

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

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OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Parts 1, 21 and 74 to Enable)
Multipoint Distribution Service and) MM Docket No. 97-217
Instructional Television Fixed Service)
Licensees to Engage in Fixed Two-Way)
Transmissions)

PETITION FOR RECONSIDERATION

IPWIRELESS, INC.

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EXECUTIVE SUMMARY

IPWireless, Inc. (“IPWireless”) is a newly formed entity whose fundamental business objective is to develop and deploy two-way wireless broadband facilities that provide high-speed Internet access and other broadband services over MDS and ITFS channels. Most significantly, the company’s two-way wireless services will utilize subscriber response stations that operate at a maximum power level of 250 milliwatts EIRP (-6 dBW) in a 6 MHz channel, although fast closed-loop power control will result in operation at average power levels that are substantially lower. The IPWireless technical model thus produces spectral efficiency and a materially lower risk of harmful interference to neighboring users of MDS/ITFS spectrum, all at a low cost to the consumer. Accordingly, IPWireless has a direct and immediate interest in the Commission’s technical requirements for MDS/ITFS two-way operations.

Of particular concern to IPWireless at this time is the fact that the Commission’s spectral masks for MDS and ITFS response stations (Sections 21.908(d) and 74.936(f) of the Commission’s Rules, respectively) impose unnecessarily costly and spectrally inefficient out-of-band emission limits on low power response transmitters. Because the spectral masks focus exclusively on the *relative* power levels of out-of-band emissions, they effectively impose more stringent out-of-band emission limits on low power MDS/ITFS transmitters than on MDS/ITFS transmitters operating at higher power. IPWireless believes that the Commission can and should minimize this imbalance simply by doing what it has done for cellular licensees and various fixed wireless service providers in other frequency bands, *i.e.*, adopt an out-of-band attenuation requirement for MDS and ITFS response stations that specifically accommodates low power transmitters.

In addition, IPWireless asks that the Commission amend its MDS and ITFS rules to permit the use of omnidirectional antennas at subscriber premises. Currently, such use is authorized only by virtue of a blanket waiver issued in the Commission’s *Report and Order on Reconsideration* in this proceeding. The impermanence of the Commission’s waiver approach creates an unnecessary risk that subscribers will resist acquiring omnidirectional antennas that are not clearly permitted under the Rules. The Commission should eliminate this risk and thereby head off any potential damage to the fixed wireless industry’s ability to compete effectively against incumbent cable operators, local exchange carriers and other broadband providers whose equipment is, or soon will be, readily available at retail to subscribers.

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PETITION FOR RECONSIDERATION

IPWireless, Inc. (“IPWireless”), by its attorneys and pursuant to Section 1.429 of the Commission’s Rules, hereby petitions the Commission to reconsider certain of the rules adopted this proceeding.^{1/}

I. INTRODUCTION

IPWireless is a newly formed entity whose primary business objective is to develop and deploy two-way wireless broadband facilities that will provide high-speed Internet access and other broadband services over MDS/ITFS frequencies to residential and business subscribers

^{1/} See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, 13 FCC Rcd 19112 (1998) (the “*Report and Order*”); *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions; Request for Declaratory Ruling on the Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations*, 14 FCC Rcd 12764 (1999) (the “*Report and Order on Reconsideration*”). This petition is being filed with the Commission within thirty days of publication of a summary of the *Report and Order on Reconsideration* in the Federal Register and is therefore timely. See 47 C.F.R. § 1.429(d).

throughout the United States.^{2/} The company's principals, who have years of technical and operational experience within the telecommunications industry, have developed a technology that utilizes subscriber response stations that operate at a maximum power level of 250 milliwatts EIRP (-6 dBW) in a 6 MHz channel, although the use of fast closed-loop power control will result in actual operation at average power levels that are substantially lower. IPWireless's use of such low power response stations results in highly efficient use of spectrum and reduces the risk of harmful interference to neighboring users of MDS and ITFS spectrum, while preserving quality of service at a low cost to the subscriber. Accordingly, IPWireless has a direct and immediate interest in the Commission's technical requirements for MDS/ITFS two-way service.

