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3 LEGISLATIVE HEARING ON A DISCUSSION DRAFT TO PROVIDE FUNDING
4 FOR THE CONSTRUCTION AND MAINTENANCE OF A NATIONWIDE,
5 INTEROPERABLE PUBLIC SAFETY BROADBAND NETWORK AND FOR OTHER
6 PURPOSES AND ON H.R. 4829, THE NEXT GENERATION 911
7 PRESERVATION ACT OF 2010
8 THURSDAY, JUNE 17, 2010
9 House of Representatives,
10 Subcommittee on Communications, Technology and the Internet
11 Committee on Energy and Commerce
12 Washington, D.C.

13 The Subcommittee met, pursuant to call, at 10:05 a.m.,
14 in Room 2322 of the Rayburn House Office Building, Hon. Rick
15 Boucher [Chairman of the Subcommittee] presiding.

16 Members present: Representatives Boucher, Gordon, Rush,
17 Eshoo, Inslee, Weiner, Castor, McNerney, Waxman (ex officio),
18 Stearns, Shimkus, Terry, Blackburn, and Barton (ex officio).

19 Also present: Representative Harman.

20 Staff present: Amy Levine, Counsel; Roger Sherman, Chief
21 Counsel; Tim Powderly, Senior Counsel; Pat Delgado, Chief of
22 Staff; Shawn Chang, Counsel; Greg Guice, Counsel; Sarah
23 Fisher, Special Assistant; Laurance Frierson, Intern; Alex
24 Reicher, Intern; Bruce Wolpe, Senior Advisor; Will Carty,
25 Professional Staff Member, CTCP; and Neil Fried, Counsel,
26 Telecommunications.

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27 Mr. {Boucher.} The subcommittee will come to order.
28 Today the subcommittee will consider the steps that Congress
29 can take to facilitate the creation of a nationwide,
30 interoperable broadband network for the public safety
31 community. As the terrorist attacks on 9/11 and the natural
32 disasters such as Hurricane Katrina have starkly revealed,
33 there are serious obstacles that prevent fire, police, and
34 rescue personnel from one locality from communicating with
35 first responders from other localities when they converge on
36 the scene of a disaster. In some instances, fire police and
37 rescue personnel in a single locality may lack a means of
38 interoperable communications, one with another. There is a
39 widely understood need to create a fully interoperable first
40 responder network but as of today that network remains a
41 goal. It is not a reality.

42 On a bipartisan basis, the members of this committee are
43 determined to address this challenge and take the steps that
44 are necessary from a legislative perspective in order to make
45 that first responder network a reality. In bipartisan
46 cooperation our staffs have assembled a discussion draft of
47 legislation that spells out those necessary steps. Our focus
48 this morning is on that discussion draft. The largest single
49 challenge to creating the first responder network is

50 identifying and obtaining the funding that is needed for the
51 buying, the installation, the operating, and the maintaining
52 of the equipment that will provide broadband communications.

53 The National Broadband Plan assembled by the FCC
54 estimates that cost to be between \$12 billion and \$16 billion
55 over a 10-year period. The discussion draft directs that the
56 D Block be auctioned and that the proceeds from that auction
57 and the auction of several other spectrum blocks be applied
58 to the build out and the upkeep costs of the first responder
59 network. The draft authorizes general fund appropriations to
60 cover any shortfall between the costs of the network and the
61 auction proceeds for the D Block and those other areas of
62 spectrum that would be auctioned. A strong federal
63 government role in funding the network build out as detailed
64 in the discussion draft will be essential if a true
65 nationwide network is to be realized.

66 In rural areas, in particular, the localities will have
67 great difficulty affording the build out costs in the absence
68 of federal government financial participation in funding
69 those costs. The bipartisan legislative draft acknowledges
70 and accommodates that reality. The discussion draft also
71 recognizes the 24 megahertz of 700 band spectrum that is
72 already held by the public safety community. This current
73 spectrum holding was deemed adequate by the FCC's analysis

74 for the nationwide broadband first responder network that we
75 now need to realize. Some, however, have proposed a
76 different path forward than the bipartisan staff discussion
77 draft. They would give the D Block to public safety to be
78 combined with public safety's existing spectrum holdings.

79 The most significant shortcoming from that auction is
80 that it would not provide the funding that is necessary for
81 building out public safety's network. While some contend
82 that public safety could lease parts of the D Block to
83 commercial entities and apply the revenue from the leases to
84 the build out, maintenance, and operational costs, I question
85 whether sufficient revenue from leasing could be realized,
86 particularly in rural areas to assure the funding of the
87 network costs, and it is the rural build out cost that may
88 prove most challenging for local governments to fund on their
89 own. The option of giving the D Block to public safety would
90 also require that Congress find offsets for the D Block's
91 value. While we don't know with certainty what value the
92 Congressional Budget Office would assign to the D Block
93 current estimates place it between \$2 billion and \$3 billion.
94 That is money Congress would have to identify and acquire
95 before a single penny could be spent on constructing the
96 network.

97 We have a historic opportunity to make our Nation more

98 secure and give first responders a crucial tool they urgently
99 need, and I urge all members to keep this goal in mind as we
100 consider and determine how best to proceed. I expect that we
101 will receive thoughtful analysis on those questions from
102 today's witnesses. We will also at today's hearing consider
103 H.R. 4829, the Next Generation 911 Preservation Act of 2010,
104 which was introduced by our committee colleagues, Ms. Eshoo
105 of California, and Mr. Shimkus of Illinois. This measure
106 would reauthorize the enhanced 911 Act of 2004 and facilitate
107 the migration of today's enhanced 911 emergency communication
108 systems to IP-based systems known as Next Generation 911 that
109 could support multi-media communications including text, e-
110 mail, and video.

111 I want to thank our committee colleagues for bringing
112 this thoughtful measure before us. It will be considered as
113 a part of today's hearing. Thanks to our witnesses for being
114 here today. I look forward to your thoughtful analysis, and
115 I also want to say thank you to the members of this
116 subcommittee on both sides of the aisle who have participated
117 in a bipartisan fashion in putting forward the discussion
118 draft of the Public Safety Broadband Act of 2010. That
119 concludes my opening statement, and I am pleased now to
120 recognize the ranking Republican member of our subcommittee,
121 the gentleman from Florida, Mr. Stearns.

122 [The prepared statement of Mr. Boucher follows:]

123 ***** COMMITTEE INSERT *****

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124 [The information follows:]

125 ***** INSERTS 1, 2, 3 *****

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126 Mr. {Stearns.} Good morning, and thank you, Mr.
127 Chairman, for holding this hearing, and also to welcome all
128 of our witnesses this morning. We appreciate your time. Mr.
129 Chairman, before I give all my comments on this hearing, I
130 would like to note that this morning the FCC is considering a
131 Notice of Inquiry to reclassify broadband as a Title 2
132 service. Broadband deployment and adoption are top
133 priorities and Chairman Genachowski's plan to treat broadband
134 similar to a public utility, I think will hurt investment and
135 possibly hurt innovation. Our current pre-market, pro-
136 investment policies have served us well. Approximately 95
137 percent of all Americans have access to broadband and
138 approximately 200 million subscribe at home today and this is
139 up from 8 million just 10 years ago. By comparison, it took
140 75 years to go from 8 million voice subscribers to 200
141 million under the old Title 2 common carrier regulations.

142 So, Mr. Chairman, I hope that we can soon have a hearing
143 on the FCC's Notice of Inquiry. I think it is only
144 appropriate considering what Chairman Genachowski is doing so
145 that we have an opportunity. Both sides of the aisle can
146 look at this issue and assess what he is doing. As you
147 mentioned, in this hearing we are examining two very
148 important pieces of legislation. The first is draft

149 legislation to fund a nationwide interoperable public safety
150 broadband network. I agree with the overall approach of the
151 draft legislation, but perhaps the language could go further.
152 I support the draft bill to the extent it uses revenue from a
153 straight commercial auction of the D Block to fund the
154 network on a 24 megahertz public safety already available.
155 The FCC has concluded that the spectrum that has already been
156 cleared for public safety is sufficient to simply build the
157 network, but we need to be sure, however, that the
158 legislation prohibits the FCC from imposing network
159 neutrality or other such conditions and does not allow the
160 FCC to rig the auction in favor of specific business models.

161 The 2005 DTV legislation which made this spectrum
162 available left the FCC too much discretion in how to
163 structure this auction. As we saw with the 700 megahertz
164 auction in 2008 network neutrality and public safety
165 conditions reduced the revenues by \$5 billion, sidelined both
166 the 24 megahertz of public safety spectrum and the commercial
167 D Block and crowded out smaller carriers. Absent exclusive
168 prohibitions in the legislation, we can have no assurances
169 that the FCC won't impose conditions on the D Block auction
170 that will hurt it again harming spectrum policy and reducing
171 proceeds we need to fund the Public Safety Network. Instead
172 of a commercial auction some argue that Congress should pass

173 a law to give the D Block directly to the public safety
174 community for free. This would do little good, however,
175 absent funding to construct the network.

176 In this time of huge deficits and mounting public debt,
177 it makes the most sense to raise the money through an auction
178 to fund the network. We are now close to the 9-year
179 anniversary of September 11 terrorist attacks and yet we
180 still do not have a nationwide interoperable broadband public
181 safety network. This is too important, and we have already
182 wasted too much time. The other bill under discussion this
183 morning is H.R. 4829, the Next Generation 911 Preservation
184 Act of 2010. This bill can also improve our nation's public
185 safety. Mr. Shimkus and Ms. Eshoo introduced this bill to
186 expedite the ongoing migration of 911 service to enhance 911
187 service that can automatically identify the location of the
188 caller to upgrade our entire 911 system for the Next
189 Generation Internet enabled networks and capabilities that
190 incorporate advanced texting and video applications, and to
191 reduce the misuse of 911 fees which some state and local
192 governments divert to fill holes in their budget.

193 You know, with a few changes the bill might help to not
194 only modernize our 911 system but also to make it more
195 economically and administratively efficient. Obviously there
196 is a concern the bill cost and authorizes about \$250 million

197 a year for the next 5 years. Frankly, we are having a little
198 trouble finding money for the broadband public safety network
199 so this is a very notable goal and thoughtful bill. I
200 support it. I just want to make sure that we can also find
201 the money to do this. So, Mr. Chairman, I think it is a very
202 good hearing. I welcome this opportunity. Again, I would
203 reiterate I think it would be appropriate that this
204 subcommittee have a hearing on the FCC's Notice of Inquiry as
205 soon as possible. Thank you.

206 [The prepared statement of Mr. Stearns follows:]

207 ***** COMMITTEE INSERT *****

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208 Mr. {Boucher.} Thank you very much, Mr. Stearns. The
209 gentleman from Tennessee, Mr. Gordon, is recognized for 2
210 minutes.

211 Mr. {Gordon.} Thank you, Mr. Chairman. We have a long
212 panel here this morning. I will pass so we can get on to the
213 hearing.

214 [The prepared statement of Mr. Gordon follows:]

215 ***** COMMITTEE INSERT *****

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216 Mr. {Boucher.} Thank you, Mr. Gordon. We will add your
217 opening statement time to your time for questioning our panel
218 of witnesses. The gentleman from Illinois, Mr. Shimkus, is
219 recognized for 2 minutes.

220 Mr. {Shimkus.} Thank you, Mr. Chairman. Thank you for
221 calling the hearing and the discussion on both bills. The D
222 Block has been a problem for us. We tried to auction it off
223 to get it in the hands and that was a failure, so now we are
224 revisiting it. I think we had good hearings, I don't know
225 how long ago, 6, 10 months ago on this issue, and I think we
226 are moving in the right direction. So we look forward to
227 continuing to work with you on that issue. I also want to
228 commend my colleague, Anna Eshoo, on her work and us moving
229 forward on the E 911 bill and the funds issues, not only
230 getting technology in the hands of first line responders but
231 also helping them afford some of this. This is something
232 that I think we can move forward. I want to highlight Jill
233 Pender who is leaving. I know Anna will probably mention
234 her. She is leaving the stress and strain of the Hill to go
235 the peace and quiet of the FCC, so I wish her well. It might
236 be more peaceful here than returning there right now.

237 The last thing is there is a budgetary crisis across
238 this country and all we want is kind of truth in advertising.

239 If states are taking money to help deploy 911 funds, that is
240 where the money goes to, and our bill says you don't get
241 federal additional help if you don't do that. When we first
242 started this process, Illinois was a good actor and our money
243 was going in the right direction. Since then, we have turned
244 to be a bad actor. We are \$12.5 billion in debt and we have
245 raided the funds. Shame on us, and that is why we have done
246 great work. And thank you for sharing Jill with us too. I
247 yield back.

248 [The prepared statement of Mr. Shimkus follows:]

249 ***** COMMITTEE INSERT *****

|
250 Mr. {Boucher.} Thank you, Mr. Shimkus. The gentleman
251 from Illinois, Mr. Rush, is recognized for 2 minutes.

252 Mr. {Rush.} Thank you, Mr. Chairman. Mr. Chairman, I
253 want to commend you on this hearing. It is a privilege for
254 me to participate in today's legislative hearing for it
255 raises a number of the most critical national security and
256 public safety needs and demands that this subcommittee could
257 possibly address, and that is to promote the Nation's public
258 safety by ensuring multiple public safety agencies in
259 multiple jurisdictions including heroic first responders that
260 they have reliable access to adequate wireless spectrum and
261 interoperable equipment during times of disaster, crises, and
262 emergencies. These matters are very important to me and I
263 emphasize with the frustration of the public safety community
264 being proud to have co-sponsored legislation such as
265 Congresswoman Harman's Emergency Communications Bill, H.R.
266 3633, which helps states to supply public safety personnel
267 with interoperable communications equipment and training.

