

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

In the Matter of)	
)	
Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions)	GN Docket No. 12-268
)	
Office of Engineering and Technology Releases and Seeks Comment on Updated OET-69 Software)	ET Docket No. 13-26
)	
Office of Engineering and Technology Seeks to Supplement the Incentive Auction Proceeding Record Regarding Potential Interference Between Broadcast Television and Wireless Services)	ET Docket No. 14-14
)	

**REPLY OF COMPETITIVE CARRIERS ASSOCIATION TO
OPPOSITIONS TO PETITION FOR RECONSIDERATION**

Competitive Carriers Association (“CCA”) respectfully submits this Reply to Oppositions to Sprint Corporation’s Petition for Reconsideration of the Federal Communications Commission’s *ISIX Report and Order*¹ filed in the above-captioned proceedings.²

INTRODUCTION AND SUMMARY

CCA represents more than 100 competitive wireless providers ranging from small, rural carriers serving fewer than 5,000 customers to regional and national providers serving millions

¹ Petition for Reconsideration of Sprint Corporation, GN Docket No. 12-268, ET Docket Nos. 13-26 and 14-14 (Jan. 22, 2015) (“Sprint Petition”).

² See *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Office of Engineering and Technology Releases and Seeks Comment on Updated OET- 69 Software, Office of Engineering and Technology Seeks to Supplement the Incentive Auction Proceeding Record Regarding Potential Interference Between Broadcast Television and Wireless Services, Second Report and Order and Further Notice of Proposed Rulemaking, FCC 14-157* (Oct. 16, 2014) (“*ISIX Report and Order*”)

of customers, most of whom have a keen interest in participating in the 600 MHz Incentive Auction. Granting the Sprint Petition will result in a more efficient, predictable and equitable distribution of 600 MHz broadband licenses by providing all bidders with more information about the impairments of spectrum blocks being sold. In its *ISIX Report and Order*, the Commission adopted a methodology to predict inter-service interference (“ISIX”) between television broadcast stations and wireless services operating in the 600 MHz band. The current F(50,50) ISIX methodology provides forward auction participants with general information about the likelihood of interference that wireless broadband systems may experience in the 600 MHz band; adopting a more granular F(50,10) standard, however, will offer more detailed information needed to make more informed bidding decisions. Providing the most accurate information possible will increase the likelihood that all 600 MHz spectrum licenses are put to their highest and best use.

DISCUSSION

A. Wireless carriers require the additional information that F(50,10) statistical measure provides.

To promote participation in the forward auction and ensure an efficient distribution of licenses, the Commission should provide bidders with as much information about a license block’s potential impairments as feasible. Wireless carriers, and particularly rural and regional operators that may bid on and win a few licenses, require a threshold level of certainty that a winning bid will produce a license that meets the operator’s needs. The F(50,50) statistical measure is deficient because it only predicts when a TV broadcast signal will cause interference to 50 percent of a market’s potential wireless receiver locations at least 50 percent of the time. Faced with uncertainty about a license’s true impairments, bidders will reasonably respond by bidding no greater than the value of a license that might be impaired as evaluated using a more

detailed F(50,10) statistical measurement. Beyond suppressing accurate expressions of value, the lack of precise data may even dissuade some potential carriers from participating in the auction—contrary to the Commission’s goal of disseminating licenses among a wide variety of applicants.³ By contrast, the F(50,10) statistical measure would offer a more detailed assessment of potential license impairments. Providing information—and defining bidding categories—using an F(50,10) measurement would indicate when a broadcast station’s signal is strong enough to interfere with 50 percent of license’s locations no more than 10 percent of the time. This additional information would more accurately group 600 MHz licenses according to their real-world levels of predicted impairment and allow 600 MHz auction participants to bid with less risk they will be sold licenses with less utility than promised.

As the Sprint Petition demonstrates, interference levels predicted using the F(50,50) measure can be much lower than those predicted using F(50,10). Specifically, the Sprint Petition identified situations where the predicted interference under the two standards could vary by as much as 12 dB.⁴ Similarly, Sprint identified a number of markets where the decision to use F(50,50) could drastically under-report the percent of population where the spectrum is impaired. In evaluating station WCBS-DT in New York City, for example, Sprint noted that many affected markets would show only modest impairments if an F(50,50) standard were used, but significantly higher impairment percentages if an F(50,10) standard were employed.⁵ Sprint’s

³ See 47 C.F.R. § 309(j).