Although IPWireless generally believes that the Commission's regulatory framework for MDS/ITFS two-way operation reasonably accommodates the needs of all affected users of MDS and ITFS spectrum, there remain certain anomalies in the Commission's Rules which, if not corrected, may delay or preclude deployment of the low power response stations contemplated by IPWireless and others, to the ultimate detriment of MDS/ITFS service providers and their customers. Of greatest concern to IPWireless at this time are the spectral masks set forth in Sections 21.908(d) and 74.936(f), which impose limits on out-of-band emissions by MDS/ITFS response stations. As currently written, the rules effectively take no account of the lower emission levels of low power response stations, and thus produce an imbalance: low power

^{2/} IPWireless was formed after the close of the pleading cycle for the *Report and Order on Reconsideration*. As a result, IPWireless had no opportunity to participate in the proceedings leading up to the release of that document.

response stations are subject to more stringent out-of-band power limitations than higher power devices, even though they operate at much lower absolute power and thus are far less likely to cause harmful interference to neighboring users via out-of-band emissions.

IPWireless believes that the Commission can and should eliminate this imbalance simply by doing what it has done for fixed and mobile service providers in other frequency bands, *i.e.*, adopt a spectral mask for MDS and ITFS response stations that requires somewhat less suppression of out-of-band emissions at lower power levels. Subject to certain modifications suggested herein, the model for this proposal is the Commission's corresponding rule for the Cellular Radiotelephone Service (Section 22.917(d)(3)), where the specified power level at greater than 90 kHz from the carrier frequency is 60 dB or $43+10 \log P$ dB, whichever is the lesser attenuation. Indeed, the Commission has already adopted this model for fixed wireless operators licensed under Part 23 (the International Public Fixed Radio Service), Part 27 (the General Wireless Communications Service or "GWCS"), and, as recently as this year, has proposed to do the same for fixed wireless operators in the 746-764 and 776-794 MHz bands (television channels 60-69). IPWireless merely asks that the Commission extend that same benefit to fixed wireless operators in the MDS/ITFS bands as well.

In addition, IPWireless asks that the Commission reconsider its decision not to amend its MDS and ITFS rules to clearly provide for the use of omnidirectional transmitting and receiving antennas at subscriber locations that will transmit with an EIRP no greater than -6 dBW. The Commission's *Report and Order on Reconsideration* authorized such use of omnidirectional

antennas via a blanket waiver of the Commission's existing rules, rather than through a change in the relevant rules, Sections 21.906 and 74.937. Given that many broadband service providers are moving to the retail market for distribution, and given IPWireless's view that omnidirectional antennas are essential for the retail model to succeed, it is imperative that the Commission assure subscribers that they will have a fully protected right to operate MDS/ITFS response stations with omnidirectional antennas, without any threat of sudden revocation by the agency. That assurance is provided only by way of a formal Commission rule that, unlike the blanket waiver granted in the *Report and Order on Reconsideration*, cannot be rescinded unless the public is afforded prior notice and an opportunity to comment as required under the Administrative Procedure Act.

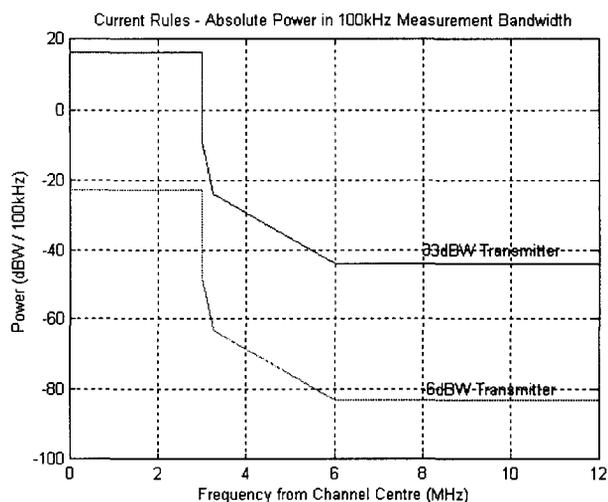
II. DISCUSSION

A. *The Commission Should Conform Its Out-of-Band Emission Limitations For MDS/ITFS Response Stations To Those Adopted For Fixed and Mobile Wireless Operators In Other Frequency Bands.*