268 But what we have now, Mr. Chairman, is a Tower of Babel
269 situation of sorts where public safety agencies operate on
270 different and non-existing channels of spectrum allocations.
271 Even though these public safety agencies, official, and
272 workers must communicate in a common language with no, and I

273 emphasize no, margin for delay. These problems of
274 interoperability have slowed response efforts considerably
275 costing people their lives, their homes, and their loved
276 ones. Despite the legitimate issues of how we would pay for
277 these interoperable networks and what are the best approaches
278 to promoting spectrum efficiency and maximizing the utility
279 of these frequencies for our society, we are taking a vitally
280 important step today by bring this discussion up for a
281 hearing and refusing to ignore these problems or to delay
282 action any longer.

283 Let me also commend Ms. Eshoo and Mr. Shimkus for
284 introducing H.R. 4829. Based on my reading of the bill, it
285 will accelerate the migration of more central 911 services
286 and systems to IP-enabled Next Generation 911 and emergency
287 communication services and systems. The bill will make these
288 services universally available and accessible to all
289 Americans including the disabled and those with hearing,
290 vision, and speech impairments. Additionally, it will
291 provide matching grant funding assistance to eligible
292 entities so that we can migrate more quickly to these Next
293 Generation services to supporting the IP-enabled backbone and
294 emergency network for those services and the necessary
295 software to coordinate and interconnect our numerous
296 emergency response organizations. Mr. Chairman, I look

297 forward to ensuring testimony and discussion during today's
298 hearing. I want to thank you, and with that I yield back the
299 balance of my time.

300 [The prepared statement of Mr. Rush follows:]

301 ***** COMMITTEE INSERT *****

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302 Mr. {Boucher.} Thank you very much, Mr. Rush. The
303 gentleman from Texas, Mr. Barton, the ranking member of the
304 Energy and Commerce Committee is recognized for 5 minutes.

305 Mr. {Barton.} Thank you, Mr. Chairman. I commend you
306 on holding the hearing with what is going on downstairs. We
307 have a subcommittee that is focusing on things that don't
308 make the media attention but are very important, and I am not
309 saying what is happening downstairs is not important, but we
310 do commend you for holding this hearing. We want to focus on
311 our public safety technology goals today. Specifically, we
312 are going to discuss the FCC's plans, the current discussion
313 draft, to begin the build out of a truly nationwide, truly
314 interoperable broadband network for the public safety
315 community. The good news is that everyone in the room agrees
316 on the goal, which is to build a robust network that will
317 allow all of our first responders to communicate with each
318 other both in the every day business of responding to fires,
319 highway accidents, but also during a large scale tragedy like
320 the 9/11 attack. This goal should be the singular focus.

321 I want to commend Chairman Genachowski of the FCC and
322 the staff and the staff of the National Broadband Team.
323 Based on their work and their conclusions about the state of
324 broadband in the country 95 percent of the country has access

325 to broadband and 200 million people have actually adopted it.
326 A deregulatory posture that we have used so far in this
327 country has been successful. I am deeply disturbed by
328 today's action of the FCC and the Commission potentially to
329 move towards reclassifying broadband as a Title 2 service.
330 In my mind, this is a misguided decision. It contradicts and
331 ignores explicit congressional intent not to mention the
332 Obama Administration's promise to start creating jobs. I
333 hope that we can have a hearing, Mr. Chairman, on that issue
334 in the very near future.

335 That disagreement aside, where there is no disagreement
336 about public safety the Commission got some of the things
337 right in the plan. I want to congratulate Admiral Barnett on
338 his work and also the issue surrounding the 700 megahertz D
339 Block. Back in 2007, I laid out a framework for a D Block
340 auction that is both the basis of the FCC's plan and for
341 today's discussion draft, auction the D Block for commercial
342 purposes, use the proceeds to build and operate the public
343 safety network. The public safety community argues that they
344 don't have enough spectrum and should be given the broadband.
345 They argue that their current 10 megahertz won't be enough.
346 I understand their concerns but I disagree with that. If we
347 do it right, we can have private industry pay us to build a
348 network and then give the public safety community the ability

349 to use the right amount of spectrum when the inevitable
350 emergencies occur.

351 We need to focus on how to maximize the revenue from the
352 auction to D Block for commercial purposes. Maximizing those
353 proceeds will do the most for getting this moving the right
354 way. Imposing onerous conditions on the spectrum barring
355 particular market players from participating only devalues
356 the value of that spectrum. In my mind, there is no doubt
357 about that. Finally, Mr. Chairman, I am anxious to hear from
358 the witnesses today about their opinion of H.R. 4829. We
359 obviously need to upgrade our 911 service for a new
360 technological world when the current White House spends
361 billions of dollars the way the previous administration spent
362 millions, \$250 million a year, could be considered pocket
363 change. I believe, though, that the system should be
364 modernized, made as efficient as possible. We need to be
365 sure that the taxpayers money we make available for that work
366 is well spent and ideally is offset by spending cuts and
367 services that are less vital. With that, Mr. Chairman, I
368 welcome our witnesses, especially Admiral Barnett to the
369 committee and look forward to their testimony.

370 [The prepared statement of Mr. Barton follows:]

371 ***** COMMITTEE INSERT *****

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372 Mr. {Boucher.} Thank you very much, Mr. Barton. The
373 gentleman from California, Mr. Waxman, chairman of the full
374 committee, is recognized for 5 minutes.

375 The {Chairman.} Thank you very much, Mr. Chairman, for
376 scheduling this critically important hearing, and I want to
377 thank you and ranking members Barton and Stearns for their
378 constructive contribution to the bipartisan staff discussion
379 draft, and I look forward to continued bipartisan
380 collaboration. Last September, this subcommittee held a
381 hearing to explore recent developments regarding the creation
382 of a nationwide interoperable broadband network for public
383 safety. There was a consensus that constructing a nationwide
384 public safety broadband network remains a critical unfinished
385 business from 9/11 and Hurricane Katrina. In my statement, I
386 identified 3 goals. First, network or networks must be built
387 quickly. Secondly, there must be a clear plan to ensure that
388 deployment reaches all areas of the country. And, third, the
389 plan should avoid distorting or disrupting the commercial
390 wireless marketplace by giving an unfair advantage to certain
391 carriers over others.

392 I think the bipartisan discussion draft more than meets
393 these essential goals. First, it allows for the immediate
394 start of network construction, gives the NTIA the authority

395 to start funding projects as soon as the rules are in place
396 even prior to any auctions. As the FCC notes in its
397 broadband plan, we need to act quickly to gain substantial
398 cost savings regarding network construction. If we are
399 unable to take advantage of commercial construction schedules
400 the cost of building this network increases dramatically,
401 possibly 3 times as high. Secondly, by providing the
402 requisite funding for a network across the nation all
403 communities, not just major cities with large budgets, will
404 be able to construct their portion of the network.

405 Specifically the discussion draft contemplates the federal
406 government covering 80 percent of construction costs and 50
407 percent of the ongoing costs associated with this network.

408 The stark budget realities that the state and local
409 governments face today would make it difficult for them to
410 construct this network without such assistance. And,
411 finally, the draft legislation does not distort competition
412 in the wireless market. In fact, by setting deadlines for
413 specific spectrum auctions to occur the discussion draft
414 should help promote competition by ensuring the availability
415 of additional spectrum. I know this discussion draft doesn't
416 satisfy all the public safety community, and several
417 associations and their corporate partners have launched a
418 campaign to convince Congress to give public safety 10

419 megahertz of spectrum, the so-called D Block.

420 It is my firm view, however that this singular focus on
421 the D Block undercuts what we all want to achieve, a
422 sustainable nationwide broadband network for public safety.
423 Indeed, some have suggested to us that they would prefer to
424 have the D Block of spectrum rather than the substantial
425 federal support contemplated by the discussion draft. I
426 don't think that is a tenable position. Spectrum without a
427 viable plan to utilize it efficiently will create a network
428 of haves and have nots, and I urge advocates of this position
429 to reconsider this all or nothing approach. Indeed, the
430 FCC's National Broadband Plan has amplified my concern about
431 this spectrum first approach. In a detailed technical paper
432 released earlier this week, the FCC concluded that 10
433 megahertz of dedicated spectrum allocated to public safety in
434 the 700 megahertz band for broadband communications provides
435 more capacity than it needs on a day-to-day and emergency
436 basis.

437 But the FCC also concluded that giving public safety an
438 additional megahertz of spectrum would not guarantee public
439 safety sufficient capacity in a worse case emergency like
440 9/11, and that is why the FCC has instead proposed that
441 public safety be guaranteed priority access to hardened
442 commercial networks. This would give public safety much

443 greater capacity than it needs when it needs it the most.
444 All 5 FCC commissioners agreed that the FCC's plan is the
445 best approach for public safety. The FCC plan and the staff
446 discussion draft would allow us to make a multi-billion
447 dollar down payment on a nationwide network with the proceeds
448 of the D Block auction. Although the funding contemplated in
449 the discussion draft is a good start, I am committed to
450 working with our colleagues and the Administration to find
451 additional funding sources including future spectrum auction
452 proceeds. Moreover, I hope the public safety is able to take
453 advantage of the flexibility of the draft legislation to
454 generate additional revenues through leasing fees and
455 partnerships with critical infrastructure providers and other
456 entities. I would like to thank your witnesses for their
457 participation today. I look forward to your testimony.

458 [The prepared statement of Mr. Waxman follows:]

459 ***** COMMITTEE INSERT *****

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460 Mr. {Boucher.} Thank you very much, Chairman Waxman.
461 The gentleman from Nebraska, Mr. Terry, is recognized for 2
462 minutes.

463 Mr. {Terry.} I will waive my opening statement.

464 [The prepared statement of Mr. Terry follows:]

465 ***** COMMITTEE INSERT *****

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466 Mr. {Boucher.} Thank you, Mr. Terry. We will add your
467 time to your questioning period. The gentlelady from
468 California, Ms. Eshoo, is recognized for 2 minutes.

469 Ms. {Eshoo.} Thank you, Mr. Chairman, for holding this
470 hearing, and how the importance of it is more than obvious.
471 We need to explore public safety inoperability issues
472 especially with regard to E 911. And I would like to thank
473 both the chairman and Mr. Shimkus for the kind remarks that
474 they made about the legislation and the effort that we
475 launched as co-chairs of the E 911 caucus. The NG 911 bill
476 provides essential funding for 911 grants to bring us past
477 enhanced 911 and into the Next Generation where call centers
478 and first responders have interoperable communications and
479 the ability to use new technology to improve their response
480 capabilities. We have done a lot of work on this
481 legislation. We have met with industry and agency
482 representatives to discuss their perspectives, and we have
483 determined that the E 911 coordination office really should
484 remain at NTSA to ensure the ongoing success of its work.

485 So I look forward to this discussion. I think that we
486 need to explore amending the draft public safety bill to
487 provide directed funding for these call centers. This is an
488 integral part of our public safety system in the country and

489 to leave that out, I think really will leave our citizens in
490 a lurch. These call centers deal with life and death issues
491 every day so we are going to have to work hard on that and
492 identify financial resources to achieve the goal, but to
493 leave it out, I think we will pay a huge price for that. I
494 also want to draw attention to the funding section of the
495 draft public safety bill Title 3 where there seems to be
496 language that would once again delay the use of the AWS 3
497 spectrum in the 2155-2180 megahertz band. I have spoken
498 numerous times about this issue on the need to roll out the
499 fallow spectrum now instead of delaying its use with pie in
500 the sky paring up plans.

501 I don't think we can allow valuable spectrum to lie
502 dormant for years. So I will support language that sets a
503 date certain for the auction but since the FCC already has an
504 established record to schedule the auction, I think we should
505 have a much earlier deadline than the one specified in the
506 draft bill. And I would like to ask unanimous consent to
507 submit for the record a statement by M2Z who plans to bid on
508 this spectrum and use it for nationwide wireless broadband
509 life line. So we have a lot to discuss. I think you for
510 your leadership, Mr. Chairman, and I yield back any time that
511 I might have.

512 [The prepared statement of Ms. Eshoo follows:]

513 ***** COMMITTEE INSERT *****

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514 Mr. {Boucher.} Thank you very much, Ms. Eshoo, and
515 without objection that statement will be received in the
516 record. Actually, you owe us about a minute, but we will be
517 generous in the repayment terms. The gentlelady from
518 Tennessee, Ms. Blackburn, is recognized for 2 minutes.

519 Mrs. {Blackburn.} Thank you, Mr. Chairman. And, first
520 of all, I want to join Mr. Stearns in expressing my
521 disappointment in what is transpiring at the FCC as we speak
522 with their short-sighted efforts, in my opinion, to stifle
523 innovation, destroy jobs, and to take over the Internet. It
524 is an unnecessary step. Moving on, I am pleased that our
525 committee is convening today to discuss public safety needs
526 and spectrum on the D Block. I feel confident that we can
527 find bipartisan support for this measure. I am certain that
528 all of you are glad to see that there is bipartisan support,
529 and I am encouraged that so many on this committee are
530 advocating for an auction of spectrum, and I hope that my
531 colleagues outside this committee will learn from what we are
532 attempting to do, which is to reject an idea that we cannot
533 pay for no matter how much merit there seems to be for that
534 idea on the surface.

