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July 15, 2010

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: WT Docket 96-86
WT Docket 06-150
PS Docket No. 06-229

Dear Ms. Dortch:

In accordance with Section 1.1206(b)(1) of the Commission's Rules, the State of Delaware ("Delaware") submits this written ex parte filing in the above-captioned proceedings.

A representative of the State of Delaware attended the National Public Safety Telecommunications Council ("NPSTC") meeting on June 14th in Alexandria, Virginia. Certain discussion items pertaining to the concept of so-called 700 MHz bandplan "flexibility" were shared with the attendees. In one written communication, it was noted that a committee of Congress¹ is assessing the issues associated with the potential re-use of the 700 MHz narrowband voice channels² for broadband application, including in at least one draft, permitted secondary use of public safety voice frequencies for broadband³ by commercial carriers. In a commendable manner, the House Committee reached out to NPSTC for reaction, which the State believes is very positive and welcome. We are grateful to Chairman Waxman and his staff for extending this important courtesy.

Subsequently, a representative of the Federal Communications Commission's (the "Commission" or "FCC") Public Safety and Homeland Security Bureau (the "Bureau") spoke to participants and provided some general information describing the possibility of a study by the

¹ House Energy and Commerce Committee Staff Draft, June 14, 2010, "**SEC. 103. FLEXIBILITY AND SHARING.** (a) FLEXIBLE SPECTRUM USE.—The Commission shall allow the narrowband spectrum, the guard band spectrum, and the unoccupied guard band spectrum to be used in a flexible manner, including for public safety broadband communications.

² See 47 CFR §90.531

³ House Energy and Commerce Committee Staff Draft, June 14, 2010, SEC 103(b)(1)(2)

Bureau to assess issues related to future “flexibility” of the 700 MHz spectrum including the narrowband voice channels. At the time of this Ex Parte, the potential Bureau Public Notice has not been released, although in similar fashion to the House’s request for information, the State appreciates the Bureau sharing its ideas at such an early juncture. Delaware very much welcomes this type of transparent governmental activity. To that end, Delaware hopes that representatives of the federal government will find these comments to be useful.

Notwithstanding the State’s appreciation for the transparency demonstrated by the House Energy and Commerce Committee, as well as the Bureau, Delaware recommends the following:

- A. Do not permit broadband operations in the narrowband voice channel spectrum of the 700 MHz frequency band.
- B. Recognize public safety’s requirements and reallocate the D Block from the commercial auction to public safety for broadband communications.

Without the 700 MHz narrowband voice channels, it would be impossible for Delaware to expand the capacity of the present 800 MHz radio system serving all state and local government first responders within our state. As may be unique in the country, the one Delaware 800 MHz public safety radio system connects every first responder in our state. The current system cannot be expanded without a “forklift” upgrade to a statewide system migrating from older proprietary technology to state-of-the-art P25 Phase II components. Such an upgrade, while important for daily first responder operations, would cost many millions of dollars to enhance the State’s public safety statewide and interoperable radio system. Due to the economic uncertainty within the country, such a level of extraordinary funding is simply unattainable at this time.

Even though the State is actively preparing to deploy a smaller scale “overlay” P25 phase II system designed to alleviate some of the capacity constraints on the legacy 800 MHz system through the use of federal Public Safety Interoperability Communications (“PSIC”) funding, the new P25 Phase II network requires multiple channels in the 700 MHz narrowband voice spectrum. Without the 700 MHz spectrum provided by Delaware’s geographical license⁴, as well as “general pool” 700 MHz channels⁵, this new P25 Phase II radio system could not be constructed and placed on-the-air for public safety and public service operations.

If some kind of flexible 700 MHz voice bandplan was proposed by the Commission or the Congress permitting either voice or broadband use in some unknown fashion on today’s voice channels, Delaware would be very concerned about the manner in which such flexibility would be deployed. The State believes that the Commission wisely established geographical licenses permitting the states to deploy 700 MHz systems rapidly on narrowband voice channels without lengthy regulatory proceedings. Provided that the State maintains a 40 dBu contour within Delaware’s borders⁶, the State has great flexibility to deploy 700 MHz technology to meet a wide variety of governmental requirements. Unfortunately, the Commission’s requirements in

⁴ See WPTZ791

⁵ See 47 CFR §90.531(b)(6)

⁶ See DA 01-406

Subpart R of Part 90 for state 700 MHz voice channels⁷ do not provide the same level of technical separation criteria as found with the 800 MHz⁸ channels further increasing the potential of interference absent very careful interstate cooperation with neighbors. While the states would typically welcome minimal federal regulations related to resource deployment, the issues introduced by frequency sharing between voice and broadband technologies are novel and strategies to prevent interference are generally unknown to both federal and state officials.

