

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

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NATIONAL COORDINATION COMMITTEE

GENERAL MEMBERSHIP MEETING

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Brooklyn, New York

Fire Department of New York Headquarters

+ + + + +

FRIDAY,

NOVEMBER 22, 2002

+ + + + +

The meeting was held in the Auditorium of the New York Fire Department Headquarters, 9 Metrotech Center, Brooklyn, New York, at 9:30 a.m., Michael Wilhelm, Designated Federal Officer to the NCC, presiding.

STEERING COMMITTEE MEMBERS PRESENT:

- DR. ERNEST HOFMEISTER Member
- CHARLES JACKSON Member
- ROBERT LEE Member
- TIMOTHY LOEWENSTEIN Member
- HARLIN McEWEN Member
- STEVE PROCTOR Member
- MARILYN WARD Member

PRESENT:

- MICHAEL WILHELM Designated Federal Officer to the NCC

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GUEST SPEAKERS:

STEPHEN SOUDER Director of Montgomery
County,

Maryland, Emergency
Communications

KATHLEEN O'BRIEN-HAM Deputy Chief, Wireless
Telecommunications Bureau,
Federal Communications
Commission

JOHN OBLAK Telecommunications
Industries
Association

ROBERT STONE Smartlink, Inc.

COLIN McWay Smartlink, Inc.

ROBERT FEY Smartlink, Inc.

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I-N-D-E-X

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1 P-R-O-C-E-E-D-I-N-G-S

2 9:47 a.m.

3 MR. WILHELM: The Commissioner is tied up.
4 We're doing a Where's Waldo exercise to try to find
5 him in the building. When he comes in we will just
6 interrupt the proceedings and have the Commissioner's
7 remarks.

8 This is, believe it or not, the 18th
9 meeting of the NCC. For those of you who were
10 expecting Kathy Wallman I'm afraid you're going to be
11 disappointed. Kathy had a conflict. She had to be in
12 West Point today and could not make the meeting.

13 For those of you who don't know me, I'm
14 Michael Wilhelm. I'm the Designated Federal Officer
15 for the Committee and an attorney at the FCC. This
16 meeting is being transcribed by a court reporter.

17 It's also being videotaped. So when you
18 speak, you need to come up to the microphone, which is
19 immediately in front of the table, so that the court
20 reporter can get your pearls of wisdom on paper and we
21 can get a shot of you on videotape.

22 The statute that we operate under, the

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1 Federal Advisory Committee Act, requires that everyone
2 attending an NCC meeting sign in so we have a record
3 of attendance that we file with GA -- is it GAO, Bert?
4 Yes, GAO.

5 So, at the table to my left, Joy Alford is
6 in charge of making sure those signatures are on the
7 page. As long as I'm introducing FCC personnel we also
8 have with us, as usual, the secretary, Bert Weintraub,
9 who's in the Public Safety and Private Wireless
10 Division.

11 We're also privileged to have at this
12 meeting as a speaker Kathleen O'Brien-Ham, who is the
13 Deputy Chief of the Wireless Telecommunications
14 Bureau. The refreshments you had this morning and
15 yesterday were courtesy of IXP Corporation.

16 They have the good fortune to have Ted
17 Dempsey as one of their staff and he has generously
18 provided the refreshments, for which I am very
19 thankful, on both mornings.

20 Our first speaker this morning is going to
21 be Steve Souder, whom many of you know. The people in
22 the Washington, D.C., area owe a lot to Steve Souder.

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1 When the Pentagon was attacked on 9/11 there were
2 fire, police and EMS personnel responding from a
3 number of jurisdictions, both inside and outside
4 Virginia.

5 They were able to talk to one another.
6 They had a disaster plan set up. They had the
7 interoperable technology to back that plan up. That
8 plan was in large part a creation of Steve Souder's.

9 He told us last year at the meeting here
10 in New York how interoperable communications were made
11 effective at the Pentagon. Since then Steve has
12 changed jobs. He has moved from Arlington County,
13 Virginia, across the river to Montgomery County,
14 Maryland.

15 You are undoubtedly familiar with what
16 went on in Montgomery County, Maryland, the District
17 of Columbia and Virginia in the past two months. That
18 was the sniper incident.

19 We had this roaming sniper or snipers
20 going through all three jurisdictions and shooting
21 people. There was a massive police response to this
22 and communications were essential because on a

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1 moment's notice the police had to block off the major
2 highways, including the interstates that run through
3 the three jurisdictions.

4 Of course, the only way they had to do
5 that was by radio. Montgomery County and its police
6 chief, Charles Moose, were at the very center of this
7 manhunt. The county was the lead agency in responding
8 to the sniper incidents, and Steve, as the
9 Communications Director for the county, was
10 responsible for the communications necessary to make
11 those operations run smoothly.

12 Today he's going to tell us how he did
13 that, the problems he encountered and some of the
14 solutions he came up with. So please welcome Steve
15 Souder of Montgomery County.

16 (Applause.)

17 MR. SOUDER: Good morning. Michael, my
18 friend, thank you for that very gracious introduction.
19 Really, it was quite overblown. Thank you. But first
20 and foremost, it's a privilege to be here this
21 morning.

22 Little did I think a year ago when we met

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1 at the Marriott Hotel that events would evolve in our
2 community that would cause and allow me to be before
3 you again. I must say, as a fifth generation
4 firefighter, and I spent last evening with my dad down
5 in southern New Jersey where he is living in
6 retirement, to enter this building and to see that
7 role of honor on your right-hand side as you go
8 through the main doors was a very, very humbling
9 experience.

10 If you haven't noticed it, you really
11 deserve to look at it closely when you leave, because
12 it is a tale of heroics, of sacrifice, that spans
13 many, many decades, not just the events of September
14 11, 2001, but it really speaks to what it's like to be
15 a public servant and to put your life on the line
16 every day.

17 My hat's off to the men and women of the
18 New York City Fire Department and Police Department.
19 First of all, I think I'd be remiss, and I won't be,
20 if I didn't say that on behalf of my police chief
21 Charles Moose, who today is the most recognized police
22 chief in the United States of America, and the men and

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1 women not only of the Montgomery County, Maryland,
2 Department of Police, but also the men and women of
3 the many, many, many jurisdictions that comprise the
4 metropolitan Washington, Baltimore and, in the event
5 that we'll talk a little bit about today, the
6 metropolitan Richmond, Virginia, area.

7 Because, clearly, this was an
8 unprecedented law enforcement collaborative,
9 cooperative effort that spanned 22 days. No one
10 jurisdiction could have done it alone, even if all of
11 the shootings had occurred in one jurisdiction, and as
12 you well know as you watched the news unfold with far
13 too much repetition that the event spanned many
14 jurisdictions.

15 We were assisted by all of them and we
16 assisted all of them. It wasn't just the local law
17 enforcement in the form of county police departments
18 and county sheriff's departments, but it also was our
19 federal partners in the form of the FBI and the ATF
20 and the U.S. Marshal Service, and even the Defense
21 Department, including the Secret Service.

22 It was just incredibly impressive how the

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1 events that were unfolding caused so many interested
2 parties to work as well together as they did. Before
3 we get into any of the particulars, although I know
4 that when we talk about interoperability, we often
5 think of it in the context of spectrum and
6 technologies and channel matrices and fleet mapping
7 and all of those kinds of quasi-technical things.

8 But more importantly than all of that, if
9 we had all of that, none of it would really be able to
10 be fully utilized unless we had a change in the way in
11 which we think about doing business and a willingness
12 to be open to change and new ideas.

13 I'm proud and happy to say that in the
14 metropolitan Washington area we are, and because we
15 are, we have been allowed to take advantage of the
16 spectrum and the technology and the matrices and the
17 fleet mapping and all that goes with that.

18 So it's really interoperability of both
19 technology and spectrum, as well as the mindset and
20 the willingness for agencies, jurisdictions, local
21 governments, county governments. They look at things
22 differently than they have in the past.

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1 Because we had and do and certainly will
2 continue to do so, it allowed us to pull together the
3 kind of resources that were necessary to apprehend,
4 and Michael made mention of a manhunt. It was more
5 like a ghost hunt.

6 Because if you watched the news closely,
7 as I'm sure you did because you could hardly avoid
8 doing that, we didn't know until the very, very end
9 whether the suspects we were looking for were male or
10 female, were old or young, or any other dimension of
11 identifying who these people were.

12 Before we get into the technology, let me
13 just kind of share with you a little bit about what
14 has happened over the last 20 years in the
15 metropolitan Washington area. What started out with a
16 Commission action in 1984 of opening up the first
17 block of the 806 MHz spectrum to public safety, which
18 was a direct outgrowth of many things, but not the
19 least of which was the events of January 13, 1982,
20 when the flight of Air Florida 90 crashed onto the 14th
21 Street Bridge and into the Potomac river.

22 You all remember that that kind of gave

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1 rise to a new awareness in the federal government of
2 the need to create more spectrum availability for
3 public safety. That kind of opened the barn door, if
4 you will.

5 But since that time, with that door being
6 opened that time and again another time with the
7 release of the 821 spectrum, a number of things had
8 happened under the auspices of NPSPAC and PSWAC and
9 now the NCC that have been the focus of local
10 government in that large area that encompasses some
11 approximately 19 million people and approximately
12 12,000 square miles of jurisdiction.

13 Because in that time, there have been 21
14 different jurisdictions, many at the county-wide
15 level, with the exception of the Washington, D.C. Fire
16 Department and the Baltimore city government, but
17 mostly at the county level there has been over that
18 20-year period a purchase out independently of 800 MHz
19 radio systems that were all done in accordance with a
20 vision, if you will, that was established back in the
21 mid-1980s, when the 806 spectrum was first made
22 available.

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1 Recognizing that that spectrum provided
2 the opportunity for public safety and local
3 governments to do in the future what they had never
4 been allowed to do in the past, it kind of put in
5 motion a roll-out of independently purchased and
6 installed systems over a period of some 20 years that
7 today, with a very few exceptions, create an almost
8 unbroken umbrella of communities that span from the
9 eastern side of the Chesapeake Bay and that area
10 around Kent Island, for those of you that are familiar
11 with that area.

12 Certainly then across to the western part
13 of the Chesapeake Bay and north of the Baltimore
14 metropolitan area right down through the corridor that
15 separates Baltimore from Washington and then even
16 further south, way down to Spotsylvania County,
17 Virginia.

18 Everybody in that area with two exceptions
19 are 800 MHz equipped law enforcement, fire, rescue,
20 EMS and local government service areas. That allows
21 for an immense amount of interoperability capacity.

22 Although there is obviously no need for

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1 the folks on St. Mary's County, Maryland, to perhaps
2 talk to the folks in Hanover County, Virginia, but
3 certainly there is a need for St. Mary's to talk to
4 its immediate neighbor in the form of Calvert County,
5 Maryland, and so on down the line.

6 So we kind of have this radiating pebble
7 in the pond that radiates out to all of the
8 jurisdictions that there is a need to have
9 interoperability with. We are blessed beyond words,
10 and I think we are a great testament that what can be
11 done when the spectrum is available, when the
12 technology is available and when there is a will to
13 take advantage of both for the best interest of the
14 communities and the departments that we all serve.

15 Having said all of that and focusing a
16 little bit on the events that occurred beginning in
17 early October, we all remember where we were at
18 certain points in our lives when major events
19 occurred: the assassination of President Kennedy, and
20 more recently where we were on the morning of
21 September 11, 2001.

22 In my own case, it was amplified by where

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1 I was on the morning of Thursday, October 3. As fate
2 would have it, I was in my car on top of the
3 Chesapeake Bay Bridge, crossing between Anne Arundel
4 County and Kent County, Maryland.

5 I was en route to Ocean City and my
6 purpose of being in Ocean City was to talk about
7 interoperability. Although I had left Montgomery
8 County very early in the morning and at that moment in
9 time was aware of only what at that moment in time
10 appeared to be an isolated homicide the previous
11 evening outside of a strip mall that encompassed a
12 large supermarket, and now, as we have found too often
13 in this tragedy, also was associated with a Michael's
14 craft store.

15 Montgomery County is a fairly diverse
16 community. It's about 900,000 population. It
17 encompasses just a little bit shy of 500 square miles.
18 It is a combination of dense, urban environment, a lot
19 of suburban environment, and a good bit of rural
20 environment.

21 It goes from basically a very flat terrain
22 immediately adjacent to Washington, D.C., to a very

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1 hilly terrain as it approaches to the west and abuts
2 Carroll County, Maryland, into Frederick County,
3 Maryland.

4 We probably have twice as many
5 intersection pedestrian-struck fatalities in
6 Montgomery County than we do homicides in any given
7 year. It's a very safe community in which to live and
8 homicides are a rarity.

9 However, most of the homicides we have,
10 unfortunately, are homicides that are readily
11 identifiable as being associated with friends,
12 neighbors, associates. They're very rarely of an
13 apparent random nature.

14 So the homicide that occurred the previous
15 evening, that Wednesday evening on the second day of
16 October, was unusual because it was a person shot in
17 the shopping center by one bullet that was fatal.

18 There were no witnesses. There were no
19 suspects. It was just kind of, a shot rang out, a
20 person fell over, and no one knew what had happened.
21 So that clearly had our attention only because of the
22 uniqueness of the homicide.

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1 So as I left the house early, en route to
2 Ocean City for an early morning presentation, and as I
3 was overtop the Chesapeake Bay Bridge, and heard the
4 call go out for what ended up being a series of
5 homicides within approximately a 90-minute time.

6 As soon as I could get across the bridge
7 and do a U-turn to head back, I was headed back to
8 Montgomery County, listening of course to the radio
9 along the way. The rapidity with which these homicides
10 were occurring and the uniqueness of them in that they
11 all appeared to have the same basic criteria
12 associated with it: single shots rang out, no
13 suspects, no witnesses, just somebody fell over.

14 Very, very unusual. So it didn't take any
15 of us in public safety long to realize that something
16 was going on here, folks. We didn't know what, but
17 this was indeed unusual.

18 As I got back, things were very, very
19 busy, as you can well imagine. Our forces had been
20 deployed from throughout the county into the core
21 area, because all of the shootings occurred within
22 about a three-mile radius.

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1 You should know that currently, as we
2 speak today and as we were operating in the early days
3 of October of this year, we are still a 490 MHz
4 equipped police department.

5 We have six districts. Each has its own
6 channel. We have, obviously, other channels for other
7 components of the department. But basically we're a
8 conventional, typical radio system serving a fairly
9 large and highly diversified police force in a highly
10 diversified community.

11 Nothing unusual about all of that. But we
12 are on the brink of moving to a new 800 MHz radio
13 system. We were one of those many jurisdictions that
14 I referred to earlier that realized the benefit that
15 was associated with 800 MHz trunking technology and
16 what it allowed for us to do insofar as filling in one
17 more of the blocks in that matrix of communities
18 around the Washington-Baltimore area that would, over
19 a period of time, that 20 years, become 800 MHz
20 equipped.

