

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

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| In the Matter of |) | |
| |) | |
| Service Rules for the 698-746, 747-762 and 777-792 MHz Bands |) | WT Docket No. 06-150 |
| |) | |
| Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band |) | PS Docket No. 06-229 |
| |) | |
| Amendment of Part 90 of the Commission's Rules |) | WP Docket No. 07-100 |
| |) | |

REPLY COMMENTS OF THE NEW YORK CITY TRANSIT AUTHORITY

Martin B. Schnabel
Vice President and General Counsel
New York City Transit Authority
130 Livingston Street
Brooklyn, NY 11201
(718) 694-3901

Ari Q. Fitzgerald
Counsel to New York City Transit Authority
Hogan Lovells US LLP
555 13th Street, N.W.
Washington, D.C. 20004
(202) 637-5423

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I. INTRODUCTION

The New York City Transit Authority (“NYCTA”)¹ respectfully submits these reply comments in response to the October 30, 2013 Public Notice released by the Public Safety and Homeland Security Bureau (“Bureau”) of the Federal Communications Commission (“FCC” or “Commission”) in the above-captioned proceeding.² In the *Public Notice*, the Bureau seeks comment on the 4.9 GHz National Plan Recommendations Final Report (“Final Report”)

¹ The New York City Transit Authority, also known as MTA New York City Transit, is a public authority that operates North America’s largest transportation network, serving a population of 15.1 million people with an average weekday ridership of approximately 8.5 million daily. See The MTA Network, <http://www.mta.info/mta/network.htm> (last accessed Dec. 11, 2013).

² Public Safety and Homeland Security Bureau Seeks Comment on National Public Safety Telecommunications Council’s 4.9 GHz National Plan Recommendations Final Report, WP Docket No. 07-100, PS Docket No. 06-229, WT Docket No. 06-150, *Public Notice*, DA 13-2096 (Oct. 30, 2013) (“*Public Notice*”).

submitted to the FCC by the National Public Safety Telecommunications Council (“NPSTC”) on October 24, 2013.³

NYCTA respects the time and energy that went into the production of the Final Report, but has serious reservations about many of its key recommendations—reservations that are shared, significantly, by many of the members of the working group involved in its development.⁴ As discussed below, several of the proposals made by NPSTC would constitute an unfunded mandate on existing 4.9 GHz licensees, and unduly burden their critical public safety communications functions. Specifically, NYCTA objects to the band plan proposed by NPSTC that would limit channel aggregation for critical infrastructure industries (“CII”), including transit agencies, to two 5 MHz channels on a co-primary basis with any traditional public safety entity, potentially giving rise to increased interference. NYCTA recommends that governmental transit authorities engaged in critical public safety communications continue to be eligible to operate on the entire 4.9 GHz band. NYCTA also urges the FCC to reject the recommendation that all licensees be required to re-license their 4.9 GHz operations and be subject to coordination, and instead affirm that licensees currently properly documented in the FCC’s Universal Licensing System (“ULS”) will be allowed to continue operations unaltered. Finally, rather than adopting NPSTC’s proposal that Regional Planning Committees (“RPCs”) be limited to certain narrow topics in their ability to shape a regional band plan, the FCC should allow RPCs to submit regional amendments to the national 4.9 GHz plan in all areas.

³ See *id.* at 1; see also 4.9 GHz National Plan Recommendations, Final Report, attached to Letter from Ralph A. Haller, Chair, National Public Safety Telecommunications Council to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Oct. 24, 2013) (“Final Report”).

⁴ See Final Report at Appendix C (“The recommendations made in this report are those of the member associations of NPSTC and do not necessarily represent the opinions and recommendations of all members of the National Plan working group...NPSTC does not wish to represent that all of those volunteers...are in agreement with all of the recommendations listed.”).

Adopting NPSTC’s national plan as submitted would negatively impact NYCTA and other licensees that designed and implemented fixed wireless communications systems for critical public safety purposes based on the current rules governing the 4.9 GHz band, increasing their costs, disrupting daily operations, and increasing the potential for interference.

II. GOVERNMENTAL TRANSIT AGENCIES SHOULD BE ALLOWED TO OPERATE ON THE ENTIRE 4.9 GHZ BAND

The Commission should not adopt the national band plan proposed by NPSTC in the Final Report. The current, flexible band allocation for the 4.9 GHz band has been successful, and no entity has shown that, as a result of such flexible band allocation, traditional public safety entities have had difficulty accessing an ample amount of spectrum in the band. By contrast, the proposed band plan would unnecessarily limit access to 4.9 GHz spectrum for governmental entities that are tasked with operating transit facilities, and cause technical, operational and financial challenges to current licensees operating networks with critical public safety functions.

