

**Before the
Federal Communications Commission
Washington DC 20554**

In the Matter of:

**Year 2000 Biennial Regulatory Review)
Amendment of Part 22 of the Commission's Rules to)
Modify or Eliminate Outdated Rules Affecting the) WT Docket No. 01-108
Cellular Radiotelephone Service and Other)
Commercial Mobile Radio Services)**

**Reply Comments of the
National Association of the Deaf
To Notice of Proposed Rulemaking Regarding Proposed
Elimination of Analog Cellular Services**

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The National Association of the Deaf (NAD) submits the following Reply Comments in the “Year 2000 Biennial Regulatory Review Amendment of Part 22 of the Commission’s Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and Other Commercial Mobile Radio Services.”

Established in 1880, the NAD is the oldest and largest consumer-based national advocacy organization safeguarding the civil and accessibility rights of deaf and hard of hearing individuals in the United States of America. Among the most active ad-hoc committees of the NAD is the Telecommunications Advocacy Network (NAD-TAN), which is comprised by deaf and hard of hearing leaders from a wide range of professions nationwide. NAD-TAN members possess keen interest in and extensive knowledge with regard to telecommunications access issues faced on a daily basis by deaf and hard of hearing constituents. Further, the NAD-TAN

team includes members who are affiliated with national and state associations or agencies that serve the needs of those individuals who are deaf, hard of hearing, late deafened, and deaf-blind.

Abstract

The National Association of the Deaf (NAD) remains strongly opposed to changes proposed for Section 22.901 that would diminish the existing analog wireless telephone network at this time, or in the near future. Digital wireless telephone services are not currently compatible with TTYs or with hearing aids, which are among communication devices relied on by deaf or hard of hearing individuals. The digital industry as a whole, despite their promises, has not yet deployed a uniform standard for TTY or hearing aid compatibility with digital equipment. Analog services remain essential for deaf or hard of hearing people to have access to wireless telecommunications services. There is a strong consensus amongst those who commented in this proceeding that the Commission should require analog service to be available, at a minimum for a period of years while the transition to digital moves forward.

Any reduction in available analog services will disrupt or destroy access to wireless telecommunications, as it now exists for deaf or hard of hearing people. Reduction in analog services will cause extreme disruption in rural areas particularly, and will impact universal roaming capabilities. Deaf and hard of hearing consumers do not wish to be relegated to obsolete or inferior technology; in fact, the NAD seeks to access and enjoy the many benefits that digital technologies have to offer. However, the NAD strongly recommends that accessible analog services *not* be eliminated *until* new digital services are: a) fully field tested for reliability of less than 1% -2% garbling incidence in both lab and field settings, and until such services are

readily available commercially, and b) fully deployed – that is, *in place* and available to deaf and hard of hearing consumers.

Companies that provide digital wireless service and/or manufacturers of digital wireless telephone equipment should no longer be able to avoid their obligation to provide TTY compatible equipment and services after June 30, 2002. The NAD requests that there be no further delay in the Commission’s deadline by which all digital equipment and services must be accessible to TTY users. In addition, a deadline should be established for all equipment to be compatible with hearing aids. Following this, a substantial transition period is necessary to protect those who rely on the embedded base of analog TTY and hearing technologies.

Market Forces Do Not Yet Justify Abandoning the Analog Service Standard

The NAD realized that, upon reviewing comments submitted to date, the deaf and hard of hearing community is not the only user pool that will be greatly impacted should analog cellular services be reduced or eliminated. The NAD acknowledges and shares the concern of the Bristol Bay Cellular Partnership that the cellular analog standard is currently prevalent in many sparsely populated areas across rural America including Alaska and that “subscribers of rural systems would be disadvantaged if the analog standard begins to be eliminated...”¹ Additionally, we support the points made by the Rural Cellular Association (RCA) that “the requirement that all cellular carriers provide analog service is not obsolete, but remains vibrant and necessary... and is essential in promoting nationwide, ubiquitous roaming...”² The NAD also shares RCA’s concern that “[e]ven customers who subscribe to a ‘nationwide’ carrier likely require the use of

¹ Bristol Bay, pg. 6

² RCA, pg. 2

analog technology when they roam as no one carrier provides service in every market and, to date, no one digital technology has been deployed uniformly.”³ Generally, Case New Holland, Inc., Secure Alert, Inc., and Mid-Missouri Cellular also commented that AMPS services should be maintained.

