CITY OF savannah
Information Technology, Mobile Services
6900 Sallie Mood Drive
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Federal Communications Commission
455 12th St. SW
Washington DC, 20554

Re: Comments Pursuant to PS Docket 13-87

In response to the referenced NPRM the following discussion and comments are submitted on behalf of the City of Savannah, Georgia and the Southeast Georgia Regional Radio Network (SEGARRN). The comments are submitted with regard to what we see as the Commission's request for a local government/public safety perspective on the issues presented in the NPRM.

The City of Savannah is located in the northern most corner of the Georgia coastline directly adjacent to the South Carolina border. Savannah covers approximately 110 sq. miles and has a population of 142,000. Our Metropolitan service area is approximately 460 sq. miles and serves a population of 362,000. All City of Savannah government radio communication is conducted via the SEGARRN system.

SEGARRN is a co-op arrangement between the City of Savannah and six (6) counties in the coastal Georgia region. SEGARRN is a regionally funded and operated Phase I P25 compliant trunked radio network which provides radio service in support of Police, Fire, EMS and other government services along the coastal Georgia I95 corridor and approximately 90 miles along the I16/US 80 corridor from the Georgia coast inland and the adjacent counties along these routes. The coverage area is approximately 4000 sq. miles and serves a total population of approximately 660,000 residents. The network operates utilizing both 700 MHz and 800 MHz radio frequencies. Region wide radio service is provided to approximately 10,000 state and local government users on the network including numerous out of area public safety users that operate frequently in the area.

SEGARRN grew to its current form from a network originally constructed in 1997 by the City of Savannah and Chatham County. Effingham County, Georgia joined the network in 2005. The network as it existed in 2005 was not P25 and it was not financially possible at that time to purchase all P25 equipment. We did, however, purchase hundreds of P25 phase I configured radios in the expectation of migrating the network to P25 in 2009. The equipment purchased in 2005 can still be purchased today. The equipment is only capable of P25 Phase I. Only Phase I P25 user equipment was available from our vendor at that time. It is noted from the NPRM one specific vendor stated that 6.25 KHze equipment was available at the time but it should also

be noted the equipment only supported the vendor's proprietary infrastructure and was incapable of operating on our vendor's proprietary legacy infrastructure and was also incapable of operation on the current P25 Phase II standard without extensive upgrade expense.

In 2009 SEGARRN was formed and the P25 Phase I network was constructed in Savannah and the first two counties. As with Louisiana, the variant of P25 infrastructure offered for sale at the time by our vendor was not capable of Phase II. The vendor did not, at the time, offer a Phase II system nor were any Phase II capable user radios available for purchase. Keep in mind, at this point in time, those of us in the region operating VHF and UHF systems are looking at the narrow banding requirements approaching in 2013. We also received substantial federal grant dollars to continue the build out of the regional infrastructure. The grants all had expiration dates by which the funds had to be expended. The counties and other local governments in the region, doing due diligence, looking at technology alternatives and sources of funding, chose SEGARRN. In choosing SEGARRN the purchase of radios incapable of P25 phase II were the only option at the time.

Other counties joined the network in 2010 and 2011. Our vendor did finally make P25 Phase II user equipment available and all subsequent purchases of user radios have been radios capable of Phase II operation. P25 phase II network equipment though available to us now through system upgrades has proven to be prohibitively expensive.

The SEGARRN members had to make some imperfect choices driven by vendor product offerings, regulatory requirements and timing, and hard local fiscal reality. All things considered, the choices made by the members to create and grow SEGARRN into the tremendous interoperability and communication support resource it is today was the right choice.

Speaking now strictly for the City of Savannah, I want to discuss the user radio lifecycle issue. Others in the region may budget differently but in Savannah I am the one with the responsibility of maintaining, repairing and purchasing user radio equipment. I have been doing this work in one form or another for over 40 years so I have seen a good bit of the technology that has passed through in the last five decades.