Under NPSTC’s proposed national band plan, only two channels would be allotted for use by all CIIs,⁵ including transit agencies.⁶ While, currently, governmental transit authorities such as NYCTA are able to use all 50 MHz of spectrum in the band for all approved technologies, the proposed NPSTC band plan would limit the ability of NYCTA to operate its

⁵ See Final Report at 6, 11. The band plan provides that CIIs may also license other channels, but only with a thirty calendar day notice period, which allows public safety entities to object to the assignment and shut the CII entity out of the requested channels. See *id.* at 11. While the two channel limitation is a “short-term” measure that will expire after three years, after which time both public safety and CIIs will have equal access to the 4.9 GHz band, see *id.*, the impact on entities such as NYCTA that will be required to re-instrument their networks to comply with the band plan will be effectively the same as a permanent bar on use of the spectrum.

⁶ Drawing from existing FCC regulations, NPSTC defines CIIs as: “State, local government and non-government entities, including utilities, railroads, metropolitan transit systems, pipelines, private ambulances, volunteer fire departments, and not-for-profit organizations that offer emergency road services, providing private internal radio services provided these private internal radio services are used to protect the safety of life, health, or property; and are not made commercially available to the public.” *Id.* at 10, citing 47 C.F.R. § 90.7.

extensive networks to channels 6 and 7 on a shared, co-primary basis with government, public safety and CII entities, such as public utilities.⁷ Such dense usage of a small amount of spectrum would increase interference levels on these channels and threaten the reliability of NYCTA's 4.9 GHz network.

In addition to interference concerns that would arise from requiring all CII entities—including transit authorities—and traditional public safety entities to share two channels in the 4.9 GHz band, shrinking the spectrum available to NYCTA, a governmental entity, to a 2x5 MHz band would cause significant financial hardship. NYCTA's current 4.9 GHz network operates using two 20 MHz channels. Although NPSTC suggests that the cost to reconfigure systems to use 5 MHz channels would be low, as “[m]ost, if not all, equipment used in the 4.9 GHz band is very flexible for channel use and bandwidth,” in fact the radios used throughout the NYCTA system require a bandwidth of 20 MHz,⁸ and would not function using 5 MHz channels as recommended in the Final Report.⁹ If adopted, the recommended bandwidth change could require the replacement of all 4.9 GHz wireless radios and access point radios in use in NYCTA's network.

Nor is NYCTA alone in facing such a problem. In comments filed in this proceeding, the City of Seattle noted that it uses 4.9 GHz spectrum for video transport, requiring 20 MHz

⁷ See Final Report at 11.

⁸ The present Motorola 7161 radio used by NYCTA cannot be configured for an RF bandwidth of less than 20 MHz without a major hardware change in its chipset.

⁹ See Final Report at 10. In addition to requiring the bulk replacement of all NYCTA radios, adoption of the NPSTC national plan would significantly degrade the performance of NYCTA's network. Bandwidth is directly proportional to speed and throughput. Throughput has been measured between 20 and 60 Mb/s on the current 20 MHz channels. Under the proposed band plan, future throughputs for a 10 MHz bandwidth could be in the order of 10 to 30 Mb/s, and only 5-15 Mb/s for a 5 MHz bandwidth, representing a significant decrease in network quality and responsiveness.

channels, which would no longer be possible if the NPSTC plan were adopted.¹⁰ The financial consequences of the adoption of the national plan for the City of Seattle would be serious: it has made investments of over \$4.9 million dollars in Federal grant funds in deploying its 4.9 GHz systems, while surrounding King County, Washington has invested \$10 million in on-board and transit system-wide base stations and roadside systems, all of which might have to be replaced under a revised band plan.¹¹

The 4.9 GHz band is currently used by transit authorities throughout the country to support critical public safety functions. NYCTA uses the 4.9 GHz band for the deployment of public-facing emergency call boxes, which allow transit system riders to obtain basic travel information or summon emergency help with the push of a button, when needed.¹² These devices feature a light at the top of the units that pulses when in use, allowing first responders, including NYCTA staff, to quickly find an injured or sick rider. The City of Seattle uses the 4.9 GHz band for video transport, and is currently working with King County, Washington on an interoperability agreement that would rely on its network for expanded public safety functions throughout the region.¹³ If the FCC adopted the NPSTC band plan, these projects would have to be scrapped until compliant replacement equipment could be funded, designed, purchased, installed and tested—an unnecessary waste of resources.

¹⁰ See Comments of King County, Washington and the City of Seattle, Washington, WP Docket No. 07-100, PS Docket No. 06-229, WT Docket No. 06-150, 5-6 (filed Dec. 3, 2013) (“King County Comments”). According to King County and the City of Seattle, the elimination of 4.9 GHz systems along transportation corridors would increase operating costs by 3-5%, or \$90-150,000 per year. *Id.* at 6.

¹¹ See *id.* at 6.

¹² See “Help Points to Make Subway Safer, Easier to Use,” MTA Press Release (Apr. 5, 2011), available at <http://new.mta.info/press-release/nyc-transit/help-points-make-subway-safer-easier-use> (last accessed Dec. 11, 2013).

¹³ See King County Comments at 5.

The NPSTC 4.9 GHz plan may unfairly limit NYCTA's 4.9 GHz band access to 2x5 MHz of spectrum shared with utilities and CIIs, despite the absence of any showing in the record that traditional public safety entities have had difficulty under the existing band plan in accessing the band. As a governmental entity with a critical public safety mandate, NYCTA strongly objects to a band plan that would limit its use of 4.9 GHz spectrum to two channels and force co-primary use of 2x5 MHz of spectrum with traditional public safety and CIIs. Like all other providers of public safety services, NYCTA and other governmental entities should continue to have access to the entire 4.9 GHz spectrum.