535 While I strongly support public safety, having the
536 spectrum and equipment it needs to effectively and

537 efficiently do its job. Giving away valuable spectrum, quite
538 frankly, is not affordable and not feasible at this time. In
539 closing, I just want to make a couple of quick points.
540 First, I would implore our friends in the industry to stand
541 with us on this and not change their collective minds 3/4 of
542 the way through the process. And, second, I would ask my
543 colleagues to make the auction of spectrum available without
544 any conditions attached, especially open access or
545 limitations on who can bid on the spectrum. This would be
546 bad policy and only reduce revenue to pay for the public
547 safety network. With that, Mr. Chairman, I will yield back
548 so that there is a little bit of time to apply toward Ms.
549 Eshoo's time.

550 [The prepared statement of Mrs. Blackburn follows:]

551 ***** COMMITTEE INSERT *****

|
552 Mr. {Boucher.} Thank you very much, Ms. Blackburn. The
553 gentleman from California, Mr. McNerney, is recognized for 2
554 minutes.

555 Mr. {McNerney.} Thank you for holding this hearing
556 today, Mr. Chairman. As a representative of earthquake
557 territory, I am keenly aware of the urgent need for first
558 responders to be effectively communicating with one another
559 and with the public in the event of a national disaster or
560 other emergency, and I want to thank today's witnesses for
561 sharing their expertise on this subject. H.R. 4829, the Next
562 Generation 911 Preservation Act, is intended to help
563 modernize and improve emergency services by providing support
564 for the new technologies. And I commend my colleague, Ms.
565 Eshoo, for her efforts. This morning, I will be listening
566 for solutions that provide the greatest public benefit in
567 safety. I have heard from many of my constituents including
568 law enforcement professionals with strong views on the
569 proposed legislation. It is vitally important that this
570 network is built quickly, cost effectively, and meets all of
571 our nation's police, firefighter, EMTs, and other first
572 responder needs. With that, I yield back.

573 [The prepared statement of Mr. McNerney follows:]

574 ***** COMMITTEE INSERT *****

|
575 Mr. {Boucher.} Thank you very much, Mr. McNerney. The
576 gentleman from New York, Mr. Weiner, is recognized for 2
577 minutes.

578 Mr. {Weiner.} Thank you, Mr. Chairman, and I thank all
579 the members of the panel. I would name them individually but
580 when I would have no more of my 2 minutes left. There are a
581 lot of you here, and I am glad that you are. I do want to
582 particularly single out perhaps the most, one of the most
583 important members of the panel, Deputy Chief Charles Dowd of
584 the New York City Police Department, who every day has to
585 deal in a real life way with the challenge of having
586 communication infrastructure that supports 35,000 some odd
587 police officers in a city of 8 million people that swells to
588 about 12 million during every day, and doesn't have to think
589 about the challenges of terrorism and communications in a
590 crisis as an abstract because, frankly, we encounter it every
591 day. Chief Dowd is someone who has dedicated his entire life
592 to the safety and security of the people of New York City and
593 those that visit it, and I want to thank him for being here.

594 I am a sponsor of the King bill but I have great empathy
595 for the position that Mr. Waxman takes that we do have to
596 figure out a way to have a sustainable structure and I think
597 that somewhere between the King language and Mr. Waxman's

598 proposal to have some of it subject to auction, I think we
599 can find common ground. The one thing we can't allow though
600 is any more years of inertia here, and I think that is a
601 common thread of statement by my colleagues on both sides of
602 the aisle and I think all 16 members of the panel here will
603 probably agree with that. And I think you, Mr. Chairman, for
604 convening this hearing.

605 [The prepared statement of Mr. Weiner follows:]

606 ***** COMMITTEE INSERT *****

|
607 Mr. {Boucher.} Thank you, Mr. Weiner. The gentle lady
608 from Florida, Ms. Castor, is recognized for 2 minutes.

609 Ms. {Castor.} Thank you very much, Mr. Chairman, and
610 thank you to the witnesses who are here today. I am looking
611 forward to hearing from you and learning more about what we
612 can finally do to get a public safety network up and running.
613 It is almost inconceivable that 9 years after the terrorist
614 attacks of September 11 and after Hurricane Katrina the
615 United States still doesn't have a National Public Safety
616 Network. With the help of the 9/11 Commission, we have
617 learned many lessons. We need a public safety network for
618 our first responders whether they are fearless police
619 officers, firefighters out there protecting our homes and
620 businesses. I know there might be some disagreement about
621 the best way to set up the network but I think we all agree
622 that it is a national security priority, and it will be an
623 invaluable asset to our community.

624 So I would like to hear from you on what you believe is
625 best. That is why we are here today. So I would like to
626 raise a few questions for you all to consider as we move
627 forward. First, I understand that the primary benefit of
628 auctioning off the D Block and sharing spectrum with
629 commercial providers is affordability. Without a spectrum

630 auction, it could be very difficult to raise the money needed
631 to build out a public safety network. So the question is
632 will it be possible to raise funds for the network if there
633 is no auction? What is the public safety community's
634 proposed alternative for raising these funds in lieu of an
635 auction. Second, operability is key to the success of the
636 public safety network. What are the projected spectrum needs
637 of the approximately 2 million first responders who will be
638 using it? Will they need more than they have now? How will
639 the operability be impacted by a sharing arrangement? Will
640 logistical challenges necessarily be greater on a shared
641 network?

642 Time is of the essence. Every day that we do not have a
643 fully operationable public safety network is a day that our
644 communities are less safe than they should be. What is the
645 time line for getting the network up and running under the
646 current proposals laid out in the National Broadband Plan and
647 what are the alternatives to that? So I want to thank you
648 for considering these questions. I look forward to your
649 testimony, and we are all grateful for your service day in
650 and day out. Thank you, Mr. Chairman.

651 [The prepared statement of Ms. Castor follows:]

652 ***** COMMITTEE INSERT *****

|
653 Mr. {Boucher.} Thank you, Ms. Castor. The gentleman
654 from Washington State, Mr. Inslee, is recognized for 2
655 minutes.

656 Mr. {Inslee.} Thank you. I just think one task before
657 us is to find the confidence of law enforcement if we are
658 going to move forward. I have met with my local law
659 enforcement community in Washington, and there are real
660 concerns about assuring that, in fact, in any system like
661 this, we, in fact, give priority to law enforcement or
662 emergency responders on networks, number 1. Number 2, that
663 there is total confidence that spectrum will be available as
664 additional needs grow. And, third, there is some increasing
665 interest in regional networks instead of maybe perhaps a
666 national one in this regard. So I will be looking for ideas
667 on how to win that confidence in any process in this regard,
668 and I think we have a lot of work to do to try to reach that,
669 and look forward to working with all the witnesses in that
670 regard. Thank you.

671 [The prepared statement of Mr. Inslee follows:]

672 ***** COMMITTEE INSERT *****

|
673 Mr. {Boucher.} Thank you very much, Mr. Inslee. The
674 gentlelady from California, Ms. Harman, while not a member of
675 our subcommittee is certainly welcome in our proceedings this
676 morning, and I am pleased to recognize her for 2 minutes.

677 Ms. {Harman.} Thank you, Mr. Chairman. I missed my
678 service on this subcommittee because I think it deals with
679 absolutely critical issues like this one. Like other senior
680 members of this committee, I was here on 9/11. No one will
681 forget that many, especially firefighters, died in New York
682 City because the NYPD circling overhead could not communicate
683 with them to tell them that the World Trade Center towers
684 were glowing red and immediate evacuation was required. Nine
685 years later as some have pointed out, we have still not fixed
686 this problem. We have operability in some geographic areas
687 like New York City and among D.C. area fire and police but we
688 do not have a national interoperable emergency communications
689 capability. As many know, my focus in Congress is security
690 and I know how possible and devastating a series of near
691 simultaneous terror attacks in the cities around the U.S.
692 could be. We do not have the communications infrastructure
693 we will need in that event.

694 Unfortunately, as some have said, the legislation and
695 administrative efforts so far have lagged. I co-authored

696 with our former colleague, Curt Weldon, the Hero Act, to set
697 a date certain for a transition to a national
698 interoperability network space. We never got there. The DTV
699 transition, which this committee was involved in, cleared the
700 analog spectrum, but it doesn't have this capability up and
701 running. The D Block auction failed, as some have pointed
702 out. The PSIC bill, which I co-authored earlier this year,
703 and Mr. Rush mentioned, is a success but it funds local
704 projects. It doesn't fund a national interoperable network,
705 and the bright spot is the E 911 effort that Ms. Eshoo has
706 championed for years.

707 But I just want to say that this new discussion draft is
708 the best opportunity we have had to resolve the problem. It
709 would generate funds to build out spectrum. It would give
710 public safety priority access in roaming and insists on a
711 network of networks. That is the key to making this
712 interoperable. And, as I understand it, there is agreement
713 on most issues but not all. I just want to say as a
714 volunteer to this subcommittee for the morning, we must
715 resolve the outstanding issues. We must enact the
716 legislation. We must build out this network yesterday. And,
717 in conclusion, everyone loses if we fail to do it. We all
718 have family and friends in communities across the country,
719 any of which could be a target. Their lives will depend on

720 our prompt action and do the lives of firefighters and
721 police. Thank you, Mr. Chairman, for letting me participate.

722 [The prepared statement of Ms. Harman follows:]

723 ***** COMMITTEE INSERT *****

|

724 Mr. {Boucher.} Thank you very much, Ms. Harman. We are
725 happy to have you here this morning. I am pleased now to
726 recognize our panel of witnesses, and I will say a brief word
727 of introduction about each of them. Rear Admiral James
728 Barnett is the Chief of the Public Safety and Homeland
729 Security Bureau at the FCC. Mr. Charles Dowd is the Deputy
730 Chief of the New York City Police Department's Communications
731 Division. Mr. Jonathan Moore is the Director of Fire and EMS
732 Operations and GIS Services for the International Association
733 of Fire Fighters. Mr. Dale Hatfield is an Adjunct Professor
734 in the Interdisciplinary Telecommunications Program at the
735 University of Colorado at Boulder. Mr. Steve Zipperstein is
736 the Vice President for Legal and External Affairs and General
737 Counsel for Verizon Wireless. Mr. Joseph Hanley is the Vice
738 President of Technology Planning and Services for Telephone &
739 Data Systems, Inc. Mr. Coleman Bazelon is the Principal for
740 the Brattle Group. And Mr. Brian Fontes is the Chief
741 Executive Officer of the National Emergency Number
742 Association.

743 We welcome each of you this morning, and thank you for
744 taking time to share your views on this urgent subject with
745 us. Without objection, your full written statements will be
746 made a part of our record of proceedings, and we would

747 welcome your oral statement and ask that each of you keep
748 that oral statement to approximately 5 minutes. Admiral
749 Barnett, we welcome you this morning and we will be pleased
750 to begin at your end of the table.

|
751 ^STATEMENTS OF JAMES ARLEN BARNETT, JR., REAR ADMIRAL (RET.)
752 USNR, CHIEF, PUBLIC SAFETY AND HOMELAND SECURITY BUREAU,
753 FEDERAL COMMUNICATIONS COMMISSION; CHARLES F. DOWD, DEPUTY
754 CHIEF, NEW YORK CITY POLICE DEPARTMENT; JONATHAN MOORE,
755 DIRECTOR OF FIRE AND EMS OPERATIONS AND GIS SERVICES,
756 INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS; DALE HATFIELD,
757 ADJUNCT PROFESSOR, INTERDISCIPLINARY TELECOMMUNICATIONS
758 PROGRAM, UNIVERSITY OF COLORADO AT BOULDER; STEVE
759 ZIPPERSTEIN, GENERAL COUNSEL, VERIZON WIRELESS; JOSEPH
760 HANLEY, VICE PRESIDENT, TECHNOLOGY PLANNING & SERVICES,
761 TELEPHONE & DATA SYSTEMS, INC.; COLEMAN D. BAZELON,
762 PRINCIPAL, THE BRATTLE GROUP; AND BRIAN FONTES, CHIEF
763 EXECUTIVE OFFICER, NATIONAL EMERGENCY NUMBER ASSOCIATION

|
764 ^STATEMENT OF JAMES BARNETT

765 } Admiral {Barnett.} Thank you, Chairman Boucher, Ranking
766 Member Stearns, and members of the subcommittee, including
767 volunteers. Thank you for attaching my full testimony. We
768 would also ask that the FCC's White Paper on capacity and on
769 the cost model also be entered into the record.

770 Mr. {Boucher.} Without objection.

771 Admiral {Barnett.} Here is a summation of my testimony.

772 We, as a Nation, must seize this brief technological
773 opportunity to create a truly nationwide, truly interoperable
774 broadband public safety network. And there is nothing that
775 is inevitable about such a network, and if we are going to
776 ensure and afford interoperability then we need to have a
777 really well researched and comprehensive plan. The Navy
778 transferred me to Washington, D.C. in October, 2001 when
779 there was still a gaping hole inside of the Pentagon, and
780 since as we now look at the 9th anniversary of 9/11 coming up
781 and with all the other disasters the nation has faced in the
782 meantime, we still do not have the level of interoperability
783 for public safety that they desperately need.