In a geographical area the size of Delaware, it is difficult to negotiate spectrum use agreements with our neighbors to prevent interference due to the close proximity of adjoining states. If 700 MHz frequency flexibility permits the optional deployment of broadband operations on narrowband voice frequencies, the geographical separation requirements⁹ now established by the Commission between existing systems would require very careful review, analysis, and testing to ensure that voice and broadband systems could simultaneously operate on shared spectrum without destructive interference between systems. The current rules¹⁰ are designed to provide a minimal level of interference free operation and states often adopt additional technical measurements to avoid interference when co-channel use is contemplated. As an example, some states add a requirement for 5 or 22 dBu interference contours as strategies to minimize further the potential of interference.

The current 700 MHz bandplan has a guard band that separates voice and data applications. Delaware does not know what realistic separation requirements may be needed if voice and broadband share the same spectrum. Will traditional 5, 22, 40, or 60 dBu separation predictions often used to minimize interference afford sufficient protection to ensure interference free voice and broadband operation on the same frequencies? Delaware notes that the National Institute for Standards and Technology (“NIST”) will be conducting broadband platform trials in both Boulder, Colorado and Washington, DC. While Delaware applauds the testing strategy established by NIST, the State has no knowledge that the testing process will include issues related to co-channel sharing of broadband and voice radio systems and the distances and related technical attributes necessary to prevent destructive interference to a user’s voice or Long Term Evolution (“LTE”) broadband application.

The NIST strategy also seems to test the extreme situations; either a very congested urban area as the District of Columbia or a more rural area proximate to a National Quiet Zone in Boulder, Colorado. Much of the country, particularly in the Mid-Atlantic, operates in a different type of radio environment and testing in a suburban or high-RF more rural environment does not seem to be included within the NIST testing strategy. However, the suburban and high-RF rural areas are precisely the types of areas in which many broadband systems will be deployed. Coupled with the insufficient geographic testing areas, Delaware sees no evidence of testing to assess the issues associated with co-channel voice and broadband operations.

Long Term Evolution (“LTE”) technology has certain inherent capabilities to minimize and manage interference through the eNodeB “scheduler” functionality; however, similar protocols

⁷ See 47 CFR §90.531(b)(5)

⁸ See 47 CFR §90.621

⁹ See DA 01-406

¹⁰ *Id.*

do not exist in the standards-based P25 700 MHz land mobile radio systems. Some of today's LMR systems are engineered to literally "shut down" when co-channel interference is experienced as these systems are designed to operate on an "interference-free" basis. LTE technology operates much differently than LMR as the same spectrum may be used throughout the country by the assigned carrier or broadband user.

However, beyond the technical issues discussed relative to frequency sharing between voice and broadband systems, there is a special nationwide role for 700 MHz first envisioned by the National Coordinating Committee ("NCC"). Among the recommendations¹¹ of the NCC, the Commission was advised to require:

- A standard channel nomenclature table for all interoperability channels.
- A requirement that all radios which are equipped with displays and are capable of operating on any of the interoperability channels, must use the standard channel nomenclature, above, in their displays; and must have, at a minimum, the capability of displaying eight alphanumeric characters.
- Updating the Rules concerning the ANSI/TIA/EIA standard incorporated by reference in Section 90.548 of the Rules to include the revised document, ANSI/TIA/EIA 102.BAAA-A

The requirements of the NCC were influenced upon the belief that first responders should be able to go to any place within the United States following a disaster and immediately interoperate with their fellow public safety personnel over a set of common 700 MHz and other interoperability voice and data frequencies. That belief was recognized after Hurricane Katrina when the Commission made many observations and recommendations when reviewing the totality of communications issues that followed the storm and its devastating impact upon Louisiana and Mississippi.