21 Our system is, in fact, up and running.
22 We're not operating with it, but it was up and

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1 running. We had learned from the experience of many
2 other communities around the nation that one of the
3 keys to a successful implementation of an 800 MHz
4 radio system, aside from interoperability, is
5 coverage.

6 Because of the uniqueness of our terrain
7 and the uniqueness of our demographics, with clusters
8 of very dense, high-rise environments combined with
9 the uniqueness of having the Potomac River being our
10 western border, and for those of you that are from the
11 area, you'll know that that Potomac River runs down a
12 gorge that is approximately 400 feet in depth.

13 We have a lot of fire, rescue, EMS
14 activity along the river gorge, so we had a
15 significant coverage area there. Combined with the
16 fact that we have a lot of square miles and a fairly
17 rolling terrain to deal with, and not wanting to
18 invest the kind of money that we realized was
19 necessary to be invested, we absolutely instructed our
20 vendors and the consulting community that had
21 supported them before we actually let a contract, that
22 we said that we absolutely needed 95-95 coverage from

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1 a portable radio at HTP height from any building in
2 Montgomery County.

3 They were to design that system to meet
4 that criteria and to look forward to our projections
5 of growth, both in population as well as in density of
6 construction so that our investment would be one that
7 really brought about the significant improvement in
8 communications that we wanted to provide to the
9 community and to our police department, our sheriff's
10 department, fire department, and so forth.

11 To do that, they recommended an 11-site
12 trunked system. We have 11 sites and that is supported
13 by 43 BDA or bi-directional amplifiers that the county
14 has elected to install in facilities and buildings and
15 certainly below-ground in Metro to allow for that 95-
16 95 coverage to exist in every one of our test points
17 throughout Montgomery County, Maryland.

18 I am pleased to say that that instruction
19 to the vendors and that guidance from the consultants
20 that the county was wise enough to take has produced a
21 system that is not just 95-95, but is 97-95.

22 So to say that we couldn't be happier with

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1 our coverage is an understatement. Having said all of
2 that, that system is out there ready to go live.
3 However, because it is tied to a number of other
4 initiatives that we are pursuing under a project that
5 is called Public Safety 2000, 2000 being the year 2000
6 because that's when the project really got rolling,
7 although it was a product of some five years of
8 planning before that.

9 But because the radio system is part of
10 that project and it is all intricately tied to a brand
11 new computer dispatch system, which is tied to a brand
12 new automatic vehicle location system, which is tied
13 to a new mobile data terminal system, which is tied to
14 a brand new communications center, all of those
15 technologies obviously have to be integrated and
16 working well together.

17 Even though the radio system was the first
18 one to kind of pass the test, we still haven't
19 actually begun to use the radio system because we
20 haven't really moved to the new communications center.

21 Then the sniper shows up. We suddenly find
22 that our need to communicate is instantaneously beyond

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1 our ability with our 490 system to achieve. So some
2 very, very quick decisions had to be made, and some
3 decisions made that would maximize what we had
4 available to us and also create the interoperability
5 which with each shooting that occurred, not only
6 within Montgomery County, but as the sniper made his
7 way around first Maryland, and then into Washington,
8 and then into Virginia and back into Maryland, with
9 every shooting there occurred an expanding need to
10 communicate with an ever-enlarging number of allied
11 law enforcement agencies.

12 We all know in this room that many of our
13 federal partners are not in 800 MHz. Most of our local
14 partners are, but many of our federal partners are
15 not. So the challenge was that if we were really going
16 to make an effective use of the task force and all the
17 cooperation and collaboration that was taking place,
18 what were we going to do to provide the
19 communications.

20 The soul of that solution resided in the
21 new 800 MHz radio system that had not really been used
22 except in a test mode by Montgomery County yet. So the

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1 way in which that was achieved was by accelerating
2 something occurring that we knew would have to occur
3 as we really began to change out our mobile units,
4 because they, of course, unlike portables, could not
5 be changed out over night.

6 So we knew that at some point in time we
7 were going to have to patch our 800 MHz radio system
8 to our 490 radio system to create for that period of
9 change-out the ability for the dispatcher to
10 communicate both on 490 as well as 800.

11 That hadn't occurred yet, though, because
12 we still weren't ready to make that change-out. But
13 with the support of our vendor, they immediately came
14 in, within several days' time made that patch, that
15 they knew was under contract for them to do anyhow,
16 become permanent, and that allowed us the ability to
17 do something that was a little bit unique.

18 On the surface it's pretty routine,
19 because we then were able to distribute our 800 MHz
20 portable radios to our allied agencies, in the form of
21 particularly the FBI and ATF and so forth.

22 But what's interesting is that these

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1 radios that were being distributed, it was the second
2 time that they had been pressed into use before they
3 ever got in the hands of a Montgomery County police
4 officer.

5 Because the very radios that we
6 distributed to our allies, and there were
7 approximately 250 of those portables that went out,
8 were the very same radios that almost a year to the
9 day earlier had been distributed by Montgomery County
10 to Arlington County so that Arlington County, during
11 the Pentagon event, could distribute those radios to
12 the same kind of people; namely, our federal allies at
13 the Pentagon, who then and now did not have 800 MHz
14 radios.

15 So I thought it was pretty unusual that
16 these same radios were being pressed into service two
17 times before a Montgomery County officer ever was able
18 to push and talk on them.

19 But the important thing was that they were
20 available and they provided us that bridge, if you
21 will, so that we could share the radios with our
22 allied agencies and allow them to communicate with us.

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1 The way that we did that was to assign
2 them two of our talk groups and make those talk groups
3 immediately monitorable at the task force
4 headquarters, which was established at the Montgomery
5 County Police Department headquarters, not to be
6 confused with the communications center.

7 The communications center, as you can well
8 imagine, was a very, very busy place just dealing with
9 routine business, now coupled with the fact that we
10 had multiple homicides and a horrendous number of tips
11 that were being called in to the communications
12 center.

13 So we didn't want to burden, if you will,
14 the on-duty dispatcher with the need for them to also
15 monitor the federal assets that were out there, since
16 there was really not much need for the feds to talk to
17 our dispatcher, but there was a great need for our
18 feds to talk to the command post.

19 So a control set was placed at the task
20 force headquarters and it was to that control set that
21 the federal assets communicated to if they were not
22 talking amongst themselves.

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1 But because they were assigned these
2 radios, they were able to communicate both amongst
3 themselves and through the patch to our people at the
4 command post, and did so very, very adequately.

5 This took the burden off the dispatcher,
6 but it also allowed the feds to communicate with the
7 dispatcher should there be a need in the event that
8 any of these assets were immediately available when,
9 in fact, the next shooting occurred, because we
10 realized at that point in time it would be more
11 important that they communicate with the dispatcher
12 for wide area deployment resources than it was
13 necessarily that they continue to communicate amongst
14 themselves.

15 Fortunately, we never had another homicide
16 that required that to be done, although certainly we
17 did have more homicides before the two suspects were
18 apprehended. One of the things that really was another
19 great asset to us was the fact that many of our
20 federal allies, as well as our local neighbors, were
21 equipped with Nextel phone/radios.

22 That provided another dimension of

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1 interoperable communications, once we were able to
2 make available to everybody, and you know the
3 appropriate coding for those phones and radios to be
4 accessed.

5 Speaking about the communications center
6 for just a moment, there were, as is always the case,
7 lessons to be learned in events like this. Although
8 there are lessons to be learned, I don't quite
9 honestly think that we could have anticipated what I'm
10 going to describe to you right now.

11 So it's a lesson to be learned in the
12 future to keep in mind, and maybe if it should ever
13 happen again, God forbid, that we can learn this
14 lesson. But the lesson was that with the rapidity of
15 the shootings taking place, and the rapid expansion of
16 the geographical area that was affected, the tips that
17 were coming in to us were absolutely just horrendous
18 in numbers; very valuable in content, but horrendous
19 in numbers.

20 At that moment in time, the only place
21 that the public obviously could call in a tip was to
22 where they would normally call the police, and that is

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1 at the communications center.

2 So the workload at the communications
3 center was extremely, extremely heavy. It was realized
4 that, as this thing unfolded, and we're talking like
5 two and three days into it now, that we really could
6 not continue to operate that way.

7 We needed to establish an independent tip
8 center for callers to call in to. The obvious place to
9 do that was back to our brand new communications
10 center, which is sitting there with all of this
11 technology sitting in it and a lot of vacant consoles
12 and conference rooms and phone banks and chairs, but
13 no activity level.

14 So we moved the tip center out of the
15 existing communications center and into the soon-to-
16 be-occupied communications center and set up our first
17 phone bank there, with the emphasis on "first,"
18 because we had never done this before.

19 It seemed to us that if we put in a dozen
20 phone lines, that that should be more than adequate to
21 take care of the level of activity that we knew we
22 were experiencing the day before at the existing

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1 communications centers.

2 So we put in 12 phone lines and then
3 another shooting occurred, and it occurred in
4 Virginia. So now we not only had the tips coming in
5 from Maryland, but we had the tips coming in from
6 Virginia as well and almost instantaneously it was
7 obvious that those 12 phone lines were inadequate.

8 I made a practice of going to the new
9 communications center every morning on my way to work,
10 and that was at about 5:00, 5:15, thereabouts. Day
11 after day or morning after morning, as I walked into
12 the tip center, the 12 people on duty were all on the
13 phone, every one of them, and the phones were
14 literally ringing off the hook.

15 So it was just amazing to me that even at
16 that very, very early hour of the morning, that that
17 tip center was as busy as it was. But as soon as we
18 realized that those 12 lines weren't going to hack it,
19 we immediately ordered more lines.

20 As soon as we had those lines installed it
21 still wasn't adequate, because the shootings
22 continued, they took on an ever-widening radius. We

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1 ended up, with the help of the FBI, of leasing office
2 space that was immediately adjacent to our police
3 department headquarters, which is where all of the
4 press conferences were aired from, to set up a more
5 robust tip center of many, many more lines.

6 Another lesson that we learned, and
7 perhaps you can learn from that, is the fact that when
8 tips are coming into the communications center, the
9 obvious mechanism of recording those tips is twofold:
10 you can enter the data that's being received into the
11 CAD system, even though you're not necessarily going
12 to make a dispatch from that information, but at least
13 you've captured it electronically.

14 But recognizing that to be in CAD is not
15 necessarily to be in a database that is manageable by
16 investigators, so we immediately began to duplicate
17 that effort on a call-for-call basis by handwriting
18 the same information.

19 There was a time that we had literally a
20 stack of paper that from the desk top here was
21 probably two feet tall, all of 8? by 11 tip sheets
22 from all over the region. The challenge, then, was how

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1 to get that backlog, if you will, of printed data into
2 a manageable database that allowed the investigators
3 to basically react to that information.

4 So the lesson to be learned here is that
5 to the degree that you can prepare for something like
6 this, whether it is tips from a series of sniper-
7 generated homicides or other events, to have the
8 ability to quickly enter data into a database that
9 will be more manageable than that which is created by
10 CAD.

11 When the FBI set up their tip center next
12 door, they were able to install a cache of computers
13 that they had available and have used in the past for
14 just that kind of thing.

15 So from a point at about five days
16 forward, we were able to capture that electronically,
17 immediately enter it into a database that was far more
18 manageable than we were dealing with before.

19 But we nevertheless had that two foot
20 stack of previously received tips that had to in some
21 way get into that database. So that was a very, very
22 major effort that took about 24 hours a day over three

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1 or four days to enter all that stuff into the now-
2 existing, by that point in time, FBI database.

3 But without that, none of the
4 investigators could really have made a whole lot of
5 valuable use of that tremendous influx of information,
6 that we continually -- as you recall Chief Moose
7 requesting, that the community continued to be our
8 eyes and our ears and provide that information.

9 They were just great at doing that. It is
10 interesting, as we all found out after the fact, that
11 the infamous white box truck and the infamous white
12 van proved to be just that.

13 I mean, they never existed. We're still
14 trying to track down really how we got down that
15 track, if you will. But it didn't waste any energy, it
16 didn't waste any time, but clearly just like the
17 perpetrators themselves, we were kind of chasing a
18 ghost of a vehicle as well as a ghost of a shooter, if
19 you will.

20 A couple of personal notes that I think
21 are pretty interesting. One of my evening shift
22 dispatchers who was working the previous Wednesday

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1 night at the time of the first shooting at the
2 supermarket/Michael's store, worked that event and
3 went home at midnight.

4 Her husband is a police officer himself,
5 and they live in Frederick, Maryland, which is the
6 adjacent county to the west of Montgomery County. She
7 woke up the next morning as was making breakfast and
8 she heard of the shootings on television and she did
9 what people in comm centers across the country would
10 do, as they did a year prior to that, on September 11,
11 she immediately realized that she needed to be back to
12 work.

13 So as she was dressing to come to work,
14 which would have been about six hours earlier than
15 necessary, because she wasn't due in till 4:00 that
16 afternoon, and as she's just about got her hand on
17 the front doorknob to leave the house, the phone
18 rings.

19 It's somebody that is crying, and once
20 they were able to gain their composure, the crying
21 person was the sister of the first victim that
22 morning, who happened to be the dearest, closest

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1 childhood friend of my supervisor.

2 So with these multiple homicides that
3 spanned 22 days throughout the better part of the
4 month of October, and spanned two states and 17
5 counties and the District of Columbia, there are
6 countless numbers of personal stories and personal
7 lives that were touched by this tragedy.

8 The other one, fortunately, is a bit more
9 humorous, and I like to kind of refer to it as that
10 Kodak moment. Our police department headquarters is
11 about a mile and a half from the comm center, and I
12 didn't have the need to get up there very often, but
13 occasionally I did.

14 To call it a zoo scene is probably a
15 disservice, because it was just an incredibly,
16 incredibly interesting thing to watch. I couldn't
17 begin to count the number of satellite dishes that
18 were there, the amount of mobile antennas on
19 television trucks that were there, and the number of
20 stretch limousines that were there, because every
21 major news station had their absolutely prime-time
22 newscaster broadcasting live from in front of

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1 Montgomery County Police on Research Boulevard in
2 Rockville, Maryland.

3 So as I pulled in the back of the police
4 station into the large parking area, and just getting
5 into that area was a task. Then I did my business and
6 was going back to the comm center. By that point in
7 time it had begun to rain.

8 I don't doubt that probably they'd never
9 concede it, there were a good many people in our
10 police department that were praying for rain, because
11 rain would kind of diminish the huge amount of media
12 attention that was directed day after day after day in
13 what began as a very pleasant, balmy early October
14 time span.

15 But as I'm waiting to pull out of the
16 parking lot and get back onto Research Boulevard and
17 return to the comm center, I look out my window. Now
18 it's raining, not hard, but it's raining, and there's
19 a sight that I really wish I had a camera, because
20 there was Wolf Blitzer sitting on a five-gallon
21 plastic bucket underneath a tree with what I guess
22 must have been his driver from one of these stretch

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1 limousines holding an umbrella over his head, and he
2 was eating a 7-11 Big Bite hot dog.