784 So as we move forward, we have to recognize that already
785 billions of dollars have been spent in really energetic
786 efforts and yet we are no closer. But now after considerable
787 research and numerous communications and meetings with public
788 safety leaders the National Broadband Plan recommends an
789 innovative approach to solve the 911 interoperability problem
790 once and for all. And I would ask that Sarah bring up the
791 slide Appendix B. This shows some of the components of our
792 plan. The core of the network is the 10 megahertz dedicated
793 to public safety. We cannot think of this spectrum in terms
794 of old technologies. With modern cell architecture, with the
795 latest technologies, and with good spectrum management, 10

796 megahertz can actually perform like 160 megahertz would on
797 the current public safety voice networks. This will provide
798 more than enough capacity for day-to-day operations and for
799 most emergencies.

800 We also must plan for the worst emergencies, the next
801 9/11, and in thinking through that an additional 10
802 megahertz, merely adding 10 megahertz such as the D Block
803 might not be enough to really handle the load, and that is
804 why the FCC has proposed that public safety have the ability
805 to have priority access and roaming overall into commercial
806 networks. Now that means first in line privileges for up to
807 40, 50, maybe 60 additional megahertz. Another feature of
808 this is that it provides an additional advantage in that it
809 provides resiliency and redundancy for public safety networks
810 in case they go down. This happened in D.C. back in March.
811 So we have created an in-depth cost model which shows the way
812 to afford 99 percent population coverage for the network and
813 to ensure an iron rule of interoperability, we have already
814 stood up and established the Emergency Response
815 Interoperability Center or ERIC, and we will work with public
816 safety and with our federal partners to make sure that it is
817 effective.

818 Now it might surprise some to know how much agreement
819 there is between public safety and the FCC's proposal. We

820 agree on LT technology. We agree on the roaming and priority
821 access. We agree on the interoperability center. We agree
822 on the need for public funding. We need to make sure that
823 there is in-building coverage, that it extends to inside
824 buildings and the network at heart. And we agree that there
825 should be early deployment. So the only major disagreement
826 is on the D Block itself, and not all public safety even
827 disagrees on that. Now Congress has indicated that we are to
828 by legislation currently that we are to auction the D Block,
829 and here is why the FCC does not recommend reallocating the D
830 Block. It will nearly destroy the commercial market for
831 equipment and devices for public safety isolating public
832 safety on a technological island the way they are today.

833 It will vastly increase the cost of building the network
834 for public safety by billions of dollars and it will increase
835 the cost to public safety of operating the network by
836 billions of dollars. And if the network is that much more
837 expensive, as Chairman Waxman mentioned a minute ago, it will
838 create a patchwork system across the country of haves and
839 have nots. Perhaps some big cities may be able to afford it.
840 Most rural areas will not. And if Sarah could bring up
841 Appendix F, it also may mean that we would have more than 20,
842 25 years in order to spread the network across the network.
843 And if it is not nationwide, then it is truly not

844 interoperable. I think that some in public safety have this
845 idea that they will be able to take the D Block and sublease
846 it to carriers for some type of revenue and that would pay
847 for the network.

848 But unlike the FCC, no one has come forward with any
849 type of cost model or business plan or financial analysis
850 that shows this will work, and in our view the amount of
851 revenue that would come in for some of the big cities would
852 not be able to fund the entire network. Let me shift for a
853 moment to Next Generation 911. H.R. 4829 and its companion
854 bill in the Senate, 3111, advanced the vision for the rapid
855 deployment of Next Generation 911 as we move into the IP-
856 based broadband world. We see it is entirely consistent with
857 the National Broadband Plan and a necessary step forward, not
858 only for public safety but for the safety of the public. Let
859 me stop here. I look forward to your questions, and thank
860 you again for the opportunity to address you today.

861 [The prepared statement of Mr. Barnett follows:]

862 ***** INSERT 4 *****

|

863 Mr. {Boucher.} Thank you very much, Admiral Barnett.

864 Mr. Dowd.

|
865 ^STATEMENT OF CHARLES F. DOWD

866 } Chief {Dowd.} Good morning, Chairman Boucher, Ranking
867 Member Stearns, members of the subcommittee. I am Deputy
868 Chief Charles Dowd, Commanding Officer of the New York City
869 Police Department's Communications Division. On behalf of
870 Police Commissioner Raymond Kelly, I want to thank you for
871 the opportunity to discuss with you today the critical need
872 for Congress to act to ensure that public safety agencies
873 will be able to communicate effectively now and in the
874 future. I speak today not only for the NYPD and the City of
875 New York, but also on behalf of virtually all of my
876 colleagues in public safety, represented by the 21,000
877 members of the International Association of Chiefs of Police,
878 the 13,000 members, chiefs, of the International Association
879 of Fire Chiefs, the National Sheriffs' Association, the
880 Metropolitan Fire Chiefs, the Major Cities Police Chiefs, the
881 Major County Sheriffs' Association, the Association of Public
882 Safety Communications Officials, and the National Emergency
883 Management Association.

884 We are joined in this effort by the National Governors
885 Association, the National Conference of State Legislatures,
886 the Council of State Governments, the National Association of

887 Counties, the National League of Cities, the U.S. Conference
888 of Mayor, and the International City/County Management
889 Association, and many others that I could not list here
890 today. We jointly and urgently request that Congress take
891 immediate action to reallocate and assign the 700 megahertz D
892 Block of broadband spectrum directly to public safety, rather
893 than conducting a public auction of this vital resource. We
894 strongly support a bi-partisan bill introduced by
895 Representative Peter King. This legislation, H.R. 5081,
896 currently co-sponsored by 24 members of the House, including
897 Representative Anthony Weiner, vice Chairman of this
898 subcommittee, would accomplish this purpose, and we ask that
899 Congress swiftly approve the bill and sent it to the
900 President for his signature.

901 In previous testimony before this committee, we have
902 said that broadband technology will create a paradigm shift
903 in public safety communications. The events in Mumbai, India
904 and more recently in Times Square confirm the need for
905 information sharing capabilities that will allow first
906 responders to be effective in preventing such attacks. The
907 ability to share information in real time on a local, state,
908 and federal level is critical to that goal. The staff
909 discussion draft referred to by this committee as the Public
910 Safety Act of 2010 is fatally flawed legislation in that it

911 calls for the auctioning of the D Block.

912 It does address some of public safety's needs, as
913 Admiral Barnett already mentioned, it does address some of
914 public safety's needs designating other spectrum for auction
915 with the proceeds being dedicated to public safety broadband.
916 It also talks about the establishment of an advisory board
917 under the FCC, which most of us in public safety agree is a
918 good idea. Such an entity could be successful if comprised
919 of public safety practitioners as decision makers. The
920 section on flexibility and sharing of broadband spectrum is
921 an idea also generally supported by public safety as a way to
922 fund and maintain the network. However, we cannot agree with
923 the bill's intent to auction a resource as critical to public
924 safety as the D Block.

925 Since the D Block spectrum is adjacent to the public
926 safety broadband allocation it is uniquely desirable, as it
927 can provide needed additional capacity simply and elegantly,
928 and simply is important, without complicating network or
929 handset design. Any alternative spectrum offered would be
930 less desirable since additional components would be required
931 which would dramatically increase the cost while reducing
932 performance. Non adjacent spectrum blocks will not provide
933 as much throughput capacity as the D Block, since greater
934 efficiency is achieved through spectrum aggregation. This is

935 the essence of broadband. If adding sites were the solution
936 to network capacity shortage, there would be no contention
937 for, or market for the D Block. Rather than seeking
938 additional spectrum, network operators would simply add more
939 sites. This is clearly not the case.

940 Allocating the D Block to public safety will also
941 provide first responders with the bandwidth required for the
942 eventual migration of mission critical voice to 700 LTE as
943 envisioned in the National Broadband Plan. The NYPD shares
944 this vision and looks forward to the day when public safety
945 users can share a nationwide network that supports mission
946 critical voice, video, and data on an integrated wireless
947 network and abandon the web of disparate legacy networks that
948 impedes interoperability today. The D Block is the
949 cornerstone of the mission critical voice foundation.
950 Without it, a mission critical voice and data network would
951 not be possible. The City of New York filed a White Paper
952 with the FCC describing the spectrum needs for an integrated
953 voice and data network several months ago. As public safety
954 experts, we contend that filing provided proof that the 19
955 megahertz of dedicated spectrum is insufficient for public
956 safety's needs during emergencies. We have submitted a copy
957 for the record of this hearing.

958 Our experience with commercial network failures tells us

959 we need network control to ensure guaranteed access and
960 security. Commercial networks are simply not built to the
961 same standards of reliability and survivability as our public
962 safety networks. In a timely 60 Minutes broadcast last
963 Sunday, federal officials criticized the utility industry for
964 failing to safeguard their networks and systems from
965 intrusion and malicious software. It was clear that the
966 biggest impediment to protecting the power grid was the
967 utility's unwillingness to spend profits to secure their
968 systems. What assurance do we have that commercial carriers
969 will provide the adequate network security and robust build
970 out that public safety requires and demands?

971 And, by the way, again our experience over the years
972 tell us that they will not. The nationwide network will be
973 interconnected to confidential databases and secure servers
974 that need to be protected. We need to have the option to
975 build our own secure networks and manage the security of
976 these networks ourselves.

977 The public safety organizations mentioned at the
978 beginning of my testimony are unified in the goal of
979 establishing for the first time a nationwide interoperable
980 mission critical voice and data public safety broadband
981 network. They are not motivated by profit or politics.
982 Their only motivation is the ability to serve the public they

983 are sworn to protect. On behalf of those organizations, I
984 thank you for your attention to this important issue, and I
985 will be happy to answer any questions from the members of the
986 subcommittee.

987 [The prepared statement of Mr. Dowd follows:]

988 ***** INSERT 5 *****

|
989 Mr. {Boucher.} Mr. Moore.

|
990 ^STATEMENT OF JONATHAN MOORE

991 } Mr. {Moore.} Thank you, Chairman Boucher, Ranking
992 Member Stearns, and distinguished members of the
993 subcommittee. My name is Jonathan Moore, and I am the
994 Director of Fire and EMS Operations and GIS Services for the
995 International Association of Fire Fighters. I appreciate the
996 opportunity to appear before you today on behalf of General
997 President Schaitberger, and the nearly 300,000 fire fighters
998 and emergency medical personnel who comprise our
999 organization. Mr. Chairman, I testify today not only as a
1000 representative of the IAFF, but as a former fire fighter who
1001 understands the critical importance of effective and reliable
1002 public safety communications. While Congress and the FCC
1003 have taken important steps forward to establish a public
1004 safety broadband network, establishing such a network is only
1005 the top of the iceberg. Much work remains to be done to
1006 improve not only interoperable communications, but basic
1007 operable radio communications within individual police and
1008 fire departments.

1009 For years the IAFF has participated in the ongoing
1010 dialogue among members of the public safety community,
1011 telecommunications industry and elected officials about how

1012 to best utilize evolving communications technology. We
1013 believe that the broadband technology can provide public
1014 safety with the ability to quickly communicate complicated
1015 information and that the broadband plan proposed by the FCC
1016 will deliver a functional and affordable broadband network to
1017 public safety. We believe that the 10 megahertz currently
1018 allocated to public safety combined with roaming and priority
1019 access on the D Block and of the networks as proposed by the
1020 FCC will provide public safety with adequate capacity for
1021 every day use as well as large scale emergencies.

1022 Furthermore, because such partnerships will be required
1023 to meet the requirements established by the Emergency
1024 Response Interoperability Center, which itself will be
1025 advised by public safety, we have confidence that they will
1026 meet the public safety's mission critical standards. The
1027 argument that public safety needs 20 megahertz depends on a
1028 number of assumptions which are unlikely to occur, that a
1029 majority of public safety agencies will participate in the
1030 network and that a majority of agencies will utilize the
1031 myriad of applications envisioned for such a network. This
1032 sort of buy-in is unlikely to happen for several reasons,
1033 including use of alternate networks, personal preference,
1034 and, perhaps most importantly, cost.

1035 Perhaps the most important aspect of the FCC plan is the

1036 fact that it proposes both short and long-term funding
1037 mechanisms to help build and maintain the public safety
1038 network. The plan also ensures that the network is
1039 affordable to its users by leveraging commercial technology
1040 and utilizing the GSA schedule to provide reasonable
1041 benchmark rates for public safety equipment and network
1042 access. As public safety budgets nationwide face significant
1043 cuts in the current economy affordability is key to making
1044 any network interoperable on a nationwide level. Some in
1045 industry and the public safety community have suggested that
1046 the FCC plan is insufficient to meet public safety needs and
1047 instead recommend reallocating the D Block to public safety.
1048 While well intentioned, we believe that this proposal is not
1049 only unnecessary but unrealistic.

1050 As a case in point, the legislation reallocating the D
1051 Block to public safety has been introduced in the House by
1052 Representative Peter King. However, the bill proposes no
1053 funding mechanism to build or maintain the network. While we
1054 support the FCC plan and the establishment of a nationwide
1055 public safety broadband network building such a network will
1056 in no way address the real communication dilemma facing the
1057 majority of America's first responders achieving basic
1058 communications operability. The communications failures of
1059 9/11, Oklahoma City, and Katrina are often cited as proof of

1060 why a nationwide interoperable communications network is
1061 needed. Yet, these were not failure of interoperability but
1062 rather failures of basic operability.

1063 Despite the promise of broadband for the foreseeable
1064 future communications in the fire service will continue to be
1065 dependent on radio, and ensuring fire fighters have basic
1066 radio communications capabilities must continue to be our top
1067 priority. The safety of both fire fighters and the public
1068 depends on reliable, functional communication tools that work
1069 in the extreme environment in which fire fighters operate
1070 with zero visibility, in high heat or in self-contained
1071 breathing apparatus that distort the voice, and gloves that
1072 make operation of a complicated handset difficult. Fire
1073 fighters operate inside structures of varying sizes and
1074 construction types which have a direct impact on the ability
1075 of a radio wave to penetrate the structure and be interpreted
1076 by the receiver. It is precisely this environment that makes
1077 the application of new technology so challenging.