In a state like Delaware with a small population base, this ability of neighboring and distant first responders having the communications interoperability capabilities to come to our aid following a disaster is critically important. While we are blessed with an outstanding core of professional and volunteer first responders, the nature and scope of some incidents could be more than our state and local government resources can manage. If it is necessary for out-of-state first responders to join us in life saving operations, Delaware, like the nation, needs the uniform bank of national interoperability radio frequencies that can be commonly used by all public safety personnel involved in the incident.

Beyond the technical issues associated with the deployment of state operated or statewide 700 MHz voice systems, the Commission has established a number of very special requirements for the state governments relative to interoperability. As noted in the Commission's record in Docket WT 96-86, the FCC stated, "We determine that the administrative and technical oversight of operations on the Interoperability spectrum should be performed at the state level"¹².

¹¹ See Ex Parte letter of Kathleen M.H. Wallman submitted to the Honorable Michael Powell, FCC Chairman on July 25, 2005.

¹² See Fourth Report and Order and Fifth Notice of Proposed Rule Making Adopted: January 11, 2001

The Commission continued, “In the *Fourth Notice*, we agreed with the NCC that administration of the Interoperability channels should occur at the state level. Thus, we proposed to have the states administer the Interoperability channels¹³. Under our proposal, applications for Interoperability spectrum would be approved by a state-level agency or organization responsible for administering state emergency communications. Under this approach, a state may be the licensee for all stations operating on the Interoperability channels or it may approve other eligible public safety entities to be licensees”.¹⁴ “Based upon the record in this proceeding, we conclude that administration of the Interoperability channels should occur at the state level. As noted by the NCC and several commenters, state-level organizations are usually in control at large-scale events and disasters or multi-agency incidents. Given the central role states currently play in managing emergency communications, we believe that the states are best suited for administering the Interoperability channels. Further, we believe that state-level control will promote safety of life and property through seamless, coordinated communications on the Interoperability channels. In this connection, we note that states are usually in the best position to coordinate with Federal Government emergency agencies”¹⁵.

The statements of the Commission are consistent with other federal disaster management agencies which recognize that large scale disaster operations are best managed by the states and that the state governments serve as the optimal liaison with the central federal government. Delaware believes that the Commission acted very wisely by vesting the states with major management responsibilities within its borders for interoperability. However, with so-called 700 MHz “flexibility”, Delaware fears that the unique role of the nationwide 700 MHz interoperability channels for homeland security and disaster response may be lost as usage would change from that of a nationwide application found in all states and territories to one of some type of local option to use the 700 MHz voice spectrum for either voice or broadband services.

Recommendations of the Commission from the Hurricane Katrina Report also included a direction to the Bureau to, “work with NTIA and DHS to establish appropriate criteria for the distribution of the \$1 billion in a manner that best **promotes interoperability with the 700 MHz band** (emphasis supplied) - among other things, such criteria should mandate that any radios purchased with grant monies must be capable of operating on 700 MHz and 800 MHz channels **established for mutual aid and interoperability voice communications** (emphasis supplied); (3) encourage the expeditious development of regional plans for the use of 700 MHz systems and move promptly to review and approve such plans”.¹⁶ From those recommendations, the Commission ordered, “We direct PSHSB to offer to work with NTIA and DHS, as appropriate, to establish criteria for the distribution of the \$1 billion interoperability fund in a manner that best promotes interoperability with the 700 MHz band”¹⁷.

Subsequently the Commission stated, as relates to nationwide interoperability among first responders, “We direct PSHSB to work with other federal agencies, the public safety community and the industry, as appropriate, to develop best practices to promote interoperability. In

¹³ *Fourth Notice*, 15 FCC Rcd at 16909 ¶ 21.

¹⁴ See Fourth Report and Order and Fifth Notice of Proposed Rule Making Adopted: January 11, 2001 at paragraph 8

¹⁵ See Fourth Report and Order and Fifth Notice of Proposed Rule Making Adopted: January 11, 2001 at paragraph 9

¹⁶ See FCC 07-107 at paragraph 67

¹⁷ See FCC 07-107 at paragraph 69

addition, PSHSB should encourage public safety organizations to provide interoperability success stories and make this information available on its website”¹⁸.

