

June 16, 2023

The Honorable Bob Latta
Chair, Subcommittee on Communications & Technology
House Energy & Commerce Committee
U.S. House of Representatives

The Honorable Doris Matsui
Ranking Member, Subcommittee on Communications & Technology
House Energy & Commerce Committee
U.S. House of Representatives

Dear Chairman Latta and Ranking Member Matsui,

The Consumer Technology Association (CTA)[®] writes to address specific areas of confusion raised at the Subcommittee's June 6, 2023 hearing, "Listen Here: Why Americans Value AM Radio," and to strongly urge you to oppose an analog AM radio mandate in new vehicles. Such a mandate would stifle technological progress, particularly for electric vehicles (EVs) and the Integrated Public Alert & Warning System (IPAWS).

Modern vehicles are at the forefront of innovation, as automakers strive to reduce greenhouse gas emissions and enhance road safety through advanced features and connectivity. Mandating the inclusion of AM radios in every vehicle stretches the traditional approach to vehicle safety, affects innovation and undermines the transition to safer and cleaner transportation.

EV designs maximize battery life and energy efficiency. Every additional electronic component added to the vehicle increases power consumption, reducing the overall driving range and impeding the shared goal of broader EV adoption. An AM radio mandate directly conflicts with this objective and places an unnecessary burden on EV manufacturers to prioritize outdated technology over cutting-edge innovations.

During the hearing, subcommittee members asked many questions relating to electromagnetic interference in EVs. AM radio receivers in electric vehicles pick up electromagnetic interference due to the high-voltage electrical systems. The power electronics, high-voltage batteries, and electric motors generate significant electromagnetic fields. When AM radio signals are received by the vehicle's antenna,

these electromagnetic fields can interfere with the incoming signals, resulting in poor reception and static noise. The interference arises from the frequency range of AM radio signals, which overlaps with the frequency range of electrical noise emitted by EV components. This interference can degrade the listening experience for AM radio listeners and diminish the overall functionality of the AM radio system. To mitigate electromagnetic interference, some manufacturers have implemented techniques such as shielding and filtering in electric vehicles. Despite these efforts, the inherent nature of AM radio signals and the electromagnetic fields generated by EV components can still lead to interference and an unsatisfactory listening experience.

The cost of including AM radios in vehicles varies by manufacturer, the specific model of the vehicle (i.e., sedan vs. SUV), and the complexity of the radio system. While installing additional materials may seem relatively inexpensive, a mandate would require some EV manufacturers to completely redesign some vehicle models to incorporate the additional parts. Manufacturers would need to relaunch research and development, a lengthy and resource intensive process.

During the hearing, one witness seemed to claim that Toyota has solved the electromagnetic interference with AM radio issue. It is true that Toyota hybrid vehicles sold in the U.S. now include radios receiving AM signals. But hybrid and electric vehicles incorporate different technologies, are designed differently and only hybrids directly use fossil fuels. Hybrid vehicles combine an internal combustion engine with an electric motor and have electrical systems that operate at lower voltages than fully electric vehicles. The electromagnetic interference in hybrid vehicles is generally less severe due to the smaller batteries and lower voltage levels, although components such as the motor and power electronics in hybrid vehicles may still generate electromagnetic fields that cause interference.

Witnesses raised safety concerns related to a phase-out of AM radio in some car models. AM radio is but one layer of the federal emergency alert system and is unlikely to be relied upon in most emergencies. Indeed, for AM to be the sole source for emergency information, the driver would have to have no cell phone, be out of cell range, and have no FM, digital, or satellite radio signal. The driver would need to have an AM radio signal, the radio must be turned on, and to get any local information, the AM radio station transmitting would have to be geographically nearby and manned by a human.

The Federal Emergency Management Agency (FEMA) and other federal officials use the Integrated Public Alert & Warning System (IPAWS) as the national system for local alerting to quickly disseminate critical information to the public during emergencies. IPAWS provides authenticated emergency information to the public through multiple platforms including digital and analog AM radio, digital and analog FM radio, internet-based radio, satellite radio and over cellular networks. This system has evolved to accommodate new technologies, such as internet-based notifications and smartphone alerts, which enhance public safety by offering broader reach and greater effectiveness.¹ A report from the U.S. Government Accountability Office (GAO) highlights the importance of leveraging modern technologies for emergency alerts and investing in innovative solutions that provide a broader reach and increased accuracy in emergency alert systems.² An AM radio mandate in vehicles risks stymieing efforts to modernize the Integrated Public Alert & Warning System for decades to come. Instead of imposing additional regulatory

¹ [IPAWS Process Map Playbook](#) (February 2023)

² [GAO Report on Emergency Alerting](#) (February 2020)

burdens on the automotive industry, CTA urges Congress to encourage and promote the adoption of emerging technologies that enhance vehicle safety and improve emergency communication systems.

Finally, if the premise for mandating AM radios in all vehicles is public safety, it is imperative to understand how many Americans rely on AM radios in their vehicles. During the hearing, a witness suggested that 82 million Americans are monthly AM radio listeners, citing Nielsen as the source of this figure.³ Just over 80 million Americans⁴ were reported as AM radio listeners by Nielsen since April 2023, but one month prior in March 2023, AM listenership was almost half at 47 million Americans.⁵ What could cause AM listenership to increase so dramatically in one month? It would be helpful if the methodology used could be shared; specifically addressing if all U.S. designated media areas (DMAs) were included and how these results led to projections for the U.S. population as shared by the witness. It would also be beneficial to understand how 'listenership' data is defined, as opposed to flipping between channels to ensure data is not overstated. More, the study does not appear to outline if respondents reported listening to AM radio in their vehicles versus other modes, such as smartphones, TV streaming, etc. If Congress is relying on an advocacy group's use of research, there should be bipartisan agreement that the advocacy group be transparent in how it arrives at its claims. The research methodology should be made available, and Congress should consider factors that may influence research results.

CTA appreciates the opportunity to share our views and stands ready as a resource and expert as the Subcommittee continues to explore this matter.

Sincerely,



Gary Shapiro
President and CEO
Consumer Technology Association

Cc: Members of the U.S. House Committee on Energy & Commerce
Members of the U.S. House Committee on Transportation and Infrastructure

³https://d1dth6e84htgma.cloudfront.net/06_06_23_Testimony_Chapman_9398ba6aaa.pdf?updated_at=2023-06-05T13:37:57.672Z

⁴ <https://www.blog.nab.org/2023/04/05/82-million-americans-depend-on-am-radio/>

⁵ <https://www.blog.nab.org/2023/03/08/preserving-am-radio-in-cars-keeps-americans-safe/>