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PUBLIC HEARING

before

EMERGENCY RESPONSE SYSTEM STUDY COMMISSION

Public Safety Communications Problems  
and the Availability of Radio Frequencies

April 22, 1987  
Student Center Auditorium  
Morris County Community College  
Randolph, New Jersey

MEMBERS OF COMMISSION PRESENT:

Assemblyman D. Bennett Mazur, Chairman  
S. Robert Miller, Vice Chairman  
William C. Faust, Jr.  
Harrie E. Copeland, III  
Domenick Cotroneo  
Fred D. D'Alessio  
Winnie Hartvigsen  
Howard A. Kirkwood, Jr.  
Captain Joseph Saiia

New Jersey State Library

ALSO PRESENT:

Anne M. Stefane  
Office of Legislative Services  
Aide, Emergency Response System Study Commission

\* \* \* \* \*

Hearing Recorded and Transcribed by  
Office of Legislative Services  
Public Information Office  
Hearing Unit  
State House Annex  
CN 068  
Trenton, New Jersey 08625

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D BENNETT MAZUR  
CHAIRMAN

S. ROBERT MILLER  
VICE-CHAIRMAN

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CHARLES NEWCOMB  
CLINTON PAGANO SR.  
THOMAS P. REILLY  
STEPHEN A. SOLOWEY



## New Jersey State Legislature

### EMERGENCY RESPONSE SYSTEM STUDY COMMISSION

STATE HOUSE ANNEX, CN-068  
TRENTON, NEW JERSEY 08625  
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## NOTICE OF PUBLIC HEARINGS

The **EMERGENCY RESPONSE SYSTEM STUDY COMMISSION** will hold four public hearings as follows:

Wednesday, April 1, 1987 at 7:30 p.m. in the second floor courtroom, Monmouth County Hall of Records, Main Street, Freehold, New Jersey.

Wednesday, April 22, 1987 at 7:30 p.m. in the Student Center Auditorium, Morris County Community College, Route 10 and Center Grove Road, Randolph, New Jersey.

Wednesday, May 20, 1987 at 7:30 p.m., in Room 105 of the Career Building, Camden County College, College Drive, Blackwood, New Jersey.

Wednesday, June 3, 1987 at 2:00 p.m. in Room 424 of the State House Annex, Trenton, New Jersey.

The hearings will consider public safety communications problems and the availability of radio frequencies.

Anyone wishing to testify should contact Anne M. Stefane, Commission Staff, at (609) 984-0231 and should submit 20 written copies of testimony to Ms. Stefane on the day of the hearing.



# TABLE OF CONTENTS

	<u>Page</u>
Ken Koenitzer West Orange First Aid Squad	1
Lt. Lewis Varick Borough of Roseland Police Department	5
Norman Coltri New Jersey State Police Frequency Coordination	10
Ron Losefsky West Milford First Aid Squad	11
Charles Aughenbaugh, Jr. Testifying as an individual	26
Charles Thom Sussex County Office of the Fire Marshall	45
Eugene P. Sabatino Boonton Kiwanis First Aid Squad	49
James McGoldrick Deputy Chief Bergenfield, New Jersey Fire Department	51
Gerald W. Sheard Morris County Fire Marshall	54
APPENDIX:	
Various articles from JEMS and the APCO Bulletin submitted by Ken Koenitzer	1x
Article from the "Firehouse" magazine submitted by Charles Aughenbaugh, Jr.	15x
Article from the "Firehouse" magazine suggested by Howard A. Kirkwood, Jr.	19x
Correspondence, with attachments, between Congressman Dean A. Gallo and Walter R. Critchett Chief of Police Borough of Roseland, New Jersey	22x

\* \* \* \* \*



ASSEMBLYMAN D. BENNETT MAZUR (Chairman): All right, the hearing will come to order. This is the second in our second series of public hearings. This Commission has been in existence since last August, and the first three or four months of our endeavors were spent in making the proper proposals to the Legislature for an enhanced 911 system. The legislation is presently before both houses. We are now concerning ourselves with any other kinds of communication problems, such as overcrowded frequencies, the inability of disaster units -- which are on different frequencies -- to communicate one with another at the scene of a disaster, and similar kinds of phenomena, which sometimes are not phenomenal actually, but rather all too common.

We would first take as a witness, Mr. Ken Koenitzer, of the West Orange First Aid Squad.

K E N K O E N I T Z E R: The package I have given you is quite lengthy, but it is only two pages of reading really. The rest of it is information on things from the APCO Bulletin, which some of the people belong to, etc. I will just start here. I will read as I go along.