It is very difficult to put a flat number on any radio's expected lifecycle. Depending upon the specific use any radio is subjected to whether in public safety or general local government use the radios are subjected to all variations of use and abuse. In general terms, and verified by years of maintenance and repair records, radios of equal or very similar types in fire service have the highest failure rate followed by police, active public works staff and finally general government staff. Our fire radios are in continuous service 24/7/365 and are assigned to the company not the person. Police radios, though subject to a great deal of wear and tear are assigned to the individual and are only in use as the officer is assigned. Other radios are generally five day per week or shift work radios assigned to a specific person. In Savannah we attempt to replace Public Safety radios in the 8 to 10 year range and as they are replaced move the radios to other government services for an additional 8 to 10 years of service. We have

been generally though not perfectly successful in meeting this goal. If it were fiscally possible I would prefer to replace fire radios every 5 to 8 years.

All of the vendors we currently do business with make excellent user radios. With proper parts support virtually any radio the vendors offer can be maintained for up to 20 years. The City is self-maintained so our driving force is parts support. If parts are available we can generally fix it. Most of our failures are user induced and not a result of simple circuit failure. With our ability to do our own repairs and given adequate parts support we budget and allow for a 15 to 20 year expected lifecycle on user radios.

Our vendor is the sole driving force behind the lifecycle for the back end network and RF equipment. If the equipment is supported 20 years from now it will likely still be in service. When I started in this business much if not most of the base station equipment operated using vacuum tubes and sometimes a mix of transistors. The wear and lifecycle issues associated with equipment of that era simply do not apply today. The equipment manufactured by the vendors we do business with is so reliable and failure free I am constantly amazed by it. We have fixed end equipment in continuous service that with the exception of maintenance checks, has not been touched since 1997. All of this fabulous, reliable equipment becomes obsolete and something we can no longer rely on when the vendor drops all support in 2017. The loss of support is being driven by the move to the P25 standard. We are committed to support of the standard, however the overall timeline with respect to operation in the 800 and 700 MHz bands is out of sync with fiscal reality and the true lifecycle and reliability of the equipment in service today.

There is another issue with respect to the 700 MHz spectrum as it is allocated here in Region 10. It appears to me that by assigning channels to a specific geographical area, as has been done in Region 10 and I assume in other regions, then specifying a standard which requires use of a 12.5 Khz standard channel bandwidth (Phase 1 FDMA or Phase II 6.25 KHz equivalent 12.5 KHz channel) one is effectively white spacing or orphaning the adjacent 12.5 KHz upper portion of the 25 KHz four channel allotment assigned to a specific geographical location. I do not believe the upper 12.5 KHz of the channel bandwidth could be utilized in the same general geographical location without creating significant interference issues. For example, in Region 10 a county could be assigned in the Region 10 plan channels 41-44 as the base transmit frequency. If this grouping were licensed, only 41 and 42 would be coordinated and licensed leaving 43 and 44 white spaced in that particular geographical area. If I am correct in my assumptions, there is a need to repack the frequency assignments to reflect 12.5 KHz channel allotments rather than 25 KHz channel allotments as presently assigned. Proceeding ahead with a mandate for 6.25 KHz equivalency seems foolish if we are currently white spacing half the spectrum across the region. I am curious to know how or if other regions have addressed this seeming irregularity.

In response to the questions addressed in the NPRM:

SEGARRN and the City of Savannah recommend the elimination, for now, of all deadlines relating to a migration to any standard that mandates a utilization of a 6.25 KHz equivalent bandwidth on any licensed channels in the Public Safety 700 MHz spectrum. It is our opinion that the lack of long term, competitively available 6.25 KHze capable equipment and the extended, up to 20 year, utilization of user equipment local governments are forced to adhere to by simple fiscal reality, make the current deadlines virtually impossible to meet in any foreseeable or manageable fiscal future. Additionally, we question the validity of the current band packing in Region 10 and perhaps others with respect to the assignment of channel blocks in 25 KHz increments rather than 12.5 KHz increments, as required by either standard, thus possibly white spacing channel space in specific geographical locations within the region.

