CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON FIRE AND CRIMINAL JUSTICE SERVICES
COMMITTEE ON PUBLIC SAFETY
COMMITTEE ON TECHNOLOGY

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HELD AT: Committee Room
250 Broadway, 16th Floor

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PETER F. VALLONE, JR.
FERNANDO CABRERA
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A P P E A R A N C E S (CONTINUED)

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Deputy Chief
Communications Division
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Robert Boyce
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CHAIRPERSON VALLONE: Good morning everyone. Welcome to today's joint hearing of the Public Safety, Fire and Criminal Justice and Technology Committees. This is a follow-up hearing to other hearings that we've held, back in 2002 and 2006, which examined advancements made to communications technology among first responders after September 11th.

Today, we come together a little after the ten-year anniversary of the attack, and our city has worked tirelessly in the past ten years to revitalize Lower Manhattan and provide a proper memorial for those lost. It's also important that we honor those lost by continuing to work together to ensure that our city's public safety entities are better equipped to handle all types of emergency situations. For that reason, today we are going to reassess our technology among first responders ten years after 9/11.

The 9/11 Commission report and the McKinsey report and the testimony we heard in 2006, all provided insight into the city's interagency response and preparedness for large scale disasters. For the most part, NYPD's

communication systems were effective on 9/11, in that there were minimal amounts of dead air. Many improvements have been made, however, and more can still be made.

Most specifically, three improvements have been deemed necessary. Number one: the need for more interoperability between NYPD and other city agencies, as well as with those other jurisdictions who provide aide to our city. Two: the need for a dedicated broadband network to public safety. Three: according to Ray Kelly himself, the need for a backup 911 system.

In 2006, we learned that the NYPD would begin using new radios with accessibility to more channels in response to the FDNY's changeover to a similar UHF system. We also learned from DoITT about the city's new broadband network initiative known as NYCWiN. We hope to learn today more about how the NYPD is using those interagency communications and utilizing NYCWiN.

We're also going to discuss proposed Resolution 870-A, sponsored by myself, which calls upon the United States Congress to

pass and the President to sign into law the Public Safety Spectrum and Wireless Act S911. This bill has been supported by Police Commissioner Kelly, Senator Gillibrand, Senator Schumer, Congressman King, and would provide for a nationwide interoperable broadband network, which would provide our city's public safety entities with the ability to be interoperable with one another as well as with federal authorities and those from other localities on one main system. It will allow for high speed data transfer and would effectively bring public safety in our city into the forefront of technology.

We learned on 9/11 that the inability to effectively communicate with one another during emergency responses can be the difference between life and death.

My co-chairs and I are dedicated to ensuring that we continue to work hard at providing our first responders with the best methods of communications and the most up to date equipment. Today we're all in this room for that purpose. We have members of the administration with us today. We look forward to learning more

about the advancements made by the city in the last ten years and what still needs to be done.

We are going to have a second hearing on October 6th at 1:00 p.m. On that day, Ray Kelly will be testifying. On that day we're going to go into a more broad topic about safety in our city since 9/11, what we have done to be safer and what still needs to be done. If there are any other surprises, such as our ability to take out aircraft, we'll probably learn about them on that day. Perhaps we have the ability to deflect meteors; I'm not sure, but mark the calendar for October 6th at 1:00 p.m.

So, with that being said, I'll turn the floor over to Chair Elizabeth Crowley, who is chair of the Fire and Criminal Justices Services Committee.

CHAIRPERSON CROWLEY: Good morning. Thank you, Co-chair Peter Vallone. My name is Elizabeth Crowley and I am the chair of the Fire and Criminal Justice Services Committee here at the City Council. I'd like to thank my co-chairs, Peter Vallone, Jr., and Fernando Cabrera, and our staffs for their help in organizing this important

hearing.

I'd also like to welcome Deputy Mayor Cas Holloway and the representatives of the Fire and Police Departments and the Department of Information Technology and Telecommunications for being here today.

The terrorist attack of September 11th revealed that there were critical communication problems within and among our first responders. While the City Council has received progress reports from the Administration over the years regarding their efforts to address known problems, I think it is important that we review these efforts in a comprehensive way.

While I recognize the Administration has improved the ability of our first responders to communicate within and among city agencies and with the federal government, I am concerned with the length of time it has taken to make some of these improvements. And I also believe there are some critical improvements that need to be made. In particular, I'm concerned that although $120 million has been spent to improve radio communications within our subways

and tunnels, that there are still numerous dead spots throughout these systems. The issue is of particular concern because the New York City transit system is a major terrorist target.

I am also concerned about emergencies in high rise buildings. When in an emergency in a high rise building, can a firefighter communicate effectively with their radios to the command center? Although post radios and crossband repeaters have improved communications in high rise buildings, I understand that there is still room for improvement.

While NYCWiN, the city's new wireless network has improved data communication for first responders, this system is being shared with non-public safety agencies, thereby limiting its capacity to improve and enhance public safety. I'm also concerned that the capacity the system has is not being fully realized and I'd like to learn more regarding how the system and its infrastructure is being safeguarded.

I'm also concerned that while some strides have been made to improve EMS

communication, EMS has not been fully integrated into the system. I was recently apprised that although all EMS ambulance are outfitted with the automatic vehicle locators, AVL is not synchronized with the EMS computer aided dispatch CAD system, thereby greatly inhibiting the use to AVL to keep track of and dispatch ambulance in an emergency.

We are obligated to provide our first responders with the best tools available to them to do their jobs that they risk their lives to do and to protect us. We are obligated to provide our first responders with the best tools available to do that effectively. While I look forward to getting an update in that regard, I hope that the rank and file and their representatives are also included in the process.

I'd like to recognize my co-chair, Fernando Cabrera.

CHAIRPERSON CABRERA: Thank you so much. Good morning and welcome to this hearing: First Responder Communications Ten Years after 9/11. The terrorist attack on September 11th, 2001 highlighted a number of significant

communication issues that existed among and between emergency personnel, including the failure of FDNY radios and the lack of interoperability.

The 9/11 Commission report explained that the FDNY and NYPD each consider itself operationally autonomous and on September 11th, they were not prepared to comprehensively coordinate their efforts in responding to a major incident.

When an emergency occurs, first responders must be able to communicate without interference and across departments and regions. The ability of the public safety community to provide a coordinated response to criminal activities, fires, medical emergencies or natural disasters can mean the difference between life and death.

In a City Council hearing on emergency communications in 2006, the FDNY, NYPD, OEM testified on the significant progress that they had made in radio communications, along with changes in protocol since September 11th. Since then, the city has implemented New York City Wireless Network, NYCWiN citywide, which is a high

speed mobile data network, allowing first responders and incident managers at remote sites to share real time video and data feeds. NYCWiN provides field personnel with remote access to operating procedures, maps and other geographic information and the ability to transmit on the scene data in full motion streaming video.

Today, we hope to learn what progress has been made with the NYPD, FDNY and OEM in emergency communication in the last five years and how NYCWiN is being used by emergency personnel. I'll turn it back over to Chair Vallone. Thank you so much.

CHAIRPERSON VALLONE: Thank you, Fernando. It's our pleasure to be working with you for the first time as chair of this committee, ably taking over for Gale Brewer. Deputy Mayor Cas Holloway, this may be your first time testifying, definitely before this committee, in your new title. We congratulate you. We look forward to working with you.

Before I get to you, we've been joined by Council Members Rodriguez, Mendez was here momentarily and Mark Weprin I believe is also

here.

COUNCIL MEMBER WEPRIN: Still here.

CHAIRPERSON VALLONE: Still here, okay. So we have a panel to listen to you now, and the floor is yours.

CASWELL F. HOLLOWAY: Thanks very much. Good morning Chairs Crowley, Vallone and Cabrera. It's a pleasure to be here as Deputy Mayor for Operations. Council Member Weprin and everyone else, thank you very much for the opportunity to testify.

I'm joined here this morning by Chief Dowd from NYPD, Chief Boyce from FDNY and Associate Commissioner Steve Harte from DoITT, all experts and all working together. I can tell you that because I've been in rooms with all three of them for hours upon hours on the subject of today's hearing, which is public safety communications.

So, thank you for the opportunity to testify. I want to start by talking about the need for federal legislation to establish a broadband network dedicated to public safety.

As you know, the September 11th,

2001 terrorist attacks highlighted critical vulnerabilities in the reliability and interoperability of New York City's first responder emergency communications. Over the last ten years, as Chair Vallone you catalogued to some extent, the city has invested heavily in these vulnerabilities, allocating over $258 million of Homeland Security funding to strengthen our communications for first responders in New York City and with our regional and federal partners. As a result, our capabilities today are stronger than ever, and we continue to build upon and improve our first responder communications.

As the Council recognizes, however, federal action on this issue is imperative. The 9/11 Commission urged Congress to enact legislation to provide for the expedited and increased assignment of radio spectrum for public safety purposes. Legislation pending before Congress would do just that, establishing a nationwide interoperable wireless broadband network for public safety. The Administration supports the efforts of the Council to focus local and national attention on this vital issue through

Resolution 870-A. Along with you, we hope that Congress will quickly resolve any issues and pass legislation to achieve this critical public safety initiative.

While congressional action is important, New York City had made significant strides to address vulnerability in our first responders' communications capabilities.

Before going through the status of specific investments that Mayor Bloomberg has made since 9/11, I want to first explain perhaps the most important operational change the city has made since that terrible day: the adoption of a comprehensive standardized Citywide Incident Management System, known as CIMS that requires the establishment of a co-located unified command when multiple city agencies respond to an incident.

CIMS is based on NIMS, the National Incident Management System, which ensures compatibility in incident command systems in use across the 50 state and with federal agencies. NIMS provides a systematic, proactive approach to guide local and state jurisdictions in the prevention, preparation, response and recovery

from terrorist attacks, major disasters and really any emergency.

Through this structure, first responders can leverage the benefit of face to face communications, which at a high level is the most effective way to share information. On 9/11, the NYPD and FDNY, following longstanding operating procedures, established separate operational commands. As a result, and regardless of the radio technology then in use by both agencies, FDNY and NYPD conducted parallel responses, rather than a unified response that can help to ensure the safest and most efficient deployment of resources in an emergency situation.

CIMS establishes clear roles for responder agencies in all types of multi-agency responses from car accidents to a building collapse. Agency participation goes far beyond NYPD and FDNY. The Departments of Health, Environmental Protection and Buildings, just to name a few, frequently have responsibility in a multi-agency response, from testing air quality to accessing structural stability.

For example, just last week, a

façade collapsed at a building being demolished o 125th Street. When I arrived on the scene, I immediately went to the unified command location, where FDNY, DOB and NYPD were coordinating the operation. CIMS is designed to be scalable, facilitating the integration of additional organizations, including the private sector and not-for-profit entities.

Through my continued work with Police Commissioner Kelly, Fire Commissioner Cassano and OEM Commissioner Bruno, we share the view that implementation of CIMS, and specifically the requirement of a unified command, is among the most important advances in public safety communications since 9/11. Just to give some additional flavor there, over the past six weeks, from the fire at the North River Wastewater Treatment Plant to the water main break on Jerome Avenue to the number of events, things happen in the city all day, having the unified command--and that is usually my first question when I arrive on a scene--where is the unified command--and then you're able to get an overall view of what is happening in an incident response.

Now moving on to radio and other telecommunication systems, ten years ago, the use of disparate spectrum created interoperability problems between the city's first responders. Today, members of the NYPD can not only talk to members of FDNY but also a broad range of local, regional and federal agencies as needed, including MTA, Port Authority, Nassau, Suffolk and Westchester Counties, as well as about a dozen federal agencies including the FBI, Department of Homeland Security and Secret Service.

In fact, the Department of Homeland Security's Office of Emergency Communications recognized New York City's Interagency Communications Committee, the ICC, earlier this month as a best practice model for how sophisticated and innovative governance structures can enhance emergency communications efforts and support major initiatives within a region/multi-state framework.

The ICC, which was created in 2002, was a regional consortium of first responders that bring together over 40 local, state and federal agencies to develop, test and implement

interoperable communication strategies. The group worked together to establish the Tactical Interoperable Communications Plan, which consolidates information across agencies, disciplines and jurisdictions by documenting regional communications capabilities in order to provide a usable and accurate regional tactical incident response tool. The TICP met the federal government's mandate in 2004 and 2006 to achieve interoperability within an hour of an incident, which was tested last summer.

The Department of Homeland Security conferred its highest rating on the ICC for the coordinated multi-agency operational planning and mobilization during the Macy's July 10, 2010 fireworks show. During this event, more than 5,000 emergency responders and support personnel from more than 50 governmental and non-governmental agencies in New York and New Jersey worked together, using a series of mobile command posts, along with tactical and joint emergency operations centers to communicate and share information on the ground.

New York City's public safety

communications infrastructure is characterized by a complex and sophisticated mix of technologies that support day-to-day mission critical incident response, as well citywide and regional joint operations. This infrastructure consists of a variety of land mobile radio, LMR, systems and solutions that include conventional, trunked, and point-to-point system, along with dispatch consoles, fixed and mobile audio bridges and gateways that across VHF, UHF and 800 megahertz frequency bands.

The infrastructure also supports nearly 85,000 radios used by our public safety and essential service agencies. These agencies also rely on a host of wireless and data applications. Our systems and solutions are constantly improving and allow for reliable and secure communications among first responders on a tactical, operational and command and control level.

Starting with the tactical, the NYPD and FDNY primarily depend upon point-to-point radio communications. Even on this basic level, our first responders have interoperable capabilities, enabling advanced coordination at

the incident scene. For example, officers from NYPD Emergency Service Unit can communicate with FDNY Fire Rescue Division to state and execute joint operations on dedicate tactical channels. This was a specific recommendation of the 9/11 Commission.

On an operation level, DoITT has completed the design and rollout of the Citywide Radio Network, CRN, which has consolidated many of the separate frequencies previously used by various New York City agencies, providing expanded coverage and interoperability capabilities. It also provides dedicated frequencies for each borough that can be accessed by multiple city agencies at the same time.

As a result, CRN gives agencies the ability to communicate in the same band of frequencies. This increases responder safety, situational awareness and command and control. Through CRN, users are able to receive consistent and reliable communications throughout the five boroughs on the same frequency band, regardless of location. This network even allows for unprecedented coverage on New York City's

waterways. The FDNY is in the process of fully migrating its fire service and EMS dispatch systems to CRN. This network employs narrow band, conventional and trunked radio technologies which increases channel efficiency during a major emergency or during periods of peak demand. Using CRN, FDNY command center personnel and en route staff can monitor on-scene voice transmissions in real time, which assists in remote decision making.

From a command and control perspective, communications are supported on the region's Wide Area Interoperability Network, which is managed by the NYPD. This network has three dedicated interoperability channels, two specifically for New York City and one region-wide channel that can be used to support emergency communications north of the city in Westchester County, east of the city in Nassau and Suffolk Counties on Long Island, and to the west, Newark, New Jersey.

