism, and other man-made disasters or threats to public safety." ^{41/}

Cumulus in its *SFNPRM* Comments, took special note of Congress' directive to FEMA, further documenting that **"FEMA's efforts to continue to implement the IPAWS Modernization Act would be substantially impaired if not rendered completely ineffective if the Commission's [*SFNPRM*] proposals to reduce the protections to Class A AM stations were adopted."** ^{42/} As substantiated by Cumulus, under the *SFNPRM* proposals, "FEMA no longer would be able to fulfill its statutory obligations, which include ensuring that United States citizens would be able to receive, under all conditions, a message from the President during a national emergency... any Commission action adopting its proposals would frustrate Congress'

^{39/} *Id.* at 7-8 (emphasis added).

^{40/} Public Law 114-143 (114th Congress) (Apr. 11, 2016).

^{41/} See IPAWS Modernization Act, Sec. 526(a).

^{42/} See Cumulus *SFNPRM* Comments at i (emphasis added).

[Footnote continued]

intent in enacting that important statutory legislation.” ^{43/}

III. CONCLUSION

The Commission is to be commended for its actions in this docket that have improved the reach and economic standing of AM stations without increasing interference on the AM band and without undermining the Nation’s emergency notification systems which rely on the wide-range of Class A AM stations. The Commission must remain sensitive to the Congressional mandate, being implemented by FEMA, to maintain an emergency communications distribution network, which FEMA has developed with investments in specialized and redundant facilities for PEP participants, with a heavy reliance on PEP Class A AM stations.

Moreover, the proponents of decreased interference protections for Class A AM stations have been proven mistaken – by real-world audience data – in their assumptions that the zones that would be subject to new interference are bereft of listenable Class A AM signals. Additional engineering studies establish that any potential small improvements by non-Class A AM stations would be overwhelmed by far greater areas of new interference, to the detriment of the listening public. Even then, most of those theoretical audience gains have already been accomplished – and to a greater degree – via authorized FM translators. Likewise, engineering studies establish that changing daytime interference protections for Class B, C and D AM

^{43/} *Id.* As observed by AMRPA, it is simply wishful thinking that FEMA and/or the FCC, in the scramble to ensure Presidential communications to the nation during an episode of the direst of circumstances, could effectively coordinate *and get the message out to multitudes of non-Class A AM stations that may not even have direct communications pathways* to cease their interfering operations under the statute giving suspension powers to the President. *See* 47 U.S.C. § 606(c) (upon Presidential proclamation that there exists war, threat of war, state of public peril, disaster or other national emergencies, President may cause the closing of radio stations). *Cf.* dLR *SFNPRM* Comments at 4-5.

stations to the 2 mV/m daytime contour would have overall detrimental impacts for Class B, C and D AM stations, and consequently would be contrary to the public interest in preserving and revitalizing AM radio service.

Respectfully submitted,

The AM Radio Preservation Alliance Members:

Alpha Media LLC

By: /s/ Michael Everhart
Michael Everhart
Corporate Director of Engineering

1211 SW 5th Avenue, Suite 750
Portland, OR 97204

Beasley Media Group, LLC

By: /s/ Michael Cooney
Michael Cooney
Chief Technology Officer/Executive
Vice President Engineering

3033 Riviera Drive, Suite 200
Naples, Florida 34103
239.263.5000

Bonneville International Corporation

By: /s/ Michael L. Dowdle
Michael L. Dowdle, Esq.
Senior Vice President, Business Affairs
and General Counsel

55 North 300 West, 2nd Floor
Salt Lake City, UT 84101

Cox Media Group, LLC

By: /s/ Alysia Long
Alysia Long, Esq.
Assistant General Counsel

6205 A Peachtree Dunwoody Road
Atlanta, GA 30328

Cumulus Media Inc.

By: /s/ Richard S. Denning
Richard S. Denning, Esq.
Senior Vice President, General Counsel
& Secretary

3280 Peachtree Street, NW
Suite 2300
Atlanta, GA 30305

Entercom Communications Corp.

By: /s/ Andrew P. Sutor, IV
Andrew P. Sutor, IV, Esq.
Executive Vice President
and General Counsel

401 E. City Avenue, Suite 809
Bala Cynwyd, PA 19004

Family Stations, Inc.

By: /s/ Thomas Evans
Thomas Evans
President

1058 Central Avenue
Alameda, CA 94501

Grand Ole Opry, LLC

By: /s/ Scott Lynn
Scott Lynn, Esq.
Senior Vice President, General Counsel and
Corporate Secretary

One Gaylord Drive
Nashville, Tennessee 37214

Hearst Stations Inc.

By: /s/ Cary Pahigian
Cary Pahigian
President and General Manager

3800 Hooper Avenue
Baltimore, MD 21211

Hubbard Radio, LLC

By: /s/ David A. Jones
David A. Jones, Esq.
Vice President and General Counsel

3415 University Ave. West
St. Paul, MN 55114

**iHeartCommunications, Inc.,
as debtor in possession**

By: /s/ Jessica Marventano
Jessica Marventano, Esq.
Senior Vice President, Government Affairs

419 7th Street, NW
Suite 500
Washington, DC 20004

/s/ Jeff Littlejohn
Jeff Littlejohn
Executive Vice President - Engineering &
Systems Integration (of Licensee Entities)

8044 Montgomery Rd., Suite 650
Cincinnati, OH 45236

NRG License Sub, LLC

By: /s/ George Nicholas
George Nicholas
Director of Engineering

2875 Mt. Vernon Road SE
Cedar Rapids, IA 52403

Scripps Media, Inc.

By: /s/ David Giles
David Giles, Esq.
Deputy General Counsel

312 Walnut Street, Suite 2800
Cincinnati, OH 45202

Townsquare Media, Inc.

By: /s/ Bill Wilson
Bill Wilson
Chief Executive Officer

240 Greenwich Avenue
Greenwich CT 06830

Tribune Broadcasting Company, LLC

By: /s/ Todd Manley
Todd Manley
Station Manager, WGN Radio

303 E. Wacker Drive, Suite 1800
Chicago, IL 60601

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