1078 Current digital radio technology, for example, is
1079 largely unintelligible on the fire ground. Any
1080 communications technology must take all of these factors into
1081 consideration. Communications technology must not only be
1082 reliable and functional, it must also be affordable. Fire
1083 departments will simply be unable to utilize new technology

1084 if it is too expensive. Focusing time and resources on
1085 fixing these and other basic communication issues will have a
1086 larger impact on public safety than will the establishment of
1087 any broadband network. Moreover, failure to address the
1088 challenges of communication on the fire ground will undermine
1089 the entire purpose of creating a broadband network. Thank
1090 you for the opportunity to testify before you today, and I am
1091 happy to answer any questions you may have.

1092 [The prepared statement of Mr. Moore follows:]

1093 ***** INSERT 6 *****

|
1094 Mr. {Boucher.} Thank you very much, Mr. Moore. Mr.
1095 Hatfield.

|

1096 ^STATEMENT OF DALE HATFIELD

1097 } Mr. {Hatfield.} Chairman Boucher, Ranking Member

1098 Stearns and members of the subcommittee, I am very pleased

1099 and honored to appear before you today to testify on the

1100 draft legislation that would provide funding for constructing

1101 and maintaining an interoperable public safety broadband

1102 network. My name is Dale Hatfield, and I am the Executive

1103 Director of the Silicon Flatirons Center for Law, Technology

1104 and Entrepreneurship at the University of Colorado at

1105 Boulder. While I have some other affiliations that are

1106 disclosed in my prepared remarks, my testimony here today

1107 reflects solely my own views and any recommendations that I

1108 offer should not be ascribed to any of the other institutions

1109 with which I am associated.

1110 I would be remiss if I did not begin my testimony by

1111 commending you for taking up an issue, the funding of a

1112 nationwide interoperable public safety broadband network that

1113 is so vital to the safety of life and property and to our

1114 homeland security. Past experience with large scale man-made

1115 and natural disasters have clearly demonstrated the price we

1116 may pay in the future without such an interoperable network.

1117 Moreover, the challenges we have had in the past in

1118 developing and deploying interoperable narrow band voice
1119 network for public safety use provide a warning of the hard
1120 work that lies ahead if we are going to realize the full
1121 benefits and vision by an interoperable public safety
1122 broadband network.

1123 Fortunately, in my opinion, legislation along the lines
1124 that has been set forth in the staff draft coupled with the
1125 recommendations and analyses presented in the National
1126 Broadband Plan provide the necessary policy direction,
1127 funding sources, and analytical framework to ensure the
1128 successful deployment of such a nationwide network. Turning
1129 to my written testimony, I focus there on 4 areas. First, I
1130 address the importance of taking into account commercial
1131 equipment and technologies and the evolution of commercial
1132 wireless networks in establishing rules to ensure the
1133 deployment of the interoperable network. More specifically,
1134 Section 101 of the discussion draft directs the Commission in
1135 adopting the rules necessary to achieve interoperability to
1136 consider, 1, the extent to which particular technologies and
1137 user equipment are or are likely to be available in the
1138 commercial marketplace, 2, the availability of necessary
1139 technologies and equipment on reasonable and non-
1140 discriminatory licensing terms, 3, the ability to evolve with
1141 technological developments in the commercial marketplace,

1142 and, 4, the ability to accommodate prioritization for public
1143 safety transmissions.

1144 As I explain more fully in my written testimony, I
1145 believe these provisions are essential to developing the
1146 interoperability public safety broadband network. Among
1147 other things, the network will benefit from the economies of
1148 scale, increased competition, and rapid technological
1149 advances associated with commercial marketplace, and also
1150 importantly because it will facilitate the ability of public
1151 safety users to roam onto and gain priority access to
1152 commercial networks in times of stress. Second, building
1153 upon some earlier testimony that I delivered to the
1154 subcommittee in December of last year, I address the
1155 importance of spectrum flexibility and sharing as raised in
1156 Section 103 of the discussion draft. I strongly support
1157 those revisions of the draft because I am convinced that we
1158 can no longer afford to leave vast stretches of valuable
1159 spectrum lying idle most of the time when there are
1160 technologies available to allow more efficient dynamic
1161 sharing of the resource while giving public safety entities
1162 access to large amounts of additional spectrum in extreme
1163 emergency situations.

1164 Third, I addressed the issue of the adequacy of the 10
1165 megahertz of spectrum in the 700 megahertz band that has

1166 already been allocated to public safety for broadband
1167 networks and having reviewed the White Paper on capacity
1168 requirements released by the Commission on Tuesday as well as
1169 some other documents. I state that I am in general agreement
1170 with the analysis contained therein. More specifically, I
1171 support both the conclusion that the 10 megahertz of spectrum
1172 already allocated is sufficient to meet the day-to-day and
1173 serious emergency broadband requirements for public safety,
1174 and the concept of allowing public safety entities to gain
1175 access to substantial amounts of additional spectrum through
1176 priority access to and roaming access across commercial
1177 broadband spectrum.

1178 Again, this is consistent with my strongly held belief
1179 that better spectrum management requires more efficient
1180 dynamic sharing of the increasingly scarce spectrum resource.
1181 Fourth, and, finally, I address several less over-arching
1182 issues which I wanted to call to your attention, but because
1183 they are not central to the main issues and in the interest
1184 of time, I will not address them in this oral statement.
1185 That concludes my oral statement, Mr. Chairman, and I will be
1186 happy to take questions. Thank you very much.

1187 [The prepared statement of Mr. Hatfield follows:]

1188 ***** INSERT 7 *****

|
1189 Mr. {Boucher.} Thank you very much, Mr. Hatfield. Mr.
1190 Zipperstein.

|
1191 ^STATEMENT OF STEVEN ZIPPERSTEIN

1192 } Mr. {Zipperstein.} Thank you. Good morning, Chairman
1193 Boucher, Ranking Member Stearns, and members of the
1194 subcommittee. It is a privilege to be here with you today.
1195 In the 9 years since the 9/11 attacks public attention has
1196 focused on the need for effective interoperable first
1197 responder communications. Congress actually began to address
1198 this important issue 12 years ago in 1997 when it enacted
1199 legislation to reallocate certain 700 megahertz spectrum for
1200 public safety's use. Today, we endorse the work being done
1201 to continue those efforts by implementing a nationwide
1202 interoperable public safety broadband network that is
1203 effective, efficient, and sustainable. The FCC's National
1204 Broadband Plan delivered in March is a watershed event for
1205 public safety because it promises to change forever the way
1206 public safety officials communicate. By constructing a
1207 nationwide public safety broadband network, it will ensure
1208 that all first responders in all parts of the country,
1209 including rural America, will benefit from the broadband
1210 revolution.

1211 The FCC's plan provides several important benefits.
1212 First, it establishes a national framework for a network of

1213 networks with common technology and operational standards to
1214 ensure interoperability across the United States. Second, it
1215 leverages the benefits of commercial technologies which will
1216 mean lower costs and more rapidly available equipment.
1217 Third, it promotes public, private partnerships that will
1218 enable public safety to leverage the considerable investments
1219 of the private sector. Public safety will have the ability
1220 to choose from many perspective partners whether or not they
1221 hold licenses in the 700 band.

1222 In addition to Verizon Wireless, many other players in
1223 the industry, a wide variety of industry associations,
1224 including rural associations, have all endorsed this
1225 leveraged network approach. Fourth, the FCC plan will
1226 advance broadband deployment in rural areas by providing
1227 funds for new facilities where they are needed and promoting
1228 flexible partnerships to maximize those investments. This is
1229 the same kind of approach that we announced recently with our
1230 program to advance LTE in rural America under which Verizon
1231 Wireless will work collaboratively with rural companies to
1232 build and operate fourth generation networks where they
1233 currently have or plan to build their own infrastructure.
1234 Given the merits of a nationwide interoperable public safety
1235 broadband network, we commend the subcommittee and the staff
1236 for promptly considering legislation to authorize federal

1237 funding to support the construction and operation of such a
1238 network.

1239 We agree that the best way to fund this network is
1240 through future spectrum auctions. Given the FCC's aggressive
1241 plan for making new commercial spectrum available over the
1242 next decade. We believe there will be more than ample
1243 revenues to support the National Public Safety Network and
1244 other important legislative initiatives. The last two
1245 auctions alone raised nearly \$33 billion, and that was a lot
1246 less than 500 megahertz of spectrum. By ensuring an adequate
1247 supply of spectrum for the future an enabling companies to
1248 acquire and use the spectrum without restrictions, Congress
1249 will maximize the future auction revenues. So while the
1250 FCC's plan indeed is visionary, we disagree with it in just
1251 one respect. We do not believe it provides the spectrum
1252 necessary to ensure its successful implementation.

1253 As Chief Dowd has testified this morning, a broad
1254 alliance of public safety and state and local government
1255 organizations and the Attorney General of the United States
1256 have all concluded that public safety will need more spectrum
1257 to support the wide array of broadband applications that
1258 first responders will use in the future to protect us. The
1259 FCC did release a White Paper this week reaching the opposite
1260 conclusion, but even the FCC's own study concedes that public

1261 safety will need additional spectrum during times of
1262 emergency, yet the FCC concludes that during those times when
1263 effective communication is most crucial public safety should
1264 be reliant on commercial networks, a conclusion that most in
1265 the public safety community believe defeats the very purpose
1266 of building a nationwide public safety network.

1267 It should come as no surprise that public safety now
1268 needs more spectrum than Congress or anyone else envisioned
1269 when it designated the original allocation 13 years ago.
1270 Much has changed in the wireless world during that time.
1271 Thirteen years ago few people had ever heard of text
1272 messaging, yet today billions and billions of text messages
1273 traverse our wireless networks daily. Thirteen years ago, we
1274 were all using First Generation narrow band voice technology.
1275 Today, we are embarking on the transition to 4G technology,
1276 broadband technology that will support a wide array of data
1277 multimedia and video applications that public safety needs to
1278 protect us. Public safety should not be limited from taking
1279 advantage of these technological advancements because it
1280 doesn't have enough spectrum.

1281 So members of the subcommittee, great progress has been
1282 made. We applaud the progress. We applaud the draft
1283 legislation because it does solve 2 of the 3 critical
1284 components needed to address this issue, funding and

1285 infrastructure. All that is needed is sufficient spectrum.
1286 The FCC's broadband plan calls for almost 500 megahertz of
1287 additional spectrum over the next 10 years. The D Block is
1288 just 2 percent, only 2 percent, of that 500 megahertz of
1289 spectrum. We should consider the D Block an investment in
1290 public safety and investment in our future. The taxpayers
1291 own it today. They will continue owning it in the future.
1292 Finally, Mr. Chairman, I am pleased to announce that Verizon
1293 Wireless wholeheartedly supports H.R. 4829, the Next
1294 Generation 911 bill.

1295 [The prepared statement of Mr. Zipperstein follows:]

1296 ***** INSERT 8 *****

|

1297 Mr. {Boucher.} Thank you very much, Mr. Zipperstein.

1298 Mr. Hanley.

|
1299 ^STATEMENT OF JOSEPH HANLEY

1300 } Mr. {Hanley.} Good morning, Chairman Boucher, Ranking
1301 Member Stearns, and members of the subcommittee. Thank you
1302 for the opportunity to be here today. My name is Joe Hanley
1303 and I am Vice President at TDS, parent company of U.S.
1304 Cellular. U.S. Cellular serves over 6 million customers and
1305 has received 9 consecutive J.D. Power awards for highest call
1306 quality in the north central region. We are members of the
1307 Rural Cellular Association, as well as CTIA, the Wireless
1308 Association. In addition to commercial users, our networks
1309 serve hundreds of public safety agencies throughout the
1310 country. Like other wireless carriers, we need more spectrum
1311 fourth generation services. U.S. Cellular is prepared to bid
1312 in future auctions, especially the D Block. We, therefore,
1313 applaud the committee for its leadership in identifying 2
1314 bands for auction and look forward to working with the
1315 committee to enact the legislation.

1316 When I testified before this committee last fall, I laid
1317 out 2 fundamental goals providing interoperable broadband for
1318 public safety and fostering a competitive market for
1319 commercial broadband services. Old goals remain essential to
1320 the public interest, and I am pleased to say that both are

1321 advanced by the proposals in the National Broadband Plan and
1322 by the committee's bipartisan legislation. U.S. Cellular
1323 strongly supports the proposal to dedicate auction proceeds
1324 to fund the public safety network. We have long advocated
1325 for a win-win solution, one that delivers on the promise of a
1326 public safety broadband network but also one that fosters
1327 competitive mobile broadband for all American consumers,
1328 urban and rural. The question has always been funding. The
1329 legislation's innovative proposal to use proceeds from 2
1330 auctions is an important step forward. Congress should pass
1331 this legislation and the FCC should move quickly to implement
1332 it.

1333 Let me make 2 specific comments about how Congress
1334 should direct FCC to structure these auctions. First, it is
1335 critical the licensed areas be reasonably sized. Smaller
1336 licensed areas will bring in more bidders and generate more
1337 revenue, which means more resources for the public safety
1338 network. Furthermore, small licensed areas will allow local
1339 public safety officials to pursue partnerships with locally
1340 strong carriers who especially in rural areas often have the
1341 best networks and the greatest commitment to the local
1342 community. The 700 megahertz auction offered the D Block as
1343 a national license. It also made the C Block less
1344 competitive and generated lower revenues by using mega

1345 regional licenses subject to package bidding.