The Port Authority and MTA can also operate on the network, along with federal agencies, who may be responding to an incident in

New York City. The NYPD is also working on building out an interoperable simulcast channel at the new World Trade Center site, which will be used by various local, regional and federal entities.

Finally, there is the 800 megahertz trunked radio network, which supports both day-to-day and emergency communications for the city's public safety and essential service agencies. Using this system, roll calls are conducted every other day by OEM watch command, among 60 city, state and federal neighboring public safety and essential service agencies and associated jurisdictions as well as critical infrastructure resource subscribers to ensure that all lines of communication are open and operational.

A distinct health care and medical facility talk group has also been created on the network to make interoperability possible among the OEM health response unit. That's a consortium of 87 health care and related facilities. This specialized task group facilitates the real time exchange of information concerning the availability of medical services, and enhances the

city's overall preparedness level.

Finally, more than 50 commissioners from the city's mayoral agencies participate in a supplementary talk group, so that at the request of the mayor, agency heads can be quickly reached to disseminate information to executive staff and response teams should other channels of communication be unavailable.

Not only has the city become a model of voice interoperability, but we are leading the nation through the development of our state of the art wireless data network, built exclusively for the use of city agencies. NYCWiN is the most aggressive commitment by any municipality in the United States to provide a next generation public safety infrastructure and has eliminated many of the challenges of sharing data in the urban environment.

It was completed in 2009 and is providing mission critical video, voice and data communications through portable, mobile and fixed location technologies to the city's first responders and essential public services.

By enabling secure transfer of

critical information, coordination of mobile resources and automation of labor intensive processes, first responders are able to enhance situational awareness, improve responder safety and enable remote decision making. NYCWiN provides its subscribers 24/7 network sup and features strong encryption multilevel authentication and physically protected equipment installations.

Nearly 400 sites--and this is a pretty incredible system--provide ubiquitous coverage to more than 300 square miles spanning all five boroughs. Today, NYCWiN powers more than 300 applications that span 29 city agencies on nearly 750,000 devices. I have a special connection to this as the former DEP commissioner, that's the system that allows us to do wireless billing.

First responders in the field rely on NYCWiN for access to real time vital information such as photos, warrants, license plates, maps and operating procedures. Additionally, incident commanders depend on the network to enhance coordination with on-scene

personnel through the use of data transmission, full motion video streaming and automatic vehicle location. I've personally witnessed all of these systems in action, both at NYPD, OEM and the LMSI Center downtown.

The NYPD Real Time Crime Center leverages this network infrastructure by enabling officers in the field to access their search and search their databases through NYCWiN. Another innovative use of NYCWiN is the emergency of FDNY electronic command board, which coordinates fire service resources in the field. Over NYCWiN fire ground radios are keyed up to track firefighters in real time, via mobile modem installations on the apparatus and in battalion chief vehicles.

Further enhancing situational awareness is the city's operational video system, interoperable video platform. This incident-based video is shared across disparate video systems and linked to the Mayor's Office, NYPD, FDNY, OEM and other authorized agencies. OVS allows for highly coordinated responses and enhances the safety of first responder by bringing feeds from helicopters, water craft, mobile command vehicles

and other deployable cameras.

In once instance, the OVS was mobilized in January 2009 when US Airways Flight 1549 landed on the Hudson River. Within 15 minutes, OVS was streaming video from two first responder vehicles to the FDNY command center, and that feed was shared with other first responder agencies.

All of these innovative investments have significantly improved operational control and incident management of emergencies. But it is not enough. As we look to the future, our nation's first responders need a nationwide broadband network dedicated specifically to public safety.

New York City has been a national leader pushing for this critical tool, including Mayor Bloomberg, which is essential to the mission of first responder agencies around the country. For this reason, as discussed earlier, the Administration supports Resolution 870-A and has been actively lobbying our leaders in Washington for the creation of a common radio spectrum dedicated to public safety. In fact, I was in

Washington on this very issue just last week.

Past experience has proved that our first responder cannot depend on commercial networks for reliable broadband communications. Time and time again, during emergency incidents, cell phone networks have been overwhelmed, making police and fire communications over them virtually impossible.

Finally, as you may know, this year Congress drastically cut the level of Homeland Security funding directed towards state and local governments for Fiscal Year 12. New York City, which remains the number one target for terrorist threats, cannot sustain such an arbitrary reduction in funds to many of the city's critical Homeland Security programs.

I hope that the Council will work with us. And I'll be happy to explain in detail the potential impacts of this funding if left at the current level, so that you'll work with us for Congress to restore this vital funding.

New York City has worked hard to ensure that our first responder can operate safely and effectively when responding to an emergency

and to any event really. By demanding the highest standards in reliability and interoperability, both for voice and data communications, we have improved significantly over the past decade. This in turn has made all New Yorkers safe.

Thank you again for the opportunity to testify, and I'm happy to answer any questions you may have.

CHAIRPERSON VALLONE: Thank you, Mr. Holloway. We've been joined by Council Members Halloran, Koppell and James.

We are already working on a Resolution supporting your efforts to have Homeland Security funding restored. Any Council Members who would like to sign on, please let Oona Peterson know.

I'm going to turn first to Chair Crowley for questions.

CHAIRPERSON CROWLEY: Thank you, Co-Chair Vallone. Thank you, also, Deputy Mayor for your testimony. I have a question about the current status of communications within our subway system and our tunnels. Can you give me an update on how effective radio transmission and

communication is currently?

CASWELL F. HOLLOWAY: Sure. I will turn it over in a second to Chief Dowd for some more specifics on NYPD. But I'll start by saying that the subway is perhaps one of the most complicated environments in which to establish complete comprehensive and reliable communications. So we have a couple of investments that are underway.

First, we've been working with the MTA for many years to establish a network that would enable the MTA, NYPD and FDNY and EMS all to communicate over a single network. That has been a challenge to implement completely. However, FDNY and EMS are on that network and that is already--

CHAIRPERSON CROWLEY: [interposing] Just for the purpose of the committee members, can you let us know how many people take the subway every day?

CASWELL F. HOLLOWAY: What is the number, five million?

CHAIRPERSON CROWLEY: How and where is it on the terrorist target list? Would you say

it was like number one or--

CASWELL F. HOLLOWAY: [interposing] I mean I can't answer specifically but--

CHAIRPERSON CROWLEY: [interposing] Is your counterintelligence letting you know that New York City, that the subway system is a major target?

CASWELL F. HOLLOWAY: I think I can accept the idea that the subway is--New York City is a target and therefore any essential system could also be. But I think the question is about our ability to communicate in the subways. So I'm trying to answer the question specifically.

CHAIRPERSON CROWLEY: Okay.

CASWELL F. HOLLOWAY: First, FDNY, EMS, MTA all on the same network. Getting PD's onto the network has been a challenge because of the difference in UHF and VHF communications. However, we've made significant progress in that area. Chief Dowd, do you want to pick it up?

CHAIRPERSON CROWLEY: Just to clarify the question, also interoperability among the various agencies, and also the ability to just communicate with the regular firefighter or

emergency worker that is within the subway out to the command center. So are there difficulties currently in radio communications within one agency and also are there difficulties within one agency to another agency?

CHARLES DOWD: The answer to question is, first let me tackle this from the perspective of the NYPD. We've been working with the MTA now, as the Deputy Mayor just indicated, for several years, to get this new UHF radio system up and running in the subway system. There have been some concerns on our part regarding the coverage capabilities of it. Quite frankly, it's our position that we don't want to accept usage of that network unless it gives at least as good coverage as it did on the old VHF system.

So what we're doing right now is we are establishing a pilot project. We believe it's going to be in the Bronx in the subway system. Where we will allow police officers to use what we refer to as dual band radios which are being purchased, which allow the officers to work both in the old VHF radio system in the subway and on this new UHF system that's being built. We're

going to get feedback from those officers on how they feel using both of those systems. In other words, when they use this new UHF system, do they get the same level of coverage and reliability that they got on the old system, or hopefully even better.

In regards to answer to interoperability, well the same thing applies. Since we would put our UHF interoperability down in the subway, then unless that system works as we would expect it to, you would have similar difficulties with interoperability as you would with just the regular operability for NYPD. So we want to ensure that that system has the coverage and reliability that we need to have, like I said, at least matching and hopefully better than the existing coverage and reliability on the old system.

CASWELL F. HOLLOWAY: Let me just give Chief Boyce an opportunity to explain on the FDNY side the state of the world there.

ROBERT BOYCE: We have a couple of tools that we use to committee in the subways. The first one is the repeater system. It's a

combination MTA and the Fire Department repeater system. And we also have the tool ACU 1000 that we use and that's also used for interoperability. So we have tools that we can use in the subways.

CHAIRPERSON CROWLEY: Do you feel that your current tools of communicating work effectively or to the standards that you need within the Fire Department?

ROBERT BOYCE: Currently, the UHF system is sufficient. I mean we're communicating from the scene of an incident. We've tested it underneath the river tunnels. We've tested it in underground tunnels. We've tested it in the stations. We think that it's sufficient to get the communications from the scene to the street.

CHAIRPERSON CROWLEY: Does sufficient mean that it works 95 percent of the time or greater?

ROBERT BOYCE: I don't have a percentage.

CASWELL F. HOLLOWAY: I mean I think now pulling this whole picture together, the FDNY and EMS are on the UHF system, and having spent a great deal of time working on that

implementation, no system is perfect. There are spots where--and the companies monitor where these spots are and we let the MTA know and then we'll see if we can strength it by adding a repeater signal and so forth for them in operating on the UHF system. So I think it's fair to say that FDNY is in a good place. You can always have improvement and we are constantly monitoring and doing that.

NYPD, while they have not deployed onto the UHF system, now this investment in dual band radios I think is very significant. Because what it enables us to do is there's a level of confidence in the current system that the NYPD has, and they have 53,000 radios and they have the most significant number of people who actually have these communications and could potentially end up in the subway. So now they're going to be able to be on the system that they know is reliable, but not perfect, which is why we were investing a new system. But then they will also, at the same time, be able to go live onto the UHF system. And I think through that piloting phase will be able to both maintain a level of

communications that ensures public safety, fair to say, Chief? And then figure out what is the level of investment we need to make to fully convert or maybe you leave it in the dual band environment. But overall I think the level of communication underground is strong, improvements are constantly being made.

CHAIRPERSON CROWLEY: Do you know who made the investment? I've read reports that there has been over $120 million invested in a repeater system or transmitters down to effectively transmit information and communications.

CASWELL F. HOLLOWAY: The funding is a combination of the MTA and the city. Actually, I can get back to you with the details. It's not a simple answer about where it comes from, but it's a combination of the MTA and the city.

CHAIRPERSON CROWLEY: Approximately how much has been spent, do you know?

CASWELL F. HOLLOWAY: About $140 million.

CHAIRPERSON CROWLEY: Now, I wasn't

here in '06 when we had the five year after evaluation of September 11th and the communications, but I understand that there was, at that time, the FDNY was going to do some type of study of the system that we have in the subway system. I'm curious to know if you have a copy of that report or that study and what that study may have found.

CASWELL F. HOLLOWAY: I'm not sure exactly what you're referring to specifically, but Don Stanton who runs the IT for FDNY will talk to you afterwards to see what study is available. I think one important point though is FDNY is on the system. So the UHF network has been built. FDNY is operating on it. So the study may show--I'm not sure what study you're referring to specifically, we'll find out, but they are operating on the system 24/7.

CHAIRPERSON CROWLEY: Right. There's nobody here from the Fire Department who could speak about that particular study?

CASWELL F. HOLLOWAY: We're not sure what study you're referring to, so we'll check.

ROBERT BOYCE: We'll look into that.

CHAIRPERSON CROWLEY: Okay. It gets confusing for us when you talk about the UHF versus the VHF. I just want to know for the sake of the safety of New Yorkers how effective communications are currently within our subways and our tunnels. Can we rest assured that you can, in a time of emergency, communicate effectively with first responders who are running to an emergency situation underground?

CASWELL F. HOLLOWAY: I think overall, both the NYPD and the FDNY have the ability to communicate during emergencies, whether they happen above ground or below ground. The ability to use the MTA network, which would vastly improve that ability to communicate underground, hasn't fully happened yet. I know on the FDNY they're on the network. Chief Dowd, do you want to for the NYPD to take a shot at the Council Member's question?

CHARLES DOWD: The answer is right now we can communicate. We've been using the older VHF system for decades and it's effective.

The issue is one of being able to get the police officers over to the UHF system or UHF frequencies that we use above ground so that police officers above ground and below ground can listen to each other on a regular basis.

We have interoperability with the Fire Department. We've done drills in the subways and MTA Path systems where we can bring the ACU 1000 devices in and combine a number of frequencies onto one, in effect on big radio system so that we can interoperate. So we have those capabilities. And again, as the Deputy Mayor pointed out in the beginning, the biggest part of that is making sure you have a unified command structure so that that kind of communication capability is established immediately.

CHAIRPERSON CROWLEY: I just want to make sure that there are not areas within the subways and tunnels that would have what one would consider dead spots.

CHARLES DOWD: There is no more difficult RF environment than the New York City subway system. It is a very, very difficult--I

cannot sit here today and now one could have done this 10 or 20 or 30 years ago and tell you that every nook and cranny in the subway system has coverage. It simply is not possible to say that.

That being said, that radio system has been effectively used, that VHF system has been effectively used by police officers in the subway system for decades. What we're saying is we want to switch over to this new UHF system, but we want to be assured that it gives at least the same level of coverage that the old system does.

CHAIRPERSON CROWLEY: Would you agree that once that is achieved, switching over from the UHF to the VHF, right? Other way around? Will that address the dead spots in the other areas of the subway? Is there a way to achieve the ability to have full communication throughout the subway system? If not this year or next year, is there a way that we could improve technologies to make sure that we could not have any dead spots?

CHARLES DOWD: The answer to that is, and I think the Deputy Mayor already kind of hit on it, is that you can constantly improve

these things as you go. Again, one of the reasons we want to do a pilot project, as you get feedback from the users, when they identify areas of difficulty what you do is you go in and you modify the system and you try to effect a change that will allow for coverage of those areas. Again, an environment like the subway system, you know if anybody sits in front of you, quite frankly, and says that they can guarantee that there will never be dead spots in that system going forward, I don't know how they could do that from a laws of physics perspective, quite frankly

CASWELL F. HOLLOWAY: Maybe just to add to that, there are 427 stations in the MTA system. I think 427 is the right number. 469?

CHAIRPERSON CROWLEY: I'm sorry, how many?

CASWELL F. HOLLOWAY: Either 427 or 469. I used to know the number exactly. But each station is different and it's not just a matter of how the station is built. Stations that are, for example, in proximity to other stations. If you are at Grand Central, for example, and you have a lot of trains moving at different levels: above,

below, left, right, the transmission and the capability of the system to operate changes. Each station in effect can present its own unique challenges to full coverage, so to speak.