Delaware believes that the nation continues to require the federal government and the states to refine further the large number of 700 MHz interoperability channels into cohesive nationwide strategies to permit first responders from throughout the United States to go anywhere in the country in response to a disaster and interoperate on a set of common channels permitting immediate life saving activities. Conversely, Delaware believes that a new strategy that permits some type of alternative use of the voice spectrum in 700 MHz is contrary to the homeland security requirements of the country and not in the public interest.

There are only a small number of interoperability frequencies in the VHF, UHF, and 800 MHz bands. There are no more than five interoperability frequencies (or frequency pairs) in any of these bands. However, in the 700 MHz narrowband voice spectrum, the Commission very wisely established a much greater number of special interoperability frequencies to be available nationwide:

- A. Thirty-two unique P25 frequency pairs for nationwide interoperability¹⁹
- B. Nine low-power 12.5 KHz frequency pairs²⁰ for on-scene communications and incident area networks as recommended by SAFECOM
- C. Three 12.5 KHz low-power frequency pairs for nationwide itinerant use²¹
- D. Eight secondary trunking channels^{22 23}

It is not by coincidence that the Commission laid out the permitted uses of the 700 MHz voice channels in Subpart 531 by listing the nationwide interoperability channels and applications first. In the Commission’s First Report relative to Docket WT 96-86, it was stated that “Interoperability signifies the crowning achievement of this proceeding.”²⁴ The Commission also stated, “The First Report and Third Notice provides a structure to: (1) enable the development of a **national interoperability plan** (emphasis supplied)”²⁵. The Commission continued by stating, “We believe that this (700 MHz) band plan strikes an appropriate balance between the standardization necessary to achieve **nationwide interoperability** (emphasis supplied)”²⁶ and “Within our band plan, we designate approximately 10 percent of the 700 MHz public safety spectrum for nationwide interoperable communications”²⁷.

Delaware believes that the record indicates that the Commission intended strong support for public safety operations in the 700 MHz band including fostering nationwide voice interoperability. When this planning was being developed, wireless broadband was not a part of

¹⁸ See FCC 07-107 at paragraph 73

¹⁹ See 47 CFR §90.531(b)(1)

²⁰ See 47 CFR §90.531(b)(3)

²¹ See 47 CFR §90.531(b)(4)

²² See 47 CFR §90.531(b)(7)

²³ See National Public Safety Telecommunications Petition for Rule Making submitted on March 19, 2010

²⁴ See WT 96-86 First Report and Order at paragraph 7

²⁵ See WT 96-86 First Report and Order at paragraph 5

²⁶ See WT 96-86 First Report and Order at paragraph 6

²⁷ See WT 96-86 First Report and Order at paragraph 7

the dialogue. Data applications were focused upon the potential use of 50 KHz “wideband” channels, which could be aggregated to create 150 KHz spectrum channels. The Commission recognized that there is a role for voice and data. Even after the Second Report and Order²⁸ was issued, which among other things established a bandplan for public safety broadband; it was never contemplated that voice applications in 700 MHz would be supplanted by spectrum sharing with voice and broadband technologies. With the diverse allotment of channels in the 700 MHz voice spectrum and the need for contiguous spectrum for broadband, use of the 700 MHz voice spectrum is literally an all or nothing proposition. Broadband’s need for contiguous spectrum takes away all voice uses, as sampled below, from the 700 MHz narrowband voice spectrum, if it is used to expand broadband network capacity.