3 The amazing thing about it, he's face to
4 face with somebody sitting on another bucket under the
5 tree and no umbrella, and that other person was one of
6 my dispatchers who was serving as a resource at the
7 command post.

8 So the interesting thing is there that
9 this tragedy brought notables from the media face-to-
10 face between a Big Bite hot dog with people that were
11 there from the very outset. I'm sure there are many,
12 many other stories like that.

13 But it just gripped the nation, it gripped
14 the community, and for those of you that may be in the
15 audience that are not from the immediate Washington
16 area, I know both in the area as well as well beyond
17 it and around the world, that it gripped the world.

18 I want to express my appreciation to you
19 and people back in your home towns and communities for
20 the support that you gave to everybody that worked so
21 well together during this whole event.

22 Another interesting story, and I just

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1 became aware of this a couple of days ago, although I
2 knew that our chief, Charles Moose, is an adjunct
3 professor of criminal justice at the local community
4 college.

5 If you know him, he is a very humble, very
6 quiet, very unassuming individual. That's, I guess,
7 one of his greatest strengths. There were many of his
8 students who had been taught by him since the
9 beginning of the semester that didn't even know that
10 he was the Montgomery County Police Chief.

11 Yet, through all of this tremendous media
12 effort, and the drain on his and others' time, and his
13 days were 18 hour days for about three weeks, he
14 nevertheless, and this is what I didn't know,
15 nevertheless, because it was his responsibility,
16 nevertheless went to college and taught class.

17 It wasn't until the students had realized
18 the face that was looking at them in the classroom was
19 the same face that they had seen on TV the previous
20 days that their instructor really was the chief of the
21 Montgomery County Police Department.

22 So that was kind of cool, I thought.

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1 Another thing interesting about the chief is that he
2 is also an officer in the D.C. Air National Guard, and
3 flies out of Andrews Air Force Base in Prince George's
4 County.

5 Through all of that he had reserve duty
6 and he fulfilled that duty as well. Now he, like many
7 others as we kind of hear in the news about what may
8 or may not happen in Iraq, is well prepared that if,
9 in fact, his unit is activated, that he may have to
10 leave as other police chiefs have left that have also
11 been in the service reserve branches across the
12 country in the last year or so.

13 So it was a very, very interesting thing
14 and certainly, had we not had available the core of
15 what we're all about here, the technology and the
16 spectrum and the interoperability, combined with the
17 will to do things differently, I don't think, from a
18 communications standpoint, it could have went as well
19 as it did, and it went very well.

20 Admittedly built on the fly, admittedly if
21 we were up and running full-time it would have been
22 done a little bit differently, because we wouldn't

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1 have had that cache of radios, but maybe somebody
2 would have come to our rescue as we came to the rescue
3 of Arlington County a year earlier.

4 Because there are certainly still other
5 jurisdictions in our area that are in the process of
6 building their systems. They're not quite on the air
7 yet, but they probably, I hope, have their portable
8 radios delivered already, so that they can bring them
9 to another scene, should that occur.

10 But let me just take one more quick
11 moment. Michael was very gracious in his comments
12 before, and for ten years I had the privilege of being
13 the Chair of NPSPAC Region 20.

14 Region 20 encompassed the six counties of
15 northern Virginia, the District of Columbia and all of
16 the state of Maryland. I know that many of you in the
17 audience have been involved with that effort and maybe
18 others that have followed it, including this one, the
19 NCC, but I know what it takes to do that, because I
20 was there and did that for ten years.

21 So for those of you that are doing it now
22 while I pass the torch on to somebody else I just want

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1 to say thank you for your effort. I know also that
2 your effort is one that is done with the support of
3 your chiefs and local government officials that give
4 you the time to do that on behalf of your community
5 and the rest of the industry.

6 You probably don't get thanked very much,
7 but I know how much you deserve that, so I'm pleased
8 to be able to just kind of thank you personally for
9 what you did, because I know what's involved in doing
10 it.

11 Thank you very much.

12 (Applause.)

13 MR. SOUDER: Yes, are there any questions
14 that you might have that I will attempt to answer?

15 MR. PROCTOR: Do you know about how many
16 calls you were taking at the tip line?

17 MR. SOUDER: We had about 7,000 tips come
18 in, and about 1,700 of them were really viewed, after
19 analysis, as being very, very credible tips. Companion
20 to that is our 911 and non-emergency call volume.

21 It more than doubled for the better part
22 of the event. It was a very, very significant drain on

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1 resources to field all of those calls. Many of those
2 calls were not the typical 911 call where you get the
3 report of the event, you hang up and it's over in 40,
4 50 seconds.

5 These were the kind that took a lot of
6 time and effort on the part of the call-takers to kind
7 of really feel through the call, probe, get down all
8 the details. It was very time-consuming to do that.

9 John?

10 SGT. POWELL: Steve, could you describe the
11 alerting network that you set up to let the agencies
12 know in an area when something happened? Did you have
13 a problem with over-response, getting too many people
14 coming in that you had to control?

15 MR. SOUDER: I wouldn't say that we had a
16 difficult time with more people coming in. One of the
17 things I think that we've all learned in this room is
18 that many times, when there is a major event like
19 that, you get those folks there that you have
20 dispatched there, but you get also folks there that
21 you haven't dispatched there.

22 Certainly we experienced that at the

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1 Pentagon. I know they experienced it here in New York
2 City earlier that day. It has been experienced many,
3 many times. That didn't happen here.

4 I mean, law enforcement is a little bit
5 different in that it's not supported by a large cadre
6 of volunteer organizations, so it's a little bit
7 easier to manage that resource, if you will.

8 The alerting network was one that was
9 comprised of a number of things, certainly the phones
10 that we talked about earlier were among them. We also
11 had land-line communications.

12 We were supported very, very much by the
13 state police departments of both Virginia and
14 Maryland. They were very, very great assets to us.
15 They had the good fortune of having helicopters. We
16 made quick availability of that.

17 So as events would occur, some of the key
18 lead investigators which were obviously Montgomery
19 County people initially, because so many had been shot
20 in Montgomery County, they were able to within an hour
21 be at any of the scenes that occurred, even as far
22 away as the infamous Ponderosa Steakhouse shooting in

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1 Ashland, Virginia, which is located in Hanover County.

2 Anything else? Well, again, thank you very
3 much. I appreciate the opportunity.

4 (Applause.)

5 MR. WILHELM: I think all of you have some
6 idea of how hard-working Steve Souder is. I found out
7 about it when I invited him to speak at this meeting.
8 I had placed a phone call to him the previous day, and
9 then I came into my office around 9:00 and there was a
10 message from Steve.

11 It was date-stamped 5:15 a.m. I finally
12 got in touch with him on his cell phone at 7:30 that
13 night, and he was on his way to a business meeting.
14 The man apparently gets along with about two hours of
15 sleep, and the rest of it is devoted to public
16 service.

17 He is one of the more remarkable people I
18 have encountered in public service communications.
19 While we set up for the next speaker, and Ted Dempsey,
20 did you know whether Mr. Sheirer is going to be with
21 us? We don't know. If he shows up, we will put him on.

22 Our next speaker will be Kathleen Ham,

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1 whom I introduced earlier, as the Deputy Chief of the
2 Wireless Telecommunications Bureau. While she is
3 setting up her PowerPoints -- and Kathleen you can
4 work from up here, there is a connection on the podium
5 -- I would like to introduce our Steering Committee.

6 If you would, stand up so the audience can
7 put a face on the name. First of all, Bob Lee. Also,
8 from the federal side, Don Speights. We have Chuck
9 Jackson at the end of the table, Marilyn Ward, Tim
10 Loewenstein, who always has a new electronic gadget to
11 show me at every meeting.

12 Chief Harlin McEwen, who I'm sure is known
13 to all of you. Steve Proctor, Ernie Hofmeister from
14 M/A-COM, and last, and as they say, but not least,
15 Wayne Leland representing Motorola. Wayne, where are
16 you? Okay, Wayne usually stands in as an alternate for
17 Chuck and we see both of them at the meeting.

18 Well, getting back to my job of
19 introducing speakers, Kathleen O'Brien-Ham is a very,
20 very difficult individual to track down. She's
21 constantly in meetings with Commission staff and with
22 people from the outside.

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1 I was not able to talk to her about what I
2 might use in the introduction. So what I did was sneak
3 into her office and just looked at what was on the
4 wall. From that I found out that Kathleen has been a
5 lawyer for 15 years.

6 Last night, in a conversation, I found she
7 did some of her college work at the State University
8 of New York, but she got her undergraduate degree from
9 the University of Colorado.

10 She received her Juris Doctor degree, law
11 degree, from the Catholic University in Washington,
12 D.C., and as some of you may know, that law school has
13 a very strong communications program, and many of the
14 graduates of that program are working at the FCC.

15 Kathleen was a major player in setting up
16 the first auctions of spectrum at the FCC. This was an
17 incredibly complex arrangement to set up, both from a
18 legal and a logistic standpoint. Kathleen was able to
19 do it and was able to do it well. She was sort of the
20 eBay of the FCC.

21 (Laughter.)

22 MR. WILHELM: She started a process which

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1 has gone on to realize billions, that's with a "B" of
2 income to the Federal Treasury. On the walls of her
3 office I found several awards.

4 There was a Chairman's Special Achievement
5 Award issued to her. There was an FCC Silver Medal
6 Award issued to her. She's part of the Senior
7 Executive Service. In the federal government, that is
8 a group of elite, highly qualified managers.

9 Very few executives reach that level in
10 government. Today she's going to discuss some recent
11 FCC actions that are important to interoperability,
12 and are important to other communications facilities
13 and organizations that you are responsible for.

14 So, please welcome my boss and Deputy
15 Chief of the Wireless Telecommunications Bureau,
16 Kathleen Ham.

17 (Applause.)

18 MS. O'BRIEN-HAM: Thank you. That was a
19 very nice welcome. As we're getting set up here, I
20 just want to take a minute and thank the Fire
21 Department of the city of New York for these great
22 facilities and providing the support that they have

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1 today for my staff and for all the NCC members today.

2 It may or may not work, but she's going to
3 see if she can get it going, but I -- so I want to
4 take a moment also and thank all the folks from the
5 NCC. It's hard to believe this is the 18th meeting.
6 There has been a lot of effort and a lot of work put
7 into this, basically paving the way for the use of the
8 700 MHz band for interoperability and from the FCC's
9 perspective I just want to say thanks to everybody,
10 because I know you all do this on your own time.

11 It's incredibly important work and we're
12 nearing the close of that at this point. I think we're
13 waiting on one small bit of, one final task dealing
14 with the wideband interoperability standards that you
15 folks are working on.

16 I think that we're looking forward to
17 getting those recommendations. The charter of the NCC
18 expires in February. There has been a lot of
19 incredible work and effort that has come from the
20 group. It's very much appreciated by the FCC.

21 I was going to take a few minutes and talk
22 a little bit about some issues that are in front of

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1 the FCC now that are public safety or quasi-public
2 safety related. Not necessarily all related to
3 interoperability, but some things that I think are
4 near and dear to your heart.

5 In the interest of time, because I think
6 we are running a little bit behind, I may move along
7 on some of this. Some of the issues that I was going
8 to talk about was interoperability efforts generally;
9 the public safety at 700 MHz, some recent issues
10 there; 800 MHz, the proceeding that I know many of you
11 are involved in; 4.9 GHz which is additional spectrum
12 the Commission has a proceeding outstanding on;
13 intelligent transportation systems rule-making, a
14 recent proceeding that the Commission initiated; and
15 our balanced budget act, a rule-making proceeding
16 which deals with efficiency standards below 512.

17 This is a depiction of frequency bands
18 that are currently allocated for public safety. It
19 amounts to somewhere over 90 MHz of spectrum at this
20 point in time. Some of this, the recent 4.9 GHz
21 spectrum added an additional 50 MHz to the hopper of
22 spectrum that has been set aside to support public

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1 safety.

2 Interoperability has been a very important
3 topic for the Commission. It's for that reason in 1998
4 the NCC was established. If we could get the lighting.
5 The NCC was established in 1998 by the Commission
6 because the Commission felt strongly that with the 700
7 MHz spectrum we had an opportunity to develop
8 interoperability in that spectrum where it had not
9 been done before.

10 I always remind people it is Congress that
11 set aside the spectrum, but it is the FCC that decided
12 to set aside spectrum for interoperable use and that's
13 a very important effort.

14 We have also set aside channels in 800 and
15 the refarming bands below 12 for interoperable use. In
16 terms of 700 MHz, a couple of recent developments I
17 just wanted to bring to your attention.

18 I know that the clearing of the band for
19 the broadcasters, and last time I was here spoke in
20 Brooklyn last year about the ten or so television
21 stations that basically completely preclude the use of
22 public safety channels in 60 through 69 in the New

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1 York metropolitan area.

2 So I know clearing the band of
3 broadcasters is a very big thing for public safety. On
4 that side of the equation, there have been a couple of
5 recent developments, one good and one not so good.

6 Congress passed legislation in June of
7 2002, the Auction Reform Act of 2002. One of the
8 things that they did there, unfortunately, was to
9 curtail the Commission's ability to grant waivers in
10 spectrum adjacent to the public safety channels.

11 One thing that we learned based on our
12 experiences that those -- it's important to public
13 safety to get those adjacent channels cleared as well,
14 and unfortunately Congress, in this recent piece of
15 legislation, has curtailed our ability to do that,
16 largely because they wanted to protect the
17 broadcasters and the fact that if we relocate them
18 into channels below 60 through 69, they're very
19 concerned about any sort of loss of service.

20 So unfortunately, I think that that has
21 made our band-clearing efforts on the part of the FCC
22 a little bit more difficult to accomplish. On the

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1 other side of it, I think ultimately, if the digital
2 transition happens, that's what's going to make the
3 spectrum available and the Commission recently has
4 mandated that there would be digital tuners in all
5 television sets by 2007.

6 The effect of that is basically to move
7 the whole process along. Every time I go to Best Buy
8 or Circuit City and I see somebody buy an analog
9 television set I cringe, and I think that's the point
10 of what the FCC did here.

11 The FCC doesn't like to step in, in the
12 commercial sector in particular, and mandate equipment
13 standards, but this is something that the process was
14 just not moving fast enough for Chairman Powell, and I
15 think we're trying to move that along.

16 The 800 MHz interference problem, this is
17 something that also we're very actively involved in
18 right now. It basically goes back to about April of
19 2000, in which a task force got together of industry
20 and FCC and public safety to try to deal with the
21 case-by-case interference problems that we've been
22 encountering in the 800 MHz band.

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1 A best practices guide, which is up on our
2 website and I have the address at the end, was
3 developed to respond to some of these interference
4 issues on a case-by-case basis.