As demonstrated below, the Commission's current spectral masks for MDS/ITFS response station transmitters focus exclusively on *relative* power levels, thereby yielding imbalanced results for low power response stations that should be eliminated via a further refinement of the Commission's Rules in this proceeding.

For the MDS and ITFS services, out-of-band emissions are restricted through a comparison of (1) a power measurement made on the "flat-top" in the occupied channel(s) with a 100 kHz resolution bandwidth, against (2) a power measurement made at a specified offset from

the band edge utilizing that same measurement bandwidth.^{3/} For example, for an MDS main station transmitting at the maximum EIRP of 33 dBW per 6 MHz channel, the power measured on the “flat top” in the occupied band using a measurement bandwidth of 100 kHz will be $33 - 10 \log_{10}(6 \text{ MHz}/100 \text{ kHz})$, or 16 dBW EIRP. Accordingly, the out-of-band power measured in a 100 kHz bandwidth at frequencies greater than 3 MHz from the occupied channel edge must be 60 dB lower, or an absolute out-of-band power level of -44 dBW EIRP.^{4/} As reflected by the following graph, however, if that same analysis is applied to a low power response station operating at -6 dBW per 6 MHz channel, the permitted absolute out-of-band power level *decreases* to -83 dBW EIRP.



The anomaly, therefore, is obvious: the low power response station must operate with far less out-of-band power emissions, even though its operation at -6 dBW poses a far less

^{3/} See Report and Order on Reconsideration, 14 FCC Rcd at 12785-6.

^{4/} See, e.g., 47 C.F.R. § 21.908(a), (d).

significant risk of interference than its high power counterpart at 33 dBW.^{5/} The problem is compounded when “superchannels” are used, since in that case the out-of-band emission levels are applied from the edges of the outermost 6 MHz channels rather than from the center frequency of the superchannel. This requires an unrealistically sharp filter in equipment using a superchannel of 12, 18 or 24 MHz bandwidth.

IPWireless believes that the better approach to regulating out-of-band emissions is embodied, for example, in the Commission’s spectral masks for cellular licensees.^{6/} Specifically, under Section 22.917 of the Rules, the spectral mask applied in several cases expresses the required attenuation as the lesser of 60 dB *or* $43+10 \log P$, where P is the mean power of the unmodulated carrier.^{7/} This approach has the effect of loosening the spectral mask for low power transmitters, consistent with the Commission’s long-standing view that out-of-band emission rules “should apply only where emissions have the potential to affect the operations of other licensees.”^{8/} Significantly, the Commission has already applied the Section 22.917 approach

^{5/} It must be emphasized here that omnidirectional IPWireless response stations generally will operate at indoor locations and at low elevations. After accounting for signal losses attributable to omnidirectional antennas, building penetration, and terrain obstructions, the interference potential of any out-of-band emissions from an IPWireless response station will be minimal in the vast majority of cases. Conversely, higher power response stations generally operate at higher elevations and tend to propagate over longer distances.

^{6/} See, e.g., *Implementation of Sections 3(n) and 332 of the Communications Act - Regulatory Treatment of Mobile Services (Further Notice of Proposed Rulemaking)*, 9 FCC Rcd 2863, 2873 (1994).

^{7/} 47 C.F.R. § 22.917. See also *id.*, § 24.133(a)(2)(ii) (similar rule for licensees in the Personal Communications Service).