So I think that the continuous and incremental improvement and having spent many hours with Chief Dowd, and he's spent much more time and out in the field down in the stations, this is not just a matter of putting the right piece of hardware up and then you have complete coverage. You have to go station by station. That's why we also do feedback from users. Each configuration is unique.

CHAIRPERSON CROWLEY: Overview of the current number of stations and the difficulties that we have within and around our subway system. If I could just wrap up with that question, I feel that we don't have enough knowledge.

First, everybody testifying today should be aware of the study--if Don Stanton testified five years ago that the FDNY was in the process of doing a study, what those results were. I understand that they found a number of dead

spots within the subway system and that they found that it wasn't up to the level of communication where you could guarantee safety within and around our subway system.

So if that was done a few years ago, it makes sense to at least know what the findings were to move forward, because we can all agree that our subway system is one of the number one targets for terrorists. We have to do everything we can do to make sure that if anything was to happen within the subway system that we could respond and communicate effectively.

CASWELL F. HOLLOWAY: Well, we will certainly figure out which study that is and provide it. But one thing that's happened between the five years ago when Don testified and now is that the Fire Department is actually on the new system. They are operating on the new system.

And as somebody who participated in the writing of the protocols for what the maintenance obligations of the MTA would be, I can tell you that if there are systems that go down, because the MTA, it's the MTA system, so they follow and track all of their stations. And they

will prioritize stations on the basis of things that the FDNY needs. This system operating 24/7, you could have an outage and it's kind of like the power going out. If you have wind, lines can go down. You can have water infiltrate an underground power and the power goes out. So even with the stations that operate, there is, I would say, a very good working relationship now between the MTA and the FDNY to ensure that that coverage is there and is maintained.

CHAIRPERSON CROWLEY: Just to clarify, when did that coverage begin when you changed over from the VHF to the UHF?

CASWELL F. HOLLOWAY: 2009.

DON STANTON: [off mic]

CHAIRPERSON CROWLEY: Underground?

DON STANTON: [off mic]

CHAIRPERSON CROWLEY: Please identify yourself.

CASWELL F. HOLLOWAY: That's Don Stanton.

DON STANTON: [off mic]

CASWELL F. HOLLOWAY: We'll get you the precise date. It was between 2008 and 2009.

We have a full calendar of what went live when. I can be very precise about that.

CHAIRPERSON CROWLEY: Okay, good.

CASWELL F. HOLLOWAY: Commissioner Stanton?

DON STANTON: [off mic]

CHAIRPERSON CROWLEY: Please come up to the mic and if you can identify yourself.

CHAIRPERSON VALLONE: We can hear you; it just doesn't get in the record.

CHAIRPERSON CROWLEY: Our information from the transcript from 2006 states that there was a vendor that the FDNY had contracted with. The vendor was--it doesn't say--it's engaged in a QA vendor to go out and assist us and test the coverage and verify whether it meets our operational requirements.

DON STANTON: Right. As part of the implementation of the subway system, Gartner was engaged, I think it might have been engaged their DoITT, but they were a QA consultant that was onboard and they assisted us with the implementation of the system.

CASWELL F. HOLLOWAY: That is a

quality assurance consultant.

CHAIRPERSON CROWLEY: Oh, quality assurance.

DON STANTON: I wasn't clear on what report you meant, but if it was QA, that was the vendor.

CHAIRPERSON CROWLEY: Can you outline the findings of the report?

DON STANTON: I don't have them in front of me. I can get them for you.

CHAIRPERSON CROWLEY: Okay. Do you remember?

DON STANTON: The system was put in and tested and it met the requirements that the MTA had deployed. It doesn't cover every area, as Chief Dowd had said, but compared to where Fire was, we had absolutely nothing. So this brings us miles ahead of where we were when this system went live.

CASWELL F. HOLLOWAY: Can I just ask with respect to the report and the findings, we will certainly get them.

CHAIRPERSON CROWLEY: I won't ask any more questions about the report. Thank you.

I'm going to move to a different topic: high rise buildings and communication. Now, going back to the hearing that was held in 2006, there were findings that there were still communication difficulties with the radios for firefighters to the command center when they are in high rise buildings. So what improvements have been made since 2006 with those types of high rise emergency situations?

ROBERT BOYCE: Well, naturally the best would be an in-building high rise repeater system. Some buildings in the city have that. We have the cross band repeater system that we've deployed, and increased the number of battalions that have that from 9 to 13. Also, we have a system with the post radios. So we have considerable increase in high rise communications in the last five and ten years.

CHAIRPERSON CROWLEY: At what point would you need a repeater for a high rise building, at what level of floors? Do you need some help inside the building rather than just communicating with your radios outside?

ROBERT BOYCE: Well, we take in the

post radios for any building over 75 feet.

CHAIRPERSON CROWLEY: About how many floors is that?

ROBERT BOYCE: Seven or eight floors. So we bring the tools in. If we're able to communicate on point-to-point handy talkies, we do that, but then if we can't, then we switch to the post radios. If the post radios don't work, then we go to the cross band repeaters.

CHAIRPERSON CROWLEY: You mentioned that there are some buildings in the city with the repeaters. Can you talk a little bit about where those buildings are?

ROBERT BOYCE: I'm not totally familiar with specific buildings have the in-building repeater systems in that. We were talking a little bit about that earlier, but…

DON STANTON: We have several buildings. We have Seven World Trade was recently put in. It's actually a very, very robust in-building system with multiple redundancies. Some of the Durst Buildings--I don't know, Steve, do you have the address? I don't remember. Four Times Square has an in-building system in as well.

There's a number of other buildings. I can provide you a list if you'd like it.

CHAIRPERSON CROWLEY: So when you have your command center, you know God forbid there's an emergency outside one of these buildings, the battalion chief or one of the chiefs knows that they have this repeater system in the building? There's knowledge of every division in the city that these certain buildings are outfitted with--

ROBERT BOYCE: [interposing] Certainly the local battalions know and the companies know that the buildings that they're responding to, you know there's not that many of them, so they know that there's been communication issues before and the in-building repeater system takes care of that.

CHAIRPERSON CROWLEY: Do you know how expensive these repeaters are, the systems that are put in? I'm curious to know why we aren't putting these repeaters in all new buildings if they help with communications.

DON STANTON: Actually the building owners pay for the systems themselves. So if

they're willing to put one in for us, we provide them with the specification and they build it to that specification.

CHAIRPERSON CROWLEY: Do you have an idea of how much of an investment the building owners are making with these repeaters?

DON STANTON: Depending on the size it could be pretty significant. Seven World Trade was very significant.

CHAIRPERSON CROWLEY: Okay.

CASWELL F. HOLLOWAY: We could get back to you with some of that information.

CHAIRPERSON CROWLEY: Hundreds of thousands, millions?

DON STANTON: The systems range between several hundred thousand to one to two million dollars, depending upon the size of the complex.

CHAIRPERSON CROWLEY: I understand that you have these box radios because the majority of the buildings in the city do not have repeaters, right? And that somehow your firefighters will run these up, these boxes--well explain the process for us, if you can, for

buildings that are higher than 75 feet, how you get to transmit information up to the floor where the emergency is.

ROBERT BOYCE: Each of the battalions has a post radio. It's a box radio, if you will. It is 45 watts. The handy talkies are two or five watts, just to give you a perspective on how much more powerful they are. The mobile radios, I believe, are 40 watts. So they're significant tools that we didn't have ten years ago.

The first and second battalions bring the radios in. They put one at the lobby command post and the second one is brought to the floor or two floors below the operations floor, the fire floor.

I'm sure you don't want to get into specifics, who operates the radio, but it's a command channel. So the fire floor and the floor below people are talking on the regular handy talkie, and then the operations post, which is the floor below the fire, is communicating with the lobby command post where the larger picture decisions are being made.

So it's important to have communications on the specific fire floor for operations and then communications between operations and the lobby command post for larger decisions.

CHAIRPERSON CROWLEY: Right. In an emergency, we're hoping that our fire engine or truck is getting to the emergency within three or four minutes. Is there a guarantee that our battalion chief is getting there as fast with this particular tool? My concern is how often do you have firefighters running into emergency situations where they're going higher than 75 feet and they don't have this tool with them, which would help with communications? They'll have to wait for the battalion chief to get there. So how often are you effectively able to implement your plan versus how frequently you are not able to communicate with first responders because you do not have this tool with the emergency?

ROBERT BOYCE: Well, you're saying response time is three or four minutes or something. Nobody is getting up to upper floors of a high rise building in three or four minutes.

It's just not happening.

CHAIRPERSON CROWLEY: How long is it usually?

ROBERT BOYCE: I guess I can figure it out, but I don't have that number in my head. But by the time somebody gets dispatched from a firehouse to the scene and then from the lobby up to the fire floor in considerably more than that time.

CHAIRPERSON CROWLEY: No, no, I know. But you would, in most situations, expect the truck or the engine to get there faster than the battalion chief. So in the majority, I would say 99.9 percent of the time, you have the engine or the truck, you've got the firefighters going into the building--

ROBERT BOYCE: [interposing] The fire companies and fire units are instructed not to get themselves in a position where they can't communicate with the lobby. So it's very important that they have a link between where they're going to be operating and the lobby. It's very important to get a communications link. And the post radio is our tool.

CHAIRPERSON CROWLEY: So is that the case where there is an emergency in a high rise building, the first responding unit is going to wait until the battalion chief is there before they do--

ROBERT BOYCE: [interposing] They're going to do what they have to do, but I mean--

CHAIRPERSON CROWLEY: [interposing] But you don't know. I mean what's the practice, just so I know, we know. I mean--

CASWELL F. HOLLOWAY: [interposing] Can we actually just get clarify on what the question is?

CHAIRPERSON CROWLEY: My concern is that there aren't enough of these type--my main concern is that there's a lack and there's a failure of communication in high rise buildings, in the majority of high rise buildings in the City of New York. Now, since September 11th, you and the Fire Department has developed this post radio which helps in communicating, as long as this box is in or near the emergency, if it's above 75 feet. The majority of the time these boxes are

with the battalion chiefs. The battalion chiefs are in each division, right, so they're not--you don't have them as close to the scene of an emergency as you would a fire engine or any fire company.

So my real question is first do you see this as an issue? Would it help you if buildings were required to have these radios onsite so you didn't have to wait for a battalion? And two, how often do you have operations happening by the time the battalion chief gets there with the radio there are already firefighters and emergency responders?

CASWELL F. HOLLOWAY: So to answer that pretty complex set of questions, what I'd like to do--

CHAIRPERSON CROWLEY: [interposing] But they're all related, right?

CASWELL F. HOLLOWAY: Well, yes, they're interrelated and complex. So what I'd like to do, I mean data has to drive the answer to a lot of those questions. I can tell you that high rise incidents happen, and remember we're not talking about the whole city here, right, we're

talking about basically the areas where you have higher buildings.

What I'd like to do is set up a session with you to go through what the data shows in terms of these responses, whether or not we think--it's really a question between do you have an operational fix like the box or do you have certain buildings or would it make sense to have a requirement in certain kind of cases that the infrastructure system be put in the building itself. I'm not going to be able to give you a precise answer to that question here. But what I can commit to you to do is get the right people together from the Fire Department, sit down with you and go through the whole thing.

CHAIRPERSON CROWLEY: Okay.

CASWELL F. HOLLOWAY: And then we can decide if there is--and I think the short of it is the enhanced communication is always going to be something that is preferred if it increases your ability to operate safely, number one, efficiently and deal with the emergency, whether it's a fire or anything else. Whether or not there is a change that would be sensible, having

said that, you know, you have to look at what is the cost of the change and in fact what do the data show in terms of our ability to put out a fire or do anything else at one of these scenes. So I don't want to avoid the question, but to answer all of that, I think we're going to need to do a little more work and get back to you.

CHAIRPERSON CROWLEY: I appreciate that. Thank you, Deputy Mayor. I will not ask any further questions on that subject. For now, I won't ask any further questions. I'll recognize my co-chair Peter Vallone?

CHAIRPERSON VALLONE: We've been joined by Council Members Gentile, Garodnick, Foster, Dilan, Brewer, Gennaro and Eugene. We welcome the expertise that they bring here. I'm going to just follow up quickly with a Fire Department question, because my co-chairs and I spent time preparing for this and one of the things we learned, and Chair Crowley alluded to this in her opening statement, that one of the major problems that still exists in emergency response is with our ambulances.

You have a vehicle locator system,

much like a GPS which is aware of where every ambulance is at all times, and it can be around the block from an emergency. You have a computer dispatch system which is not compatible with the vehicle locator system and does not know where the ambulance is. So there could be an ambulance around the block that is not dispatched to an emergency because these two systems cannot communicate with each other.

First of all, tell us why that is occurring and what you're doing to rectify that.

CASWELL F. HOLLOWAY: I'm going to start and then you can get the operational perspective of Chief Boyce and Don Stanton from the technical perspective. But first and foremost, that is actually not the case. The EMS dispatch system--there are two dispatch systems in the Fire Department, EMS dispatch and then fire dispatch which is the Star Fire System. AVL has been deployed to EMS vehicles. That data, the AVL data, is in fact compatible with and integrated in the complex set of algorithms that go into deploying ambulances in response. So it in fact is integrated into the dispatch system.

The AVL locators for EMS are not integrated into the Star Fire System, which is the fire dispatch system. That is a separate system. While we, I think, have done some piloting on AVL there, we're also in the process--the Star Fire System is actually about 30 years old and we are in the process now, while it works fine and 911 response is perfectly fine, but we're looking at whether it makes sense to continue to extend the life of that system or replace it. So, you know, the next generation will have that capability but this one right now doesn't. So I just want to clear that up to begin.

CHAIRPERSON VALLONE: I'm not clear. So who dispatches the ambulances, the Star Fire System?

CASWELL F. HOLLOWAY: No, EMS. The EMS computer aided dispatch system.

CHAIRPERSON VALLONE: Is that aware of where the ambulances are when they dispatch?

CASWELL F. HOLLOWAY: Yes. The AVL data which is on each truck, ambulance, goes into the system. I'm not sure, Chief Boyce or Don Stanton, who is better to expound on this?

DON STANTON: The AVL data is integrated as part of the EMS CAD system and the location of the ambulance becomes part of the recommendation of what ambulances to deploy.

CHAIRPERSON VALLONE: How long has that been in place where those two systems are communicating with each other?

DON STANTON: Five, six years.

CHAIRPERSON VALLONE: Well it's interesting that the unions have exactly the opposite information. So we'll have to work to get to the bottom of this.

DON STANTON: On the fire side it is not. As the Deputy Mayor said, on the fire side, it is not integrated as part of Star Fire, but on the EMS CAD it absolutely is.