Please allow me to give a brief background description. I am a 20-year member of the volunteer West Orange First Aid Squad. I ride on an active status, and am in charge of the radio communications for the squad. My amateur radio license is of the Technician Class, while my FCC license is of the General Class. Previously, it was called Second Class Radiotelephone. My full-time employment is with AT&T Communications as a communications technician, and I worked with Motorola as a field technician for a couple of years. One of the reasons I mention this background information is to make known to the Study Commission that I wear several hats, so I see the problems from various areas.

In West Orange, where I am on the squad, we have a basic 911 system. We have had it there for years. I believe



it is very helpful to the public, but it should be upgraded to E-911, which is the past legislation we have been working on. I feel E-911 is a good idea, and should be implemented statewide, but unless we upgrade the training of dispatchers, we are still going to have major problems. As a member of APCO -- which really stands for Associated Public Communications Officers -- I see that many other states have enacted legislation per required dispatcher training. I have attached several articles from APCO. After reading them, I am sure you will realize that New Jersey also needs legislation in this area.

The problem of radio interference is of utmost importance. The northeast section of our State has much interference to SERS -- Special Emergency Radio Service -- frequencies. Unfortunately, there are only so many frequencies and EMS agencies must literally fight to get emergency calls dispatched. The ultimate result, in many cases, is delayed response to the patient. Also, 155.340, the hospital-ambulance frequency, is extremely crowded, and it is no wonder hospital emergency room personnel very often do not answer the squad, as what the emergency room often hears is garbled transmissions, which again leads to potential poor patient care. Hospital personnel, for the most part, are not trained to answer the radio, and many nurses shy away from the radio. Frequently, there is no one assigned in the hospital, or if there is, it is an uninformed person who is responsible for the training, as well as the repair of radio communications. Often, I get calls from hospitals to check out their radio system or to assist in the training of nurses in using the radio. As a member of the New Jersey State First Aid Council Radio Committee and the New Jersey Hospital Association Radio Committee, I see firsthand the many problems that occur. It is frustrating that the New Jersey Hospital Association does not support its Radio Committee. Hopefully, this Commission can assist in that area.

If one looks about our country, there are states that have full-time departments devoted to EMS communications. New Jersey did have one, but with the pay that was being offered, it is no wonder there are no applicants. EMS communications is too vital an area to let slip by. People's lives are at stake, and this Commission should look into establishing a full-time staff per EMS communications. We have many qualified personnel in this State who I am sure would assist the full-time department.

What I have stated so far is only a brief outline of the problems we face. I am willing to assist in any way possible. What we must never forget is that the main reason we need improved communications is to provide proper patient care to the public -- the person in the ditch after being hit by a vehicle, the woman about to deliver a baby, a small child choking, a trucker trapped in an overturned 18-wheeler, the nursing home patient who can't breathe -- all of these and many, many more. This is why we need the Study Commission to act. There are people about our State who are willing to assist the Commission. Please consider our offer.

It is ironic. I was leaving the house about six tonight, and before I left the phone rang. My wife called me, and said, "It is the squad on the phone." Just because of interference from Jersey City Medical Center, three of the ambulance calls that we were going on were garbled. So, the police had to switch us over to the police frequency. It is occurring all the time about us. Hopefully, the Commission can look into, you know, some of the problems that are occurring out there.

That is about it for my speech.

ASSEMBLYMAN MAZUR: Do any of the members of the Commission have any questions they would like to ask Mr. Koenitzer?

MR. MILLER: May I ask one?

ASSEMBLYMAN MAZUR: Yeah, go ahead.

MR. MILLER: Ken, could you expound a little bit on the interference? Is it mostly from other squads, hospitals, or school buses? Where do you find most of the interference?

MR. KOENITZER: Yes, Bob. We are on 155.235, which is the SERS frequency for -- well, now it is Hudson County. That was part of the State plan. Jersey City never used it for many years. About a year and a half ago, they put it on-line. I have met with Jersey City many times on it. We checked their power out. We actually reduced their power and moved the antenna around. The problem is, they are so busy there, and when they get on the air they have so many rigs running constantly, for us to get a call in edgewise is very difficult.

So, for instance, our Police Department will call to the squad and send us on a call, or whatever it is, and when we are trying to get back in-- Well, maybe I am running a 110-watt micor, but Jersey City is maybe running 50 or 60 off their Medical Center, but with their gain antenna, or whatever they have, that is enough to wipe us out -- to wipe out our mobile communications coming in. So, the police will say, "Did you say you need another rig squad? What did you say you needed? You have a first aider hurt? I can't hear you." Eventually, the way we have to go-- We switch over to the police frequency, and then, of course, they hear us. But, they do not like us switching over too much, because they are busy with their traffic, and we have to cut in between the different cars, when, you know, they are talking about whatever they are doing out there.

So, it is just that it is an extremely busy frequency, and I don't know how to get around it.