^{8/} See *Implementation of Sections 3(n) and 332 of the Communications Act - Regulatory Treatment of Mobile Services (Third Report and Order)*, 9 FCC Rcd 7988, 8067 (1994). At least implicitly, the

when regulating out-of-band emissions by fixed wireless operators. For example, the Commission's spectral masks for licensees in the International Public Fixed Radio Service require that on any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth, the required attenuation is 80 dB or $43+10 \log P$, whichever is the lesser.^{9/} Similarly, the Commission requires GWCS licensees to attenuate their signals by at least $43 + 10 \log P$ at the edge of their channel block.^{10/} In adopting this requirement, the Commission observed that "an attenuation of 43 dB is commonly employed in other services and . . . has been found there to adequately prevent adjacent channel interference."^{11/} More recently, and again noting its prior success with the Section 22.917 approach, the Commission proposed to require fixed wireless licensees in the 746-764 and 776-794 MHz bands (television channels 60-69) to attenuate any emission on all frequencies outside the licensee's authorized spectrum by at least $43 + 10 \log P$ watts or 80 dB, whichever is the lesser.^{12/} IPWireless submits that all of this precedent militates strongly in favor of extending the same benefit to fixed wireless operators in the MDS/ITFS bands.

(footnote continued)

Commission appears to have recognized as much by imposing no out-of-band emission limits on MDS/ITFS booster stations operating with an EIRP of -9 dBW or less, except where they cause harmful interference. See 47 C.F.R. § 21.908(c), 74.936(e).

^{9/} 47 C.F.R. § 23.15(b)(3).

^{10/} *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS")*, 12 FCC Rcd 10785, 10857 (1997); see also 47 C.F.R. § 27.53.

^{11/} *Id.* (footnote omitted).

Accordingly, IPWireless asks that the Commission amend its spectral masks for MDS and ITFS response stations (Sections 21.908(d) and 74.936(f), respectively) as follows:

- The maximum out-of-band power of an MDS response station operating with an EIRP of -6 dBW or less per 6 MHz channel, using all or part of a 6 MHz channel and employing digital modulation, should continue to be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level.
- For such low power response stations, the Commission should replace the requirement of 60 dB attenuation at 3 MHz from the 6 MHz channel edges with a requirement similar to that used in Section 22.917(d)(3), *i.e.*, attenuation to the lesser of 60 dB or $43 + 10 \log P$ dB (where “P” is the licensed 6 MHz channel power level in watts) should be required.
- In order to ensure a consistent slope between the attenuation requirements at the channel edges and at 3 MHz from the channel edges, the Commission should modify for low power response stations the requirement of 40 dB attenuation at 250 kHz from the channel edges to require attenuation of at least 40 dB or $33 + 10 \log P$ dB, whichever is the lesser.