CASWELL F. HOLLOWAY: The way that resources are dispatched by the Fire Department is you have--well, first EMS and Fire were co-joined in 1996, right? Before that, they were separate and there were two separate dispatch systems. The dispatch and citywide there are three dispatch systems: NYPD, FDNY and EMS.

AVL was deployed on ambulances.

The AVL data which tells you exactly where the ambulance is located and factors into--you know, where the ambulance is, is critical to which one you deploy to get to the response as fast as possible. That data is part of the recommendation that gets made by the system through, you know, the complicated set of algorithms and computer programming that goes into how that resource gets deployed. It is absolutely integrated and vital to the dispatch of ambulances.

So I'm not sure which union data you're talking about, which union you're talking about, but it is integrated.

CHAIRPERSON VALLONE: The ambulance union is one of them. They, I assume, would know. So let me just ask then, are there times when the fire dispatch dispatches an ambulance?

ROBERT BOYCE: No.

CHAIRPERSON VALLONE: Okay. We'll have to take a look at that. Thank you. Let me congratulate you on winning the best practice model for governance structures that can enhance emergency communications. As I said, we've done a lot of preparation on this, as we always do. In

the past, we've always heard a lot of problems. I have to tell you, other than a few minor ones, like the one we just discussed, there is overwhelming agreement out there that the city and you guys in particular have done a heck of a job improving our communications since 9/11.

Of course, there are problems, and that's what we're here to discuss, but overall you all deserve a lot of credit for the work you've done to improve our communications.

Let start with CIMS. Deputy Mayor, you started right out with that and said that that is among the most important advance since 911, and I couldn't agree more. In fact, we had one of our most complicated and important hearings on the implementation of the CIMS system here at the City Council and it took months and months of preparation. We interviewed people from around the country on that. Overall, it's working very well, as you said.

But we still have heard of problems. One of the problems we heard about is that, you know, the higher ups always say things are going well and they usually are, but the foot

soldiers have told us that on too many occasions there is no Fire Department representative at the police command center or vice versa, no police representative at the fire command center. In fact, they told us as proof of that the Police Department is constantly calling the Fire Department for updates on the fire. They said they would not have to do that if they actually had a person at the location.

Much of that seems to be still coming from the fact that there are separate locations. The Fire sets one up, the Police set one up and there is still some argument at that level as to who should be in charge at certain instances. Not all the time. But I'm told by, again, a lot of people out on the street that this is still happening. That there are representatives that are not coming to each other's command center and that there shouldn’t even be two command centers.

Are you aware of that? What is being done to continue to improve the system? How are you monitoring that?

CASWELL F. HOLLOWAY: Sure. Well,

I guess I'll start with the big question, which I am not aware of a systemic problem with CIMS where there is, you know, a high volume or a certain type of incident where there is this separation or confusion or the setting up of two commands.

CIMS, which was, as you point out, the product of years really of development, is something that was obviously decided and agreed to by the managers and the people in command in both agencies and then gets deployed. Everybody gets trained on it when they come into the agencies.

There are circumstances; there are incidents where there maybe has been confusion on the ground. What's interesting is depending on-- what CIMS calls for is a unified command but it identifies an incident commander, an IC. So depending on the type of incident, and I don't have the CIMS manual in front of me, so I don't want to get too specific. But I'll tell you that in certain operations, for example when life safety operations end you could have a switch from FDNY being the incident commander to NYPD being the incident commander. I've sent that happen at building collapses.

So the incident response is a fluid thing. And CIMS is not designed to be rigid system. It's a system that is designed to facilitate communication and enable a response to evolve, but you have the parameters within which that response is going to happen. So I can't say that there are never issues.

What do we do to deal with those issues? There are after actions all the time. OEM convenes the agencies to go over existing protocols to CIMS, adding protocols to CIMS. Following the Deutsche Bank fire, when we passed I think with the Council's help, 12 pieces of legislate to strengthen building safety and the safety of those operations. We also looked at CIMS and made some changes in CIMS for certain kinds of responses, giving an enhanced role to the Health Department for example. So this is not just NYPD and FDNY.

I would be very interested to know from you, whether it was anonymous or otherwise, you know, and we have to figure out a way to get the data, but I would be very interested to know what information you have, because both

Commissioner Kelly, Commissioner Cassano, Commissioner Bruno, you know in preparation for this hearing, talked to each of them. And without prompting, each of them talked about how important CIMS is and that it is something that at the chief and captain level is trained on and absolutely happens. And now having had the opportunity to go to a fair number of incidents myself, I can tell you that's how it operates on the ground. No system is perfect and we do evaluations. But I am not aware of a systematic problem.

CHAIRPERSON VALLONE: As I said, overall it has been working. It's a very complicated system and there are always going to be problems, but we did hear from both sides, Police and Fire that they believe too many incidences when the proper people were not at the command center. What we'll do is we'll ask them to inform us in the future if this occurs and then we will ask you as to why that occurred and perhaps we can all work to end this.

CASWELL F. HOLLOWAY: And I can just invite you, I mean any time, not in the context of a hearing, where incident specific

information comes to you, because sometimes after something happens--and it can be simple. There are a couple of instances too where first to arrive is actually incident commander. So if it's, I think, a car fire on a highway, for example. So that, you know, you can have a situation where--most of the situations it's defined who the incident commander is. But I guess what I was going to say is in any incident specific information where you think it would be helpful for us to know, we can do an evaluation of anything; we just need to know about it.

CHAIRPERSON VALLONE: We'll work with you on that. You mentioned chiefs and captains. Back in 2006 you said that the only people who had radios that were interoperable between the departments--well it wasn't you--were captains on the Police side and battalion chiefs on the Fire side. Is that still the case? Or have interoperable radios been given to more people?

CASWELL F. HOLLOWAY: Chief Dowd?

CHARLES DOWD: So I think what you're talking about with captain and battalion

chiefs and above, you're talking about the interoperable frequencies. Those are the command and control frequencies where captains and battalion chiefs, all the way up to the Fire and Police commissioners might need to communicate, they would use those channels. But that's on a command and control level.

Also, in the testimony we talk about at an operational level, like for example, EMS can utilize the police/fire frequencies now for several years. They are authorized to be on our police radios. In a tactical level, so for example, you would have fire rescue and police emergency service units operating on point-to-point frequencies. So you have different levels of interoperability requirement. We have frequencies available at each level for them to interoperate.

CHAIRPERSON VALLONE: So what is the protocol then? Are the foot soldiers on each side supposed to be communicating with each other? Is that supposed to be done on a higher level? What normally happens at a scene of an incident?

CHARLES DOWD: I would suggest that

the typical firefighter and cop on the street don't have a requirement to interoperate. That's more at a command and control level or an operational level. But again, at the scene of a rescue or an incident, fire rescue and police emergency service officers, firefighters and police officers that are assigned to those specialized units would have the ability to directly communicate and coordinate.

CHAIRPERSON VALLONE: Those specific units?

CHARLES DOWD: Yes.

CHAIRPERSON VALLONE: When it comes to other units, it's at what level can they communicate?

CHARLES DOWD: Again, from a patrol perspective because ambulances are out in the field, as are police units kind of on patrol in effect, they have the ability to communicate with each other directly. And again, at the command and control level at any incident where a police captain or a fire battalion chief deems it necessary, they can ask to utilize any of the citywide interoperability channels to coordinate.

CHAIRPERSON VALLONE: I understand the captain level. I'm a little confused as to the lower levels when we're not talking about ESU. You said the ambulance. What about police officers and firefighters on the streets? I'm not saying they should. I'm not taking a position. I'd like to know what happens in a normal situation.

CHARLES DOWD: They don't normally communicate with each other. Again, because, you know, we don't see operational necessity for them to be able to communicate directly with each other. At the scene of a fire, it's a fire lieutenant or above that would be coordinating the effort kind of on a team basis. And at the scene of an incident with that, you would have at least a police sergeant or above that would be coordinating. So you wouldn't typically have a situation where firefighters and police officers need to communicate generally.

CASWELL F. HOLLOWAY: So just to be absolutely clear, and I think Chief Dowd covered this. So there is the tactical channel that is available, particularly for the ESU on the police

side and then the unit on FDNY. All firefighters have the ability on that channel. So the interoperable ability, it depends on the operation. And who deploys to the operation is a matter of both within the agencies and CIMS how it deploys.

I think maybe it's fair to say that at this point the units that need to be able to communicate to carry out an operation have that capability. It is not the case that every line police officer or firefighter has the ability to switch to a channel and then start to talk to the Fire Department because you'd have to ask yourself well what would they be doing that for, because, you know, there is a command and control element to how you run the operation.

CHAIRPERSON VALLONE: Understood. You mentioned the capability a lot in your testimony. I assume that means it's happening. But are you doing drills and in your experience is there actually communication happening between people who need to communicate on the scene, between the different agencies on a regular basis?

CASWELL F. HOLLOWAY: I don't have

numbers, but Chief, do you want to?

ROBERT BOYCE: I don't have any numbers either, but I could get the schedule for you. We do pretty much on a regular basis, interoperability drills. I was at one recently with the Port Authority and NYPD underneath the Hudson River type of drill.

CASWELL F. HOLLOWAY: I guess the question though is when operations are out in the field, are the battalion chiefs and the police commanders communicating with one another? Chief Dowd?

CHARLES DOWD: So there is a standing protocol for several years now between FDNY and NYPD that any two alarm fire or above automatically dictates the availability of an interoperability channel. Now, you know, the fire commander and police commander may decide that they don't need it. That's up to them. But it's available to them in that situation or any other situation as the protocol calls, when they need it. Our communications people are in direct communication with their communications people. If they ask for it or if we decide we need to talk

to them, you know that's done instantaneously through the two communications units and made available to what would typically be a police captain and a battalion chief, if they decided they needed to speak to each other.

CHAIRPERSON VALLONE: Again, a lot of if they decided and we have the capability. Based on your experience, has this been happening in the field? Is it working?

CHARLES DOWD: Yes. They do use those channels. Maybe not as frequently as we think, because again, a lot of what they're doing when they get to the scene, and I think that's already been stated here today, is the best form of interoperability is face to face coordinated command and control. So that channel is available to them if they are remote from each other and they do use it from time to time. But typically, most of their communication at the scene of an incident would be face to face.

CHAIRPERSON VALLONE: Okay. We'll follow up on that. Let me move on to NYCWiN for a moment. When that was rolled out in 2006, we heard a lot. Songs were sung about its abilities

and firefighters would be downloading building maps on the way to the fire and police officers would be downloading actual photographs of the suspects, rather than just descriptions over the air and actual criminal records, so they'd know how dangerous the person is. Commissioner, while you've said you've witnessed some of this, the foot soldiers on the street have told us that they have never seen that happen. They've never downloaded a building plan on the way to a fire or got an actual picture of a suspect in a police car.

So while potentially it's happening occasionally, it's not happening overall. So NYCWiN has been rolled out, it's a great thing. Other city agencies are using it. But I believe it's most important function is public safety and that apparently is not happening up to the capabilities that you have. Why is that?

CASWELL F. HOLLOWAY: Well, let me start, I think it'd be good to summarize from NYPD and FDNY the extent to which NYCWiN is being used and we can go from there. Chief Dowd, do you want to start?

CHARLES DOWD: This new technology, and we discussed it earlier, NYCWiN primarily right now we're using it on 1,200 patrol vehicles to run license plates, name checks, VINs, that type of thing. There is a photo manager capability that's being rolled out that has not been rolled out to everybody. It's only officers that have the password. I don't have that number for you right now. Pistol license--the software application on the NYCWiN network--so, they can run availability of information for that type of thing. Supervisors can look at our CAD system, the sprint system, they can look at the date from our CAD system in the car over the NYCWiN system, on those vehicles that are equipped with the appropriate equipment.

CASWELL F. HOLLOWAY: Before we go to FDNY, also counterterrorism is using NYCWiN, and this is a demonstration that I got as recently as yesterday, for license checks and other kinds of streaming data. That is actually going to dramatically increase in terms of the amount of bandwidth that is being used for those purposes. Don?

CHAIRPERSON VALLONE: Before we get to the FDNY, let me just follow up. First of all, you said that was rolled out in 2009. We heard about this in 2006. Apparently it's only still available to officers with a password. As far as we've learned, we haven't run into any officers with a password that have actually used this. That's of great concern to us. This is a system that we spent a lot of money on and we spent a lot of time on. Officers on the way to a scene still do not have the capability of getting a picture of the suspect. When will every officer have that capability?

CHARLES DOWD: Again, when you look at this from the perspective of integrating these software systems so that they can seamlessly give that information. So we're developing and deploying a new CAD system which should deploy by the end of 2012 calendar year, the contract that the NYPD has. Once we have that, we should be able to integrate that with some of our other database systems to deploy that information in real time to officers on patrol. The average patrol officer should have that capability. This

is one of the arguments that we've been making in Washington now for the last three years.

The difficulty with, and this is no criticism with NYCWiN, but the spectrum it operates on does not give very much in-building coverage. So from an operational perspective, we would prefer to see our officers have the capability to use a broadband system whether they're inside, outside, wherever they are. That's only going to happen if we get this legislation passed in Washington which would then allow us to utilize that spectrum to get more coverage and more capabilities into the hands of the average cop on the street.

CASWELL F. HOLLOWAY: I want to just cover the timeline that you raised, Council Member, because this is important, and I was there, as was Steve. 2006 is when the project kicked off. There was actually a contest between two companies to provide this and then Northrop Grumman actually won. They provided that for free and then the winner actually got to implement the system.

The system was accepted in 2009 and

it was actually on time in terms of its delivery, major technology delivery. So now it's up and running. I think that there continues to be and will continue to be the migration of data capability for public safety purposes and others, but primarily public safety, to NYCWiN. I just want to give Don the opportunity to talk about FDNY.

DON STANTON: We're utilizing NYCWiN in a number of areas. We have a special unit that's assigned to our operation center that goes out to large incidents and we're able to transmit live video back from the scene to the FDOC. We have NYCWiN modems installed on all our fire boats for video as well.

About two to three years ago, we implemented what we call EFAS, which is Emergency Firefighter Accountability System, which allows us to tie a mayday that's initiated by a firefighter to the riding list and know exactly who that person is, so the incident commander knows who it is and it's also transmitted back to the FDOC so they can look at that as well. We also use NYCWiN to transmit on-scene tactical communications back

to the FDOC, which is another huge win for us.

CASWELL F. HOLLOWAY: I think the video operating system, VOS, which I mentioned in my testimony, is just one example of, you know the ability on a dedicated network that is the city's and secure, and the security of this is extremely important, is usually valuable and as I say the applications that are being used on the network really continue to grow at a pretty fast rate. We're happy to provide you more information about exactly what's on the network, what's not and what the plan is.

CHAIRPERSON VALLONE: Mr. Stanton, can a firefighter on the way to a fire download building plans?

DON STANTON: Not at this point, no.