Ericsson believes that “the FCC’s modification to section 22.901 will serve to eliminate the regulatory AMPS mandate, but will not eliminate analog service. Instead, the market, not regulators, will drive the continued availability and enhancement of analog services.”⁴

Unfortunately, as pointed out by consumer organizations (AGB, NAD, SHHH, TDI, and others) the deaf and hard of hearing community is already facing barriers due to the discontinuation of analog services by cellular providers in several markets of the country. Additionally, consumers seeking analog equipment/services are discouraged by wireless providers from such usage and steered instead to incompatible and inaccessible digital offerings. Consumers trying to locate a TTY compatible analog cellular telephone constantly contact the NAD for assistance. Clearly the market is steadily shutting out deaf and hard of hearing TTY and hearing aid users, without regard to accessibility needs. This is indeed already happening!

There is no evidence that this trend will correct itself any time soon. Not one manufacturer or carrier noted in their submitted comments that consumer field tests of the digital TTY solutions have taken place. Nor did many of the commenters state with assured confidence that the digital TTY solution will absolutely, positively be available by June 2002 across the country to deaf and hard of hearing customers.

Although Ericsson sincerely stated that “pursuant to mandates in the FCC’s E911 initiative, manufacturers must [note they do not say ‘will’] deliver a product that allows TTY

³ RCA, pg. 3

⁴ Ericsson, pg.5

devices to work with digital phones by December 31, 2002.”⁵ However, the Commission has already issued repeated suspensions and extensions of the deadline in the past. The NAD has no assurance that providers will not request further rule suspensions, as they have repeatedly done so over the past several years. We very much want to believe the deadline of June 2002 is a firm and confident one, but have not seen reliable assurance of this by all affected providers.

As several commenters pointed out per the Sixth Annual CMRS Competition Report released August 18th, 2000, those who rely on analog cellular technology constitutes over 40 million Americans. Several commenters including Verizon Wireless acknowledge that this report indicates, “CMRS subscribership increased to 109.5 million and the percentage of analog users declined to 38 percent. The number of analog subscribers, however, remains fairly static at just over 40 million. Thus, while the percentage of analog customers continues to decline, analog subscribers still constitute a substantial portion of the CMRS subscriber base. The vast majority of analog cellular subscribers use equipment that is only capable of operating on analog service.”⁶ Obviously, this tremendous user pool cannot be ignored or abandoned.

Six years ago, the Commission allowed PCS technology to be deployed without ‘stifling regulations.’ Our membership has not seen any successful result of market-driven innovation that allows us to use cellular technology, as a result of this latitude. In fact, had the Commission not mandated TTY compatibility in digital cellular networks and handsets in the E911 proceeding by June 2002, we are quite confident we would not see this access provision, not even under Section 255 of the Telecommunications Act. We are also concerned that our members who need hearing aid compatibility will continue not to see this access built into handsets without a clear mandate from the Commission.

⁵ Ericsson, pg. 3

⁶ Verizon, pg. 4

The NAD wholeheartedly agrees with the Council of Organizational Representatives (COR) and many other commenters who pointed out, “[a]lthough the forces of the open market may frequently operate to provide optimum services to consumers, thus making regulations superfluous, this has not been true in the case of deaf or hard of hearing consumers and their access to the ongoing telecommunications revolution. Despite the fact that digital wireless service has been widely available for over six years, the telecommunications industry has failed to provide accessible digital wireless telephone service to persons who wear hearing aids or use assistive listening devices or TTYs.”⁷

Consumer advocate Ronald McElvogue rightfully states, “digital technology may be considered 'advanced', but it is in the dark ages when it comes to providing services” for those who are deaf or hard of hearing.⁸

Clearly, deaf and hard of hearing consumers cannot rely on market forces or voluntary industry efforts to access to the digital network. We rely on the Commission to assure that we remain adequately served and connected to all available communications networks.