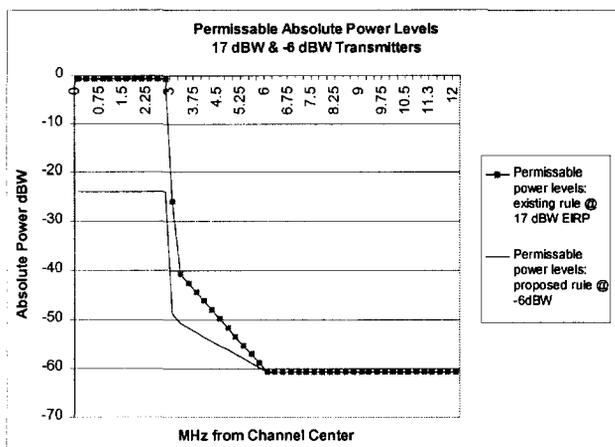
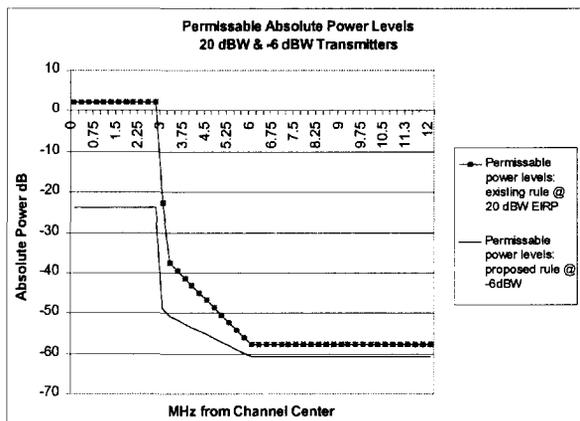
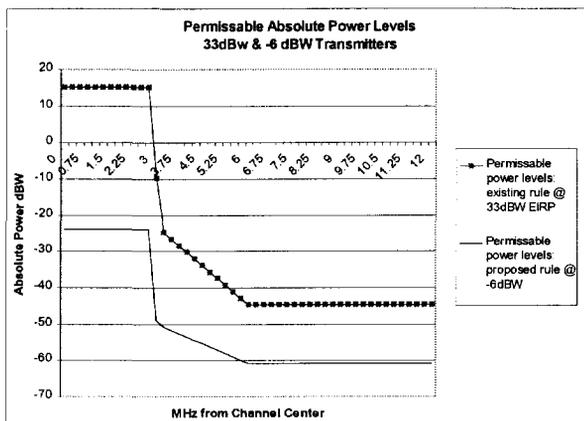
The specific rule revisions proposed by IPWireless are annexed at Exhibit A.

As the Commission considers IPWireless’s proposal, it is important to understand the practical ramifications of applying the above-suggested approach to out-of-band emissions by MDS/ITFS response stations. The following three graphs provide comparisons between the levels of permissible out-of-band emissions for various response stations operating at EIRPs above -6 dBW and the level of out-of-band emissions that IP Wireless proposes to permit for response stations operating at EIRPs of -6 dBW or less. The graphs show the actual out-of-band power measured in a 100 kHz resolution bandwidth for the 250 milliwatt (-6 dBW) case, and at various higher power levels. In each case, it can be seen that the low power response station will

(footnote continued)

^{12/} *Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, 14 FCC Rcd 11006, 11021 (1999).

generate no more out-of-band emissions than the higher power station at any power level, even if the spectral mask is modified as proposed by IPWireless.



Finally, while adoption of the revised spectral masks proposed by IPWireless for low power response stations will not result in any increased out-of-band emissions over those levels permitted for higher power transmitters, it will also reduce the cost of low power MDS/ITFS response stations by eliminating unnecessary, spectrally-inefficient filtering, thereby rendering fixed wireless broadband service more accessible to consumers. Further, a grant of IPWireless's proposal will encourage the fixed wireless industry to continue developing new technologies that

provide optimum signal coverage at lower EIRP, minimizing the risk of harmful interference to neighboring users of wireless technology. In short, the rule revisions proposed by IP Wireless advance the public interest without any countervailing adverse consequence.

B. The Commission Should Modify Its Rules To Authorize The Use Of Omnidirectional MDS/ITFS Response Station Antennas.

As noted in prior filings by QUALCOMM Incorporated (“Qualcomm”), fixed wireless broadband providers may find it difficult to become fully competitive with other broadband wireless service providers if their customers are unable to acquire response station equipment at retail and self-install that equipment with a minimum amount of effort.^{13/} Accordingly, Qualcomm petitioned for reconsideration of the *Report and Order* in this proceeding, seeking rule changes that would allow the use of small in-home devices that a consumer will be able to purchase at retail outlets and connect to his or her computer to secure instant wireless access to the Internet *via* MDS/ITFS frequencies.^{14/} Among the rule changes requested by Qualcomm were elimination of Section 21.906(d) of the Rules (which requires that MDS receive antennas be directional) and modification of Section 74.937(b) (which provides that “directive transmitting antennas shall be used whenever feasible so as to minimize interference to other licensees.”). As Qualcomm explained, these provisions had the effect of stifling the retail

^{13/} See Petition for Reconsideration of QUALCOMM Incorporated, MM Docket No. 97-217, at 5-6 (filed Dec. 28, 1999).

