

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

In the Matter of)

Review of the Commission’s Rules)
Governing the 896-901/935-940 MH Band)

WT Docket No. 17-200

REPLY COMMENTS OF SPACE DATA CORPORATION

Space Data Corporation (“Space Data”) is pleased to submit these reply comments in the above-referenced proceeding examining potential rule changes to the 896-901/935-940 MHz band (the “900 MHz band”).¹ Space Data agrees with commenters that modifying the configuration of and operational rules for the 900 MHz band could potentially result in harmful interference to licensed operations in adjacent bands. Space Data also notes that its Narrowband Personal Communications Service (“NPCS”) spectrum and technologies serve as an alternative to help meet the spectrum and unique operational needs of 900 MHz licensees, particularly utilities and other members of the critical infrastructure industry (“CII”).

I. MODIFICATIONS TO THE 900 MHZ BAND COULD CAUSE INTERFERENCE TO SPACE DATA’S ADJACENT NPCS OPERATIONS

Space Data is a licensee in the adjacent NPCS band. A portion of its licenses covers the frequencies 901.300-901.750 MHz, 940.300-940.750 MHz, 901.900-902.000 MHz, 940.900-9410.000 MHz, 930.000-930.400 MHz, and 930.700-931.000, all on a near nationwide basis. Space Data operates near-space wireless networks on its NPCS and other spectrum from balloon-borne platforms (SkySite® Platforms) in a noise-limited network. Space Data shares the concern

¹ *Review of the Commission’s Rules Governing the 896-901/935-940 MHz Band*, Notice of Inquiry, WT Docket No. 17-200; FCC 17-108 (rel. Aug. 4, 2017) (“NOI”).

expressed by other commenters that modifying the 900 MHz band as suggested in the NOI – particularly the creation of a broadband allocation in the band – could cause interference to existing operations in adjacent NPCS bands.²

As Space Data previously explained in response to the Petition for Rulemaking filed by the Enterprise Wireless Alliance and Pacific DataVision, Inc.,³ to the degree that the creation and deployment of equipment onto a new 3x3 MHz private enterprise broadband (“PEBB”) allocation increases the noise floor more than 300 kHz away from the proposed allocation edge, it could negatively impact Space Data’s operations. Figure 1 below shows where Space Data’s NPCS channels are in relative proximity to the proposed PEBB allocation.

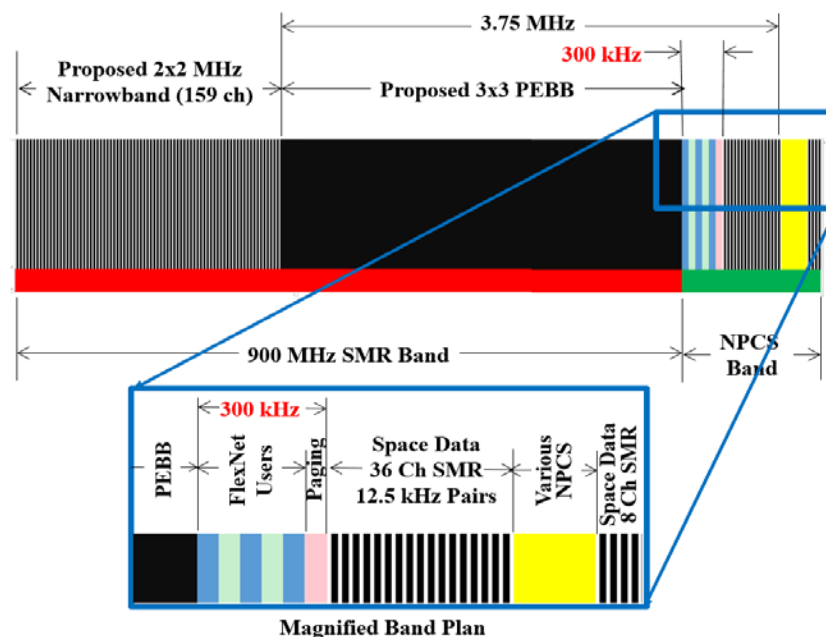


Figure 1: Location of Space Data’s NPCS holdings (shown as 12.5 kHz SMR channels) relative to the proposed PEBB allocation and other NPCS users. Alternatively, current rules allow aggregation of the 36 12.5 kHz pairs shown above into various wider channels such as: one 450 kHz pair, two 200 kHz pairs, four 100 kHz pairs or nine 50 kHz pairs.