5 Project 39, developed by APCO, has made a
6 lot of efforts in this area. We also had a white paper
7 filed by Nextel in November of 2001, and that
8 triggered a rule-making, a notice of proposed rule-
9 making that was subsequently issued in March.

10 We have sought comment and replies on
11 that. Just for your benefit, here's a picture of the
12 800 MHz band, and some of the more problematic issues
13 are dealing in that interweaved spectrum between
14 public safety and some of Nextel's operations.

15 As part of the comment cycle, we got a so-
16 called consensus plan. It's a plan that was endorsed
17 by 17 different parties, including APCO, providing for
18 rebanding of the 800 MHz band. I'll have a picture of
19 that in a minute.

20 The consensus parties filed. We put that
21 out for comment. We have a promise of a further filing
22 that's going to be coming sometime in the Thanksgiving

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1 time frame. Looking forward to that.

2 I understand it's a thick document that is
3 going to address some of the more difficult issues.
4 One of them is the funding issues. The FCC is not
5 anxious to move around people in the 800 MHz band,
6 public safety, that is, unless it's going to be fully
7 funded.

8 I know that's something very important to
9 public safety as well. So, how this is going to be
10 funded is really critical if we are going to do a
11 rebanding. In addition, it promises to deal with some
12 of the Canadian/Mexican border issues.

13 That is, our treaties with Canada and
14 Mexico in the 800 MHz band may not look exactly like
15 the consensus rebanding in 800. So those issues will
16 have to be resolved. So we're looking forward to
17 getting that filing.

18 I will tell you that as soon as we do get
19 it we are going to put it out for comment. We think
20 that's important. So we want to get to the root of
21 this problem, but we also want to get a thorough
22 record.

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1 This is a picture of the consensus plan.
2 Some of the highlights of the plan, a little cheat
3 sheet here. It would move the NPSPAC band basically
4 from 821 to 824 to the bottom of the band, adjacent to
5 the 700 MHz spectrum.

6 It would -- conventional public safety,
7 SMR BI/LT would share the 809 to 814 MHz band. It
8 would create a guard band of 2 MHz that are reserved
9 for so-called campus-like systems.

10 The business industrial LAN transportation
11 people on the band would be able to voluntarily
12 relocate outside of the band, the 900 MHz band, where
13 Nextel holds spectrum for the promise of twice as much
14 of what they got at 800.

15 My understanding is, at least in the top
16 40 markets, that spectrum would be recouped for public
17 safety. So those are some of the highlights and in
18 exchange for all this, I think Nextel has put \$500
19 million down on the table, at least, for relocation.

20 They also would like the FCC to basically
21 give them 10 MHz of spectrum elsewhere at the 1910 to
22 1915 and 1990 to 1995 band. That is what they're

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1 asking for. So that's very actively under
2 consideration.

3 It's one of the most important proceedings
4 right now on the spectrum front, in front of the
5 Commission, and we're going to be looking to move
6 forward on that. We're also getting some help from our
7 Office of Engineering and Technology, who has been
8 doing some testing out at the lab on receiver
9 standards.

10 One of the things that I think we also
11 might be looking at is the issue of imposing receiver
12 standards on public safety receivers to improve their
13 performance. That's something that the Commission has
14 never done before, but we're looking at seriously.

15 The point of this effort is to solve the
16 interference problem, and that's first and foremost.
17 The FCC is not interested in juggling everybody here
18 and about, and then at the end of the day still having
19 interference.

20 So I think it's going to take a lot of
21 different solutions brought to the table to make it
22 happen. 4.9 GHz, this is spectrum that the Commission

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1 has an outstanding rule-making on.

2 50 MHz of spectrum at 4.9. There was a lot
3 of interest in using this for wireless local area
4 networks, the sort of thing that in a crisis situation
5 you could just move in this portable LANs.

6 There's a lot of interest, I know, on the
7 part of Motorola and some others to develop equipment
8 there, and so we have some outstanding rule-makings on
9 that. Some of the more difficult issues, I think, in
10 that proceeding are going to be questions of how you
11 define public safety.

12 I think the Commission put out for comment
13 that and I understand the utilities and pipeline and
14 so forth, what I'll call the non-traditional public
15 safety folks would like to be included in the
16 definition and the traditional public safety would
17 like them not to be.

18 So I think that will be interesting. One
19 of the other things about this spectrum was that it's
20 adjacent to U.S. Navy operations, which created some
21 issues. Frankly, it's one of the reasons why the
22 Commission decided not to make it available for

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1 commercial use.

2 I think the hope is that actually public
3 safety would be a better neighbor to the U.S. Navy
4 than perhaps certain commercial users. But we're
5 looking forward to deploying that spectrum.

6 Intelligent transportation systems. The
7 Commission just recently had on the Commission meeting
8 in November a rule-making for 75 MHz of spectrum at
9 the 5.9 GHz band. This is spectrum set aside for
10 dedicated short-range communications.

11 The staff has been working very closely
12 with ITS America, which is the advisory group to the
13 Department of Transportation on some of these issues.
14 This spectrum, there's some very promising uses for
15 this spectrum, as well, for improving emergency and
16 security and traffic hazards in our nation's surface
17 transportation systems.

18 I call this the cars that talk proceeding,
19 but there's some very interesting ideas and concepts
20 that are being put out there. The Commission
21 tentatively concluded that the primary use of this
22 spectrum should be for public safety.

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1 Here is a depiction of the band plan now.
2 This is what was recommended to us by the Department
3 of Transportation. This is what the Commission put out
4 for comment.

5 Our balanced budget act rule-making is
6 something else that's outstanding. This rule-making,
7 one of the issues that's in front of it is how to
8 bring more efficiency to the spectrum below 512, with
9 respect to our Part 90 licensees, including public
10 safety.

11 So one of the things that I think you're
12 going to see out of this, and this will be a report
13 and order that I think is going to be issued very
14 shortly, is questions about how to migrate to 12 ? and
15 6 ? technology voice capacity in a spectrum below 512.

16 I think the Commission, here again, I
17 think is, in light of its refarming experience and so
18 forth, is coming to the conclusion that maybe we need
19 to be a little more aggressive about moving the
20 equipment capacity along.

21 The good news about that is that as you
22 move down to these more narrowband technologies, it

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1 makes more spectrum available. So that's something
2 that we're striving to do.

3 Here's just a listing of some of the
4 websites. Homeland Security Policy Council was a task
5 force set up by Michael Powell, Chairman Powell.
6 Marsha McBride, his Chief of Staff, is the head of it.
7 It is a group that very closely tracks and coordinates
8 public safety, homeland security-related issues across
9 the Commission.

10 They've done a lot of good work on network
11 reliability and so forth. I will tell you, just
12 personally, it has heightened interest amongst a lot
13 of people in the building on public safety issues. It
14 has been a good mechanism to communicate on this and
15 they have a great website.

16 So if you want to know, they keep tabs on
17 everything. We meet regularly. Our FCC spectrum policy
18 task force, this is another task force Powell recently
19 established.

20 They have a report that they just issued,
21 literally about a week ago. It has some
22 recommendations in it on use of public safety

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1 spectrum. I think at this point there is going to be
2 some sort of follow-on mechanism to comment on some of
3 those recommendations.

4 It's up on our website. You should take a
5 look at it, the FCC's Wireless Telecommunications
6 site. Our site on our audit. This is, again, an FCC
7 effort to make more spectrum available.

8 I mean, nobody benefits if people are
9 sitting on spectrum and they're not doing anything
10 with it. We have simply by asking gotten back nearly
11 35,000 call signs, I think it's something like 8 to
12 10,000 in the public safety area.

13 So we have forced our licensees -- and it
14 has been a tremendous effort -- to do some due
15 diligence about the frequencies that they hold. We've
16 gotten a lot of good spectrum back and there's a great
17 website there and I would urge you to go to it.

18 I will tell you, we're getting to the
19 point now where I think we've done two mail-outs, and
20 the next mail-out is going to be a cancellation. So we
21 are at that point where if people haven't responded
22 and so forth, we're assuming they really don't want

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1 the spectrum.

2 So we're at that point. People should pay
3 attention. Our best practices guide, as I referenced
4 earlier, that's up on the website dealing with 800
5 MHz.

6 So, thank you, and I'm more than happy to
7 take some questions if people have any. You always
8 have a question.

9 (Laughter.)

10 MR. SCHLIEMAN: Robert Schlieman, New York
11 State.

12 MS. O'BRIEN-HAM: Hi Robert.

13 MR. SCHLIEMAN: I'm glad to see the
14 acknowledgement of the efforts by public safety on the
15 best practices guide and --

16 MS. O'BRIEN-HAM: Project 39.

17 MR. SCHLIEMAN: And Project 39, in terms of
18 getting a handle on interference problems. I am aware
19 that NPSTC and TIA and others have expressed
20 significant concern about the potential for
21 interference at 700 from CMRS into public safety.

22 The Commission has sort of not accepted

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1 those concerns yet. I wondered if there's any
2 likelihood after this really horrendous experience at
3 800 that we're going through of maybe some
4 reconsideration on that issue.

5 It's good to see that the receiver
6 standards are at least getting some help now, maybe
7 something will come out of that. But there's still the
8 concern that the Telecommunications Industry
9 Association has formally presented that well analyzes
10 the problem.

11 I am personally quite surprised that the
12 Commission doesn't seem to accept that information.

13 MS. O'BRIEN-HAM: Well, I will tell you on
14 that proceeding, I know that there has been a lot of
15 looking at it. The Commission engineers have looked at
16 some of that, and there are a lot of differences
17 between the 800 and the 700 MHz band.

18 I think we did learn something from our
19 experience at 800. We established a guard band, a zone
20 that separates public safety from the commercial uses.
21 I think that, frankly, our engineers on this issue
22 just were not convinced that this is going to be a

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1 problem.

2 Now, you know, I honestly -- right now at
3 this point I think we have a pending recon. I'm not
4 sure if it has been voted or acted on at this point,
5 but I think we have that issue in front of us.

6 But to date, I think that at least our
7 experts have felt that the way the band is configured
8 now and the technical rules will protect public safety
9 sufficiently. So I don't know what to tell you other
10 than that, but I think we'll, you know, and I do think
11 that we have learned from our experience at 800.

12 MR. SCHLIEMAN: So, we'll try it and find
13 out if it really works.

14 MS. O'BRIEN-HAM: Well, no. I think we -- I
15 think part -- this is a balancing act to some degree.
16 I mean, on one hand, Congress set aside spectrum for
17 public safety. It also set aside spectrum for
18 commercial use.

19 So I think the Commission is trying to
20 balance the good use of both of those bands. My
21 understanding is some of this would have made the
22 commercial spectrum less usable. I am not an engineer,

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1 but my understanding is that some of these technical
2 requirements would have sort of impinged on some of
3 the commercial use of that spectrum.

4 So I think the Commission is trying to
5 balance a lot of different uses there and come up with
6 the best solution. Like I said, I think we have made
7 some differences. I think the receiver standards is
8 something that I think the Commission is very
9 seriously thinking about doing.

10 In the spectrum policy task force that I
11 referenced, that is one of the recommendations in the
12 public safety area, to be seriously looking at
13 receiver standards. That is an issue in the 800 MHz
14 proceeding, for example.

15 I know in 700, too, I think we had a
16 recommendation from the NCC on receiver standards. So
17 we're -- Nobody wants interference, but it is a bit of
18 a balance.

19 MR. SCHLIEMAN: Well, the change in the
20 band plan from that which was originally agreed upon,
21 proposed and agreed upon, to allow base station CMRS
22 operations immediately adjacent to the public safety

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1 mobile band, I think, is the main concern for why
2 interference is a problem now when we didn't think it
3 was as big a problem before.

4 That was a change that the Commission
5 allowed after the fact of the original planning. There
6 was a lot of thought that went into the band plans
7 initially, so, anyway, those are my comments.

8 MS. O'BRIEN-HAM: No, I understand. I
9 understand. Thank you.

10 MR. DEVINE: Steve Devine, State of
11 Missouri. With regard to the definition of public
12 safety at 4.9, I think the public safety community has
13 acknowledged we need to communicate with those public
14 service entities that provide the critical
15 infrastructure.

16 However, if the authority for those
17 channels is split, then there's the possibility of
18 their reduction in effectiveness for everybody. So
19 what we'd like to see is the traditional public safety
20 definition acknowledging the fact that we, at the
21 local level, do want to communicate with those people,
22 and we have relationships in many instances with them

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1 now.

2 It's a cooperative effort. I think if the
3 definition begins to be skewed it's going to make it
4 less effective overall. With the audit below 512,
5 those people are going to lose their license anyway,
6 so it's a matter of when, not if.

7 So, thank you.

8 MS. O'BRIEN-HAM: Okay, thank you.

9 MS. WARD: Good morning, Marilyn Ward,
10 NPSTC Chair.

11 MS. O'BRIEN-HAM: Hi Marilyn.

12 MS. WARD: I just would like to express
13 NPSTC's disappointment that the Commission has not
14 resolved, as a follow-up to Bob's comments, the 700
15 potential interference issue.

16 We met Wednesday and the entire group is
17 pretty unanimous in this, that we feel that the
18 Commission should take another look at this. If that's
19 not going to happen, then we're going to appeal that
20 to probably our Congressional representatives and go
21 forward with trying to get some support on this.

22 We feel that strongly about it. We think

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1 that it's a huge issue at 800 and it will be too late
2 if we go forward without getting it stopped before we
3 begin to move into the 700 area.

4 MS. O'BRIEN-HAM: Thank you, Marilyn. Thank
5 you. Okay, well thank you very much for the
6 opportunity to speak today. I also want to just thank
7 Steve Souder, because being a resident of the
8 Washington metropolitan area I had -- the sniper hit
9 about a half a mile from my house, and I've got to
10 tell you, there was just a tremendous -- when they
11 caught those folks, caught the sniper or snipers,
12 there was just a tremendous that I think was lifted
13 off of a lot of people's shoulders.

14 I know my children, my daughter told me
15 that the first day that they told them they could go
16 back on the playground they just, all the kids went
17 screaming and yelling onto the playground. They just
18 felt a tremendous relief.

19 So I just want to thank Steve and all the
20 members of the Montgomery County Task Force, because I
21 know I personally can sleep at night now knowing that
22 those bad guys were caught.

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1 Thank you very much for the opportunity to
2 speak today.

3 (Applause.)

4 MR. WILHELM: Thank you Kathleen. One of
5 the projects she spoke about was the 800 MHz
6 interference proceeding. I have been in meetings with
7 people who have seen the draft of the document that is
8 supposed to be submitted before Thanksgiving.

9 Every time they talked about it, they did
10 this. So now that we have somebody who may have seen
11 that draft, a third party, perhaps Chief McEwen, if he
12 would just raise his hands and give me an
13 approximation of the size of that draft.

14 MR. MCEWEN: Well, all I can say is it's
15 getting bigger. The problem, of course, is that we
16 really want to make sure that we have addressed all of
17 the issues. Every time we think we've got one problem
18 solved, or we think we have a good resolution for it,
19 there's another issue that comes up.