The League for the Hard of Hearing is yet another commenter who agrees with the NAD that modification to the FCC rules would “greatly weaken the ability of consumers who are deaf or hard of hearing to gain and maintain access to mobile telecommunications.”⁹ We believe the Alexander Graham Bell Association for the Deaf and Hard of Hearing (AGB) correctly sums up the reliance on a market-driven approach for deaf and hard of hearing consumers most accurately by summarizing:

“The situation faced by consumers who are deaf or hard of hearing does not have the same inherent market-based protections as that for other consumers...the market forces that

⁷ COR, pg.1-2

⁸ McElvogue, pg. 1

provide alternatives for many consumers do not provide any protection for significant elements of the population. Consumers who are deaf and hard of hearing fervently wish to participate in the market that includes digital wireless services. However, the digital equipment manufacturers and digital service providers have not instituted the accommodations that would allow this access. This leaves these consumers with only one option for mobile telephone service, analog cellular telephones.”¹⁰

The Commission is working under the assumption that market pressures and competition will protect consumers, by ensuring a variety of constantly improving wireless services. This is a fallacy. Market pressures traditionally work against the interests of consumers with special needs. The U.S. Congress and the Commission have had to adopt numerous protective measures for people with disabilities, including Title IV of the Americans with Disabilities Act (which established the national TTY-voice relay system), 711 uniform dialing for relay access, Telecommunications for the Disabled Act, the Television Decoder Circuitry Act, the Hearing Aid Compatibility Act, Section 255 of the Telecommunications Act, and Section 508 of the Rehabilitation Act, as amended. The Commission has a critical role in making sure that telecommunications services are available to people who are deaf or hard of hearing.

Digital Services Are Not Currently Available to Deaf or Hard of Hearing Consumers

Deaf and hard of hearing people currently have no effective access to this new digital market or to these new and improved mobile telephone services. Simply put, they do not enjoy the same instantaneous, wireless access as their hearing peers, and they are not confident they

⁹ League, pg. 1

¹⁰ AGB, pg. 4

will in the near future until accessible digital networks and equipment are proven and readily available. In addition, digital wireless telephones are known to cause interference with hearing aids and cochlear implants; wearers of hearing aids or implants who can use analog voice telephone services cannot use digital equipment comfortably. This inherent limitation in digital wireless service needs to be overcome or otherwise rectified before analog wireless service can be phased out.

The NAD agrees with the League of Hard of Hearing, “If the interests and access of people with hearing loss to telecommunications are to be safeguarded, the FCC must continue to regulate the provision of accessible analog service and ensure that it continues to be offered as a means of providing access to telecommunications” in the absence of digital compatibility to hearing aid users and TTY users.¹¹ AGB furthers this thinking stating, “until digital wireless telephones are made accessible to users of hearing technology and TTYs, the compatibility standard must remain in place and providers must be required to offer analog service [per FCC’s rules] to both existing and new customers.”¹²

Phase-out of Analog? The Elimination of Analog Service is not in the Public Interest

The NAD is not alone in the pressing for the continuance of analog wireless equipment and services. The Wireless Consumers Alliance, Inc. (WCA) states that if analog service offerings fade away the “effectiveness of the use of cellular systems in connection with safety of life (in rural areas) will be severely compromised.” WCA further points out that the FCC Notice “assumes that consumers can afford to abandon their analog equipment because of the declining

¹¹ League, pg. 1

¹² AGB, pg. 7

cost of new equipment and the discounts offered by carriers...”¹³ Many deaf and hard of hearing consumers cannot afford to jettison their existing equipment and services because a “better” digital service is available.

Century Telephone Wireless, Inc (Century Tel) correctly notes that elimination of the analog cellular compatibility standard is “premature.” They further note as many other commenters do that “subscribers who travel in rural areas rely upon the “universal” wireless service provided by existing analog networks.”¹⁴ The NAD concurs with many commenters’ suggestion that analog service rules “be maintained” until an alternate wireless service is available nationwide that meets the public interest needs including those who are TTY users, hearing aid users, rural area users, telemetric users, elderly and battered women, and school bus operators. Further, deaf and hard of hearing consumers are not clustered in a single location but are found in all parts of the country, many in isolated or rural areas.