Narrowband Base Channels				
Channel Number	Center Frequency			Allocation
	6.25 kHz	12.5 kHz	25 kHz	
1	700.003125	700.00625	700.01250	low power
2	700.009375			low power
3	700.015625	700.01875		low power
4	700.021875			low power
5	700.028125	700.03125	700.03750	low power
6	700.034375			low power
7	700.040625	700.04375		low power
8	700.046875			low power
9	700.053125	700.05625	700.06250	low power
10	700.059375			low power
11	700.065625	700.06875		low power
12	700.071875			low power
13	700.078125	700.08125	700.08750	General Use
14	700.084375			General Use
15	700.090625	700.09375		General Use
16	700.096875			General Use
17	700.103125	700.10625	700.11250	General Use
18	700.109375			General Use
19	700.115625	700.11875		General Use
20	700.121875			General Use
21	700.128125	700.13125	700.13750	Secondary Trunking
22	700.134375			Secondary Trunking
23	700.140625	700.14375		Interoperability
24	700.146875			Interoperability
25	700.153125	700.15625	700.16250	State license
26	700.159375			State license
27	700.165625	700.16875		State license
28	700.171875			State license
29	700.178125	700.18125	700.18750	State license
30	700.184375			State license
31	700.190625	700.19375		State license
32	700.196875			State license
33	700.203125	700.20625	700.21250	State license
34	700.209375			State license
35	700.215625	700.21875		State license
36	700.221875			State license
37	700.228125	700.23125	700.23750	Reserve
38	700.234375			Reserve
39	700.240625	700.24375		© Nationwide Call
40	700.246875			© Nationwide Call

Narrowband Mobile Channels				
Channel Number	Center Frequency			Allocation
	6.25 kHz	12.5 kHz	25 kHz	
961	799.0031250	799.00625	799.01250	low power
962	799.0093750			low power
963	799.0156250	799.01875		low power
964	799.0218750			low power
965	799.0281250	799.03125	799.03750	low power
966	799.0343750			low power
967	799.0406250	799.04375		low power
968	799.0468750			low power
969	799.0531250	799.05625	799.06250	low power
970	799.0593750			low power
971	799.0656250	799.06875		low power
972	799.0718750			General Use
973	799.0781250	799.08125	799.08750	General Use
974	799.0843750			General Use
975	799.0906250	799.09375		General Use
976	799.0968750			General Use
977	799.1031250	799.10625	799.11250	General Use
978	799.1093750			General Use
979	799.1156250	799.11875		General Use
980	799.1218750			General Use
981	799.1281250	799.13125	799.13750	Secondary Trunking
982	799.1343750			Secondary Trunking
983	799.1406250	799.14375		Interoperability
984	799.1468750			Interoperability
985	799.1531250	799.15625	799.16250	State license
986	799.1593750			State license
987	799.1656250	799.16875		State license
988	799.1718750			State license
989	799.1781250	799.18125	799.18750	State license
990	799.1843750			State license
991	799.1906250	799.19375		State license
992	799.1968750			State license
993	799.2031250	799.20625	799.21250	State license
994	799.2093750			State license
995	799.2156250	799.21875		State license
996	799.2218750			State license
997	799.2281250	799.23125	799.23750	Reserve
998	799.2343750			Reserve
999	799.2406250	799.24375		© Nationwide Call
1000	799.2468750			© Nationwide Call

SAMPLE TABLE DEPICTING MULTIPLE PERMITTED USES IN 700 MHZ VOICE SPECTRUM

There is also an important governance issue that must be addressed. Under the current rules of the Commission, the States have responsibility for many of the 700 MHz narrowband voice channels, but not all. A large amount of spectrum is also under the administration of the Regional Planning Committees, which are typically independent of state governments. What happens if one party agrees to reallocation of the spectrum and the other refuses? Because broadband requires contiguous spectrum in which to operate, the mutual consent of all parties would be required to cede the use of voice spectrum for broadband use. The complexity of

²⁸ See FCC 07-132 issued July 31, 2009

reaching a consensus relative to the permitted use of broadband on narrowband voice channels may be further challenged if the Regional Planning Committee is comprised of multiple states, e.g. Region 19 or multiple parts of states, e.g. Region 20 and 28. In some cases it may be necessary for the Commission to intervene when there is a lack of consensus relative to voice spectrum flexibility in a geographical area. This puts the Commission in the unenviable situation of picking public safety “winners and losers”, a position best avoided as there will be no true winners. One disaster in a location without 700 MHz interoperability spectrum and out-of-state first responders crippled by a lack of spectrum for voice interoperability and related command and control functions potentially places the Commission in front of angry Congressional committees asking why nationwide interoperability was sacrificed.