20 We're working hard at them, Michael.
21 There's a lot of people in this room that are involved
22 in that process in one way or another. All kinds of

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1 people all over the country. So I don't know.

2 MR. WILHELM: Give me an estimate. Is it
3 this?

4 MR. MCEWEN: Well, I don't know. I can't
5 really give you -- but it's going to be fairly
6 substantial. The point is that I think the Commission
7 wants us to do a good job.

8 They want to have something substantial to
9 deal with here. It will give the opportunity for
10 people to comment on it and try to get some resolution
11 to this problem.

12 I just, I'm very comfortable with the
13 process that's going on. The only thing is that the
14 more we get into it, the more we realize that it can't
15 be done in a day. It's just something that has to be
16 very carefully examined.

17 MR. WILHELM: Thank you, Chief. This is an
18 unprecedented proceeding. It's a cooperative effort
19 between industry and the public safety community to
20 come up with a consensus plan that will address this
21 very serious interference problem.

22 John Oblak is just about ready to get his

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1 perfect attendance medal for NCC meetings. He has been
2 with us since the beginning. He has been a very
3 frequent resource during the NCC's deliberations.

4 He has served as a very effective liaison
5 between the NCC and TIA. He's an expert in the area of
6 standards-setting. He has been the Chairman of the
7 TIA-TRA.1 subcommittee on measurements for 16 years.

8 I doubt there's a person in the industry
9 who has the degree of experience that John has in
10 measurements. TIA is approaching the end of its work
11 on a wideband data standard for the 700 MHz band.

12 It has already chosen a standard -- or
13 rather a technology, for the interoperability
14 channels, and is working on the final document. John
15 is going to tell us where the project stands, maybe
16 give us some insight in what remains to be done, and
17 when we can expect the final standard to be published.

18 So please welcome, again, John Oblak.

19 (Applause.)

20 MR. OBLAK: Good morning, everyone. I'd
21 like to have just a very brief presentation describing
22 the progress that has been made to date on the TIA

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1 wideband data standards and hopefully give you a
2 little bit of preview as to what is remaining and how
3 we're going to proceed.

4 First of all, the wideband data status
5 update. Since the last meeting, we've had some very
6 good success in getting documents published. There
7 were actually three of the documents that are critical
8 to the interoperability standards that have been
9 published since then.

10 Those include the wideband data MAC/RLA
11 layer standard, the SAM radio channel coding and the
12 wideband Data Logical Link Control. Those three
13 documents have been completed and have been published.

14 They represent three of the documents in
15 the wideband common air interface that are crucial
16 documents. In addition, wideband data status, we have
17 two documents that have just gone into the ballot
18 phase and those include the transceiver methods of
19 measurement and the performance recommendations for
20 the transceiver.

21 Both of those actually have been in ballot
22 for several weeks and are ready to close ballot,

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1 coming within the next week or so. There have been a
2 few disappointments, however.

3 There are three documents that are still
4 in process that have slipped a little bit in the time
5 frame. Those three are as follows: the wideband data
6 mobility management layer document. We had hoped to
7 have this balloted by the October time frame and it
8 looks like it won't be until the next round of TIA
9 meetings in January.

10 So we've slipped about a meeting time on
11 that. That has also had a ripple effect on the Packet
12 Data Specification that was also expected to be
13 completed and sent to ballot in October.

14 That will probably not get to ballot until
15 January. So we're looking at these two documents to be
16 approved in the April meeting. The Text Messaging
17 Service Proposal Standard, again, is in the drafting
18 phases and we're targeting a ballot of this document
19 in the April meeting.

20 So I'd like to show you the status of our
21 standards in kind of a pictorial form. On the left of
22 your screen are two documents that we feel are

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1 overview documents. They're probably not documents
2 that would be referenced in FCC standards.

3 That is the System and Standard
4 Definition, which is published, and the Wideband Air
5 Interface, which is in the drafting phase. The two
6 documents in the center under SAM that are in purple
7 are the Method of Measurement and the Technical
8 Performance Recommendations.

9 Both of those, as I said, are in ballot
10 and should be published in the January time frame. The
11 documents on the right-hand column, the bottom four,
12 as I mentioned, have been published.

13 The three in orange are in the process of
14 being drafted and anticipate balloting by January, and
15 the one at the top, the TMS, Text Messaging
16 Specification, we expect in about the March time
17 frame.

18 As I said, the nine documents that I think
19 represent the interoperability standards that would be
20 referenced in FCC standards, FCC rulings, are the nine
21 documents that we see on the two far-right columns.

22 In summary, I'd like to say we have made

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1 good progress getting the documents published and
2 approved that we had anticipated. However, we did find
3 as a result of the complexities of the documents that
4 we hadn't anticipated, we had found a little bit of
5 delay and slippage in a few.

6 Our plans, as I said, are to wrap this up
7 around the April time frame at least, having
8 everything in ballot by that time. I believe there are
9 standards that could be referenced in the work.

10 They're enough along the way that we know
11 what their numbers are; we know what their content
12 would be and the formality of getting it completed is
13 what we're working on. As I say, I believe we have
14 enough here that could be referenced in a report to
15 the FCC and that the FCC could adopt these documents
16 upon their approval by TIA.

17 Again, we've taken the job fairly
18 seriously as to getting the standards completed. As I
19 said, good progress in the most part, but a few
20 disappointments which we are sorry for but we feel
21 that we do have a good handle on getting this wrapped
22 by about the April time frame.

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1 I'd be glad to take any questions that you
2 might have.

3 DR. HOFMEISTER: Ernie Hofmeister, M/A-COM.
4 I think most of the work here in the air interface is
5 focused on the 50 KHz channel, John, is that correct?

6 MR. OBLAK: That is correct.

7 DR. HOFMEISTER: In looking forward, there
8 was some action that was taken yesterday and I think
9 will come up later to consider the possibility to
10 aggregate channels to form 100 KHz and 150 KHz
11 channel.

12 Along with that there would probably be an
13 expectation that would need to be a standard that goes
14 along with that in the future. Can you comment on what
15 you think TIA's plans are there?

16 MR. OBLAK: Well, TIA all along had plans
17 to develop standards for not only the aggregate
18 channels, but the different forms of modulation as
19 well. So they're well within our plans.

20 What we had proposed at the last several
21 meetings was to limit our interoperability modes to a
22 certain number of modes. I think, however, the

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1 standard is progressing to the extent that all of
2 these modes will be supported and documented.

3 It's just that we had anticipated the
4 interoperability standards to be a more concise set of
5 the standards. To that extent, I don't think we've put
6 together a schedule for when a complete suite of
7 documents would be available.

8 I don't think we've analyzed specifically
9 what that would entail, but I think we can -- we're
10 definitely going down that path, we just don't have a
11 time schedule for it.

12 DR. HOFMEISTER: Just a further follow-up.
13 I mean, the aggregation that I was mentioning was for
14 the subset of these designated channels to be
15 interoperability at some point, to operate on those
16 somebody will have to say, "It needs to meet this
17 standard."

18 MR. NASH: John -- Glen Nash, as Chairman
19 of the Technology Subcommittee, let me comment on that
20 Ernie. At this point, one of the real difficulties we
21 have in the wideband data interoperability standard
22 itself is any sort of discussion about what the

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1 applications are.

2 Developing a technical standard is really
3 dependent upon knowing what those applications are.
4 Therefore, at this point, all that has really been
5 identified for us is text messaging, which we believe
6 can be done in a 50 KHz channel quite effectively.

7 I think as public safety gains some
8 experience in using wideband channels additional
9 applications will come forth and we'll have to deal
10 with them in the future. But at this point in time,
11 public safety has zero experience in dealing with
12 wideband channels, and so we're on a very steep
13 learning curve.

14 Nonetheless, and I think the action taken
15 yesterday to try to pre-identify some channels was a
16 necessary one. Recognizing that at some time in the
17 future, we may, in fact, desire to have 100 or 150 KHz
18 channels and to have a channel plan in mind that
19 allows that to happen was a necessary action, because
20 it impacts decisions that are made relative to what
21 channels are available for 50 KHz that supports.

22 So it is going to be a multi-step process.

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1 We're ready to take the channel designation portion of
2 that on at this point in time, but we're not ready to
3 move on towards any sort of definitive technical
4 standards, because we don't know what we're trying to
5 support yet.

6 MR. LELAND: Wayne Leland of Motorola and
7 TIA. Just in response to Ernie's comment, if there are
8 aggregating interoperability channels to 150 KHz
9 doesn't necessarily mean you have to have a standard
10 at 150.

11 Interoperability can occur at the least
12 common denominator of 50 KHz. This is not a comment
13 either for or against that. I mean, that's a separate
14 issue, whether -- that probably should be debated --
15 whether we want to move into NCC and the user
16 community wants to move into standards for the 100 and
17 150 as well as the 50.

18 But interoperability could occur at the 50
19 KHz level mandated by the FCC standard.

20 MR. OBLAK: Any further questions? Thank
21 you very much.

22 DR. HOFMEISTER: Just a comment on that. I

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1 guess that would be something, Wayne, that the
2 Commission would have to be aware of and understand,
3 that there could be operations on the so-called
4 designated interoperability channels that are at this
5 point not done according to a standard.

6 I agree with your comment about
7 interoperability at 50 KHz and so on.

8 MR. WILHELM: John, thank you very much.
9 One thing I did not mention, or two things I did not
10 mention in introducing John is that he, in addition to
11 the extensive work on standards-setting he manages to
12 be Chief Engineer at E.F. Johnson.

13 This past March he was elected as Chairman
14 of Project Mesa in Copenhagen. So he has another level
15 of paperwork on his desk.

16 (Laughter.)

17 MR. WILHELM: The development of a standard
18 for 100 and 150 KHz equipment poses something of a
19 problem with the Commission, because absent a standard
20 we could not type-certify equipment that would be
21 usable at 150 KHz bandwidths.

22 So it is apparent that we will have to

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1 delay adoption of any rules, other than the channel
2 designations and aggregation limits until we do
3 receive the complete 700 MHz wideband interoperability
4 standard.

5 Turning to another subject -- Oh, I'm
6 sorry.

7 MR. LELAND: Can I comment on that?

8 MR. WILHELM: You certainly may.

9 MR. LELAND: Wayne Leland from TIA. I don't
10 think that's true, what you're saying. If I understood
11 you, you're saying the Commission wants a 100 KHz
12 interoperability standard and the 150 KHz
13 interoperability standard before it will move forward?

14 MR. WILHELM: No, it will likely move
15 forward with the 50 KHz.

16 MR. LELAND: Okay.

17 MR. WILHELM: And at some later date, when
18 the standards-setting work is completed, we'll then
19 have to undergo another process to incorporate the 100
20 and 150 KHz standard into the rules.

21 MR. NASH: Yes, but -- Glen Nash here again
22 -- and again, I'd like to clarify something I thought

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1 I heard you say is that the Commission would not be
2 able to certify any equipment operating for 100 or 150
3 KHz operation until there was an interoperability
4 standard for those bandwidths.

5 At least, my perception would be
6 different, is that to the extent that a using agency
7 wanted to operate on the general use channels at those
8 bandwidths they should be able to do that, and that
9 those radios would be necessity have to include a mode
10 of operation as the 50 KHz interoperability mode that
11 we have defined, but until such time as we define a
12 100 or 150 KHz interoperability mode, I can't see
13 requiring any radios to have that built in.

14 MR. WILHELM: No, I was speaking strictly
15 in the context of the interoperability channels.

16 MR. NASH: Okay, because you know, at this
17 point, as I commented earlier, you know we as the
18 public safety community have not identified an
19 interoperability requirement for the 100 or 150 KHz
20 bandwidths.

21 I see that growing out of our learning
22 what these channels are able to do for us. So we need

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1 time to get some experience. In the meantime, we do
2 have some identifiable needs for interoperability in
3 the 50 KHz bandwidth, but I would not want to preclude
4 our being able to implement systems at 150 KHz on
5 general use channels, because that's where our
6 experience is going to grow out of and where we're
7 going to learn what we need to have interoperability
8 for at those bandwidths, is going to come from our
9 experience in using them for general use purposes.

10 MR. WILHELM: Well, I take your point and
11 you're quite correct and perhaps the experience will
12 drive the content of the rules rather than vice versa.
13 This morning we were supposed to hear from
14 Commissioner Nicholas Scoppetta, the Fire Commissioner
15 of the City of New York and the person responsible for
16 our being able to use these facilities today.

17 We heard from his staff this morning. He
18 has been called away from the department on urgent
19 business and he sends his regrets that he couldn't be
20 with us today. Turning to another subject, I don't
21 think there's a person in this room that believes that
22 all public safety systems are going to have the

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1 capability to operate on the 700 MHz interoperability
2 channels any time soon.

3 Most of you are going to have to retain
4 your existing systems. You also will be operating on
5 VHF interoperability channels. Some of you will be
6 operating on the UHF interoperability channels, and
7 some of you will be operating on the 800 MHz mutual
8 aid channels.

9 Some public safety systems may have no
10 interoperability capability whatsoever. At the scene
11 of an incident, the classes of systems I just talked
12 about are going to have an urgent need to talk to one
13 another.

14 You've all seen the ugly solution to this
15 problem. One poor officer sitting there with five
16 radios all on different systems and trying to
17 coordinate different departments and rescue operations
18 on several different radios.

19 Well, there's a short-term answer to that,
20 and possibly even an answer for the long-term, in the
21 technology that Mr. Robert Stone is going to tell us
22 about today. He has been in the computer and radio

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1 fields for over 35 years.

2 His company, Smartlink, has served as a
3 consultant for a number of radio users, including the
4 Central Maine Power Company in extending as far as
5 Ontario. In the time that he has been in this field,
6 he has acquired considerable expertise in both
7 hardware and software design.

8 Today, he's going to tell us about a
9 cross-banding technology that allows digital and
10 analog radios operating on different frequencies to
11 achieve interoperability. So, if you would, please
12 welcome Robert Stone from Smartlink.

13 (Applause.)

14 MR. McWAY: Good morning. Actually, you get
15 a few of us, you don't just get Bob. My name's Colin
16 McWay. I'm the President of Smartlink. Bob Stone,
17 who's just walking up now, he's our Chief Architect of
18 our technology and also Bob Fey, who's the Director of
19 Field Operations.

20 I just wanted to start off with a couple
21 of kind of introductory words about Smartlink. For my
22 own benefit, could I have a show of hands who has

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1 heard of Smartlink out there? That's a little bit
2 better than I thought.

3 First of all, thank you for the
4 opportunity here today, and to Teddy Dempsey for
5 inviting us down. Smartlink started about ten years
6 ago in developing a frequency and protocol transparent
7 real-time networking device.

8 Our roots are much more commercial than
9 they are in public safety. Back then, when we came
10 across Bob and his technology, we were involved in the
11 cellular telephone business.