III. EXISTING LICENSEES SHOULD NOT BE REQUIRED TO RELICENSE

NYCTA also strongly objects to the NPSTC proposal that all licenses in the 4.9 GHz band be relicensed and subject to a frequency coordination process.¹⁴ Requiring all current users of the 4.9 GHz band to re-license all existing licenses and report to public safety coordinators would impose an unnecessary expense and significant administrative hardship, diverting scarce resources and potentially endangering the security and reliability of NYCTA's network.

NPSTC argues that its proposed relicensing would address "one of the major problems today:" the "lack of data for current licensees."¹⁵ However, NYCTA has complied with all existing rules for fixed broadband deployment, and information regarding the entire NYCTA system is available in the FCC's Universal Licensing System ("ULS") database.¹⁶ As all NYCTA data is publicly available online, requiring relicensing would serve no useful purpose, and would impose serious financial and administrative costs. Frequency coordination is not free.

¹⁴ Final Report at 10, 12.

¹⁵ *Id.* at 9.

¹⁶ According to the RPC for the New York Metropolitan area, RPC 8, there are over 113 call signs operating in the 4.9 GHz band in its region which are licensed with FXB or FX station classes, and data for each of these stations is available in ULS. *See* Comments of Regional Planning Committee 8, WP Docket No. 07-100, PS Docket No. 06-229, WT Docket No. 06-150, 8 (filed Nov. 25, 2013).

To pay for coordination, licensees would incur fees on a per frequency per location basis. By contrast, the current regional process of frequency coordination has proven to be adequate, efficient, and timely, and imposes no financial burden.¹⁷

NPSTC recognizes that the relicensing requirement “[would impose] a burden and cost [on] existing licensees,” but suggests that there is no other viable alternative available to collect the license data necessary for frequency coordination.¹⁸ Rather than mandating relicensing for all existing licensees, however, if the FCC adopts the NPSTC proposal it should at least allow currently-licensed operators to be grandfathered and continue operations under their existing licenses without further coordination. NYCTA would support relicensing for entities that have not adequately licensed their systems but instead rely on a geographic blanket licensing option that does not make site locations, technical parameters, or frequencies publicly available.

IV. REGIONAL PLANNING COMMITTEES SHOULD BE GIVEN BROAD AUTHORITY TO AMEND THE NATIONAL PLAN

The NPSTC Final Report rightly recognizes that “[d]ifferent areas of the country have different needs and challenges in providing public safety communications.”¹⁹ To address those differences, NPSTC recommends that RPCs be allowed to file amended regional plans specific to 4.9 GHz to reflect regional considerations.²⁰ NYCTA supports this proposal, but objects to the narrow limits that NPSTC would impose on the amendments that an RPC might propose. Under the NPSTC recommendation, an RPC could make changes to the national plan regarding: (1) additional channel aggregation; (2) additional channel designation for specialized usage such as air to ground or robotic control and communications; (3) limits on the use of point to point

¹⁷ *See id.* at 8.

¹⁸ Final Report at 10.

¹⁹ *Id.* at 12.

²⁰ *See id.* at 12-13.

links in urban areas; and (4) higher ERP for long path lengths or use of non-line of sight paths in rural areas.²¹ Critically, what is missing from NPSTC's proposal is the ability of an RPC to draft a completely customized regional plan for the New York City metropolitan area that would allow NYCTA and other governmental entities to continue to access the entire 4.9 GHz band.

Under the current rules, the RPC is the general overseer of allocations or disputes regarding technical matters in the 4.9 GHz band in its region. This has worked well in the New York City RPC 8 area, and there have been no coordination issues. If adopted, NPSTC's recommendation would have a significant, negative impact on NYCTA, as it would limit the ability of the RPC 8 to amend the national band plan to account for the needs of its region, and would not allow the RPC 8 to challenge the restriction of NYCTA to two 5 MHz channels, due to its designation as a CII entity. RPCs need the ability to amend the national plan in all areas, not just aggregation and point to point technical parameters.

²¹ *Id.* at 13.

V. CONCLUSION

The FCC should decline to adopt NPSTC's proposed band plan for the 4.9 GHz band, should not require validly licensed operations in that band to be relicensed and subject to coordination, and should not limit the ability of RPCs to craft band plans that fit the particular needs and requirements of their specific regions. If adopted, these recommendations in the Final Report would needlessly impose technological, administrative, and financial burdens on 4.9 GHz licensees without addressing any demonstrated problem in the band.

By: */s/ Ari Q. Fitzgerald*

Ari Q. Fitzgerald
Counsel to New York City Transit Authority
Hogan Lovells US LLP
555 13th Street, N.W.
Washington, D.C. 20004
(202) 637-5423

Martin B. Schnabel
Vice President and General Counsel
New York City Transit Authority
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Brooklyn, NY 11201
(718) 694-3901

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