1346 By contrast, a D Block auction with area licenses would
1347 attract many carriers, large and small, that could build on
1348 their existing assets in each area. With the resources of
1349 multiple operators network deployment will be faster, more
1350 extensive and more reliable with no single point of failure.
1351 We support cellular market areas or CMAs or is the second
1352 choice the slightly larger economic areas or EAs. Second,
1353 the auction procedures must be straightforward and fair, not
1354 biased in favor of large bidders. The 700 megahertz auction
1355 used packaged bidding, a procedure that allows large bidders
1356 to trump small ones by bidding on all or nothing packages of
1357 licenses. As the experience of this auction demonstrates
1358 packaged bidding only serves to create opportunities for the
1359 largest bidders to exploit the rules and shut out smaller
1360 bidders. Smaller license areas free of package bidding rules
1361 are equally accessible to everyone and produce much higher
1362 revenues.

1363 For instance, the B Block generated \$9.1 billion using
1364 CMAs, but the C Block, which is 12 license areas, generated
1365 only \$4.7 billion for nearly twice as much spectrum. In
1366 conclusion, U.S. Cellular strongly supports the committee's
1367 draft legislation and the FCC's plans to auction D Block
1368 licenses. The proposed legislation charts the best course by

1369 funding public safety mobile broadband networks while
1370 promoting competition in the auction and in the market for
1371 wireless services. The FCC should expeditiously auction the
1372 D Block using CMA or EA licenses and no packaged bidding.
1373 U.S. Cellular is prepared to bid on D Block area licenses,
1374 pursue partnerships with public safety and deeply advance
1375 services to American's consumers and businesses. Thank you
1376 for the opportunity to provide this testimony, and I look
1377 forward to your questions.

1378 [The prepared statement of Mr. Hanley follows:]

1379 ***** INSERT 9 *****

1380

|

Mr. {Boucher.} Thank you, Mr. Hanley. Mr. Bazelon.

|
1381 ^STATEMENT OF COLEMAN BAZELON

1382 } Mr. {Bazelon.} Thank you. It is an honor to speak here
1383 today. Two years ago I testified before this committee on
1384 the outcome of Auction 73, the 700 megahertz auction. At
1385 that time I said as for the pending decisions about the D
1386 Block, the worst thing would be to leave it unused. Freeing
1387 it for unrestricted commercial use, configuring it as smaller
1388 geographic licenses, and then auctioning it would be best.
1389 This would have the benefit of adding more commercial
1390 spectrum under flexible license to the band, which would
1391 allow a portion of the significant unmet demand from Auction
1392 73 to be met. This approach, of course, would require that
1393 the needs of public safety community be met through other
1394 means. My conclusions then still hold today. The D Block
1395 should be auctioned for unrestricted commercial uses and
1396 public safety's needs should be directly funded.
1397 Consequently, I congratulate the subcommittee on the draft of
1398 the Public Safety Broadband Act of 2010 for the significant
1399 progress it makes in getting the D Block auctioned for
1400 commercial uses and directly addressing the issue of funding
1401 public safety networks.

1402 Forecasting spectrum license auction receipts is not for

1403 the faint of heart. Significant uncertainty about future
1404 wireless market conditions, as well as details of licensing
1405 and auction rules, requires that any forecasts of spectrum
1406 values and auction receipts have a wide confidence interval.
1407 Nevertheless, a good idea of spectrum value can be derived by
1408 observing recent sales, and adjusting for quality differences
1409 and changing market conditions. By my estimates, a well-
1410 structured competitive auction of the D Block could be
1411 expected to raise \$3 billion to \$4 billion in revenue. Such
1412 estimates assume a well-designed, unconstrained auction.
1413 Specifically, my calculations assume small licenses, no
1414 package bidding or open access obligations, and unrestricted
1415 entry in the auction.

1416 Dropping any of those assumptions would be expected to
1417 have a negative impact on auction revenues. I also want to
1418 say a brief word about the value of the discussion draft's
1419 auction of 25 megahertz of the 1675 to 1710 band paired with
1420 the 2155, 2180 band. Without knowing the timing and cost of
1421 reallocating the federal users from the lower portion of the
1422 band, it is difficult to put a value on this pair of bands.
1423 Nevertheless, a reasonable, initial estimate for the value of
1424 the spectrum identified in the discussion draft would be
1425 around \$7.5 billion for 50 megahertz paired. Combined with
1426 the D Block revenues the discussion draft identifies

1427 approximately \$11 billion in revenue from spectrum auctions.

1428 I would also like to say a word about auctions of
1429 additional bands of spectrum. In addition to the 2 bands
1430 noted above, there are many more bands of radio spectrum that
1431 could potentially be licensed and auctioned. The National
1432 Broadband Plan identified several bands and there are others
1433 to consider as well. Decisions about specific allocations
1434 and pairing of spectrum band should consider the full set
1435 potential bands available for reallocation. Also, getting
1436 additional spectrum commercially licensed will benefit public
1437 safety in at least 2 ways. First, additional competition in
1438 the provision of mobile broadband services increases the
1439 potential partners for public safety reducing cost and
1440 increasing the range of services that they can use. Second,
1441 a better connected public is a safer public. Just as the
1442 proliferation of cell phones supports public safety's
1443 mission, the increasing use of mobile broadband by the public
1444 will further enhance public safety community's ability to
1445 respond to future emergencies.

1446 Finally, as a former Congressional Budget Office
1447 analyst, I would like to comment briefly on the scoring of
1448 revenue to fund public safety infrastructure and operations.
1449 The scorable value of any directed spectrum auction is only
1450 the increase in value from the legislation over the baseline

1451 revenue estimates from the sale of the spectrum.
1452 Consequently, the roughly \$11 billion in potential auction
1453 receipts identified in the discussion draft will likely have
1454 a score of a few billion dollars less. Thank you.

1455 [The prepared statement of Mr. Bazelon follows:]

1456 ***** INSERT 10 *****

1457 | Mr. {Boucher.} Thank you, Mr. Bazelon. Mr. Fontes.

|
1458 ^STATEMENT OF BRIAN FONTES

1459 } Mr. {Fontes.} Good morning, Chairman Boucher, Ranking
1460 Member Stearns, members of the subcommittee. My name is
1461 Brian Fontes, and I am CEO of the National Emergency Number
1462 Association, NENA. NENA represents more than 7,000 dedicated
1463 911 and emergency communications professionals who receive
1464 and manage nearly 250 million 911 calls annually. NENA
1465 members are the first link in the emergency response chain
1466 that so many Americans rely on every day. I would like to
1467 thank the House co-chairs of the Congressional 911 Caucus,
1468 both members of this subcommittee, Representatives Eshoo and
1469 Representative Shimkus, for their commitment to advancing 911
1470 and emergency communication systems, most recently by
1471 introducing the Next Generation 911 Preservation Act of 2010,
1472 which NENA fully supports.

1473 NENA thanks the subcommittee for holding today's
1474 hearings. It is fitting that the subcommittee is
1475 simultaneously addressing 911 legislation and a draft bill to
1476 provide for a nationwide wireless public safety broadband
1477 network. The public must be able to rely on effective 911
1478 and emergency response systems, and in the broadband world
1479 these two are joined. This requires the most technologically

1480 advanced 911 systems and access to high speed wireless
1481 broadband networks for emergency responders. The 2 pieces of
1482 legislation the subcommittee is addressing today have
1483 potential to improve our nation's 911 and emergency
1484 communications capabilities. Millions of 911 calls are made
1485 every year by citizens who are increasingly utilizing
1486 innovative forms of voice, video, data services. Yet, today
1487 most 911 centers are primarily limited to voice only
1488 communications, and this is simply unacceptable.

1489 It is essential that we improve access to 911 for all
1490 Americans, especially for the deaf, hard of hearing, and
1491 individuals with speech disabilities who regularly
1492 communicate with non-traditional text, video, and instant
1493 messaging communication services, and who also expect that
1494 these services will be able to connect directly to 911. For
1495 all these reasons and more, it must be a national priority to
1496 foster the migration from 20th century 911 and emergency
1497 communication system into a broadband enabled IP emergency
1498 services model that embraces all voice, video, and data
1499 applications. The Next Generation 911 Preservation Act of
1500 2010 will help foster this transition. This legislation
1501 builds upon and extends several elements in the Enhanced 911
1502 Act of 2004, and will help accelerate the nationwide
1503 transition to Next Generation 911 systems.

1504 While we support the legislation, there are a few minor
1505 modifications, and I assure you they are just minor and we
1506 have already provided those recommendations to the staff for
1507 the co-sponsors as well as the committee, and we look forward
1508 to working with the committee on that. Also, while the
1509 current bill, as written, would place the leadership of the
1510 national 911 office within the National Telecommunication
1511 Information Administration. As Representative Eshoo said, we
1512 are aware that the co-sponsors of the bill have discussed
1513 making this office a joint program office by adding the
1514 administrator of the National Highway Traffic Safety
1515 Administration. This would essentially be a continuation of
1516 the current structure of the National 911 Office as
1517 established in the Enhanced 911 Act of 2004. NENA would
1518 support this modification to the bill, and we look forward to
1519 working with the committee staff, and we thank you for your
1520 interest in this legislation.

1521 Now with respect to the discussion draft for the Public
1522 Safety Broadband Act of 2010, NENA has consistently
1523 encouraged the FCC and Congress to ensure that any actions
1524 taken provide at least the following. First, a public safety
1525 wireless broadband network or network of networks must be
1526 built nationwide. Second, funding for the nationwide
1527 wireless public safety broadband network basis both on a

1528 construction cap ex basis and maintenance op ex basis must be
1529 provided. The National Broadband Plan outlines several
1530 essential steps necessary to achieve a nationwide wireless
1531 public safety broadband network, including some issues that
1532 only Congress can address. First and foremost is the
1533 critical issue of funding, NENA's number 1 priority in this
1534 debate.

1535 NENA urges Congress to address the draft legislation's
1536 recommendations to make near term funding available for
1537 public safety broadband systems and to ensure that funds are
1538 available on a sustainable and annually recurring basis.
1539 Such action will ensure that broadband networks are built and
1540 maintained and effectively serving all areas of the country.
1541 With the release of the discussion draft this week, it is
1542 clear that you intend to do just that, to address public
1543 safety's broadband funding needs. We thank you for releasing
1544 this draft discussion item, and we hope that it will do just
1545 that, generate discussion resulting in the establishment of a
1546 nationwide public safety broadband network and the funding to
1547 build and operate that network. We stand ready to work with
1548 you, the Commission, and our colleagues in public safety on
1549 this important issue. Thank you.

1550 [The prepared statement of Mr. Fontes follows:]

1551 ***** INSERT 11 *****

|

1552 Mr. {Boucher.} Thank you very much, Mr. Fontes. And
1553 thanks to all of our witnesses for being with us this morning
1554 and sharing your views on this matter. Mr. Barnett, I am
1555 going to be my questioning with you. The public safety
1556 community at the present time holds 10 megahertz in the 700
1557 block that has been designated for broadband communications.
1558 Your analysis shows that that holding is sufficient for the
1559 broadband network and Mr. Dowd, Mr. Zipperstein and others
1560 have recommended that additional spectrum be provided to
1561 public safety for that purpose. So that we can get an
1562 empirical sense of whether the 10 megahertz is sufficient, I
1563 wonder if you have any numbers that shows the number of first
1564 responder users per megahertz at 10 megahertz as compared to
1565 the number of commercial users in the commercial 700
1566 megahertz spectrum holding given the number of megahertz that
1567 is designated for commercial holders in the 700 megahertz
1568 block. Simply stated, would there be more public safety
1569 users in their megahertz or would there be more commercial
1570 users in the commercial block that is available? Do you
1571 happen to have those numbers?

1572 Admiral {Barnett.} Mr. Chairman, I think what I can
1573 tell you is that per megahertz the commercial networks cover
1574 vastly more users than there will be users in the public

1575 safety spectrum, so the way that we calculated, and I think
1576 you may be referencing this in the capacity White Paper,
1577 there are about 2 million users in public safety or at least
1578 you could estimate that. There may be fewer at any
1579 particular time, 10 megahertz, so that is where we are
1580 considering there will be about 200,000 users per megahertz.

1581 Another way of looking at those on the commercial side
1582 there is about 547 megahertz across all the spectrum, and so
1583 when you do the divisional map that is about 530,000 users
1584 per megahertz. When you compare that to the 97 megahertz
1585 that public safety has across all spectrum, that is only
1586 about 21,000. So in some ways what you can think of this is
1587 that there are 25 times the number of users for commercial
1588 for megahertz than there are for, in essence, public safety
1589 users.

1590 Mr. {Boucher.} And so your conclusion from that is that
1591 public safety would have ample megahertz available with 10
1592 megahertz devoted to broadband?

1593 Admiral {Barnett.} Absolutely. For day-to-day and for
1594 most emergencies, and as we mentioned you can design
1595 scenarios where it will really stress any system, any system
1596 that I would design, any system that Chief Dowd would design,
1597 but that is why we did have the ability to roam over with
1598 priority access.

1599 Mr. {Boucher.} Okay. Chief Dowd or Mr. Zipperstein, do
1600 you want to make any comment with regard to those numbers?