12 So we really saw more commercial
13 applications for our technology. The folks at the time
14 operating SMR systems had similar yet certainly less
15 serious problems than the public safety people in that
16 they too had different frequencies that they could
17 get, that they could potentially have people on the
18 same network, but there wasn't a technology like
19 Smartlink to bring it all together, nor were there
20 real kind of cost-effective, robust networks for them
21 to operate on.

22 So we set off originally, and I think that

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1 Bob will tell you when I'm done much to his chagrin,
2 because he always saw the technology being public
3 safety-oriented. We set off selling systems to the
4 commercial market, to the SMR market in particular.

5 If you recall, and I'm certain you will,
6 around that time is when fleet calls started to
7 aggregate up these SMRs and by the time they were
8 Nextel and they were taking away many, many of our SMR
9 customers.

10 We then started to sell the product off-
11 shore as the domestic market dried up. We sold the
12 system to a lot of different countries throughout the
13 world. What we're trying to do for the customers is
14 allow a system that interoperates.

15 That means whether it's lowband to 800 or
16 conventional to trunked, all existing on the same
17 network in real-time, 250 millisecond call set-up
18 times. The network is not only fast, but it's very
19 large.

20 We can have up to 64 sites on one of our
21 switches, and then we can start linking switches
22 together. We've had a system that extended all the way

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1 from the Boston area down through and into Ohio, 220
2 MHz.

3 Our system also can provide to our
4 customers, particularly on the public safety side, a
5 migration path. You know, we just heard about the 700
6 meg and it's going to be quite some time until people
7 actually get there, and some people, it could be, you
8 know, talking decades.

9 So our technology can be a foundation
10 today that links the different communities in an area
11 together, but at that same time, if there is a
12 community -- and much of the local kind of governments
13 are counties -- if there's a community within that
14 county that wants to migrate to digital, that
15 infrastructure already exists and all of those things
16 can continue to operate on that same network.

17 Because our technology works with existing
18 infrastructure and radios it is a considerably much
19 less expensive solution than, you know, tearing
20 something down and completely rebuilding it.

21 Recently we have started to enter this
22 public safety market from these commercial roots,

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1 after we got the sense that our product was robust
2 enough to support the public safety folks.

3 We have sold our product in what we call
4 the garden hot spots of the world. We have a system
5 for the Nigerian palace guard. We have a system at the
6 Russian Space Center. We have a system with the
7 Indonesian Police Department, the Panama Canal.

8 All throughout the world we have our
9 technology. On the island of Puerto Rico, we have a
10 system that is about 20-plus sites. I don't know how
11 many channels off-hand, but dozens of channels. They
12 have over 14,000 users and 300,000 push-talks a day,
13 and our system just works flawlessly.

14 Recently, as kind of a first half-step for
15 us into the public safety market, we sold a large
16 system up in Alaska to the electric utility up there.
17 Although they're not public safety, they kind of view
18 themselves as mission critical infrastructure as well.

19 That's a multiple site, all-networked
20 system. Then back around March or so we started to
21 really approach the public safety market. We were
22 amazed -- or at least I was amazed, Bob probably

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1 wasn't amazed -- I was amazed with the response from
2 hundreds of communities all throughout the United
3 States that have the same need.

4 We did it the old-fashioned way. We got
5 cards back from potential customers and all the cards
6 read the same, we want to hook together 800, 150, 450,
7 lowband, et cetera. Every single card looked the same.

8 We're now trying to go and meet the needs
9 of those clients. I've been very, very impressed with
10 the -- not having worked in public safety before
11 myself -- with the level of commitment that everyone
12 seems to have in addressing this issue.

13 I was fortunate enough to go down to
14 Washington and meet with a bunch of folks down there
15 to let them know about our technology, so it could
16 potentially be eligible for the communities who are
17 looking for funding, and the amount of enthusiasm we
18 were met with down there was very, very encouraging.

19 So that's kind of an overview of who we
20 are and how we got here today. I will have Bob and Bob
21 take over and tell you how all this stuff works. Thank
22 you very much.

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1 MR. STONE: Good morning, and as I stand
2 here, not being a public speaker, I will do my best.
3 The Smartlink system provides a solution for public
4 safety, inasmuch as we provide both ad hoc and
5 predetermined interoperability amongst various radio
6 channels and formats.

7 We can accept communications from a
8 variety of trunking and conventional radios on the
9 full spectrum of frequencies, and network them into a
10 larger template to talk to radios on the existing
11 frequencies or on other bands, thus providing
12 interoperability.

13 In addition to radio resources, we also
14 bring in other resources, such as your dispatch and
15 telephone circuits. We have available from the switch
16 a high-level dispatch console which we have developed,
17 as well as we can work with the existing dispatch
18 center equipment that you probably already have in
19 place, be it tone or DC.

20 The Smartlink system is a star network
21 system. We rely on a centralized switching center, and
22 then we provide a smaller switching system at each

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1 site, which then connects to the individual radio
2 channels for resources.

3 As far as the system goes, it's full
4 digitally based. We are doing everything under a PCM
5 basis. We can work with analog transmission between
6 site and the switching center, but we would prefer in
7 public safety to work with digital for a number of
8 reasons.

9 Each site itself can be partitioned. So
10 when you install the equipment at your tower site or
11 the top of a building or wherever you have located
12 your radio equipment, you can partition our system
13 into separate subsystems to allow you to hook up your
14 800 MHz equipment, 450, 150, into the same set of
15 resources.

16 Some of the advantages of this are that
17 you get to utilize the same communication pass to the
18 switch and other available resources at the site, such
19 as connections to your dispatch center or telephone
20 resources.

21 The system has two separate types of radio
22 interface that we provide. One, we provide an

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1 interface that connects directly to the RF, and we do
2 all the trunking or conventional handling for LTR,
3 LTR-NET, CTCSS and DCS.

4 In that case, we act as a complete
5 trunking or conventional controller. One of the unique
6 things about our controller is that it's a chameleon.
7 If it hears a conventional radio, the repeater will
8 act as a conventional repeater. If it hears an LTR or
9 LTR-NET radio, then it will trunk it accordingly.

10 The other side of the resource capability
11 is we have two different varieties of card. One is
12 just coming out of development, one is already
13 available. We have an E&M-capable card that you can
14 hook to a mobile radio to talk into a proprietary
15 format or a radio system which is located outside of
16 the template of the Smartlink system.

17 We are producing a card which will be
18 coming to availability hopefully in the beginning of
19 the year, which is a fully programmable platform of
20 both programmable hardware and a very powerful group
21 of processors and digital signal processors that will
22 allow interface of everything from a mobile, where you

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1 can gain complete control of the front panel, to
2 digital repeater systems such as APCO or some of the
3 other possible emerging standards.

4 Being that this is basically sort of a
5 building block platform, it's all software-configured.
6 As technology changes, we will be producing, of
7 course, different technology to loads for this,
8 depending on what the application is of the hardware.

9 Additional to this, we have some somewhat
10 esoteric interfaces. When we generated the system, of
11 course, we were not only in the ESMR industry but we
12 were looking at public safety.

13 We got into a lot of campus-type systems
14 that needed access to other types of radio equipment,
15 such as single sideband radio equipment, aircraft,
16 air-to-ground systems. So we developed interfaces that
17 allowed the system to communicate with some of the
18 common Harris, Datron, single sideband radios,
19 inasmuch as allowing channel selection and sensing
20 channel selection from the radio.

21 We also have the ability to hook into a
22 number of the military communications radios, such as

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1 the SINCGARS radios and some of the other connector
2 types, such as the X-mode connector, which in today's
3 environment, seems to be a need of public safety, to
4 be able to intercommunicate with their military
5 counterparts if we get into another tragic situation
6 like the Trade Center.

7 Each of the individual site controllers is
8 a mini-switch in itself. So it has the ability to
9 route its resources. Any one of the RF resources can,
10 of course, be routed to a telephone resource, or
11 routed to a locally-accessed communications console,
12 or it can go over a group of trunks back to a
13 switching center, and our switching center then will
14 provide access to other sites.

15 The system basically provides a number of
16 ways that you can generate a network. I mean, having
17 all this hardware capability without having the
18 ability to control how it's used in a number of
19 manners would be useless to public safety or to the
20 SMRs.

21 So we can generate templates that are
22 stored in the switching center that allow a radio

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1 protocol accessing a particular site to generate a
2 call to any other groups of radio protocols on other
3 frequencies or other types of protocol, and do it in
4 250 milliseconds.

5 A good example would be to take an 800 meg
6 radio in an interoperability situation and dedicate
7 trunking groups or conventional codes to different
8 access to other agencies. So if you had an agency in
9 an adjacent community on UHF, an agency on lowband and
10 an agency on highband, by changing the radio to a
11 different trunking group or conventional tone, you
12 could then tell the system that you wish to access
13 those other resources in the system.

14 Every resource in the system is generic to
15 the system. So by utilizing that type of a protocol
16 where everything looks the same we can connect pretty
17 much anything together and connect it together very
18 rapidly.

19 Additionally, we've added some high-level
20 communications consoles of our own design to the
21 system that connect directly to the switch that allow
22 the dispatcher to build and store groups as needed, or

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1 call groups out of a dormant state.

2 So you can pre-plan for particular
3 emergencies and call them out, but you still have the
4 flexibility of having the dispatcher in control of
5 what's going on with the total radio network.

6 The system is, as I say, primarily
7 digital. We can go into the systems with older
8 resources and connect into analog resources as well.
9 We lose a little bit of the intercommunications, but
10 it is not a significant event.

11 So we are very much backwards-compatible,
12 and allow the systems to grow forward. You can install
13 our equipment over your existing equipment and then
14 begin to migrate forward to more advanced technologies
15 by adding the technology to the system and creating a
16 template that allows the two different technologies to
17 talk to each other.

18 It's a seamless event, because at the 250
19 millisecond connect time, basically by the time the
20 radio's connected and you're ready to talk, the other
21 resource is up. So you can cross-connect UHF to 800
22 and migrate to 800 system utilizing the system.

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1 I'm going to put Bob on next and let him
2 tell you a little bit about what we've done for
3 applications.

4 MR. FEY: Good morning, and I would point
5 out something very quickly, that the basic, underlying
6 design that Bob came up with was specifically
7 orientated towards public safety.

8 That happens to be Bob's background, as is
9 mine. It was the choice of the marketing department,
10 God rest their souls, that opted to look into the
11 commercial sector, rather than focusing on public
12 safety, which was the original intent of the system.

13 Bob sort of sketched some of the various
14 things. Let me give you an analogy, basically, how all
15 this comes together. Most of you by now operate on
16 some sort of computer system, some sort of network in
17 your facilities and are familiar with the fact that
18 you can access various resources.

19 If you need to print something out on that
20 \$500,000 custom printer that's down in the basement or
21 whatever, you can do it from your desktop. In essence,
22 that's the exact kind of environment that we provide

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1 for your RF resources.

2 We make them a network node, a peripheral,
3 if you will, and any peripheral is accessible from
4 anywhere in the network assuming that it has been set
5 up in the software table and people have the
6 appropriate access.

7 This allows us to do a lot of things.
8 Difficult to talk about, because the fact is that
9 you've moved all this hardware into a software
10 environment, where basically if you can think about
11 what you need to do, chances are you can write it up
12 into the database and that's precisely how it will
13 perform.

14 It has a number of advantages. Obviously,
15 there's an interoperability advantage, because you can
16 take all this dissimilar equipment, we don't care what
17 band it's on, we really don't care too much about
18 protocols because we have a multiplicity of ways to
19 deal with protocols, and you can bring it together in
20 a seamless network, which as Bob indicated to you has
21 real-time, and real-time is generally considered to be
22 anything less than 500 milliseconds, or one-half

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1 second access time, from anywhere to anywhere in the
2 network.

3 That pales in comparison when you talk
4 about trying to accomplish interoperability either
5 through your dispatch console or through some of these
6 rapid deployment, voice-actuated switching systems,
7 where there are inherent delays and they have an
8 inability to deal with simple things that you will run
9 into, such as feedback.

10 If you're cross-connecting multiple
11 channels, whether they're on the same band or
12 different bands, that actually come into your dispatch
13 center and it isn't done in an intelligent fashion,
14 the first thing you end up with is a massive amount of
15 feedback that renders your dispatch center virtually
16 inoperable.

17 Only with the kind of approach we've taken
18 do we have the ability to address those issues, and do
19 it in a fashion that maintains such real-time access
20 from anywhere to anywhere that things appear to be
21 seamlessly operators, and they can be used without a
22 lot of training.

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1 It also allows us to do -- I don't care
2 how good your rapid deployment is, there's nothing
3 better than having the systems in place and available
4 to call up at a moment's notice, by overlaying on top
5 of your existing infrastructure, potentially adding
6 some additional RF to bring resources that you would
7 not normally need in day-to-day operation.

8 An example would be, I just came back from
9 looking over Marion County, Kansas, where they have --
10 Marion County's bordered by six other counties that
11 run from VHF lowband to 800 trunked, with VHF highband
12 and UHF in the mix as well.

13 They want to go to a common platform
14 within the county, but obviously don't want to lose
15 interoperability with the rest of the surrounding
16 counties. It's kind of an appropriate application. As
17 Bob pointed out, also we provide a migratory path.

18 By being frequency-transparent and
19 protocol-agile, we can bring in your legacy system
20 today and provide you the foundation that's going to
21 allow you to migrate to newer technologies as either
22 the technology moves forward or funding becomes

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1 available, whatever your particular case may be.

2 So, basically it's a very, very robust
3 platform that allows you to actually utilize the
4 resources you have available optimally and provides
5 you the ability to bring dissimilar RF entities and
6 thus dissimilar entities, that you suddenly may need
7 in the course of some disaster, together very rapidly
8 and in a seamless fashion.

9 So it's somewhat of a unique critter and a
10 little bit different approach. Obviously, the other
11 point would be that our intent is to get as open an
12 architecture as possible, so that we can support
13 anything or give you a gateway into anything, so that
14 you're not faced with some of the limitations that
15 proprietary systems unfortunately bring to the table.

16 That's a quick overview. We could go over
17 different cases, but I'd be glad to take any questions
18 you might have. Yes, sir.

19 MR. McEWEN: I'm just curious, we've been,
20 two or three of us in the room here have just recently
21 been discussing interoperability with a regional fire
22 system. The issue of using gateways or of this kind of

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1 a solution that you're talking about, it's been told
2 to us that the NFPA standard 1221, the National Fire
3 Protection standard, doesn't allow for the use of this
4 type of equipment on the fire ground.

5 They have to have simplex. Have you looked
6 at any of that? Are you aware of that?

7 MR. FEY: I believe that's probably correct
8 as far as fire ground goes. Fire ground is generally
9 treated and generally brought off the system for the
10 specific reason of not tying up your ability to
11 dispatch and respond to other incidents.

12 Fire ground channel generally is simplex
13 and is generally run low-power and would be off the
14 network as a normal rule, generally under the control
15 of the localized incident commander.