In those parts of the United States where broadband supplants voice operations in 700 MHz, nationwide voice interoperability will be lost to the detriment of our country’s disaster response capabilities. Lessons learned from Hurricane Katrina and other national disasters will be ignored and first responders will be subject to the loss of critical voice communications resources depending upon the location of a disaster. As but one example of the critical loss of nationwide public safety communication’s capability, the San Francisco area could experience a major earthquake requiring distant resources such as the Fairfax County, Virginia Urban Search and Rescue team, an experienced internationally known emergency resource. When Fairfax arrives in San Francisco to begin search and rescue operations, their 700 MHz radios should be able to interoperate with emergency communications systems in the Bay area, even if only in the direct radio-to-radio mode. However, if the 700 MHz voice spectrum has been lost for broadband use, emergency voice communications would be more challenging and at best, limited

While the more recent programs of the Commission relative to broadband also are appropriately concerned with interoperable broadband communications on a national basis, as evidenced by the Commission’s establishment²⁹ of the Emergency Response Interoperability Center (“ERIC”) the First Report recognized the very practical “real world” fact that the first communications established at a scene of a public safety incident are voice communications. The First Report also stated, “The Commission observed that interoperability must often be established during emergencies and under conditions that allow little opportunity for prior planning; that communications must often be established among numerous smaller groups, each with its own talk group; and that, once responders are on the scene, mutual aid interoperability usually involves the use of portable radios”³⁰. All of these observations related to 700 MHz voice operations on a nationwide basis and they remain valid today. If anything, future public safety communications requirements will be for both voice and robust data capabilities to establish immediate command and control as well as situational awareness. For public safety and with respect to voice and data, 700 MHz is not an “either or” situation. Both capabilities will be needed to support first responders.

In recognition of the fact that today, initial communications will be with voice use to establish command and control, the Commission also stated, “We will require that 700 MHz band public safety equipment, when operating on the interoperability channels, be designed to use digital modulation as its primary modulation mode. We will allow mobile and portable units to have

²⁹ See FCC 10-67 Adopted April 22, 2010

³⁰ See WT 96-86 First Report and Order at paragraph 74

analog modulation capability, but only as a secondary mode in addition to its primary digital mode³¹. The Commission was clearly concerned with voice operations for interoperability. Even with the advance of required broadband technology, voice use in 700 MHz continues to be an essential public safety communications component and critical to establishing initial command and control at the scene of an emergency.

There are no other frequency bands within the land mobile spectrum used by public safety for voice operations where such a wide number of nationwide interoperability channel resources are found. These 700 MHz narrowband voice channels are not only unique, they are critical to the country's homeland security program and the National Emergency Communications Plan³² ("NECP"). Yet even with these 700 MHz voice spectral resources, which far exceed any interoperability resources in other bands, the public safety communications community has identified other potential requirements to utilize the 700 MHz narrowband voice channels further.

NPSTC has submitted multiple Petitions for Rule Making seeking further clarifications relative to the use of 700 MHz narrowband voice channels. Pursuant to the recommendations of the NCC and the Department of Homeland Security's NECP, both NPSTC and APCO have achieved the certification of the American National Standards Institute ("ANSI") for nationwide unique "common channel" names for all interoperability frequencies including those in the 700 MHz band³³. NPSTC has also submitted other petitions relative to the 700 MHz nationwide narrowband voice channels to modify certain applications including the re-designation of a nationwide 700 MHz calling channel³⁴, utilization of reserve channels for tactical purposes, and modification of certain other secondary interoperability channels³⁵ to permit secondary aircraft operations which would be unique in the 700 and 800 MHz frequency bands³⁶.

As was noted in a presentation at the last NPSTC meeting in Alexandria on June 14³⁷, there are locations on our northern United States border where both the Commission and Industry Canada have authorized cross-border radio operations for American and Canadian public safety and homeland security personnel. Texas, New Mexico, Arizona, and California are all challenged not only by 800 MHz rebanding, but incremental use of 700 MHz as permitted by treaty. Any changes to the bandplan could have serious unintended ramifications negatively affecting homeland security and public safety interoperability operations in the 700 MHz band. While seemingly not critical to Delaware per se, there are practical operational issues articulated in this Ex Parte that could be applicable if our first responders were dispatched to a national border area to render aid. The reality is that any nationwide planning has international coordination requirements.

³¹ See WT 96-86 First Report and Order at paragraph 110

³² See National Emergency Communications Plan released by the United States Department of Homeland Security, July 2008; "Initiative 7.3: Leverage existing and emerging technologies to expand and integrate disaster communications capabilities among emergency response providers. Deployable communications technologies can provide robust voice, video, and data capabilities for agencies requiring communications during disasters.