1601 Chief {Dowd.} Well, I guess my comment, Mr. Boucher,
1602 would be what relevance does it have to public safety?
1603 Public safety systems are used very differently than the
1604 commercial systems. We use our radio systems in a way that,
1605 quite frankly, if you are going to compare it to commercial
1606 usage is very inefficient. But you have to look at the
1607 criticality of the systems and what we are doing on them and
1608 what has to happen on them. You know, the FCC has issued a
1609 White Paper. You know, it only came out 48 hours ago, so we
1610 really haven't had a chance to go into it in depth, but the
1611 City of New York filed a White Paper back in February with
1612 the FCC, and, you know, as public safety experts and having
1613 already built a broadband system in the City of New York and
1614 utilized some of the information from that system, we came to
1615 the conclusion clearly that 10 megahertz of spectrum is
1616 simply not enough for public safety. And that is not just in
1617 a large scale place.

1618 Mr. {Boucher.} Okay. Thank you. My time is limited.
1619 I think we have the sense of your answer. Mr. Zipperstein, I
1620 will give you an opportunity very briefly if you want to add
1621 to that.

1622 Mr. {Zipperstein.} I would simply say that commercial

1623 networks are more efficient but I completely agree with Chief
1624 Dowd that the average commercial user is using far less
1625 bandwidth than with the average public safety user in a
1626 broadband environment. AT&T has had very well-publicized
1627 problems with its network in San Francisco and New York as a
1628 result of very high bandwidth users. And in the public
1629 safety world--

1630 Mr. {Boucher.} That is in the 3G network and we are
1631 merging into the era of 4G and LTE technology now which is
1632 the standard for public safety. That is really talking about
1633 a whole other generation.

1634 Mr. {Zipperstein.} That is right, Mr. Chairman.

1635 Mr. {Boucher.} Let me come to--my time is limited.
1636 Public safety now has 10 megahertz dedicated to broadband.
1637 It has 12 megahertz dedicated to narrow band. All of that is
1638 in the 700 block. It has 2 megahertz used as guard bands to
1639 protect from interference for a total of 24 megahertz. The
1640 24 megahertz are all contiguous, so if, in fact, more
1641 megahertz than that has been assigned for broadband is needed
1642 for broadband, why not aggregate at least 22 out of the 24
1643 leaving a couple for guarding and simply have the voice
1644 function be delivered over VOIP data standard, which LTE is,
1645 and why would that not be a satisfactory means of providing
1646 more spectrum if, in fact, public safety feels like it needs

1647 it? Mr. Dowd, do you want to comment?

1648 Chief {Dowd.} Sure. The problem with that is that that
1649 plan was established several years ago, and that spectrum is
1650 dedicated at this time at least for land mobile radio
1651 systems, narrow band systems, which by the way is a mandate
1652 that exists from the FCC as far as certain agencies like the
1653 NYPD have--

1654 Mr. {Boucher.} Let me just interject. We are looking
1655 at a 10-year time horizon to achieve all of this, and within
1656 that 10-year horizon why could you not migrate the narrow
1657 band offerings that you have on that 12 megahertz at the
1658 present time to broadband if, in fact, you need more
1659 megahertz for the broadband?

1660 Chief {Dowd.} Because the answer is we need it now. So
1661 we are looking at building a broadband network and an
1662 effective broadband network that has enough capacity to do
1663 what we need to do as we go into that new technology and
1664 these are things and information that we shared before. So
1665 if you are telling us to wait 10 years for that spectrum, our
1666 answer is we really can't. Maybe somebody else can wait 10
1667 years, maybe the commercial side, if that ultimately becomes
1668 available because everybody ultimately migrates from land
1669 mobile radio to broadband.

1670 Mr. {Boucher.} Here is the other part of that question

1671 though. Why could you not even immediately with the 10
1672 megahertz that you have deploy your broadband technology and
1673 then use VOIP as the means of offering the narrow band voice
1674 service over the broadband technology so you are using LTE
1675 data standard. You would use that for voice, video and data
1676 using the voice as a VOIP application. Why could you not do
1677 that?

1678 Chief {Dowd.} Well, because these things have not been
1679 perfected as mission critical capabilities.

1680 Mr. {Boucher.} You are saying VOIP is not?

1681 Chief {Dowd.} Yes.

1682 Mr. {Boucher.} Do you think VOIP is not sufficient for
1683 the kind of voice service you would need?

1684 Chief {Dowd.} Not at this point, no.

1685 Mr. {Boucher.} All right. Mr. Barnett, do you have any
1686 comment?

1687 Admiral {Barnett.} Yes, sir. We do need to look over
1688 the horizon and I think that is what the concept of being
1689 flexible in the use of the narrow band. There are not many
1690 that are built out in the narrow band part of the 700
1691 megahertz spectrum right now. We even got a letter from a
1692 chief of police in Sandy Springs, Georgia asking whether or
1693 not they might be able to do just that so we do need to look
1694 at for the near term and for that 10-year horizon whether or

1695 not public safety at its choice, at its option, could use
1696 some of that spectrum and we are thinking about how to pursue
1697 that.

1698 Mr. {Boucher.} All right. Thank you very much. My
1699 time has expired. The gentleman from Florida, Mr. Stearns,
1700 is recognized for his questions. Mr. Stearns has reminded me
1701 we have a series of recorded votes pending on the floor of
1702 the House, 3 votes in total. This will consume the better
1703 part of 15 to 20 minutes for us, and so we will ask your
1704 indulgence while we respond to those votes, and we will be
1705 back as soon as we can.

1706 [Recess.]

1707 Mr. {Boucher.} I would ask the witnesses if they could
1708 resume their places at the table. When we recessed, my
1709 questions had been posed to our witnesses, and I am pleased
1710 to recognize now the gentleman from Florida, Mr. Stearns, for
1711 his questions.

1712 Mr. {Stearns.} Thank you, Mr. Chairman. If anybody
1713 didn't completely answer your question, I would be glad to
1714 allow you any extra time because I think you had some very
1715 good questions. Is there anything that has to be resolved on
1716 your questions?

1717 Mr. {Boucher.} Well, thank you, Mr. Stearns. I guess
1718 at the moment it is just the two of us and so we are not

1719 impinging on anyone else's time except our witnesses. I do
1720 have one other question that I will just take this
1721 opportunity to pose. Admiral Barnett, in your
1722 recommendations you had talked about priority access being
1723 provided to first responders over some additional 700
1724 megahertz spectrums, and I wonder if you could be a little
1725 more specific about where else you would see that priority
1726 access pertaining, in other words, what other 700 megahertz
1727 spectrum would that apply to and whose hands would that be?
1728 And what does priority access actually mean? How would that
1729 work in practice? What are the circumstances under which it
1730 would apply and how would you see that impacting the
1731 commercial use of the spectrum to which it applies?

1732 Admiral {Barnett.} Mr. Chairman, let me say first some
1733 of the things you are asking about still need to be worked
1734 out and it will be the subject of rulemaking where we will
1735 get input from public safety and from industry as well.
1736 Certainly we look at priority access and roaming onto the D
1737 Block. We would think that that would need to be something
1738 that would be a condition on the sale of the D Block, as well
1739 as creating devices that would see both the D Block and the
1740 public safety spectrum. We would also see, and we have
1741 looked at how this would happen is roaming over onto, in
1742 essence, Verizon, AT&T and others carriers in the 700

1743 megahertz, so that, in essence, public safety would have its
1744 choice. It could contract with the D Block licensee for
1745 roaming and priority access. It could contract with all of
1746 them for that. It basically provides as much choice as
1747 possible.

1748 Mr. {Boucher.} That would be on a contractual basis?

1749 Admiral {Barnett.} Yes, sir. And the way that this
1750 works is that there would also be compensation. Carriers
1751 would be compensated for it. We would think that that would
1752 need to be at the most favored customer level. That is why
1753 we do think that there needs to be a look at how the cost of
1754 operating the network will be very important.

1755 Mr. {Boucher.} Just to clarify. You are proposing that
1756 on a purely voluntary basis, not a mandatory basis?

1757 Admiral {Barnett.} It would be mandatory on the carrier
1758 if public safety wants to contract with that particular
1759 carrier. That is the way we are looking at it so that it
1760 becomes public safety's choice on that. If public safety
1761 wants to contract with them then the carrier would need to
1762 provide that.

1763 Mr. {Boucher.} And the terms of the contract would
1764 specify the compensation that would be provided and possibly
1765 other terms of service?

1766 Admiral {Barnett.} Yes, sir.

1767 Mr. {Boucher.} There would be no choice but to enter
1768 into the contract.

1769 Admiral {Barnett.} Yes, sir. That would be a
1770 requirement and we think that that is reasonable. One of the
1771 things that LTE will offer is 15 levels of priority service,
1772 and so the things that have--and it is not the old circuit
1773 switch technology. As soon as public safety accesses the
1774 network the packets begin to flow and they get first in line
1775 privileges. The same would be true for 911 calls. And so it
1776 is not that you are cutting off any calls on all the rest of
1777 the network at that point so, you know, my kids or something
1778 like that playing video games, that performance goes down so
1779 that the performance of the public safety cost and the 911
1780 cost would go up.

1781 Mr. {Boucher.} All right. Thank you very much. Thank
1782 you, Mr. Stearns. You are recognized for your questions.

1783 Mr. {Stearns.} Thank you, Mr. Chairman. I request
1784 unanimous consent to submit for the record a letter that 16
1785 members of this committee from both sides of the aisle sent
1786 to the FCC in June, 2007 warning that a harmful condition
1787 would hurt the 700 megahertz auction, a prediction that came
1788 true.

1789 Mr. {Boucher.} Without objection.

1790 [The information follows:]

1791 ***** INSERT 15 *****

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1792 Mr. {Stearns.} This is a question for Mr. Bazelon and
1793 Mr. Zipperstein. I know you list as your first choice
1794 auctioning off the D Block and funding the public safety
1795 network through the proceeds. There has been lots of talk by
1796 the FCC about debt neutrality, imposing that. If that was
1797 implemented by the FCC as part of the auction and other
1798 conditions, would that reduce the proceeds of the auction?
1799 Mr. Zipperstein, first.

1800 Mr. {Zipperstein.} Yes. It is fair to say that any
1801 time spectrum is encumbered with conditions that the likely
1802 revenue to be gained by the Treasury will be lower than
1803 spectrum auction free and clear of any conditions.

1804 Mr. {Stearns.} And the conditions besides network
1805 neutrality, what other conditions do you think which would be
1806 harmful?

1807 Mr. {Zipperstein.} Well, for example, in the first
1808 attempt to auction the D Block back in 2008 there were a
1809 number of conditions that had nothing to do with network
1810 neutrality, conditions on the winner in terms of building a
1811 public safety network, those sorts of things. And we had
1812 over 250 rounds of bidding in that auction. There was only
1813 one bid for the D Block, and it was less than half of the
1814 reserve price.

1815 Mr. {Stearns.} Mr. Bazelon.

1816 Mr. {Bazelon.} I agree that in general when you reduce
1817 the returns to investment, the investment is worth less, and
1818 if net neutrality regulations are applied to the wireless
1819 sector and it reduces the returns to the network operators
1820 they are going to pay less for the spectrum for the privilege
1821 in the first place.

1822 Mr. {Stearns.} Mr. Barnett, are there any comments you
1823 would like to add?

1824 Admiral {Barnett.} Mr. Stearns, I am not your expert on
1825 auctions and their proceeds. The main thing that I think we
1826 focused on and my particular is on the interoperability
1827 making sure that it is nationwide.

1828 Mr. {Stearns.} Okay. Admiral Barnett and Mr. Hatfield,
1829 if we auction the D Block rather than dedicate it to public
1830 safety, how much faster and how much more cheaply can we
1831 deploy interoperable broadband public safety networks to
1832 cover the entire country?

1833 Mr. {Hatfield.} Let me make sure I understood your
1834 question. Was it--

1835 Mr. {Stearns.} If we auction the D Block rather than
1836 just allocate it to public safety, it is a question of cost
1837 and deployment. How much faster and how much more cheaply
1838 can we deploy this public safety network across the country?

1839 Mr. {Hatfield.} I am not sure I can quantify it for
1840 you, but I do think that we are at a unique period of time
1841 here where the commercial networks are building out their LTE
1842 networks, and if we can piggyback on that and build at the
1843 same time, I think that there is substantial economies. I am
1844 not sure I can quantify it for you.

1845 Mr. {Stearns.} Admiral.

1846 Admiral {Barnett.} And I would just add to that if the
1847 D Block is reallocated it really destroys the commercial
1848 markets for the equipment. It makes the network more
1849 expensive to build and for public safety to operate it and
1850 get their own devices. For that reason we think that it
1851 would really be destructive on both a nationwide system and
1852 of an interoperable system.

1853 Mr. {Stearns.} This is a question for the entire panel
1854 I was asking the staff. Is there any country that has
1855 deployed through the broadband this type of interoperable
1856 broadband public safety network, and to our knowledge no one
1857 has done it. Does anyone on the panel know of any country
1858 that has done it?

1859 Admiral {Barnett.} I am not aware of anyone and
1860 certainly not in 4G.

1861 Mr. {Stearns.} But in maybe less than 4G?

1862 Admiral {Barnett.} Well, there are countries that have

1863 national police forces that have the advantage of having
1864 interoperable networks. I am not positive that those have
1865 made the leap to broadband yet. I don't know that.