CHAIRPERSON VALLONE: Again, we've done a lot of nice things with NYCWiN, but we were told about some very simple uses for this in the public safety sphere like downloading pictures of suspects and downloading building plans, which still have not happened. We've rolled it out to all sorts of different agencies with all sorts of

capabilities. But those two, perhaps the most important capabilities it could have, have not been done. We will follow up with you as to when exactly that will be done. We were not told in 2006 that we had to wait for a federal bandwidth to get this done. We were told it was happening and it hasn't happened. So we will follow up with you on that.

DON STANTON: Really, the cornerstone for that, Councilman, is the electronic command board, which we've been working on for a number of years. It's a direct result of 9/11 and that will be the focal point for the downloading of building plans. We have been working for the vendor Raytheon for a while. We are having some issues regarding some connectivity, but we're in the pilot stage now. And once that's resolved we should look towards getting floor plans out to the field.

CHAIRPERSON VALLONE: Any timeline?

DON STANTON: I'm hoping the pilot gets wrapped within the next couple of months and then we would look towards the building plans.

CHAIRPERSON VALLONE: Thank you.

I'm going to end soon. Commissioner Holloway, you mentioned federal funding cuts.

CASWELL F. HOLLOWAY: Yes.

CHAIRPERSON VALLONE: Can you just give us some details about how much has been cut and what that means to us?

CASWELL F. HOLLOWAY: Sure. The Homeland Security grant funding, USAI funding for the urban areas that are the highest risk levels, and we consider New York City to be at the top of that list, is critical Homeland Security funding that's enabled New York City to make investments in addition to a substantial investment of city tax levy dollars, by the way, into counterterrorism.

And so while a final appropriation hasn't been made, both the House and the Senate bills that came out of committee for Homeland Security funding, I believe the House one has actually been passed. The Senate one is still in committee--dramatically cut funding. I think in the Senate case it's to $400 million, and the prior year--I'll have to get you the exact numbers--but I think it was about $600 million,

and it came down that year from $800 million.

So, you're seeing a dramatic cut in that funding. What does that mean for New York City? Well, that funding is used for some specific counterterrorism purposes, some of the special units and the special assignments that counterterrorism units have are funded directly with that counterterrorism funding. There are specific technology investments that are funded through that funding. I can give you--I don't have it with me--but a really more precise breakdown of what the potential implications are if the city either has to make that up, which in this environment, as you know, is going to be extremely difficult, or doesn't have the funding.

So, the good news is that last year the Department of Homeland Security worked with New York City and other big cities to ensure that the funding, even though it was reduced last year, went to the cities that have the highest risk. So we were able to maintain the level of funding from the prior year. This year, I don't see how that could possibly happen, given that you're talking about a couple hundred million dollars in cuts.

CHAIRPERSON VALLONE: They have not reduced the number of eligible cities?

CASWELL F. HOLLOWAY: Well, the number of eligible was reduced last year.

CHAIRPERSON VALLONE: Right, but they haven't done that again?

CASWELL F. HOLLOWAY: They haven't done that again, no.

CHAIRPERSON VALLONE: I've got a bunch more questions, but I want to get to fellow Council Members. I do need to get to our co-chair though. Before I do, we've been joined by Council Members Greenfield and Ulrich, who I'm not sure if they're still here. Chair Cabrera?

CHAIRPERSON CABRERA: Thank you so much to both of the chairs. Welcome. I just needed some clarification. The 1,200 police cars that have the passwords are able to do what again?

CHARLES DOWD: Currently there are 1,200 police cars that are available to run license plates, names checks, run vehicle identification numbers, license driver checks and stolen article inquiries.

CHAIRPERSON CABRERA: Then you

mentioned that we needed more bandwidth in order to penetrate the buildings, correct?

CHARLES DOWD: Well, the concern is that the ideal spectrum for public safety is this spectrum that public safety is pursuing down in Washington, the 700 band spectrum. And to get in-building penetration, we would really need that spectrum in order to maximize coverage, say like in this room. So, while the NYCWiN system gives excellent and very reliable in-street coverage and some in-building coverage, the spectrum itself doesn't penetrate like the other 700 spectrum.

CHAIRPERSON CABRERA: How many police cars do we have in the fleet?

CHARLES DOWD: Pardon?

CHAIRPERSON CABRERA: How many police cars do we have?

CHARLES DOWD: I don't have that number. I can get it for you.

CHAIRPERSON CABRERA: Is it close to 15,000, 16,000?

CHARLES DOWD: The Police Department? No.

CHAIRPERSON CABRERA: Less.

CHARLES DOWD: I think we're more like 6,000.

CHAIRPERSON CABRERA: 6,000. So why are the other vehicles, are they not equipped, they just need the password, is it a software issue?

CHARLES DOWD: Largely it's they're not equipped. What we've been focusing on is the patrol units; the typical patrol cars are getting that connectivity first. Then as we go forward, we would put it into other--and specialized vehicles, like emergency service has that capability in their trucks.

CASWELL F. HOLLOWAY: I'll just let Steve Harte say a little bit more about this.

STEVEN HARTE: I think it's important to note, to benchmark where we started. The legacy NYPD data system, and if you compare it to the old speed data when you have a dial up modem in your home, remember with 56k, the old speed data system was 19.2 kilobits compared to a dial up modem at 56 kilobit, compared to the hundred times the speed that the network NYCWiN supports in the police vehicle and other modems in

the field.

It's very important to note that speed and time and data transactions are critical. So we have the ability to not only deploy the old applications that were text based at a much greater and faster speed, but we also have the ability to access broadband applications where the old network at 19.2 kilobits you would bring it to its knees. So that's number one.

Number two, the network was built, again, to provide a very reliable in-street coverage with limited in-building communications. But Chief Dowd mentioned ESU emergency service units, it's very important to note that the stories that are coming back to us are that lives are being saved. That brings a lot of reward to us to know that emergency service units have the ability now to access what's called their sprint terminals and to actually, before a job is actually dispatched over the radio, already be en route to save lives.

In addition to that, the ability to press a button, and we could follow up with demonstrations to locate and display the actual

GPS coordinates of the caller. So that if, in fact, a caller is not necessary on a road, or is on a bridge, you know a jumper, they have the ability now on their terminals, with this enhanced capability that their old system could not handle.

CHAIRPERSON CABRERA: This is what I don't understand. If the system is capable of doing everything that the Chief mentioned, which is incredible, why can it not handle what Council Member Vallone is mentioning that was promised in 2009?

DON STANTON: So, in 2009 the system was accepted, which began a very methodical process to onboard agencies onto NYCWiN. Included in that was the primary getting the police cars and specialized units on the system as well as other agencies, so we actually are ahead of goal with regard to meeting our objectives of bringing that capability on. Once they are on, they could now roll it out in a meaningful manner with department protocols.

CASWELL F. HOLLOWAY: I know the list of the things, and so some of the things that have been said where we are doing it, like live

feed video to the FDNY operations center and the patrol cars, the licenses and other information about people, so building plans. I mean, I think one thing to remember is in order to do that it's really two projects that get brought together. NYCWiN is a network. NYCWiN is not content. Plans are content. So there is a separate effort, and I don't have the information on exactly where that stands, although the control board that you're talking about, Don is going to give you some capability there, but in order for the network to actually basically be able to accept that content and download it, that's not a problem. The question is where are you pulling the content from?

While we have not--we do not yet have a repository citywide of electronic building plans, there's some developments there that we do have. There will be some data that's available. NYCWiN was never intended to actually build that database. It does have the capacity to transmit that information. I can give you more information on what plans are available and what content is available to be used over NYCWiN.

CHAIRPERSON CABRERA: Since we're talking about NYCWiN, does the sharing of NYCWiN among several city agencies cause congestion when public safety officials need to use it? If it does, what's the protocol?

STEVEN HARTE: So NYCWiN was built with very strong encryption capability as well as the robustness of its coverage as well as backup capabilities to handle pretty much any situation. So, as part of the network we've implemented what's called quality of service, otherwise known as QOS, to be able to prioritize traffic over the network.

So in times, if there were--again, in public safety, what you'll notice is--and this is another example as to why commercial networks are not reliable in times of emergencies. There is a convergence of traffic when there is an emergency. So it could be a citywide event that causes congestion or overload condition or a convergence in a particular area. So the network has quality of service implemented in and Police and Fire have the highest priority on the network over, let's say, a building inspector.

CHAIRPERSON CABRERA: How does NYCWiN work when you have a power outage?

STEVEN HARTE: So again, every element of the network, citywide across all sites and backup data centers and network operation centers, are either on generator or have a minimum of 24 hour plus battery backup. In instances, over the past several years, we've actually survived 36 hours of battery backup in particular areas. You know, various storm conditions in Queens or in Staten Island. So again, the network is performing to specification and actually exceeding our backup power capabilities.

CHAIRPERSON CABRERA: Let's say you had an earthquake, God forbid, let's say you had a massive earthquake and you had a power outage that would last, let's suppose three or four days, would the system still work?

STEVEN HARTE: So, in fact, during the last hurricane as well as we had specific sites that were down for several days, and we had deployed portable generators to various facilities, and that's part of our disaster recovery program. It addresses your exact

question, which is we would deploy portable generators and/or replacement batteries to facilities to extend the operation.

Again, the intelligence and monitoring of the entire network is done 24 hours a day, again throughout the entire year.

CHAIRPERSON CABRERA: Beautiful. Let me just go back to the subways. Is there such a thing as a portable repeater?

CASWELL F. HOLLOWAY: Is this for the Fire Department?

CHAIRPERSON CABRERA: Yes, for the Fire Department.

ROBERT BOYCE: There are portable repeaters, yes.

CHAIRPERSON CABRERA: Do we have sufficient to cover the potential blind spots?

DON STANTON: Well, the deployment of a portable repeater isn't necessary productive when you always have a repeater system in place, because if you have both repeaters coming up at the same time, you could cause more problems than it's worth. So right now the basic coverage is on the stations and on the tracks. And as I said

before, prior to us going live we had absolutely nothing. So this is a huge improvement from a firefighter safety and communication capability.

CHAIRPERSON CABRERA: So just for a point of clarification. If you enter part of a subway section that you have a blind spot, nothing is working there; can you take a portable repeater there so the system can work?

DON STANTON: Again, to just plop a portable repeater isn't going to be conducive to the environment. But operations have certain plans in place when they don't have communication.

CHAIRPERSON CABRERA: Here's my last question because I want to give an opportunity to the rest of the members that are here. Today, I think it was the 23rd Street station, people have access, they can use their cell phone in the subway. My question was, in your estimation, and I'm sure you vetted this, does it pose any safety concerns or challenges.

STEVEN HARTE: It's a very exciting opportunity to extend cell phone service into the subways. In fact, our agency has been very involved with the company that has been deploying

that. In fact, one of the requirements is obviously that number one they don't cause any interference to any other public safety systems that are down there. Two, the ability for people to be able to call 911 and the ability at times, you know the city utilizes various cell phones, to incorporate that into maybe some of our emergency operations plans where we know a particular cell phone company that we could get priority service to utilize would be of help to that. In addition, we're in discussions potentially about expanding our broadband wireless capabilities on that same platform into the subways.

CHAIRPERSON CABRERA: You don't have any concerns that somebody may use that system for evil?

DON STANTON: I can't answer that.

CHARLES DOWD: I think just in general there's always the expectation and we've seen this around the world where subways have been attacked. There is that possibility. We have plans in place already. I don't want to go into detail--

CHAIRPERSON CABRERA: [interposing]

You don't have to.

CHARLES DOWD: --to mitigate that problem if it were to occur. Again, one of the reasons why we want a dedicated network is that if we had to shut down commercial networks because of the type of thing you're describing, we would still want to have our capability in the subway.

CHAIRPERSON CABRERA: Beautiful. Thank you so much.

CHAIRPERSON VALLONE: Thank you. We're going to go to Council Member Halloran.

COUNCIL MEMBER HALLORAN: Thank you, Chairs, I appreciate it. Chiefs, Commissioner, Deputy Mayor, it's good to see you here. I'm going to be the technical geek in the room for a minute.

Is it your testimony that the city is allowing a private company to come in and run UHF lines because that's what the digital cell phone network is and we didn't require them simultaneously to allow repeater ability in those same lines for your equipment throughout the subway systems while we're allowing them to use the tunnels created by the City of New York for

the transportation of its citizens to put in their commercial product.

CASWELL F. HOLLOWAY: So your question is the, I guess the franchise right that you give a private company to lay lines, are we as a condition of that franchise requiring them to meet our technology requirements?

COUNCIL MEMBER HALLORAN: Mr. Deputy Mayor, the City of New York is allowing a private company to come in to our subway lines to lay lines for AT&T, Verizon and whatever other companies will be serviced--

CASWELL F. HOLLOWAY: [interposing] Commercial information--

COUNCIL MEMBER HALLORAN: [interposing] --multibillion dollar industry and we didn't include in that contract in the foresight as they're doing this tunnel by tunnel so that we don't have to spend the money later. We didn't think to include a requirement since they're using UHF 800 megahertz bands on these cell phones to create simpatico with our network of needs for our public safety personnel while we're doing this. I mean am I the only person in

the City of New York who thought about this before we signed a contract with a private company? Or am I just the absurd councilman from Northeast Queens?

CASWELL F. HOLLOWAY: I think it's important to note this is an MTA RFP, an MTA project. It wasn't actually brought forth until most recently that connectivity would be required in the streets to bring various telecommunication services in. So I would say that the MTA, this would be more of a question for them. However, at the beginning of their project, it was not brought forth that a franchise would be required.

COUNCIL MEMBER HALLORAN: I'm once again stunned by the lack of foresight that my city has as billions of dollars are expended as public services are being utilized by private companies. I'm a card carrying Republican, so for me to be saying that I think is pretty sad commentary.

Let me continue then to ask in the ten year plan of the last fiscally adopted budget of the Police Department, a quarter of that budget, $177.9 million was slated for

communication equipment. Is any of the communication equipment that's slated to be purchased in this ten year plan designed for the next generation?

In other words, are we looking forward now in these communication investments that we're making to looking at different forms of communication? Maybe using SHF as opposed to UHF, which penetrates buildings better, looking to piggyback and have dual or tri-band equipment that can work with our WAN and LAN systems that are being used to piggyback signals? Are we giving any thought to the next 15 minutes in the city's future or are we just guying equipment that's going to be outdated as soon as we purchase it?

CHARLES DOWD: So the answer to that is the proposal to support legislation in Washington that you folks are taking under consideration. You know, that legislation is for exactly that. The City of New York--and I've been down to Washington I don't know how many times on this issue to discuss the need for public safety broadband capability, not just in the City of New York but across the nation.

So the only way we're going to be able to do that is if Congress assigns enough radio spectrum that's public safety appropriate for us to do that. So the next generation of public safety communications in our view in the city and the Mayor has been a strong supporter of this is broadband capability. The only way to do that seamlessly and then have full nationwide interoperability is if this gets designed from jump street as a system that takes into account all the thoughts that you just mentioned which is, you know, what do we need to do on this and who needs to be able to talk to who and what capabilities can you have?