16 MR. McEWEN: See, the issue that they're
17 raising is that they have fire units on UHF and fire
18 units on VHF that need to talk to each other on the
19 fire ground and that this would not allow that to
20 solve that problem. I don't know.

21 MR. FEY: Well, it certainly technically
22 would have that capability. I think we'd probably have

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1 to talk to the NFPA to see --

2 MR. McEWEN: Well, I'm suggesting you might
3 want to do that.

4 MR. FEY: To see what their take on that
5 might be. I don't know that they would -- I think that
6 that rule was potentially not directed at this
7 particular application, but we probably have to
8 discuss that with them. Yes, sir?

9 MR. NASH: Glen Nash with the State of
10 California, and probably a question for the first Bob.
11 We have heard through other forums some concerns
12 expressed about interconnecting digital systems of
13 different protocols, particularly digital systems
14 using different vocoders operating at low data rates.

15 This gets into the concerns of potentially
16 a federal V/cell system being cross-connected to a
17 Project 25-type IMBE vocoder cross-connected to a
18 Tetra Thompson-type vocoder. Wherein the concern is
19 you certainly wouldn't want to digitally connect
20 those, because the protocols are too significantly
21 different, but even going back to an analog mode and
22 then re-encoding is not desirable due to the

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1 inefficiencies of each of those vocoders and the
2 differences in their audio recovery.

3 Do you have any experience in actually
4 combining those types of systems to show whether that
5 statement is true or false, or do you have an opinion
6 about it?

7 MR. STONE: Well, we have not as of yet
8 tried combining them together. It is a subject we're
9 aware of and we're doing some research into trying to
10 determine a way of doing it without, well first of
11 all, tremendous loss in fidelity that you get going
12 back and forth to analog.

13 I would like to, of course, stay in the
14 digital domain. Right now I don't have an answer for
15 you, but perhaps at a future meeting I will be able to
16 answer that question for you.

17 MR. NASH: Okay. Have you actually run a
18 digital voice system through -- I heard the comment
19 made that your own PCM modulation, the modulation for
20 operation in your system introduces some loss of
21 quality.

22 So, does that impact then have a cascading

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1 impact on the operation of a digital voice radio
2 system?

3 MR. STONE: In a digital radio system,
4 first of all we wouldn't go back to analog for any of
5 the connections to the switch. It's when you go
6 through back to analog that, of course, you lose the
7 fidelity in the system.

8 So in integrating with a more modern
9 technology in the digital, we would stay completely
10 digital. For example, if you use the DVSI vocoder
11 you're going to get a 4-kilobit stream.

12 We would just embed that stream in one of
13 the PCM packets that are sent to the switch. It would
14 be routed through the switch and if you are going to
15 another DVSI vocoder, it would arrive unmolested.

16 MR. NASH: Well, if you were going then to
17 an analog radio you would not decode until you got to
18 the analog interface?

19 MR. STONE: That's correct.

20 MR. NASH: Okay.

21 SGT. POWELL: John Powell. A similar
22 question. One of the problems that we have with

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1 interconnecting encrypted systems is the absolute
2 requirement, certainly at the federal level, and I
3 think emerging in state and local, to provide end-to-
4 end encryption where the channel is never broken down
5 in a switch of this type.

6 I'm just wondering if you could comment,
7 if you support that. I've been doing a lot of research
8 around the country on systems and that is their big
9 problem now in tying any encrypted system in is the
10 ability to maintain end-to-end encryption.

11 MR. STONE: Well, it depends upon, again,
12 the environment that the endpoints are connected to.
13 If you're connecting to an analog environment, if the
14 encryption is such that it can go through a basic
15 codex in and out, a ulaw codex without losing its
16 capability to be decoded on the other end, then that's
17 not a problem going in as an analog radio being
18 converted and passed down through the digital switch.

19 That's our current structure. Under the
20 forthcoming board that we're going to be releasing
21 next year, we're going to have 14-bit codex on that
22 board that will then be able to pass that information,

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1 especially from an analog radio in encryption, without
2 possibly molesting it in phase or amplitude over the
3 frequency range.

4 So utilizing that board you would probably
5 be very successful in maintaining end-to-end
6 encryption through the network. In a digital
7 environment, we would pass anything which came in
8 digitally through unmolested, so you still would
9 maintain your end-to-end encryption.

10 SGT. POWELL: That was my specific question
11 was for digital, where all the participants are
12 digital.

13 MR. STONE: The only time that basically
14 you want to decrypt that would be at an endpoint, and
15 hopefully you'd have that endpoint in a secure
16 environment. You know, if you're going into, say, your
17 local PBX or into your dispatch center to talk on a
18 console, that would probably be the only place you'd
19 want to decrypt that information.

20 MR. FEY: Any more questions? Thank you
21 very much.

22 MR. STONE: Thank you for the time.

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1 MR. FEY: Appreciate it.

2 (Applause.)

3 MR. WILHELM: Those of you who looked at
4 the agenda for the meeting noticed that Richard
5 Sheirer was going to address us today. He is a member
6 of the Giuliani Partners Consulting Group and was
7 asked by the Mayor to be in Los Angeles today.

8 I think he probably had his priorities
9 straight, and he flew to Los Angeles and couldn't be
10 with us today. We're going to take about a 15-minute
11 break now and when we return, we'll have the
12 subcommittee reports and wind up this meeting
13 hopefully within the hour.

14 So can we be back at 12:20, please. Thank
15 you.

16 (Whereupon, the foregoing matter went off
17 the record at 12:04 p.m. and went back on the record
18 at 12:21 p.m.)

19 MR. WILHELM: We're going to start the
20 subcommittee reports with the Interoperability
21 Subcommittee Chairman John Powell. John, if you would,
22 try to accelerate your presentation so that we do get

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1 these people out in time to catch their airplanes.

2 SGT. POWELL: I'll talk to the back of the
3 Steering Committee here and to the audience. Michael,
4 let me present you with two copies of this report so
5 that you can pass one along, if I can find the right
6 one here.

7 One for you for the record and then one
8 copy for Kathy. I presented to the Steering Committee
9 copies of the letter generated after yesterday's
10 meeting. I'll just briefly summarize that, the
11 deliberations we had yesterday.

12 We considered a number of issues. First on
13 that list was reconsideration of two technical items
14 that were included in the November 12 letter from
15 Chairman Wallman to FCC Commission Chairman Michael
16 Powell.

17 That was reconsideration of the network
18 access code for the Project 25 standard on the
19 interoperability channels. We recommended changing
20 that NAC code from \$61 to \$293.

21 The reason for that is that \$293 is the
22 default code that is shipped with equipment from the

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1 factory when no other code is specified. We felt that
2 would be the appropriate NAC code to use.

3 Also, at the end of that November 12
4 letter there was a discussion on the 50 KHz channels,
5 which is kind of related to the discussion we had
6 earlier today with regard to the TIA standard.

7 In that recommendation which was forwarded
8 to the Commission it was recommended that six of those
9 50 KHz channels be restricted nationwide for only 50
10 KHz operation without the possibility of aggregation.

11 The six channels that were picked
12 initially were all in one of the sub-bands at 700 MHz.
13 We recommended splitting those up such that the two
14 center channels closest to each other and it would be
15 at the band edge adjacent to the commercial
16 assignment, I believe.

17 Is that right, David, that the ones that
18 we picked? Talking to Dave Eierman back here. From the
19 discussion this morning? It would be 46, 7, and 8; 73,
20 4 and 5 were the two that were in the center of the
21 band and those were the ones that we recommended after
22 discussion yesterday, with 46 and 48, and 73 and 75

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1 reserved by footnote in the FCC's table of allocation
2 as 50 KHz nationwide common interoperability channels.

3 All of the remainder of this four
4 additional 150 KHz interoperability channels, that
5 would be permitted to be aggregated, although, as
6 pointed out earlier, we'd all have to start out at 50
7 KHz operation until the standard is further developed.

8 There was also significant discussion at
9 the meeting in Washington regarding channel-naming and
10 expanding the SIEC's role to include management of
11 interoperability spectrum and other bands.

12 After yesterday's meeting we had prepared
13 a common table that included not only all of the state
14 and local interoperability channels in all bands, but
15 we also rolled into that table the NTIA or federal
16 channels that have been designated in the VHF and UHF
17 bands for shared interoperability with state and local
18 agencies once the federal agencies have completed
19 their narrowbanding, which is, we're informed, still
20 on target for a couple of years from now.

21 We recommended that the Commission
22 consider converting one additional lowband channel for

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1 use by the fire service so that there is a pair of
2 channels in lowband, one each for fire and one for
3 police.

4 We went on then within the table to come
5 up with a standardized name for each of the almost 100
6 channels, and I've given copies of that document to
7 Michael. We, in that letter, had a -- or in the letter
8 have a structure that was established.

9 We took the large number of different
10 names that existed at the last meeting, different
11 service identifiers and shrunk them down to a group of
12 seven. The current structure would be the first
13 character designating the RF band, with one for
14 highband VHF, three for lowband VHF, four for UHF,
15 seven for 700, eight for 800.

16 In other words, it would be the first
17 digit of the frequency band, the lowest frequency
18 within the band. The next two to four characters would
19 designate the type of use. DAT for data, FIR for fire,
20 EMS for emergency medical services, LAW for police,
21 MOB for mobile repeater, CAL for calling, and then
22 everything else would be TAC.

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1 There would be no designation of whether
2 it was general use or use by all public service
3 agencies or whatever. Everything else would be TAC. If
4 it was a federal agency in front of that designator --
5 excuse me, if it was one of the federal frequencies,
6 the letter "F" would be added.

7 Finally, after that, in characters five
8 through seven would be either a two- or three-digit
9 sequential number that would be unique to that
10 channel. It would not be repeated in any of the bands.

11 Therefore, if we had a radio that had less
12 than an eight-character display, simply showing the
13 channel number would guarantee that you ended up on
14 the unique channel with the one additional character
15 at the end which is the letter "D".

16 If you are on a paired channel and
17 operating on the base frequency, the paired frequency
18 has the same number except that the letter "D" for
19 "Direct Mode" is affixed at the end of it.

20 We did discuss this in detail yesterday
21 and there was no dissent in recommending that the
22 Steering Committee forward this to the Commission.

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1 MR. WILHELM: Thank you, John. The Steering
2 Committee has the documents that John spoke of, and he
3 gave a pretty complete description of what the
4 subcommittee recommends.

5 I would ask now if we have consensus on
6 the Steering Committee to submit this information to
7 the Commission.

8 SGT. POWELL: Michael, let me add one more
9 thing that was on here, which I just noticed. We did
10 talk quite a bit yesterday about how we could assure
11 that these channels are clearly highlighted as for
12 interoperability only, and if there are service
13 restrictions.

14 We did come to the conclusion that the
15 Commission should do that as they currently do, by
16 footnote to the frequency tables, but with the
17 recommendation that they look at standardizing that
18 footnote, so that they're not different in the
19 different bands; making it very clear that it's
20 interoperability, and if it's fire that it's reserved
21 for fire interoperability or law, et cetera.

22 That's also one of the paragraphs in this

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1 letter.

2 MR. WILHELM: And may I assume that the
3 Steering Committee agrees with the change that John
4 just described? Thank you, John. Next we have the
5 Technology Subcommittee with Glen Nash.

6 MR. NASH: I hope I can make this
7 presentation shorter than yesterday's meeting. We
8 dealt with really two items yesterday. The first was a
9 review of a statement that we had approved at the last
10 meeting and forwarded to the Steering Committee.

11 I drafted that statement up to put it in
12 black and white so everybody could see it and that
13 generated a significant amount of discussion yesterday
14 and recommendations to modify it.

15 In the back of the room was the copies of
16 the statement as we began yesterday. That's what I've
17 handed out to the Steering Committee. I apologize on
18 not being able to put together the revised statement.
19 I'll go over the changes right now.

20 As I looked at this last night, I came to
21 the conclusion that while this was initially done a
22 single paragraph, that there probably are at least

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1 three distinct thoughts in that paragraph, and that
2 therefore it would be best to divide it up into three
3 separate paragraphs.

4 My suggestion is that we do that, the
5 first break being part-way down, down about the fourth
6 line, the sentence beginning, "Regional Planning
7 Committees, RPCs." I think that should be broken off
8 into a separate paragraph in and of itself.

9 Then the third break would be the next
10 sentence, "Users may design their radio systems," that
11 would become a separate paragraph there to the end and
12 actually probably would be best as the second
13 paragraph.

14 Most of the changes occur, then, in what
15 I'm identifying as being the first paragraph, that top
16 sentence. The concerns came around the issue of should
17 we have just a single three-mile buffer zone, or
18 should we have two buffer zones around a
19 jurisdictional area.

20 The decision was made that we should have
21 two, the first being a three-mile buffer that is
22 appropriate for rural and suburban areas and the

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1 second being a five-mile buffer that would be
2 appropriate for urbanized areas.

3 We would then be adding a couple of
4 sentences to that paragraph, the first being a
5 sentence to the effect that the wider buffer area
6 typically is required to allow the higher signal
7 levels necessary for in-building coverage within
8 urbanized areas.

9 Again, the reason for the five-mile versus
10 three-mile buffer is not an issue of we expect
11 agencies to need to travel outside of their
12 jurisdictional area by a greater distance in the
13 urbanized areas, but a recognition that in order to
14 attain the higher signal levels that are necessary for
15 in-building coverage and probably necessary to
16 counteract some of the interference issues that we
17 expect, that a natural outfall of that is that the 40
18 dBu contour will be pushed outward from the
19 jurisdictional area in additional distance, just as a
20 fact of life in radio design.

21 The second sentence that we would add to
22 that section then gets into, well, how do you decide

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1 whether an area is rural or suburban or urban?
2 Therefore, we recommend RPCs shall determine whether
3 an area falls within the rural/suburban or the urban
4 designation.

5 The NCC suggests that the top quartile of
6 counties based on population density in the latest
7 census be the breakpoint for the urban designation.
8 This does not prohibit, however, the RPCs from
9 deciding to add additional areas as urbanized based
10 upon their own local needs or in some cases, perhaps,
11 designating some areas as not being urbanized.

12 Counties can be a pretty broad statement.
13 I can think of San Bernardino County in California,
14 where a very small portion of it would certainly fall
15 within the urbanized description, but the largest
16 portion of that county is certainly rural.

17 Finally, the last change that we're
18 recommending on this applies to that third paragraph,
19 the one beginning, "Users may design their radio
20 systems." It really affects the last sentence there.

21 We would suggest changing that sentence to
22 read, "In doing so, however, users shall not cause

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1 additional interference to co- and adjacent channel
2 users." So, with those changes I will get those out to
3 the Steering Committee in a cleaner form in the first
4 part of next week, but we would look at least for
5 approval on concept.

6 MR. WILHELM: Chief?

7 MR. McEWEN: Yes, I'm in support of all of
8 that with just one question and that is, all right, so
9 you envision the Regional Planning Committees to make
10 the determination of rural or urban.