^{14/} *Id.* at 6.

distribution of low power MDS/ITFS response stations, since consumer-installed low power response stations, as a practical matter, had to utilize omnidirectional antennas in order to be viable in the marketplace.^{15/}

The Commission generally agreed with the arguments advanced by Qualcomm, finding in the *Report and Order on Reconsideration* that:

Although response stations in general are not permitted to use omnidirectional antennas, stations operating at the very low EIRP proposed by Qualcomm will have little potential to interfere with other systems irrespective of the type of antennas used. Qualcomm's use of low power transceivers which can be placed on a desk or other convenient indoor location to provide high speed wireless internet access is, we believe, an appropriate and innovative use of this spectrum and should be accommodated if at all possible.^{16/}

However, the Commission did not amend the two rule sections in issue – Sections 21.906(d) and 74.937(b) – but instead issued a blanket waiver of those rules for all response stations operating with an EIRP of -6 dBW or below.^{17/}

While the Commission may believe that such a blanket waiver is tantamount to a rule revision, IPWireless submits that the Commission must assure fixed wireless subscribers that they have a clear and unequivocal legal right under the Commission's Rules to use an omnidirectional antenna in connection with any MDS/ITFS response station equipment they purchase at retail. The blanket waiver issued in the *Report and Order on Reconsideration*, though clearly a step in the right direction, may not be perceived as providing subscribers with

^{15/} *Id.* at 13-14.

^{16/} *Report and Order on Reconsideration*, 12 FCC Rcd at 12781.

^{17/} *Id.*

the same level of certainty as a formal rule, which cannot be rescinded absent compliance with the prior notice and comment procedures set forth in the Administrative Procedure Act. Moreover, if there is a risk that consumers may be less willing to acquire MDS/ITFS response station equipment if they perceive that their right to use omnidirectional antennas is only temporary, manufacturers, wholesalers and retail distributors may in turn perceive that consumer demand will be limited and thus may commit fewer resources to making and selling MDS/ITFS response station equipment. Should that occur, MDS/ITFS service providers will be at a competitive disadvantage *vis-a-vis* incumbent cable, DBS and local exchange providers whose equipment is now or will soon be readily available at retail. Since this sort of competitive disadvantage is precisely the *opposite* of what the Commission has been trying to achieve throughout this entire proceeding, the Commission should act ahead of the curve and codify its policy on omnidirectional antennas via adoption of a formal rule that incorporates the terms of the blanket waiver, as set forth in Exhibit A hereto.

III. CONCLUSION

In sum, the rule modifications requested by IPWireless herein will promote the development and deployment of MDS/ITFS two-way systems by assuring that the Commission's spectral masks do not unnecessarily constrain operation of low power MDS/ITFS response stations. Further, the adoption of a formal rule authorizing such stations to operate with omnidirectional antennas will eliminate any lingering uncertainty arising from the Commission's blanket waiver approach, thus facilitating greater consumer use and acceptance of MDS/ITFS

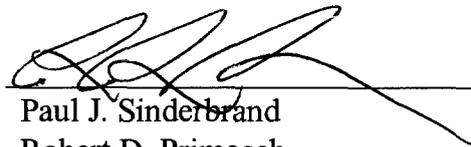
two-way services. IPWireless thus submits that a grant of this Petition will serve the public interest, since it will enhance the competitive viability of MDS/ITFS two-way services without any countervailing harm to any interested parties.

WHEREFORE, for the reasons set forth above, IPWireless, Inc. requests that the Commission grant reconsideration and amend its rules as requested herein.