³³ See Notice of the National Public Safety Telecommunications Council, June 17, 2010

³⁴ See Petition for Rule Making from the National Public Safety Telecommunications Council, February 8, 2008

³⁵ See 47 CFR §90.531(b)(7)

³⁶ *Id.*

³⁷ Presentation of Terry LaValley at NPSTC on June 15, 2010

Delaware anticipates that in spectrum congested areas, such as the Mid Atlantic, the FCC will not arbitrarily eliminate a frequency band needed to support first responder communications. Nevertheless, the 700 MHz frequency band shares a characteristic common in other bands. Where it is needed, in congested areas like the Mid-Atlantic, the frequencies are needed greatly. Conversely, just like the 800 MHz public safety spectrum, there are parts of the United States in which spectrum use in either band is minimal. As a corollary, this is true in other services, spectrum bands, and technologies. The 500+ MHz of spectrum already available to commercial carriers is more heavily used in large metropolitan areas than rural areas and therefore the demand for another 500 MHz of commercial spectrum will be also location dependent. If there are locations in the country that do not need the 700 MHz voice spectrum for state, regional, or local radio services, the spectrum isn't needed for broadband either. The result of 700 MHz narrowband voice flexibility would be a severe diminishment in the nation's homeland security communications plan with no practical benefit for broadband expansion.

It may be tempting for the Commission to study and propose the concept of flexible spectrum use with the 700 MHz public safety narrowband voice channels. However, Delaware believes that such a strategy would be both unwise and regressive for public safety and homeland security communications. Beyond meeting the state, regional, and local communications needs for public safety first responders, the 700 MHz narrowband voice frequencies serve a unique national purpose that is critical to our homeland security communications response capabilities.

Delaware believes that this issue of 700 MHz narrowband voice "flexibility" has been raised principally because of the D Block controversy now being debated within the public safety communications community and Congress. With respect to the D Block, Delaware has studied the Commission's White Paper on Capacity³⁸ as well as the response of NPSTC³⁹ and most recently, the Public Safety Alliance paper entitled, House of Cards FCC's Capacity White Paper Built on Assumptions and Conjecture⁴⁰. With respect to the latter publication, Delaware regrets the title used as it detracts from what should be a collegial discussion regarding the technology issues that expand upon the Commission's and industry's body of technical knowledge. With all due respect to the writings of many learned persons, Delaware supports the positions expressed by NPSTC as reflective of the vast majority of public safety communications organizations, manufacturers, and Part 90 licensees.

Arguments suggesting an easy migration to the commercial spectrum when roaming is required are yet to be proven and subject first responders in a best case scenario of competing with the commercial users for spectrum at the very time in which first responders need it most. It has also been suggested that "if" public safety can document the need for more spectrum, frequencies can be found in other bands. Such a strategy would greatly increase the cost of public safety broadband communications infrastructure and result in the kind of frequency balkanization for

³⁸ *The Public Safety Nationwide Interoperable Broadband Network: A New Model for Capacity, Performance and Cost* issued by the Commission on June 15, 2010

³⁹ National Public Safety Telecommunications Council Ex Parte dated July 2, 2010

⁴⁰ Public Safety Alliance July 2, 2010

which the Commission has criticized public safety in past Orders⁴¹. Conversely, supporting a transfer of the D Block from the auction process to public safety would have the very beneficial result of increasing capacity for broadband and minimizing long-term deployment and operating costs, which is very important for a largely rural state like Delaware.

The recommendations of Delaware relative to 700 MHz narrowband voice and broadband are:

- C. Do not permit broadband operations in the narrowband voice channel spectrum of the 700 MHz frequency band.
- D. Recognize public safety's requirements and reallocate the D Block from the commercial auction to public safety for broadband communications.

Respectfully submitted,



Mark Grubb
Director
Statewide Interoperability Coordinator

⁴¹ See Docket WT 96-86 Second Report and Order at paragraph 484, "We find that permitting individual public safety entities to construct their own networks using this spectrum without such approval would lead to the same balkanization problems of existing public safety spectrum use that we seek to avoid here"