Prior to making a decision to set a future deadline for the spectrum bandwidth requirements, the commission should ensure that vendor equipment at all levels and from multiple vendors is available for sale at a minimum of 10 to 15 years prior to the actual deadline date. The Commission could accomplish the above via the type acceptance or rulemaking process. Without these requirements, the vendors, acting in their own self-interest, (which is one of the requirements of staying in business) will not make the needed/standardized equipment available until they absolutely have to, which is what has happened in the current market.

It is our opinion that in Region 10 specifically there is sufficient 700 MHz public safety band spectrum resources available to support near term and future use of the spectrum at 12.5 KHz channel allocations without the need to narrow band to a 6.25 KHze standard. Spectrum availability can be improved by repacking the spectrum to reflect 12.5 KHz channel assignments.

Interoperability requires standards. Any action the Commission takes which places another layer of variability in the form of another technological plateau and financial impossibility to reach for decreases the opportunity for interoperability. This fact has been alluded to time and time again in petitions and previous comments from Louisiana, Colorado, Ohio and others. Even Motorola, as referenced in the NPRM, commented as to the “uncertain regulatory environment”, associated with the 6.25 KHze requirements. Whether we are speaking about the City of Savannah, the State of Louisiana, SEGARRN, or Motorola, all of the previous uncertainty in the regulatory environment, the lack of vendor agnostic standards based equipment, and the current fiscally onerous requirement created by all of the above has not and will not foster interoperability. We have a standard now which is rapidly becoming ubiquitous, P25 Phase 1 CAI and Trunking at 12.5 KHz Channel bandwidth assignment. We need to pause and take a breath; allow the regulatory and standards process time to catch up with fiscal reality and vendor availability of standards based, vendor agnostic equipment. Once we get there as a nation and have a high degree of interoperability across the band then, if there is a real need, we can move to the next level in an ordered and regulated manner.

It strikes me as a rather odd question to ask, “should present or anticipated future funding limitations be relevant, or should we address….”? I can assure you, at the local government level, there is little that is more “relevant” than funding limitations. There is nothing more important in the local government funding process than a clear properly identified timeline that offers the opportunity to clearly identify funding sources and put those sources in place and a clearly developed regulatory environment that takes into account the lengthy lifecycle of legacy equipment and the extensive time and expense involved in properly funding and planning for replacement of long term capital assets.

Without comment SEGARRN and the City of Savannah support the 2010 NPSTC Petition for Air-Ground Communications on Secondary Trunking Channels.

Without comment SEGARRN and the City of Savannah support the items from the 2008 NPSTC Petition listed in the NPRM as proposed by the NPSTC.

SEGARRN and the City of Savannah support the proposed rule to require P25 CAP certification prior to marketing for all 700 MHz narrowband equipment. Requirement should be effective as of the effective date of the rules adopted in the proceeding.

Without comment SEGARRN and the City of Savannah concur with the Commission’s conclusions and proposals in Paragraphs 138, 139, 140, and 141.

With respect to the Interoperability Network Access code discussed in paragraphs 142 and 143, it is likely the most common NAC in use is 293, however, if a rule is to be made, the code should be changed to specify the “hear all” F7E code be utilized on the interoperability channels. All of the radios currently in use are capable of being programmed as needed. Should a need arise for a specific incident, the rule should allow sufficient leeway for the incident commander to require NAC code reprogramming for the duration of the incident as needed.

User access to interoperability channels should be determined by the licensee and not by rule. It is a sad fact but not every user should be given access to what one could call “radio carte blanche”. Since the licensee is responsible for the users conduct on the air the decision as to the specifics of radio access programming should be the licensee’s not required by rule in a manner that leaves the licensee open to possible violation.

SEGARRN and the City of Savannah thank the Commission for the opportunity to comment on the important rulemaking proposals set forth in Docket. We look forward to a successful rulemaking which benefits and makes sense to all public safety users in the 700 MHz radio band.

Respectfully,

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