⁴ Sprint Petition at 9, fn 17 (explaining that “the predicted DTV signal level at ~120 kilometers from the DTV station using F(50,50) is approximately 12 dB lower than the signal level that is predicted using F(50,10).”)

⁵ Sprint Petition at 11. Specifically, Sprint calculated that one market (PEA No. 44, Rochester, NY) would appear to be 3.1 percent impaired using F(50,50) but almost 35 percent impaired using F(50,10). *Id.* In another market (PEA No. 60, Manchester, NH), only 13.3 percent of the pops would be impaired if calculated using F(50,50) but a whopping 81.1 percent

examples demonstrate that using the F(50,50) standards may significantly understate the potential for harmful interference.

Meanwhile, utilizing more detailed data has few, if any, negative consequences. Development of more detailed data available from an F(50,10) measure does not require materially more time than developing less detailed data under an F(50,50) measure. Nor does producing the more detailed data require meaningfully more calculation or analysis by the Commission. Furthermore, use of the more detailed F(50,10) measurement does not impose any additional burden on either broadcasters, which the Commission has already decided to protect using data based on the F(50,10) measure, or on wireless providers, which would benefit from the relief requested. Providing more granular data about the potential for interference in the post-auction environment simply allows wireless operators to better determine the price they are willing to pay for a given license.⁶

B. There is ample support for the Sprint Petition, and no opposition.

Wireless providers and broadcasting interests agree that the F(50,10) statistical measure provides more accurate and detailed data than an F(50,50) statistical measure. Prior to the adoption of the *ISIX Report and Order*, the National Association of Broadcasters and a group of network affiliate organizations indicated that the F(50,10) methodology would provide superior data to the F(50,50) methodology.⁷ Similarly, CTIA was the only party to respond to the Sprint

would be impaired using F(50,10) – a difference of more than two-thirds of that market’s total population. *Id.*

⁶ See Sprint Petition at 13-14 (discussing the difficulty of mitigating unexpected interference).

⁷ Comments of the National Association of Broadcasters, ABC Television Affiliates Association, FBC Television Affiliates Association, CBS Television Network Affiliates Association, NBC Television Affiliates, the Association of Public Television Stations, the

Petition and it *supported* reconsideration. According to CTIA, adopting an F(50,10) statistical measure will “better inform forward auction bidders regarding the limitations on their 600 MHz licenses, and will more adequately protect 600 MHz licensees.”⁸ Granting the unopposed Sprint Petition will provide better interference information to auction participants through adoption and use of an F(50,10) statistical measure of the potential inter-service interference between television broadcast stations and wireless services operating in the 600 MHz band.

CONCLUSION

CCA supports the Sprint Petition and urges the Commission to reconsider its adoption of an F(50,50) statistical measure to calculate the potential risk of interference from broadcast stations into wireless broadband systems. Adopting the F(50,10) measure, as Sprint requests, will provide more useful information to forward auction participants, result in a more efficient assignment of licenses, and ultimately allow for the more rapid and cost-effective deployment of broadband services to American consumers.

Respectfully submitted,

/s/ Rebecca Murphy Thompson

Steven K. Berry
Rebecca Murphy Thompson
C. Sean Spivey
Competitive Carriers Association
805 15th Street NW, Suite 401
Washington, DC 20005
(202) 449-9866

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Corporation for Public Broadcasting, and the Public Broadcasting Service (collectively the “Joint Broadcasters”), GN Docket No. 12-268, ET Docket No. 14-14, at 29-30 (Mar. 18, 2014).

⁸ Opposition and Reply of CTIA – the Wireless Association to Petitions for Reconsideration, GN Docket No. 12-268, ET Docket Nos. 13-26, 14-14, at 3 (Feb. 26, 2015).

CERTIFICATE OF SERVICE

I, David Crawford, certify that on this 9th day of March, 2015, I have caused a true and correct copy of the foregoing Reply of Competitive Carriers Association to Oppositions to Petition for Reconsideration to be served via first-class mail upon:

Krista L. Witanowski
CTIA – The Wireless Association
1400 16th Street, NW
Suite 600
Washington, DC 20036

Lawrence R. Krevor
Sprint Corporation
900 Seventh Street, NW
Suite 700
Washington, DC 20001

By: /s/ David Crawford
David Crawford