11 MR. NASH: Correct.

12 MR. McEWEN: And I wasn't here for all that
13 discussion yesterday morning, so I don't want to re-
14 discuss that, but the issue in my mind and I'm worried
15 about it is that, you know, I mean you're not worried
16 about population density, you're worried more about
17 buildings and things that would create --

18 MR. NASH: You're right, and that became --
19 How do you define that and take some of the
20 subjectivity out of it. The recommendation was that,
21 well, high buildings tend to be in areas that are
22 highly dense in population.

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1 MR. McEWEN: Right, in general, sure. Well
2 here's my concern is that if the Regional -- Your
3 recommendation is that the Regional Planning
4 Commission will have the final say on that, so that
5 there's some flexibility.

6 MR. NASH: Right. In doing the frequency
7 planning, they're the ones that are doing that, so
8 therefore let them make that decision.

9 MR. McEWEN: I can see like, for instance,
10 I'm thinking of an area where you're going to have a
11 system and on the one side of it it's lots of big
12 buildings, and on the other side of it there's
13 nothing.

14 The question is, I mean, do you envision
15 the Regional Planning Committee having the flexibility
16 to be able to deal with that so that it could go over
17 five miles over here and three miles? Does that make
18 sense?

19 MR. NASH: I think, yes. We are envisioning
20 that the RPC would have the flexibility to make that
21 decision.

22 MR. McEWEN: Well then I support this.

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1 MR. WILHELM: Glen has pretty thoroughly
2 described the changes in the document that you have.
3 I'm going to recommend that you adopt the document
4 today and give Glen editorial privileges to modify it
5 as he described. Is that agreeable to the Steering
6 Committee?

7 (Chorus of "Yes.")

8 MR. WILHELM: We have consensus on that?
9 Thank you very much.

10 MR. NASH: Thank you.

11 MR. WILHELM: Glen, you have other issues?

12 MR. NASH: The last issue, and this is more
13 of an informative issue for the Steering Committee, as
14 you're all aware, we had decided several meetings ago
15 to adopt the ANSI 102 series common air interface as
16 the interoperability standard for the narrowband voice
17 and data channels.

18 At the latest TIA meeting I became aware
19 that TIA is looking at a significant modification to
20 that document. They refer to it as Revision K. Wayne
21 Leland this morning reminded me that that's an
22 internal description of that revision, that when

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1 published it will result in an "A" version of the
2 actual ANSI standard.

3 But what this revision does is the major
4 portion of the revision adds some standards relative
5 to automatic frequency control, which is necessary in
6 order to comply with the FCC rules on frequency
7 tolerance for mobile and portable radios.

8 Therefore, this is just, if you will, a
9 heads-up that as soon as TIA has formally adopted that
10 latest revision, that we should go forward to the
11 Commission with a recommendation that the FCC rules be
12 modified to make reference to the "A" version of the
13 standard, thereby incorporating that significant
14 change into the requirements of the rules.

15 So I believe Michael wants to suggest that
16 we do that in concept at this meeting.

17 MR. WILHELM: Since Glen has expressed that
18 the change in the standard is necessary for the
19 equipment to meet the FCC's frequency stability
20 standards, it seems a non-controversial change and if
21 we have consensus of the Steering Committee, we will
22 recommend at such time as that standard is issued that

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1 it be included in the Notice of Proposed Rule-Making
2 and incorporated in the rules.

3 Do we have consensus among the Steering
4 Committee to do so?

5 (Chorus of "Yes.")

6 MR. WILHELM: Thank you very much.

7 MR. NASH: And my last, we're continuing to
8 try to look for a loading standard for the wideband
9 data channels. Sean O'Hara from New York has
10 volunteered to try to take that on.

11 The basic problem is trying to figure out
12 how much data you have to pump down a pipeline how
13 fast. So we need sort of some raw data and if anyone
14 has ideas, Sean is certainly open to suggestions as to
15 how to start the calculations.

16 So, that's it.

17 MR. WILHELM: Okay, Glen, thank you very
18 much. Teddy, you're up next.

19 MR. DEMPSEY: Good afternoon. Yesterday at
20 the Implementation Subcommittee meetings Tom Tolman
21 submitted version two of the guide book provided by
22 NPSTC, and gave a copy to Michael.

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1 There are 125 copies, Tom, that are going
2 to be distributed to regional plans. We've also had
3 some discussions about distributing additional sets of
4 documents to the SIECs.

5 The guide, as you all know, is going to be
6 revised again and again and again, but the document
7 came out really good. I just want to thank Tom, John
8 Powell and the crew over at the NPSTC support office
9 for the job that they did. It's really good.

10 Really, the only piece that was of
11 significant discussion yesterday for the
12 Implementation Subcommittee was Region 5 plan, Dave
13 Buchanan's plan. We discussed for some time how to
14 deal with getting the plan reviewed and out of the FCC
15 so that we could use that plan to now help the other
16 regions form their plans.

17 The thoughts from the subcommittee are
18 that the sooner we get Region 5's plan back, the
19 sooner we will be able to make corrections to the
20 guide book and additionally, help the other regions
21 form.

22 In speaking with a lot of the regions that

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1 are out there now forming, they are waiting for the
2 first plan to come back from the FCC before they send
3 theirs in. I guess, and it's -- the thought there is
4 that if there are any changes and the FCC does approve
5 that, that they'll follow that first plan out and then
6 theirs should have no problem going through.

7 We prepared a letter to the Chair of the
8 NCC describing our position for the Implementation
9 Subcommittee, that we would like to get the FCC to
10 expedite the review and approval of Region 5's plan.

11 We also took the liberty of preparing a
12 draft letter from the Chair of the NCC to the Chairman
13 of the FCC requesting that the FCC look at expediting
14 that process. I guess I should have given these out
15 this morning.

16 If you just want -- the Steering Committee
17 to take a few minutes to look at it. The letter from
18 the Implementation Subcommittee to Kathleen is pretty
19 much the same.

20 MR. LOEWENSTEIN: I would recommend that we
21 do this.

22 MS. WARD: Yes.

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1 MR. WILHELM: As the stand-in for the
2 Chair, I would like to make one recommendation to the
3 Steering Committee, and that is that the Chair contact
4 FCC staff on this issue before writing the letter to
5 the Chairman.

6 If it can be resolved at the staff level,
7 the letter would be unnecessary. So essentially what
8 I'm recommending is that you leave it to the
9 discretion of the Chair how to approach this matter,
10 and to issue the letter only if it can't be
11 satisfactorily resolved at the staff level.

12 Are there any comments on that approach
13 from the --

14 MR. MCEWEN: I would like to -- I don't
15 have a problem with that in general, but I think that
16 the Steering Committee should be consulted. In other
17 words, we want a quick answer as to what's going to
18 happen.

19 So the point is that giving the staff an
20 opportunity to say something is going to happen by --
21 We've been told twice now that things are going to
22 happen and they didn't.

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1 So this is our effort, this is our time to
2 get that going. If the staff doesn't indicate that
3 it's going to give us a turnaround here in a
4 reasonable period of time, I think what we're trying
5 to do is to get the Chairman of the Commission to tell
6 the staff they've got to designate appropriate
7 resources to get it done.

8 That's all we're trying to do here.

9 MR. WILHELM: Well, let me suggest this,
10 that if it's not satisfactorily resolved at the staff
11 level within 30 days of the date of this meeting, then
12 the letter will be sent.

13 MR. McEWEN: That's reasonable. All we want
14 to do is get somebody from staff to adequately address
15 the issue. We don't feel that's been done. We were
16 given some promises before that didn't seem to work.
17 So I think that would be good.

18 MR. DEMPSEY: Yes, that would be fine with
19 me.

20 MR. WILHELM: Bearing in mind that the
21 result of the evaluation of the plan may require the
22 submission of additional information.

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1 MR. McEWEN: Sure. I don't think anybody
2 disagrees with that.

3 MR. WILHELM: Thank you, Chief. Do we have
4 consensus of the Steering Committee on that approach?

5 (Chorus of "Yes.")

6 MR. WILHELM: The Steering Committee will
7 be kept informed by the list server. Thank you.

8 MR. DEMPSEY: And the primary concern of
9 the Implementation Subcommittee was that there are
10 areas where this spectrum can be used right now.
11 Manufacturers have announced equipment. The areas
12 where this is available, they would like to proceed
13 with their plans, but there is a bit of apprehension,
14 because they don't know what the reaction is going to
15 be.

16 If we were -- you know, the rules are in
17 place so these channels, once their plans are
18 approved, are ready to be allocated to the agencies
19 that need them. That's it.

20 MS. WARD: Yesterday -- Marilyn Ward,
21 NPSTC. Yesterday there was not any real discussion
22 about the item that I'd like to bring up to the

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1 implementation group. But there was some sidebars on
2 it, and so I wanted to see if the audience had any
3 comments, too.

4 In Florida, I've noticed that we've had
5 low-power TV stations that have started to implement
6 in Florida. We thought they were going to, like, go
7 away. So now as I run through the channels, I'm
8 picking up channels that I hadn't picked up before.

9 That concerns me, because it was my
10 understanding that when public safety -- when it was
11 determined that public safety was going to come in
12 this spectrum we were going to move out broadcasters;
13 we weren't going to have new ones popping up.

14 So I wanted to bring that discussion up as
15 a concern of mine, and is there a methodology that we
16 could put this spectrum into abatement, or something
17 where new licensees don't start popping up?

18 SGT. POWELL: John Powell, Chair of the
19 Interoperability Subcommittee. It's a real concern to
20 me, first of all that the Commission would even
21 consider issuing a license when this spectrum has been
22 designated by Congress, or by the Commission as a

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1 result of an act of Congress, for use by public
2 safety.

3 Even though they're secondary, and may not
4 be in use in area, we are going to have this spectrum
5 used for interoperability and it would be virtually
6 impossible in an incident where people were coming in
7 from outside trying to make use of this spectrum to
8 save lives and property to get a TV station turned off
9 in a timely manner to be able to use it, short of
10 sending somebody over there to cut the power to the
11 station.

12 I don't see how the Commission can even
13 consider issuing any authorizations in these channels
14 anymore. It just doesn't make any sense.

15 MR. NASH: Glen Nash, and representing the
16 State of California on this issue. I, too, have some
17 concerns. It really comes down to I don't think the
18 Commission should be issuing any new licenses for any
19 sort of television use in the public safety channels.

20 Even though those license may clearly
21 state that they're secondary, the licensee and the
22 Commission and everybody involved may completely

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1 understand it's secondary; the public that are
2 watching those stations do not understand that it is
3 secondary.

4 At some point in the future when we do
5 need to get those stations turned off, the public is
6 not going to understand that they're losing television
7 service, and it will become a huge political problem
8 for us to actually get those stations off the air,
9 even though, as I say, everybody understands they're
10 secondary.

11 MR. KNIGHT: Curt Knight, State of Arizona.
12 I just wanted to champion the ideas that have already
13 gone forth on that issue. In Arizona, we've seen at
14 least one implementation that is on the air, and I
15 believe there are several others in the works that
16 have been licensed.

17 I just wanted to add our weight to those
18 comments.

19 MR. WILHELM: The staff does not have at
20 its fingertips the conditions of the rules under which
21 these low-power television stations went into
22 operation. We will, however, investigate it and get

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1 back to Washington, and we'll inform you of the
2 regulations and the status of those stations via the
3 list server.

4 SGT. POWELL: Michael, I'm just wondering
5 if it would be appropriate for the Steering Committee
6 to -- if a letter is going to be coming forth from the
7 Steering Committee addressing other issues, for the
8 Steering Committee in its next letter to the Chairman
9 -- You don't want to mix the two?

10 MS. WARD: Let them get back with us and
11 then at our next meeting we'll bring it up again.

12 SGT. POWELL: Okay. It needs to be really
13 clear.

14 MR. DEMPSEY: Yes, and we'll take that on
15 as a task in the Implementation Subcommittee to track
16 it and work with you so you have at least a single
17 point. If anyone here has instances where they're
18 aware of it, I'm sure we'll be able to get the
19 information pretty easily from the FCC, but if you
20 just put out on the list server particular areas that
21 we know that this is happening, then we'll target
22 those and investigate those channels.

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1 I'll ask David to give me a hand with the
2 -- to find out what TV channels are up there.

3 MS. WARD: Can I have another comment? Not
4 on the same issue, I just wanted to, before we end up
5 closing this meeting, kind of go back a few years to
6 when we were doing the NPSPAC channels and the
7 struggling that we had when we were doing those
8 because we had no common database, we had no real
9 guide books.

10 We had none of the things that we have
11 today in place that have really come as a result of
12 the support of NIJ and through Tom Tolman's office and
13 Dave Funk. So, NPSTC is getting a lot of credit for
14 the guide book, but in reality the implementation
15 committee supplied the information.

16 It was a true collaborative effort. The
17 implementation committee provided the information. Way
18 back about four years ago at an APCO meeting, a bunch
19 of us sitting around a table said, "We can't do this
20 that same way again. Well, how are we going to do it?"

21 So we talked about these problems that
22 happened in 800, and let's not let them happen in 700.

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1 NIJ stepped up to the plate, provided us a support
2 office to move forward on this.

3 So, I would like to go on record thanking
4 Ted's group as well as Tolman's groups, Dave Funk,
5 John Powell for putting the final document together
6 and just the support of NIJ both financially and
7 staff-wise to help us along with this process.

8 We all knew we weren't going to see any
9 real system set in place as this came out, that we had
10 to create our own. Public safety was going to have
11 create their own system and they stepped up to the
12 plate to do that.

13 So my personal thanks, and I'm sure I'm
14 speaking for other committee members also.

15 MR. DEMPSEY: You're welcome. That's all I
16 have.

17 MR. WILHELM: And I would like to add
18 thanks to Ted Dempsey for arranging with the Fire
19 Department of New York for us to be able to use this
20 facility and also for his company IXP furnishing
21 refreshments during the course of the meeting.

22 We usually have a public participation

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1 segment at this point, but we're running very, very
2 close on time, so if there's no objection from the
3 audience, I am going to skip that portion of the
4 meeting and proceed directly to future meeting
5 schedules.

6 We have a meeting scheduled on February 20
7 and 21 in Washington, D.C. I'd like to know the
8 pleasure of the Steering Committee on whether to try
9 to set a date beyond February for the next meeting.

10 The reason I question whether it should be
11 done now is that it may be a function of when the
12 wideband data standard is adopted.

13 MR. MCEWEN: I think we're better off to
14 wait.

15 MS. WARD: So do I. We won't really know.

16 MR. WILHELM: So the consensus seems to be
17 that we will wait to set that meeting date. You'll be
18 informed of it on the list server, and of course, at
19 the February 20 and 21 meeting.

20 Thank you all for coming. Thanks to some
21 valuable contributions to public safety and have a
22 safe trip home.

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(Applause.)

(Whereupon, the foregoing matter went off
the record at 12:57 p.m.)

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