We could go all day on this subject, but the bottom line is there is a major effort inside of public safety nationally to ensure that the next generation of public safety communications allows us to be able to do whatever capability we want to be fully interoperable with whoever comes to the City of New York. So if it's firefighters from Chicago, or we have to go to Chicago, they don't have to think about whether their device will work. Police officers who go to

Los Angeles or to Iowa don't have to think about their device working, it would work.

COUNCIL MEMBER HALLORAN: And the FBI agents and all of the others. I appreciate that, and nobody, Chief, supports the NYPD more than my chairs do, and myself, we're 100 percent behind you having the technology you need and the money that you need. I know the Police Department is doing a lot with 6,000 fewer officers and it's not easy.

My question, though, and it still comes back to how significantly we're really looking at the long term plan. I'm sure you can share my exasperation at thinking that there's a private company going to be snaking through the city subway system to put in communication lines for cell phones but nobody thought simultaneously to require them to consider our needs in public safety while they were getting this wonderful franchise opportunity.

So, as we look at the $85 million for portable radios in the budget this year that was allocated over the ten year plan, Chief, can you tell me, was that number based on current

technology equipment or are we looking to the future? Are you looking at trying quad band or just dual band equipment at this point when we talk that there's going to be an $85.5 million portable radio improvement plan going on? Is that concrete or are we talking about waiting to see if federal money ever evolves on one hand and if federal legislation ever permits the use of the higher band frequencies?

CHARLES DOWD: A very complicated question, so let me do the best I can to answer.

COUNCIL MEMBER HALLORAN: That's what I do.

CHARLES DOWD: Okay. The answer is that the older LMR technology that we use today, in our view over time is ultimately going to go away for the most part. So the goal here, again, is to migrate into broadband technology, not just for data capabilities but also for voice capabilities.

To do that and to be fully interoperable the way public safety views this nationwide, we're going to need that spectrum and we're going to need some sort of funding mechanism

to get this built out.

NYCWiN is an example of an effort to do that, which has been very successful for what it was designed to do which was in the street coverage. But we need to go beyond that. The only way we're going to be able to go beyond that is if we get this other chunk of spectrum.

There's still an unfunded mandate out there from the FCC that requires narrow banding. The NYPD has not done that yet. There is a waiver process in place at the FCC today which would allow us to argue that we don't want to spend $100-$300 million to narrow band the NYPD's radio system when we see the future of public safety communications as broadband.

So that's an argument that we're making in Washington. I think New York City has been absolutely at the forefront of that argument for the last three or four years.

COUNCIL MEMBER HALLORAN: I don't want to criticize the Mayor on that issue because I know on that issue, on technology, he's been out in front. But, you know, UHF was gone to originally because it penetrated buildings and New

York City is a building-centric place. You know, VHF is better. You need a longer antennae but it runs fine as long as there's open space. Broadband and then higher spectrum actually has even better penetration ability.

So, again, my concern is looking forward, as is your concern, but things like the fact that we have a surcharge on our Verizon cell phone for 911 service in New York City. We have that surcharge. It's there. It would have been very easy for us to sit down and talk about a surcharge if necessary to the franchisor who went in and is putting the system in the subway. I think that would have solved a lot of problems, would have given us a lot more flexibility, would have given us a lot of safety.

One other question regarding the NYPD's ability to operate in buildings, I know we've talked a lot about the Fire Department, always concerned about the Fire Department. But the Police Department runs into the same problem. If you have a hostage situation on the 47th floor, you aren't getting communication above the 75 from central, right? So what is the Police Department

doing in the same situation that the Fire Department is concerned 75 feet up in the air of not having communication?

CHARLES DOWD: So the answer to that is that our in-building coverage is excellent. Since we use radio a little differently than the Fire Department, you know individual teams of police officers, two officers assigned to a car, use network frequencies. The higher you go in a building, the better network frequencies operate. So we haven't really had an issue in high rises because of the density of our coverage and the number of sites that we have on our existing land mobile radio system.

So I would argue that as a police radio system ours, you know in LMR technology, is as good as anybody's from a coverage perspective, both in-building and in-street obviously.

Now there's always areas where you're going to have difficulties and everybody in public safety knows that. If you go four floors down in a building, you're going to have problems. But overall the in-building coverage is excellent on that system.

COUNCIL MEMBER HALLORAN: Again, I did that sort of to bring you around to the Fire Department's argument of why they need the box and everything. Well if it can work in the Police Department side of things, why can't we get it to work on the Fire Department side?

CHARLES DOWD: You're asking me that question?

DON STANTON: As Chief Dowd said Fire and Police do operate differently. The Police Department has a significant infrastructure in place that Fire does not. We recently had the channel 16 infrastructure in place which gives us good in-street coverage. But the way we operate, the point-to-point tactical in-building communications and the post radio pretty much effectively meets our communication needs.

COUNCIL MEMBER HALLORAN: I just would suggest that a dual band radio that gave you the ability to tap the UHF repeater system the Police Department uses would be a backup safety mechanism for our firefighters. Certainly we don't want to risk lives when we don't need to. I still think there are other options in terms of

mobile technology to have in-pack systems, portable repeaters in each battalion beyond the box.

I think individual firefighters could be designated as a radio man, much as the military has individual radio operators who can carry a relatively small battery powered device which would enhance radio communications inside of a building. There's a myriad of technological things that are out there that I don't think we're exploring.

But Deputy Mayor, I appreciate your new position and all of the things you're doing to sort of make sure that things happen for us. I just would really like you to go back to the Mayor and have a conversation about the fact that we're laying these lines in the subway system and we really gave no forethought to enhancing the rest of the communications for our public safety people.

CASWELL F. HOLLOWAY: We're certainly going to take that under consideration. I just want to point out, because you've raised this point throughout your questioning, I mean

you're talking about a franchise that was granted to a transit company, right. You know, the franchise concession review committee gives out franchises for substantial sums for all kinds of technology that's laid into the right of way. As a general matter, while there are plenty of requirements that have gone along with those franchises, and it's not just for laying wire, you know we don't have commercial providers as a general matter build our safety and security networks.

Now, I'll certainly look at this case. I don't know the details of this franchise agreement, but these franchisees certainly do pay sometimes substantial sums of money for the right to use the right of way. You know whether or not there's a particular safety enhancement that could be considered as a condition of the franchise, I'm not sure about that, but we'll certainly look at it.

COUNCIL MEMBER HALLORAN: Mr. Deputy Mayor, I appreciate that very much. It goes back to the general planning and direction of our city. Con Edison, Verizon dig up the streets

right after the city has paved them. There is no consideration for the fact that we just go through a paving cycle and then the roads have to get ripped up. Instead of having a unified plan for them laying their lines when the city has a convenience so that we don't duplicate or triplicate efforts that we're not redundant in how we do things.

And I agree they're paying enormous sums for the franchise because they're going to make an enormous sum on the back end. So please let's not pretend that they're paying it out of some goodness in their heart. They're doing so in the good corporate American spirit of capitalism to make money.

Well, if they're going to use my public ways to make their money, I think they have an obligation to me as a citizen. Call me crazy, but that sounds like a reasonable thing to do. I appreciate your testimony. I appreciate the input, and I yield back to the chairs.

CHAIRPERSON VALLONE: Thank you. Council Member Gentile?

COUNCIL MEMBER GENTILE: Thank you

to the Chairs and thank you to the Deputy Mayor and the whole staff that came today. I wanted to follow up on some of the questions or the line of questions that were just asked. This is in regard to firefighter safety in the tall buildings.

We heard a great deal about the technology that you are now employing and talking about. But if you look at it, you talked about the cross band repeated system, and you indicated in the cross band repeater system two things. One, you mentioned a couple of buildings that have this cross band repeater system: Seven World Trade Center, Four Times Square, and you also indicated that these systems are dependent on the property owner to install.

So in effect, this new system is really not something that we can depend upon because it's in so few buildings. And it is up to the property owner. I've heard no testimony that we were requiring by administrative fiat or if it requires legislation, let us know. I've not heard of anything other than it's up to the property owner to put it into a building.

So, you go from the cross band

repeater system and you look to the box radios that you've testified about. Those box radios are dependent upon being in the battalion that has those radios. You're saying now that that has-- I'm sorry, I'll correct that. The cross band system now is in 13 battalions. So if you're not in one of those 13, then that's not even a consideration. The box radios, you have to wait for the battalion chief to show up with those box radios. Those are the 40 watt radios.

So, in effect, without really having a cross band repeater system, except for those few buildings, and having to wait for a battalion chief to show up with the 40 watt box radios, you're really now back again to the 2-5 watt walkie talkies that the firefighters are dependent upon in these tall buildings.

So, really how far have we gotten ten years after 9/11, when we're really talking about, first and foremost, those walkie talkies and then maybe the battalion chief comes with the box radio and then maybe somewhere along the line there's one or two buildings that have the cross band repeater systems.

ROBERT BOYCE: I'm sorry, sir, if I wasn't clear. You're talking about a couple of different things. The in-building repeater systems are the ones in maybe a dozen buildings in the city. So that's like Seven World Trade Center. That's in-building repeater systems.

The cross band repeater system is in 13 battalion chief's cars. If one of those cars is out of service for a reason, they have a spare. At any significant high rise building fire, you generally have at least four battalions. One of those four battalions cross band repeaters are going to be in service. So it doesn't have to be--

COUNCIL MEMBER GENTILE: [interposing] So it's in the car?

ROBERT BOYCE: It's in the car. Yeah, the cross band repeater system is in the vehicle. You mentioned about the post radio or the box radio--

COUNCIL MEMBER GENTILE: [interposing] The box radio.

ROBERT BOYCE: I don't know where that term came from. But all the battalions, all

49 battalions in the city plus the rescue battalion, the safety battalion, field com, they all have the post radios. The divisions have their own post radios. So it's a very robust system, like 60 or 70 post radios. So there's a significant robust system there.

There was one other question? I know I'm touching them all.

COUNCIL MEMBER GENTILE: So what you're saying is that at least at each tall building fire there is going to be a post radio in one of the battalions.

ROBERT BOYCE: You need at least two. You need one in the lobby and one in the operations post, which are upper floors.

COUNCIL MEMBER GENTILE: Well, a system, there will be a system available at--

ROBERT BOYCE: [interposing] Well, the procedure is you've got to communicate between the two radios. At any significant fire, a 10-76, you're going to have at least four battalion chiefs and a division chief responding. So there's five radios there. Those aren't in the vehicles. Those are portable. If one of those

goes out of service, we have spares. So, all the battalions and divisions have the post radios.

COUNCIL MEMBER GENTILE: So you're saying the picture is better than what I at least understood the first time?

ROBERT BOYCE: Yes.

CASWELL F. HOLLOWAY: Maybe to amplify that, I think that you asked a big picture question, so where are we really ten years after 9/11. I think we are in a substantially better place in terms of within each of these agencies and with the Fire Department specifically in terms of the ability to communicate at high rise fires. Certainly in the subway, as we talked about, FDNY is on the UHF system. And then between these agencies and all the other agencies, we are in a much, much better place.

I'd like to suggest what I suggested to Chair Crowley, which is that these investments are, as a general matter, complicated and they tend to be expensive.

COUNCIL MEMBER GENTILE: What does the box radio cost, or whatever you call it, the post radio?

CASWELL F. HOLLOWAY: I'll get back to you on the specifics. But we already know that the box radios are deployed to all the battalions. So I mean that's 100 percent coverage plus spares.

If there is an investment in a box radio or if there is a building code requirement or if there is a--additional cross repeaters that are needed, or if there is an enhancement that can be made by piggybacking on some other infrastructure here, then certainly we should do that.

I think answering that question though really depends on taking, I think, a deeper dive into: well, we know the general response time, what are the response time to the high rise fires, are we finding that the communications are a problem in particular instances? I can tell you that I am unaware of a significant communications problem as a categorical matter at a high rise fire.

So, now having said that, I'm sure Commissioner Cassano would be happy to have additional resources. But I can commit to you that after this, we will do some homework on our

end, sit down and actually look at this very specific question, because I think it is fairly narrow. Is there an enhancement to the high rise building communication ability that should be made or are we as a general matter, based on the data, pretty comfortable with where we are? And then maybe to Council Member Halloran's point, you know, what's next? How long is that technology going to last and is there a next generation that we should be thinking about?

I'm committed to go through that. I'm not sure that it makes sense to continue to talk about it here. I think we need more data.

COUNCIL MEMBER GENTILE: I understand your point, Mr. Deputy Mayor, but I think one of the aspects of the new generation of what's next is something that I've not heard any testimony on today, but you have looked at.

And I'm curious to know, this system known as radio frequency IDs, the RFIDs that would pinpoint the location of a trapped firefighter in a tall building, or any building for that matter without any communication on the part of the firefighter to any radio control. It

would be on the uniform of the firefighter and that would pinpoint the location of any trapped firefighter, so we don't run into situations like we had with Firefighter Beddia or Firefighter Graffagnino at the Deutsche Bank Building.

That technology has been studied and studied and restudied by the FDNY since at least the Deutsche Bank Building fire. But I've heard no testimony about that today.

DON STANTON: Councilman, a couple of things. The Fire Department is currently piloting an RFID project. It's for identifying firefighters that are actually on a rig and responding to an incident. One of the issues we had on 9/11, it was during a shift change. So there were a lot more people that responded than normally would have. So that's actually being piloted.

With regard to in-building tracking, we've been looking at this for years. We've had some of the more major companies come in to us, from Raytheon, Northrop Grumman, Hewlett Packard, and they just cannot demonstrate a system that effectively pinpoints where a firefighter is.

They pretty much have the x and y axis down, but that z component which actually shows the floor that they're on, they have not been able to solve it. And we've been talking to Homeland Security. We've been involved with some of the pilots that they've been putting forth. We just have not seen a solution that would work for us yet.

COUNCIL MEMBER GENTILE: As to your point of using the RFID on the rigs themselves, I think that's more of a personnel issue than a safety issue of who's on the rig at what time.

DON STANTON: If I could? I would agree. But also, if the RFID, which I believe will somehow be the solution in the future for some type of firefighter locator, getting those RFID tags in the bunker gear sooner than later I think puts us ahead of the curve.

COUNCIL MEMBER GENTILE: And so you're saying that there is no RFID technology at this point that works in those buildings?

DON STANTON: Not that I'm aware of that will locate a firefighter within three feet or so. Obviously, you can't see in a smoke filled room. As far as I know there is not a solution

that is viable for us. If you're aware of one or you have a company that believes they have a solution, we'd be more than happy to talk to them.

COUNCIL MEMBER GENTILE: But that process is continuing?

DON STANTON: It's ongoing.

COUNCIL MEMBER GENTILE: Mr. Chairman, I just had one other question and then I will yield. Mr. Deputy Mayor, you had mentioned about looking at the command centers for FDNY and NYPD. Is it the case that they set up separate command centers?