Self Help for Hard of Hearing People (SHHH) pointed out that due to the exemption on wireless providers under the Hearing Aid Compatibility Act of 1988 and the ongoing failure of wireless providers to uniformly resolve the incompatibility of digital cellular phones and hearing aids, digital cellular technologies tested via a research project funded by CTIA indicated “three digital technologies tested caused interference with many hearing aids.”¹⁵ SHHH wisely concludes and the NAD agrees, that the “timing is premature” to discontinue analog service, as “it would result in a compromise of accessibility to ...telecommunications services to people with hearing loss.”¹⁶

¹³ WCA, pg. 3

¹⁴ CenturyTel, pg. 3

¹⁵ See generally, SHHH, pg. 4-5

¹⁶ SHHH, pg. 3

The Independent Cellular Service Association (ICSA) and MT Communications properly note that usage by many users groups noted above “mean that analog cellular needs to remain for many years to come...and “recommend that the Carriers get some spectrum relief to maintain a national analog footprint.”¹⁷

Verizon acknowledged in their comments that “analog cellular technology is embedded in cellular networks throughout the country and relied upon by customers for a number of wireless voice and data applications.”¹⁸

Qwest Wireless, as many others have also pointed out, acknowledges the immediate elimination of the AMPS requirement would harm charitable organizations that collect used cellular telephones (which are typically analog) to give to elderly or victims of domestic abuse for calling 911. Immediate elimination of the AMPS requirement would leave these beneficiaries without services.” Qwest notes this is a CTIA-sponsored program.¹⁹

Alan Dixon wisely points out, “If analog service is not kept coprimary, cellular carriers have little incentive to continue this service in favor of higher traffic capacity technologies.”²⁰ Dixon also pointed out that “tens of thousands of newer vehicles already on the road, and many more to come will have their state-of-the-art telematics (such as the OnStar distress and safety system) rendered useless if analog cellular service ceases.”²¹

The NAD agrees firmly with the TDI’s straightforward statement “the answer to the question of whether the Commission’s analog service compatibility requirements remain necessary or useful to facilitate competition or to ensure the availability of valuable services to all consumers’ is very clear. The Commission must not eliminate the analog regulations at this

¹⁷ ICSA, pg. 8

¹⁸ Verizon, pg. 6

¹⁹ Qwest, pg. 3

²⁰ Dixon, pg. 2

time. Analog service compatibility requirements remain very necessary and very useful for consumers who are deaf and hard of hearing, as it is the only existing technology that is accessible...” We agree with TDI and others that the “withdrawal of analog service should be contingent on the carriers’ and manufacturers’ ability to provide digital wireless telephone accessibility.”²²

What Do Some of the Cellular Trade Associations and Cellular Service Providers Say Regarding TTY and Hearing Aid Compatibility?

Wireless service providers acknowledge that phasing out analog services would create a problem for deaf and hard of hearing customers. Verizon acknowledges that, “because digital wireless services are not compatible with TTY devices, and digital wireless handsets are not hearing-aid compatible, many wireless customers with hearing disabilities depend on analog technology to make and receive wireless calls.”²³

Cingular points out, “[g]iven the percentage of current wireless customers still using analog, any transition from analog to exclusively digital networks will take some time. Barring any unforeseen technological problems, it is anticipated that TTY compatibility will be provided by the end of June 2002...”²⁴ Cingular admits, “Hearing aid compatibility is a more difficult issue.”²⁵

AT&T Wireless Services (AWS) acknowledges, “[a]lthough the industry is continuing to move closer to a digital solution for TTY users, current digital wireless systems are not

²¹ Dixon, pg. 4

²² TDI, pg. 4

²³ Verizon, pg. 6

²⁴ Cingular, pg. 8

compatible with TTYs and other hearing aid technologies. Accordingly, until a digital TTY solution becomes available, cellular carriers will continue to operate some analog capacity in order to meet the requirements of Section 255.”²⁶

The NAD finds the statement that analog capacity will be continued based on Section 255 unbelievable since AWS itself does not currently, to the best of our knowledge, provide this option of analog to TTY users in their digital service areas.