1866 Mr. {Stearns.} Okay. Well, I thought that was
1867 interesting that the fact that no one else had done it so
1868 possibly we would be the first. Chief Dowd, we appreciate
1869 your being here and everything you are doing. I have not
1870 talked to Peter King about his bill. I shall do that. I
1871 think the question that perhaps I would have because I think
1872 we all share the same goal, and I thank you for your opening
1873 statement. The problem is that legislation providing for
1874 direct grant of the spectrum it appears is not likely to make
1875 it we mark up this bill, that is not what we are looking at.
1876 Mr. King, Mr. Boucher and I should probably talk to him to
1877 see if there is any way we could discuss further dimensions
1878 of his bill. But if you and your illustrious peers decide
1879 that this is not the right way to go, it would be unfortunate
1880 because we would like your support. So I guess in a larger
1881 sense if you make a position that you are not supporting,
1882 which I think the majority on this panel and in this
1883 subcommittee, then that would not be good.

1884 So I guess I am reaching out to you that you might want
1885 to think about a fall back position so that we all move
1886 together here on a bipartisan fashion. Have you perhaps any

1887 ideas perhaps realizing that we would like your support?

1888 That is probably an observation rather than a question.

1889 Chief {Dowd.} Yeah. Let me see if I can respond to
1890 that. We have studied this from every different angle, and
1891 when we look at the FCC's plan, we have only looked at it
1892 superficially so far because again it has only been out for
1893 48 hours, but one of the things we keep hearing, I think,
1894 here from a public safety perspective is the notion or the
1895 concern that by doing this we are preventing public safety
1896 from having a broadband network. And our contention is that
1897 by doing what we are doing, we are establishing the necessary
1898 requirements to build a viable public safety network. You
1899 can't be in a situation where you are constantly comparing,
1900 and I keep hearing this, constantly comparing usage on the
1901 different types of networks, commercial compared to public
1902 safety, and say that those comparisons somehow invalidate
1903 public safety's needs. They simply don't.

1904 Commercial networks are built as for-profit networks.
1905 They try to maximize usage of the spectrum. Now we already
1906 on a number of occasions presented alternatives to members of
1907 this committee and to the FCC specifically that we feel would
1908 be far more efficient than our normal usage of spectrum. In
1909 the broadband technology those capabilities clearly are
1910 there, and we have discussed those and described those, and

1911 we are open to those flexibilities. Some of the
1912 flexibilities we see in your bill we are supportive of. But
1913 we just at the core of it can't get past the point that 10
1914 megahertz of spectrum is just not going to be sufficient for
1915 our needs on an emergency basis and for that guaranteed
1916 delivery of information that we have to have which is
1917 different from the philosophy in commercial networks.

1918 And, if I could, just very quickly, you know, our
1919 position is and always will be that we cannot rely on
1920 commercial networks for mission critical work. Every
1921 experience we have ever have tells us that those systems will
1922 fail before our system were to fail. So we just don't see
1923 that as a realistic alternative.

1924 Mr. {Stearns.} So in your likelihood what happens is if
1925 we followed your path and you had this spectrum then you
1926 would rent it out? What do you feel the next step would be?

1927 Chief {Dowd.} Well, again, in trying to come up with
1928 solutions that we believe will be efficient but also
1929 accomplish the primary mission, don't forget the first and
1930 foremost mission of this is to be a viable public safety
1931 communications network, so we are looking to do not just data
1932 and video and all that stuff. We also want to do voice on
1933 this. We want to migrate into this highly efficient
1934 technology but always at the level of service that we would

1935 require. Would we allow for it or do we think the idea or
1936 the flexibility of allowing for the leasing on a secondary
1937 basis? As James just mentioned, there was an LTE that was 15
1938 levels of priority. Could you allow for usage on a
1939 commercial basis to offset costs of the public safety
1940 network? Sure, you could.

1941 We have already talked to utilities that are very
1942 attractive to the idea because they would love to be on a
1943 system that is more hardened than the commercial networks
1944 which could give them on a secondary basis access to a public
1945 safety network. In an emergency, I will give you a quick
1946 example of it. Recently, in New York City we had a
1947 tremendous weather storm which was like a hurricane--

1948 Mr. {Stearns.} My time has expired, so I appreciate it.
1949 I guess the question would be where are you going to get the
1950 money to even do the initial construct afterwards. But my
1951 time has expired. Thank you, Mr. Chairman.

1952 Mr. {Boucher.} Thank you very much, Mr. Stearns. The
1953 gentleman from Illinois, Mr. Rush, is recognized for 5
1954 minutes.

1955 Mr. {Rush.} I want to thank you, Mr. Chairman. And,
1956 Mr. Chairman, first of all, let me ask unanimous consent that
1957 2 letters from the National Governors Association that they
1958 be admitted into the record.

1959 Mr. {Boucher.} Without objection.

1960 [The information follows:]

1961 ***** INSERT 12, 13, 14 *****

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1962 Mr. {Rush.} Mr. Chairman, I really do feel like I am
1963 swimming upstream. In this situation I have listened to all
1964 the testimony. This situation kind of reminds me of a time
1965 when I was in the 5th grade and we had had a course--my
1966 teachers at the time were very enthusiastic about the
1967 Constitution and the Declaration of Independence and how
1968 everybody was equal and equality was the subject. So I was
1969 full of it and I went home, and my mother asked me to do
1970 something and we got in a little spat. I told my mother, I
1971 said, well, mom, I am equal. I have equal status in this
1972 household. And she said, yes, you do, but I am more equal
1973 than you. Chief Dowd, there is a lot of equality and
1974 everybody's opinion is respected here, but I have to say you
1975 are a little bit more equal than the others simply because
1976 you have the experience and we are looking to you to ensure
1977 that whatever kind of crisis that we might be faced with, the
1978 American people, that you have the sufficient resources and
1979 equipment to make sure that the emergency, that you are able
1980 to manipulate it and control it and to keep as many Americans
1981 alive as you possibly can, so to me you are a little more
1982 equal than the rest of the other panelists.

1983 And I just got to ask you just a couple of questions
1984 here. I understand that New York had to pay a fee to roam on

1985 a commercial carrier network. Is that true that you pay
1986 roaming fees in New York?

1987 Chief {Dowd.} Are we currently paying roaming fees?

1988 Mr. {Rush.} Yes.

1989 Chief {Dowd.} We are paying fees for commercial
1990 services on broadband right now.

1991 Mr. {Rush.} Does it impose a condition on D Block
1992 spectrum for enrollment fee charges to first responders?

1993 Chief {Dowd.} Well, again, you know, the logic of it to
1994 us is we are going to build our own system then why would we
1995 also want to pay for broadband services especially on
1996 networks that we are deeply reluctant to rely on, so it
1997 doesn't make a whole lot of sense to us.

1998 Mr. {Rush.} All right. I understand that FCC, and it
1999 has been testified about the 48-hour release of their White
2000 Paper concluded that 10 megahertz of broadband safety
2001 spectrum is sufficient for day-to-day operations. Yet I do
2002 have a FCC document filed by Motorola that shows something to
2003 the contrary. And, Mr. Chairman, I want to ask unanimous
2004 consent that this document be entered into the record also.

2005 Mr. {Boucher.} Without objection.

2006 [The information follows:]

2007 ***** INSERT 16 *****

|
2008 Mr. {Rush.} Do you agree with the FCC that 10 megahertz
2009 is sufficient for day-to-day operations?

2010 Chief {Dowd.} No, we don't. And we base on that our
2011 analysis of it with the White Paper that we submitted to the
2012 FCC which shows actually usage and estimates of usage of
2013 broadband capabilities in the future which clearly show us at
2014 concentrated incidents which happen on a regular basis, and
2015 some of them are high profile and you hear about them like
2016 plane crashes and such, and others that you don't hear about
2017 that happen every day. And our analysis clearly indicates to
2018 us that that 10 is simply not going to be enough. Just
2019 because there is a situation in Times Square where there is a
2020 very high profile incident where there is an explosive device
2021 doesn't mean that we don't respond to those types of things
2022 every day. And, you know what, thankfully most of them turn
2023 out to be nothing. An unattended bag in the subway system,
2024 it ends up being somebody's dirty laundry, but you don't know
2025 that until you take all the steps necessary to determine
2026 that, and to do that you need the communications capabilities
2027 to make those determinations.

2028 Mr. {Rush.} On the issue of priority access it merely
2029 puts public safety at the head of the line but does not
2030 guarantee. Now that is important to me. It does not

2031 guarantee that they can get on the system that is already
2032 clogged with consumer traffic, a situation that routinely
2033 occurs at the scene of a lot of emergencies across the
2034 country. And I guess this issue has been addressed with a
2035 pre-emption clause, and pre-emption would guarantee that
2036 access will require kicking consumers off the network in
2037 order for first responders to get access to the network. Do
2038 you support pre-empting consumer use to guarantee public
2039 safety access and how would that work and how viable is that?

2040 Chief {Dowd.} Well, that is the problem because there
2041 is a couple of issues there. Number 1 is clearly you are
2042 correct in our view in public safety that you need pre-
2043 emptive access to the spectrum. Next in line or first in
2044 queue is not sufficient for us to do the work that we have to
2045 do, but the problem is that again commercial systems are not
2046 built to the same standards that public safety communications
2047 are built to. They don't have the same survivability, the
2048 same backups, the same redundancies. You know, it is cost
2049 prohibitive for them and we understand that. They are in
2050 business to make money. We don't build that way. We build
2051 to a very different standard, so the problem is that even if
2052 you had pre-emptive access on commercial systems it doesn't
2053 mean that the system is going to be viable.

2054 And our experience is that if our systems get strained

2055 or our systems become overwhelmed or start to run into
2056 difficulties that has already happened to the commercial
2057 systems. Ours survive longer than theirs do.

2058 Mr. {Rush.} Maybe, Mr. Barnett, maybe you can answer
2059 this question for me. If commercial carriers are unable to
2060 provide priority access because the systems are overloaded,
2061 who is liable if the system is not available with the public
2062 safety operatives need it the most? Who is liable? Who
2063 assumes the liability for that?

2064 Admiral {Barnett.} I am not positive I can address your
2065 liability question on that, but it is why we designed our
2066 proposal so that public safety would have the core 10
2067 megahertz. Nobody else can use that. They can manage that
2068 spectrum however they want to. So the key question here is,
2069 and where Chief Dowd and I have a slight disagreement, he
2070 would tell you that 10 megahertz is not enough and I would
2071 tell you on some days, on those bad emergency days, 20
2072 megahertz is not going to be enough. They are going to need
2073 to be able to roam over, and that is exactly why I cited the
2074 outage of the public safety voice system in the District of
2075 Columbia. They were out of business because they couldn't
2076 roam over onto other networks, and if those networks had been
2077 available and the FCC plan had been available to them, they
2078 could roam over to 1, 2, 3, 4, any other network. It is a

2079 tremendous amount of redundancy that reallocating the D Block
2080 alone does not provide.

2081 Mr. {Rush.} Well, maybe Mr. Hatfield can--I had one
2082 more question.

2083 Mr. {Boucher.} Okay. Mr. Rush, we have a series of
2084 votes coming.

2085 Mr. {Rush.} I have just one more question and this is a
2086 very simple question. Mr. Hatfield, in your opinion is 10
2087 megahertz enough for public safety officials?

2088 Mr. {Hatfield.} If I could answer your question in this
2089 way. The advantage of cellular networks compared with when I
2090 started out in this business the public safety networks and
2091 the mobile telephone networks at the time use a very powerful
2092 transmitter that covered a whole area. Therefore, one
2093 conversation, there was only 200,000 subscribers in the
2094 country at that time, and the reason you couldn't have many
2095 more, one of the major reasons is that one conversation would
2096 take up the spectrum in a whole region. The whole notion of
2097 the cellular concept is that you shorten up the range of each
2098 transmission. So that, for example, a conversation here in
2099 this room could be used--that same frequency could be used
2100 over at the Capitol Building and over on the Senate side.
2101 That same spectrum can be reused over and over.

2102 So a lot of this debate that you are hearing here

2103 concerns how much we use the spectrum. And so is it enough?
2104 Just having the size of the cell quadruples the capacity, so
2105 this is in some ways, you see, an economic issue. In other
2106 words, you take New York City, if they need more capacity,
2107 you do exactly what the cellular carriers have done and that
2108 is to divide their geographic areas more finely. And I
2109 believe it is correct that the FCC studies show that the
2110 amount of frequency we use, being proposed and being used in
2111 traditional public safety, is much, much less than what the
2112 commercial users provide. So to me Congress here has sort of
2113 a trade off here. If you can get more capacity for a public
2114 safety system by making it look more commercial with more
2115 sites or you can say, no, no, we will just hand you the
2116 spectrum without paying for it. And that is basically the
2117 trade off. That is basically the trade off that is going on
2118 here. To go back to your question, you can get more spectrum
2119 by dividing the cells down, cutting it in half, quadruples,
2120 roughly speaking, quadruples the amount of capacity.

2121 Mr. {Boucher.} Mr. Rush, thank you very much. Thanks
2122 to all of our witnesses. We appreciate your attendance here
2123 this morning. This has been a highly informative session
2124 certainly for me. I think the other members would say the
2125 same. And we may actually have some follow-up questions that
2126 we want to propound to you, so without objection the record

2127 of this hearing is going to remain open for a period of 2
2128 weeks while members propound to you questions. When you get
2129 those, if you could answer them expeditiously, we would
2130 appreciate that. Thanks for your attendance today, and this
2131 hearing stands adjourned.

2132 [Whereupon, at 12:45 p.m., the Subcommittee was
2133 adjourned.]