CASWELL F. HOLLOWAY: There is a unified command that is established where representatives and the incident commander and then the high ranking representatives from each of the agencies that is present are and conduct the operation.

Now, in certain circumstances, depending on the size of the operation and the magnitude, I have seen the setup of other areas where more personnel can be operating. For example, at a big water main break, you often set up a separate table that's not right by the

incident command, depending on the kind of materials you're looking through. Sometimes, for example, it's a matter of how many valve turns you have to do and to get the valve turned you have a certain thing that you bring out. It's getting more and more electronic.

But what I'm describing here is you could go to a scene, just in case anybody decides they're going to go to an incident response, and you may see more than one table set up, more than one setup of personnel. But there is a unified command at each of these incidents where the people running the operation from each agency are co-located.

COUNCIL MEMBER GENTILE: So are you suggesting that what Council Member Vallone was speaking about hearing from the troops on the field about different command centers is really what you just described?

CASWELL F. HOLLOWAY: Well, I don't want to speak for whoever has given this anecdotal information. What I'd rather do is get a little more information about the specific incidents. It could be. It could be the case. No system is

perfect and, you know, it could be the case in a certain operation that there was some confusion about how the setup was supposed to work. But I need to know more about the specific response. But as a general matter, the unified command is the place from which face to face, person to person, the responding agencies run the operation.

COUNCIL MEMBER GENTILE: Thank you, Mr. Chairman. Thank you, all.

CHAIRPERSON VALLONE: Thank you. We have to finish up with this panel relatively quickly because we have one more panel and we have to be out of the room by 1:00. I have just two quick questions. You discussed the Fire Department system of potentially knowing who's on a rig at one time. Chief Dowd, back in 2006, you testified that there was also a project in place for police officers to each get an individual radio, which they could press a key and then you would know exactly who was on what scene. Again, that was 2006, so where are we with that project?

CHARLES DOWD: So you're talking about what we commonly refer to as unit ID. We have a system in place that allows us every time a

police officer keys up their radio, there is a computer system located at our electronic section in our radio shop which will show exactly who just keyed up and the duration of the transmission.

So we can track back who made what transmission. It does not give location data, but it identifies the individual radio that's assigned to the individual police officer.

CHAIRPERSON VALLONE: Why would they key up or not key up?

CHARLES DOWD: Well, in just the normal course of operations if they're transmitting. So when they key up the radio. Let me clarify, keying up means pushing to talk. I apologize. I'm thinking you know all these terms. So I apologize. So, every time they would push to talk, it registers on this system and tell us whose radio that was.

CHAIRPERSON VALLONE: In that way you've been able to cut down on the clutter that was also a problem after 9/11?

CHARLES DOWD: 9/11 and the issue of unauthorized transmission that we have problems, that any agency has problems with from

time to time. We can address them by knowing which radio transmitted.

CHAIRPERSON VALLONE: One of the last recommendations was that fact that land lines when down on 9/11 due to Verizon problems. Back in 2006 you testified about a microwave system that you were going to implement to circumvent that problem. Can you give us an update on that?

CHARLES DOWD: That's been done in phases. I think we're up to and completed what we would characterize as phase three. What that uses is if you look at the blackout, we rely on Verizon or a phone company for back call with their T1 and T3 lines. So what we've done is we've built kind of a network, kind of a spider web network of what they call microwave hops from one spot to another for back call of radio systems.

What that does for us is microwave is more reliable. And in an instance, let's say like the hurricane which wasn't that bad, everything went well that time, but if you had a blackout scenario again where you started to lose your commercial connectivity, these microwave sites, which are generator protected, would back

call the radio transmissions for you so you have a more reliable infrastructure for that.

CHAIRPERSON VALLONE: Is phase three the last phase or is it--

CHARLES DOWD: [interposing] You know what, I think there might be one more, and I will get the details for you for that. But we've expanded it from just our citywide frequencies. We've now pushed it out into each geographic borough so that the local precinct frequencies, at least in a number of cases, would be available to work even if the commercial back call were to fail. I think we have one microwave phase to do to extend that a little further.

CHAIRPERSON VALLONE: Council Member Brewer?

COUNCIL MEMBER BREWER: Thank you very much. In a recent article, Wayne Barrett was actually very complimentary of the Mayor and the work that's being done, obviously blaming the Republicans for wanting to send much of the spectrum to the commercial buyers.

But my question is in fact the bill passes in Washington in some form, can you just be

specific, in addition to the communication that exists now, how would that legislation help to do some of your agenda items?

CHARLES DOWD: Well, again, what that does is that solves a whole host of problems. First of all, one of the reasons that it's very difficult for public safety to be interoperable is that everybody is in different radio spectrums.

COUNCIL MEMBER BREWER: I'm aware of that.

CHARLES DOWD: So while we've done a lot here locally to solve that problem, if you had to go outside the New York region, our communications equipment is useless and vice versa. So it's solving that interoperability problem so that our devices in broadband would work no matter where you went. If people had to come to support us in New York, as we found out on 9/11. But then it's also giving you all these other capabilities: streaming video, data. So it's an information sharing capability far beyond what we use today. That's part of it. Although NYCWiN does a lot of it now, that spectrum would not be interoperable with anything on a nationwide

basis. That's why we need that bill passed. Again, the goal here is to make sure that we're fully interoperable nationwide.

Now, as to who supports this, there are some Republicans that are unconvinced, but I have to point out that Peter King and Michal Grimm from Staten Island are strong supporters of the legislation.

COUNCIL MEMBER BREWER: Okay. My other question is again in the same article Wayne Barrett talks about the TCU [phonetic] and the fact that the police have this frequency. I know you talked about it a little bit, Cas, but how does the Fire Department access. Can you be specific on that?

CASWELL F. HOLLOWAY: I spoke to Mr. Barrett.

COUNCIL MEMBER BREWER: He said so.

CASWELL F. HOLLOWAY: Yes. It was a fine conversation.

COUNCIL MEMBER BREWER: It's always a fine conversation with Wayne Barrett. I've known him for 40 years. Go ahead.

CASWELL F. HOLLOWAY: Yes. The

station is programmed on their radios. So it's simply a matter of, you know, depending on the particular situation, following the right protocol to inform--I don't know if it's through incident command, Chief Boyce you can maybe describe exactly how the TCU channel gets activated in a specific circumstance.

ROBERT BOYCE: First, let me just say very few incidents, thank God, is a need for police and fire to be communicating with each other. That's first off.

Say in a building collapse and PD has resources and Fire has resources that are working on the pile and they need to communicate. It's simply a matter of changing a channel from 1 to 13 on the Fire and I'm not sure on the PD. It would have to be some kind of communication, a conscious decision to go to TCU so we can operate interoperability. But general speaking, like Chief Dowd alluded to earlier, you know Fire is going to have their processes and PD is going to have their processes, what they're going to be doing on the pile. Very infrequently is it necessary to have the interoperability.

CASWELL F. HOLLOWAY: But it's there. Going to that frequency is really a decision that would happen through incident command. So it's something that that the capability is just a dial turn away. I think a lot was made in that article about the characterization of it as a request from FDNY to NYPD. It's really if the incident requires that that communication happen, it can be instantaneous.

COUNCIL MEMBER BREWER: We've had a lot of hearings in Technology, when I chaired it over the years, on the training issue for officers and firefighters and OEM on technology. What's the ongoing training for some of these discussions that we're having here today, if any, or if it's necessary?

CHARLES DOWD: I don't have the details. I can certainly get that all for you. But, you know, we have an in service training program in the Police Department, so any time a new capability or a new procedure comes into place, whether it's communications related or otherwise, or technology related, that information

is pushed out through the police academy to the in-service trainers in each precinct to train officers. If it's more complex, they're brought into the police academy for training.

COUNCIL MEMBER BREWER: How much do police officers use their own cell phones to deal with some of these issues as opposed to some of the outlines that you've given us here today?

CHARLES DOWD: You know, that's all anecdotal, so I'm not sure.

COUNCIL MEMBER BREWER: A lot.

CHARLES DOWD: Probably. And I'll tell you why, because the younger officers are more comfortable with the technology. That's why we're making the argument in Washington that says come on, let us do this, because they'll jump all over this capability.

COUNCIL MEMBER BREWER: Because they do use their cell phones a lot, that's what they tell us, to do some of these things. In terms of NYCWiN, that's again a topic that I'm familiar with, having known when it first started at half a million. Can you give us some idea of how much it's cost in the last few years to

implement NYCWiN? Maybe it was a million when it started?

CASWELL F. HOLLOWAY: Steve?

COUNCIL MEMBER BREWER: I remember going to Northrop Grumman, touring the facilities. Steve knows this. Go ahead.

STEVEN HARTE: Hi, nice to see you.

COUNCIL MEMBER BREWER: Billions.

STEVEN HARTE: How are you?

COUNCIL MEMBER BREWER: I'm fine.

STEVEN HARTE: The initial five-year contract was $500 million, of which approximately $358 million was to build the infrastructure which since we've expanded a great capability across the entire city, practically all city agencies. And roughly, again at the last City Council budget hearings, the details were provided on the budget, roughly $40 million a year to run. The five-year renewal that we just negotiated saved approximately $52 million over the original contract renewal value. So the first renewal, which was five years was registered at $207 million.

COUNCIL MEMBER BREWER: $207

million per year?

STEVEN HARTE: No, for five years.

COUNCIL MEMBER BREWER: $207 million for five years to run?

STEVEN HARTE: Yes.

COUNCIL MEMBER BREWER: How many agencies are involved with that? I know DEP. We tried to get the Port Authority. How many agencies are actually using it?

STEVEN HARTE: 29 agencies.

COUNCIL MEMBER BREWER: That's just city agencies or some state?

STEVEN HARTE: City only agencies.

COUNCIL MEMBER BREWER: Is there any suggestion to go beyond that?

STEVEN HARTE: Yes. We've had a number of discussions with the MTA and to implement a couple of pilots. There's traffic signal priority which has been a joint effort between DOT and the MTA. I would also like to say one of the critical applications and anchor applications has been the city's advance traffic control system, which is run out of the JTMC, out of Long Island City.

Again, a collaborative effort between New York State DOT, New York City NYPD as well as New York City DOT to ensure that the roadways are clear and response is immediate. So a number of great press events around Midtown in Motion have been made by the Mayor as well as 4,000 units to date deployed on the city's intersections. Over the next year, we'll be up to 10,500 intersections where the city can maintain the health of the city's traffic control system as well as respond immediately at the touch of a button to change traffic patterns for evacuations or response to planned events or emergencies.

COUNCIL MEMBER BREWER: Just a final question. In terms of the other police departments and emergency situations for other than just New York City, I know we're not like some cities that have five or six layers and don't know how to communicate, but what is the actual communication system? Not just with NYPD and Fire and OEM, but some of the other, Port Authority and so on, within the metropolitan region? That's always been an issue for past hearings. I know it will work when we have broadband, but we don't

have the spectrum.

CHARLES DOWD: So the answer again is the same difficultly is there that is on a nationwide basis, which is disparate spectrum. So we have longstanding protocols with New York State Police, MTA, Port Authority of New York and New Jersey. They are authorized to be on our frequencies in the City of New York on our citywide frequencies and even on our division frequencies depending on the need, and Nassau County, the same thing. So they're authorized in emergency situations to go on to our frequencies if they need assistance.

From a command and control perspective, they're all part of the local structure we have set in place for public safety response, NIMS, CIMS that allows them to operate also on our command and control interoperability channels, on our 800 system, Steve, right? So they have the capability to talk on all those systems. But in some cases, quite frankly, they have to be carrying more than one device and sometimes three devices in order to be able to do that. That's the problem with the difficult

spectrum.

COUNCIL MEMBER BREWER: Thank you.

CHAIRPERSON VALLONE: Thank you, former chair Brewer, it's good to have your expertise here. My last question and I wish I had 20 minutes on this but we don't because we have one more panel. One of the things Ray Kelly testified was one of our biggest needs is a backup 911 system. Commissioner, can you update us on PSAC II?

CASWELL F. HOLLOWAY: Yes. Since coming back to City Hall, I have had conversations with Commissioner Kelly, Commissioner Cassano and the people who are all moving this project forward. PSAC II is part of ECTP, the Emergency Communications Transformation Project. Phase one is the co-location of PD, FD and EMS all in a single call center. We're just about there with that project.

PSAC II is under construction. If you up to right off the Hudson River Parkway, you'll see a foundation for the building that will be the city's backup 911 call center. In fact, the way we envision it operating is to do load

balancing to some extent so that you're actually always running some volume of calls through PSAC II.

I think as the committees probably know, an effort has been underway to try to contain some of the costs of the building. That exercise is just about complete. I don't have all of the details in front of me right now. But construction is continuing and will continue. I can get back to you with more specific data on the timeline.

I guess what I was leading with is the reiteration of the importance of the backup 911 system by Commissioner Kelly and Commissioner Cassano has been made clear to me. And so we're moving forward.

CHAIRPERSON VALLONE: When it comes to the first phase that's not even done yet. They're supposed to all be on the same floor and they're not. I believe the police are already up on the third floor but fire is not because the system is still--

CASWELL F. HOLLOWAY: [interposing] Other way around.

CHAIRPERSON VALLONE: The other way around? So the Fire is up on the third floor and the Police are not yet because the Vesta [phonetic] system is unreliable. When is that going to be rectified?

CASWELL F. HOLLOWAY: Well, we have had successful testing over the summer of the Vesta system. Now, NYPD is in the middle of training. Once that training is complete, they will actually move into the third floor.

Just a little bit of context here, the 911 system is obviously perhaps the most important public safety system that there is. So before cutting over to a brand new system for PD and FD--and FD by the way is operating on the system--but once PD comes over, obviously the whole volume of 911--the majority of volume of 911 calls comes from the PD system. It was important that we did a bunch of what are called large network system testing to ensure that the system can deal with volume.

Now, Vesta had problems. In fact, the software was not operating in a way where we had confidence that it could handle those large

volumes. We worked with Verizon. First of all, we haven't made a payment to Verizon in a very long time because it's a milestone based delivery and they haven't delivered the working Vesta system.

However, our judgment, and this is a judgment that has been throughout the life of the project, is that we did have ultimately confidence that Verizon was willing to make the investment and could as a technology matter solve the difficulty with Vesta. It's taken a long time. However, we weren't going to switch over to a new 911 system until we knew the new one was going to work.

So we have successfully tested it and in fact Verizon built a lab here to do much more intensive testing of every upgrade. As you know, with these systems, once 911 goes live for the new Vesta system, it's not going to be static. There will continue to be updates. And the system, you know we lived with the old 911 system for what, since 1968?

CHARLES DOWD: '95.

CASWELL F. HOLLOWAY: '95 and then

before that. So we expect to be with this system for a long time and for it to continue to evolve. So, on the one hand it has taken longer than anyone has wanted for these agencies to be co-located.