Qwest Wireless, LLC properly points out “subscribers who use TTY devices are dependent on AMPS technology, and would be stranded if the AMPS requirement were eliminated without a ready substitute.” NAD agrees with Qwest that a “uniform sunset date of the AMPS requirement is the best means by which the Commission can ensure the “operation of seamless, ubiquitous and reliable wireless telecommunications systems” as required in the Wireless Communications and Public Safety Act of 1999.”²⁷

The Telecommunications Industry Association (TIA) states, “the wireless industry has made great strides in developing standards for each digital air interface that are backward compatible with Baudot code TTY devices. TIA expects that, with few exceptions the remaining issues will be resolved and service providers will have the necessary equipment upgrades available to deploy in their networks in order for them to be TTY compatible by June 30, 2002, the Commission’s deadline by which digital wireless service providers must transmit 911 calls made from TTY devices...” However, TIA admits that its members “continue to address the issue associated with hearing aid compatibility with digital wireless phones”²⁸ but notes no readily achievable innovations that they foresee will be implemented in the not so distant future.

²⁵ Cingular, pg. 9

²⁶ AWS, pg. 4

²⁷ Qwest, pg. 3

²⁸ TIA, pg 5

Finally, CTIA “agrees with the Commission that it must carefully consider the ramifications that an abrupt deletion of the requirement would have on the 41.9 million analog cellular subscribers” and supports a transition period to phase out the AMPS requirement.”²⁹ CTIA points out, “[a] transition period would allow analog cellular subscribers and their service providers sufficient time to upgrade to digital technology without interruption of service and loss of access to 911, TTY and other important services.”³⁰

The NAD and other consumer groups are willing and eager to work with service providers to make digital wireless services more accessible. Early on, when digital wireless services became available, there was immediate concern on the part of the NAD and other consumer groups about the interference with hearing aids and cochlear implants, and the incompatibility with TTYs.

More than six years later, viable solutions are still not readily available and in place. For hearing aid compatibility concerns, no standard has been developed to measure interference between handsets and hearing aids. No measurable progress has been made to date to provide reliable access to digital wireless service by TTYs. The membership of the NAD understandably looks at this whole scenario with increasing frustration, and looks to the Commission to take action in a manner that will forestall any further delays in the implementation of such standards.

The NAD joins other consumer organizations in requesting the Commission to maintain its statutory role as the defender of the principle of universal access. Without continued access to an analog wireless system, or meaningful compatibility standards for digital wireless

²⁹ CTIA, pg. 11

³⁰ CTIA, pg. 11

telephone equipment, deaf and hard of hearing customers will lose their ability to access the mobile telephone network.

Conclusion

Abandoning the requirements for an analog wireless system when nothing exists to replace it is contrary to the spirit and letter of Section 255: an inclusive and comprehensive telecommunications policy. Deaf and hard of hearing people, along with many other affected groups, will be dramatically and negatively affected by any diminution in available wireless analog telephone services, and we continue to seek equal access to the burgeoning market for digital wireless telephone telecommunications. The potential harm from the reduction or elimination of the analog wireless system is acute. Mobile communications are a necessary component of many jobs, from blue collar to executive and professional positions. Without access to wireless telecommunications, deaf or hard of hearing people would face a new and unnecessary barrier to equal employment opportunity. In addition to the overwhelming use of mobile communication in social and business life, immediate access to mobile communication is especially critical in many personal contexts, such as for people making transportation arrangements or dealing with emergency situations, and people caring for children and older persons. The NAD calls on the Commission to (1) adopt enforceable standards and deadlines for Hearing Aid Compatibility with digital wireless equipment; and (2) protect our access to wireless communication by maintaining the existing levels of access to the analog cellular system, until an industry-wide digital TTY standard is fully tested and in place.

The NAD has no objection to upgrading the 1981 standards now in place for analog wireless compatibility (Advanced Mobile Phone Service, AMPS), but only insofar as any upgrade does not deter a large pool of users from having wireless access.

In conclusion, the NAD remains strongly opposed to the elimination of the analog service requirement and the mandatory analog compatibility standard at this time. The Commission's analog service compatibility requirements are necessary to ensure the availability of mobile service to all deaf and hard of hearing consumers including those who rely on it for roaming, 911 access, telemetric access with the OnStar technology and over 49% of the wireless user population.

The withdrawal of analog service must be contingent on carriers' and manufacturers' ability to provide the full range of digital wireless accessibility to hearing aid and TTY users.

The NAD appreciates the opportunity to submit the comments herein, and trusts that the Commission will take definitive action in this critically important matter.

Respectfully submitted,

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