Respectfully submitted,

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EXHIBIT A

1. Section 21.908(d) (47 C.F.R. § 21.908(d)) should be amended as follows:

The maximum out-of-band power of an MDS response station using all or part of a 6 MHz channel, ~~and employing digital modulation and transmitting with an EIRP greater than - 6 dBW per 6 MHz channel~~ shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies. The maximum out-of-band power of an MDS response station using all or part of a 6 MHz channel, employing digital modulation and transmitting with an EIRP no greater than - 6 dBW per 6 MHz channel shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB or $33 + 10 \log P$ dB, whichever is the lesser attenuation, at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB or $43 + 10 \log P$ dB, whichever is the lesser attenuation, at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB or $43 + 10 \log P$ dB, whichever is the lesser attenuation, at all other frequencies. Where MDS response stations with digital modulation utilize all or part of more than one contiguous 6 MHz channel to form a larger channel (*e.g.*, a channel of width 12 MHz), the above-specified attenuations shall be applied only at the upper and lower edges of the overall combined channel. Notwithstanding these provisions, should harmful interference occur as a result of emissions outside the assigned channel(s), additional attenuation may be required by the Commission.

Note: “P” equals the licensed 6 MHz channel power level in watts.

2. Section 74.936(f) (47 C.F.R. § 74.936(f)) should be amended as follows:

The maximum out-of-band power of an ITFS response station using all or part of a 6 MHz channel, ~~and employing digital modulation and transmitting with an EIRP greater than - 6 dBW per 6 MHz channel~~ shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies. The maximum out-of-band power of an ITFS response station using all or part of a 6 MHz channel, employing digital modulation and transmitting with an EIRP no greater than - 6 dBW per 6 MHz channel shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB or $33 + 10 \log P$ dB, whichever is the lesser attenuation, at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope

from that level to at least 60 dB or $43 + 10 \log P$ dB, whichever is the lesser attenuation, at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB or $43 + 10 \log P$ dB, whichever is the lesser attenuation, at all other frequencies. Where ITFS response stations with digital modulation utilize all or part of more than one contiguous 6 MHz channel to form a larger channel (e.g., a channel of width 12 MHz), the above-specified attenuations shall be applied only at the upper and lower edges of the overall combined channel. Notwithstanding these provisions, should harmful interference occur as a result of emissions outside the assigned channel(s), additional attenuation may be required by the Commission.

Note: "P" equals the licensed 6 MHz channel power level in watts.

3. Section 21.906(d) (47 C.F.R. § 21.906(d)) should be amended as follows:

Directive receiving antennas shall be used at all points other than response stations operating with an EIRP no greater than -6 dBW per 6 MHz channel and response station hubs and shall be elevated no higher than necessary to assure adequate service. Receiving antenna height shall not exceed the height criteria of part 17 of this chapter, unless authorization for use of a specific maximum antenna height (above ground and above mean sea level) for each location has been obtained from the Commission prior to the erection of the antenna. Requests for such authorization shall show the inclusive dates of the proposed operation. (See Part 17 of this chapter concerning the construction, marking and lighting of antenna structures.)

4. Section 74.937(a) (47 C.F.R. § 74.937(a)) should be amended as follows:

In order to minimize the hazard of harmful co-channel and adjacent channel interference from other stations, directive receiving antennas should be used at all receiving locations other than response stations operating with an EIRP no greater than -6 dBW per 6 MHz channel and response station hubs. . . [no change to remainder of the rule]

5. Section 74.937(b) (47 C.F.R. § 74.937(b)) should be amended as follows:

Except as set forth in § 74.931(c)(4) and (d)(3), directive transmitting antennas shall be used whenever feasible so as to minimize interference to other licensees. The radiation pattern shall be designed to minimize radiation in directions where no reception is intended. When an ITFS station is used for point-to-point service, an appropriate directional antenna must be used. Notwithstanding the provisions of this paragraph (b), response stations operating with an EIRP of no greater than -6 dBW per 6 MHz channel may utilize non-directive transmitting antennas.