However, we have, I think, really held Verizon's feet to the fire as a contract matter. And I can tell you, having been intimately involved and no re-involved in the final phase of part one, I think we are going to have confidence when we go in there that this new system is going to be able to function as required to ensure the safety of New Yorkers.

CHAIRPERSON VALLONE: I can follow up on that for 20 minutes, but we can't. So part two, completion date?

CASWELL F. HOLLOWAY: In terms of what the date is, I think the latest date was 2013. I'm just not sure if that's slipped. So I'm going to have to come back to you with a specific timeline.

CHAIRPERSON VALLONE: Okay. I'm going to turn it over to Chair Crowley to ask a question and finish up. Before I do, I just want

to, again, say we've pointed out some things that we see are problems. I want to remind you of what I originally said. We believe you've done an excellent job overall in making improvements since 9/11. As you said, we are substantially safer and have substantially better communications than we did since then overall. It's our job to point out these improvements that still need to be made. Chair Crowley?

CHAIRPERSON CROWLEY: Thank you, Co-chair Vallone. Since my co-chair brought up the subject, I just want to revisit with a few questions about your emergency call taking center. Public Safety--PSAC, Public Safety--

CASWELL F. HOLLOWAY: [interposing] Answering Center.

CHAIRPERSON CROWLEY: Answer Center, which is part of the emergency call taking--

CASWELL F. HOLLOWAY: [interposing] Emergency Communications Transformation Project.

CHAIRPERSON CROWLEY: Gotcha. So the last I heard that there was some contracts held by the Comptroller's Office in terms of the

construction of PSAC II in the Bronx. Was that?

CASWELL F. HOLLOWAY: One second. I want to get back to you with details on that. I believe that there was an agreement in terms of the full registration amount and how much we were going to move forward with as an initial matter. The system is integrated for PSAC II which is Northrop Grumman. I can tell you Northrop Grumman is on the ground. They are working.

CHAIRPERSON CROWLEY: In the Bronx?

CASWELL F. HOLLOWAY: Actually, I'm not sure where. Northrop Grumman is the systems integrator. The building is not finished yet, and in fact it's not somewhere where you could work. You have construction trailers there for the construction of the building itself. I'm not exactly sure where Northrop has its team staffed but I can get back to you with that.

CHAIRPERSON CROWLEY: Okay. I heard news reports that it was in a flood zone, they weren’t sure they were going to continue the construction there.

CASWELL F. HOLLOWAY: No, we're continuing there.

CHAIRPERSON CROWLEY: You are continuing to--

CASWELL F. HOLLOWAY: [interposing] We are continuing there, yes.

CHAIRPERSON CROWLEY: Although you don't have a completion date--

CASWELL F. HOLLOWAY: [interposing] I just don't want to get it wrong. So I want to get you the schedule. We have a schedule.

CHAIRPERSON CROWLEY: Today, you have your PSAC I in Brooklyn.

CASWELL F. HOLLOWAY: Correct.

CHAIRPERSON CROWLEY: And you have the Fire Department operating center also nearby.

CASWELL F. HOLLOWAY: We have two communication COs for FDNY and they're backup for the FDNY. And then there's backup at One Police Plaza as well.

CHAIRPERSON CROWLEY: At an undisclosed location somewhere in Queens too? Is that true for the Fire Department?

CASWELL F. HOLLOWAY: If it's undisclosed, it's undisclosed to me.

CHAIRPERSON CROWLEY: Well, just

for reassurance purposes, if God forbid there was an attack right in that area in Brooklyn, where is the Fire Department command center? Is there another place? Do they have backup?

CASWELL F. HOLLOWAY: Don?

DON STANTON: Right now we have Queens CO is the backup. So Queens would stay where they are and Brooklyn and Staten Island would go there. The Bronx is the backup which is currently manned, and Manhattan would go there. So effectively, if we had to vacate 11 Metro Tech, there are places for us to go so we can dispatch.

CHAIRPERSON CROWLEY: And you also have interoperability in Lower Manhattan at One Police Plaza for all the agencies to work with OEM if there was some type of attack or malfunction in Brooklyn?

CHARLES DOWD: Currently the backup 911 center is One Police Plaza.

CHAIRPERSON CROWLEY: Okay.

CHARLES DOWD: That has been upgraded to the same level of call taking positions and technology that exists at the current 911 center in Brooklyn.

CHAIRPERSON CROWLEY: To further clarify a question that was asked by my co-chair, Council Member Vallone about your system that Verizon has with the phones. What's that?

CASWELL F. HOLLOWAY: Vesta.

CHAIRPERSON CROWLEY: Vesta. Now, most of today's hearing concentrated on communications within the city agencies. But there are difficulties, especially in times of emergencies for regular people who are calling in 911 emergencies to get through. Especially, you know, if we look back just in recent months, there are two incidents that come to mind. One, the snowstorm and another incident was a tornado, that microburst that happened. I, myself, tried to get through on 911 and couldn't, when I saw a fire happening in my community.

So I have concern about a system that currently isn't together or working as well as we would like it to work. Was that a malfunction of the Verizon system?

CASWELL F. HOLLOWAY: I'm sorry, was which a malfunction?

CHAIRPERSON CROWLEY: When 911

calls are made, those emergencies that don't go through properly. No 911 call taker picks up and says "what's your emergency?"

CASWELL F. HOLLOWAY: So distinguishing between two things. The first is right now NYPD is operating the 911 call takers and they are the intake for the vast majority of calls and including a high volume of the fire calls in fact is coming through currently the first floor of Metro Tech, the 911 system that is currently in place. So that would be an issue, any incident specific problems with getting through to 911 would be a volume or other issue with that, which the chief will speak to in a second.

What you're hitting on, though, is exactly why this cutover has not yet happened. Probably more than any other single technology issue or maybe any issue that I've worked on when I was at City Hall before and now back is Vesta. Can Vesta--and the specific question of volume--can Vesta handle the volume that 911 could see in the event of a major incident?

When Verizon first presented the

system to us to accept the answer to that question was no. Then we did another test. We did, in fact, a whole series of tests. We had them build a lab and we've had the top officials of the company in and out. I can tell you now it's not for lack of resources that this isn't yet finished. The good news is we've successful tested; the network large system test was successful. Now, it's a matter of training a couple thousand police personnel to be able to move into the new place.

CHAIRPERSON CROWLEY: Let me just clarify.

CASWELL F. HOLLOWAY: But your question was about getting through to 911.

CHAIRPERSON CROWLEY: I won't forget the question.

CASWELL F. HOLLOWAY: Yes.

CHAIRPERSON CROWLEY: But now you have a system where Vesta is able to take all the volume coming in?

CASWELL F. HOLLOWAY: Vesta has been successfully tested so that it can take the volume. We have not cut over to the system yet,

the new system.

CHAIRPERSON CROWLEY: What's the delay, just training?

CASWELL F. HOLLOWAY: Training and getting everybody into the system. Believe it or not, it's a multi-month process to do because first you have to train the people who are going to train. Then the trainers train the supervisors. Then you train the second line supervisors. Then you train all the line call takers.

CHAIRPERSON CROWLEY: Right. So there's a timeline in that process. But the good news is that you've had a breakthrough and that this system can handle the volume.

CASWELL F. HOLLOWAY: Yes.

CHAIRPERSON CROWLEY: You don't have to change and create a new system.

CASWELL F. HOLLOWAY: Yes, correct.

CHAIRPERSON CROWLEY: That's been tried and tested and it hasn't failed.

CASWELL F. HOLLOWAY: Correct. It was successful--

CHAIRPERSON CROWLEY: [interposing]

This is serious just because--

CASWELL F. HOLLOWAY: [interposing] Absolutely--

CHAIRPERSON CROWLEY: --only a few months ago, I mean we were lucky there weren't even more serious emergencies. There were a number of serious emergencies during the snowstorm but there could have been more--

CASWELL F. HOLLOWAY: [interposing] Well let's go back to that because that's the current 911 system.

CHAIRPERSON CROWLEY: Right.

CASWELL F. HOLLOWAY: Chief Dowd, do you want to speak to that?

CHARLES DOWD: There's a difference between whether a system is working and whether a system is overloaded. So the reality is that as efficient as we think we are in answering 911 calls, there comes a point where the calls are delayed in answering the volume gets extremely high, like in a 9/11 incident or for example the earthquake--

CHAIRPERSON CROWLEY: [interposing] Right, but that's with the current system. We

have a system that we know is successful which is the Vesta system and you tried and you were able to figure out a way where you just need to train people and the system will, one day in the near future, be able to handle volume?

CHARLES DOWD: Yes, in the say way that the old system effectively handles volume.

CHAIRPERSON CROWLEY: But that doesn't give me reassurance.

CASWELL F. HOLLOWAY: But the way--

CHAIRPERSON CROWLEY: I'm sorry. We don't have much time and there's going to be another panel and we have to be out of the room by 1:00.

CASWELL F. HOLLOWAY: I want to clarify one thing because I think I understand where you're going. And I'm going to go then back to you Chief. Even with the new system, which has successfully tested, it is still testing a high volume that could it potentially be exceeded. I mean no system is going to ever be deployed; I don't know if it could be built, that could handle absolutely any volume.

CHAIRPERSON CROWLEY: Right. But

you're unifying--

CASWELL F. HOLLOWAY: [interposing] So it is still conceivable that there could be delays in 911 answering under any system. So I didn't want to--okay.

CHAIRPERSON CROWLEY: Deputy Mayor, we all want what's best for communications in the city in the time of emergency. What's frustrating is that there's a system that doesn't handle the volume right now in a time of a great crisis. There doesn't seem to be a real clear path to solving this problem.

I personally think it has something to do with unifying all the three system, the EMS, the Fire and the Police emergencies. That's part of the reason why you get so much volume at one time that the system fails. You haven't had any reassurance from Verizon that this is never going to fail again in the future.

In bringing up the unifying call taking system, this is just one of the many issues of concern. We had two hearings in a year and a half to address just that part of the problem, the unified call taking. So I think knowing that we

have less than 15 minutes to go for this particular room, I will first say that along with my colleagues here today, I recognize that the administration has made great enhancements to improve communication, but there's definitely follow up issues that need to be addressed. One is the unified call taking system and the 911 volume and the likelihood of it to fail again in a catastrophic emergency or just an emergency like a tornado or a snowstorm.

We need to follow up with the FDNY study that we did on the subways and to make sure that we're doing as much as we possibly can to improve communication in and around the subways. As it relates to repeaters in high rise buildings, there was also a study that we should go over. When we meet, we should meet again as a committee. That was part of Oliver Koppell's concern earlier that he didn't have a chance to express was that there are things that we could do together to make sure that radio communication is better in high rise buildings.

Lastly, just to know that we have to further clarify what happens with the EMS AVL,

the automatic vehicle locator system and how that interacts with your computer aided dispatch because we're hearing differently from the union. They say quote/unquote that there's zero function in dispatching as it relates to the AVLs. But I think that maybe we could see it ourselves with a visit to the center.

CASWELL F. HOLLOWAY: Sure. I can tell you that's not true.

CHAIRPERSON CROWLEY: Okay. Good. I thank you again for your time this morning and look forward to continuing this discussion.

CASWELL F. HOLLOWAY: Thank you.

CHAIRPERSON CROWLEY: We're going to have the next panel. We have Yucel Ors. Is Yucel Ors still here? Yucel is with Public Safety Alliance, APCO International.

[Pause]

CHAIRPERSON CROWLEY: If you could please state your name and begin your testimony once you're ready?

YUCEL H. ORS: Sure. My name is Yucel Ors. I'm the director of government relations for the Association of Public Safety

Communications Officials, APCO International. I'm also the program manager for the Public Safety Alliance. I would like to thank you for the opportunity to appear before you today regarding the proposed Resolution 870-A which calls on Congress to pass and President Obama to sign into law S911, the Public Safety Spectrum and Wireless Innovation Act.

APCO International is the world's largest organization of public safety communications professionals. It serves the needs of public safety communications officials worldwide by providing professional development, technical assistance, advocacy and outreach to nearly 16,000 members.

The Public Safety Alliances is a partnership of the nation's leading public safety associations which include APCO, the International Association of Chiefs of Police, the International Association of Fire Chiefs, the National Sheriff's Association, the Major City Chiefs Association, the Major County Sheriff's Association, the Metropolitan Fire Chiefs Association, the National Emergency Management Association and the National

Association of State EMS Officials. The partnership is operated by APCO International.

The PSA believes that the passage of S911 bipartisan legislation, introduced by Senators Kay Bailey-Hutchison and John Jay Rockefeller IV holds the key to solving the problem of lack of interoperability our public safety agencies are facing today.

After working through various issues regarding how to fund and govern the public safety broadband data network, Chairman Rockefeller and ranking member Hutchison of the U.S. Senate Committee on Commerce, Science and Transportation developed S911 as a compromise bill which was favorably voted out of committee in June, by a margin of 21 to 4.

Among the agreements included in S911 was to dedicate up to $10 billion of spectrum auction revenue to reduce national debt, as well as providing $11.75 billion over ten years to build out the public safety broadband network. Led by Senators Charles Schumer and Kirsten Gillibrand, as well as Congressman Peter King, the Chairman of the House Homeland Security Committee,

who introduced HR607, the Broadband for First Responders Act of 2011, the State and City of New York's Congressional Delegation has been among the strongest supporters and advocates in the nation for passing legislation that will allocate the D block spectrum and funding to public safety to build out a nationwide broadband network to improve the communications and interoperability of our country's emergency communications, both day-to-day operations and in times of crisis.

At this time, I would like to submit into the record a comprehensive report that APCO International has compiled in recent weeks, documenting a large volume reports, studies, field tests, commentary, testimony and legal filings.

CHAIRPERSON CROWLEY: I'm sorry. In the interest of time, we're going to submit your testimony to the record. But if you could, just wrap it up?

YUCEL H. ORS: Sure. Basically, in short, this report has everything that you can ever imagine about why this is so--

CHAIRPERSON CROWLEY: [interposing] Submit the report.

YUCEL H. ORS: --needed. The only thing we would ask is as the Resolution 870-A is passed, you work with your colleagues in other cities and counties and other communities have to do the same thing.

CHAIRPERSON CROWLEY: Absolutely.

YUCEL H. ORS: New York is the lead but we need to get this message out. This is a one-time opportunity. If Congress does not pass this legislation, it will really set back public safety broadband.

CHAIRPERSON CROWLEY: We agree, absolutely. Thank you for your testimony today.

YUCEL H. ORS: Thank you.

CHAIRPERSON CROWLEY: We have no other people who are here to testify. This concludes the Public Safety, Fire and Criminal Justice Committee and Technology Committee hearing of September 27th, 2011.

C E R T I F I C A T E

I, Donna Hintze certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Signature Donna Hintze

Date October 25, 2011