² See, e.g., Sensus USA Inc. Comments at 4-8; Critical Infrastructure Comments at 9-11; Southern Company Services, Inc. Comments at 7-8; Edison Electric Institute Comments at 13-15; Exelon Corporation Comments at 3-4; Sensus Partners and Advisors Network Comments at 3-6.

³ Comments of Space Data Corporation, RM-11738 (filed Jan. 27, 2015).

Without a sufficient guard band, the potential for interference to the NPCS band is significant.⁴ Therefore, to the extent the Commission considers reconfiguring the 900 MHz band, it must ensure that appropriate operational and technical rules would protect Space Data's and other licensees' adjacent NPCS operations.

II. OTHER ALTERNATIVES EXIST TO HELP MEET THE SPECTRUM NEEDS OF THE CRITICAL INFRASTRUCTURE INDUSTRY AND OTHER 900 MHZ BAND LICENSEES

The record shows that there is wide range of existing and future spectrum needs by the CII and other users of Business/Industrial/Land Transportation ("B/ILT") spectrum. Commenters describe, in addition to narrowband and broadband capabilities, the importance of wideband operations in the 50-500 kHz range.⁵ They highlight the increasing demand by the CII for wireless data networks for various applications. Moreover, they explain why it is crucial that CII and other safety-related operations not be interrupted or otherwise affected by changes to the 900 MHz band. Extra channels may be needed on a temporary basis (as was required during the process of reconfiguring the 800 MHz band) so as not to interrupt service of existing CII networks. As a practical matter, however, it may be impossible to fit all such operations into a reconfigured 900 MHz band and still provide licensees with unimpeded access to spectrum.

A. The Secondary Market Provides an Alternative Source of Spectrum

A portion of Space Data's NPCS licenses are available on the secondary market and could help ease the spectrum needs of the CII and other users of the 900 MHz band. Indeed, numerous energy companies are already using NPCS spectrum acquired on the secondary

⁴ As NextEra Energy, Inc. notes, the typical guard band allocations at 700 MHz are 1 MHz. NextEra Energy, Inc. Comments at 8 n.14.

⁵ See, e.g., Association of American Railroads Comments at 4-7 (urging the Commission to consider wideband channels for railroads and other mission-critical users).

market.⁶ Space Data's NPCS licenses could be configured to create additional narrowband and wideband alternatives for the CII, utilities, and other B/ILT users. Space Data aggregated several adjacent NPCS channels to create paired bandwidth of 100/100 kHz and up to 450 kHz paired bandwidth in the NPCS 901 and 940 MHz bands, plus wide blocks of 300 and 400 kHz in the NPCS 930 MHz band across the nation.

III. CONCLUSION

Space Data urges the Commission to ensure that a reconfiguration of the 900 MHz band does not cause interference to adjacent NPCS licensees. Moreover, Space Data notes that there are alternatives to meet CII and other 900 MHz band licensees' unique spectrum and operational needs through NPCS spectrum that is available through the secondary market for narrowband and wideband applications.

Respectfully submitted,

SPACE DATA CORPORATION

/s/ Gerald M. Knoblach

By: Gerald M. Knoblach
Chairman and Chief Executive Officer
2535 West Fairview Street
Suite 101
Chandler, AZ 85226
Ph: 480-722-2100

November 1, 2017

⁶ A number of utilities have acquired NPCS spectrum from Space Data. *See, e.g.*, ULS File Numbers: 0005471700 and 0005471715 (PHI Service Company); 0005555222 and 0005555241 (Bolivar Energy Authority); 0005520557 and 0005520556 (Pacific Gas and Electric Company); 0005424556 and 0005424532 (Cleco Power LLC); 0006000923 and 0006000926 (Regency Field Services LLC); 0006855240 (Midwest Energy, Inc.); 0006287973 and 0006287975 (Enable Oklahoma Intrastate Transmission, LLC); 0007063778 and 0007063799 (Arizona Public Service Company). *See also* Southern Company Services, Inc. Comments at 2-4; Sensus USA Inc. Comments at 3-4; Sensus Partners and Advisors Network Comments at 1-2.