MR. MILLER: Are they the only people who interfere with you?

MR. KOENITZER: Well, Richmond County EMS does, but we sent the FCC down there, and after about \$1000 of Richmond

County's EMS money, they converted over to a different PL. The Hasidic Ambulance Corps in New York -- I don't know if you are familiar with them -- run 115 vehicles on this frequency. We talked to them several times, and we got them to move their antenna down to the Brooklyn Navy Yard. They have been pretty good with us; they do not interfere with us. I guess it is just a busy frequency. I don't know how we can get around it, you know?

MR. MILLER: What do you feel the fix is to alleviate the problem?

MR. KOENITZER: Gee, I don't know. Well, Jersey City -- you are familiar with Jersey City, I know-- They are allowed to be where they are, obviously, but it is just completely desensing us. Now, we have run tests with them. When their rigs are on the air down around Journal Square, we would come on, but we would not knock their rigs out because we don't have the power. I don't know what the answer is, really. I really don't know. Maybe Norman does. I don't know.

ASSEMBLYMAN MAZUR: Is there anyone else who would like to ask a question? Captain Saia?

CAPTAIN SAIIA: No, sir.

ASSEMBLYMAN MAZUR: Thank you very much.

MR. KOENITZER: All right.

ASSEMBLYMAN MAZUR: Lt. Lewis Varick, Borough of Roseland Police Department.

L T. L E W I S V A R I C K: The Borough of Roseland is located in the northwest section of Essex County. Essex County is the most populated county in the State. Roseland is bound by the City of West Orange, the Township of Livingston, and the County of Morris. The area is 3.5 square miles. The present frequency we are operating on is 159.150, and the fire frequency is 158.940.

As we have reported in the past, on our police radio band, over the past two years or more, we have been receiving

the Deptford Township Police Department, which is located in western New Jersey, along the border of Pennsylvania, in the general area of Camden, across from Philadelphia, Pennsylvania.

They have a patrol unit much the same as ours, and in part of the area they cover they use the same car numbers -- the 600 series. From time to time, their reception over our radio is so loud and clear that it will override our cars calling in. On one occasion, one of our desk sergeants was listening in when a Deptford car requested from their headquarters, a Pennsylvania registration check. Their computer was down, and our desk officer ran the plate for stolen and ownership and called them with the information. They were surprised to find out that the information was coming from about 100 miles away.

Weather does not seem to be a major factor, as we receive Deptford in all types of weather conditions. If radio reception is not clear, we receive a tremendous amount of noise and static whenever they transmit. At times this becomes very stressful when things get busy at our police desk.

Having already checked with neighboring towns on our radio band -- which are six -- East Hanover seems to be affected much the same as we are. Livingston, Caldwell, and Essex Fells report occasional interference. West Caldwell reported that after radio antenna repairs at their headquarters, they no longer have a problem with Deptford Township. In general, the radio signals received are strongest between eight p.m. and eight a.m., but many times they are received for 24-hour periods.

In addition to Deptford, we occasionally pick up a Washington, D.C. major crime investigation unit on our police band. Sometimes their reception is so clear, our headquarters will have to wait until their radio discussion is complete before we transmit our message, thinking a neighboring town is on the air.

We also have a radio frequency interference problem on our fire band. From time to time, we pick up calls from Franklin Lakes Ambulance and Fire Department. Almost daily, we receive the six p.m. radio test from Franklin Lakes Ambulance and Fire Department.

This information is reported in an effort that either equipment changes or repairs will help to eliminate this radio reception problem.

That's it.

ASSEMBLYMAN MAZUR: Any questions?

MR. KIRKWOOD: Lieutenant, this interference comes through not only on your channel, but you share a common channel guard, or PL tone, or whatever squelch coded system you use?

LT. VARICK: We have a private line in several of our cars, but we are on a radio frequency with six surrounding towns. Most of the communities do not have private lines.

MR. MILLER: Lieutenant, how large is your municipality -- two miles by four, or ten, or, you know, what size basically?

LT. VARICK: Pardon?

MR. MILLER: What size is your municipality?

LT. VARICK: Three and a half square miles, with a daytime population of about 15,000 to 18,000.

MR. MILLER: Do you know how high your antenna is?

LT. VARICK: No.

MR. MILLER: Because you are not only picking up Deptford, you also mentioned Washington. You know, that is quite a ways away. How frequently do you pick up D.C.?

LT. VARICK: D.C., occasionally on the midnight shift. Deptford is almost daily.

MR. MILLER: Have you tried to lower the antenna at all?

LT. VARICK: We had it lowered and we moved it up to our water tower, but that has not improved anything. It is still there. We also contacted the FCC back in '85 and '86, and ran tests with Deptford, but we have not been able to take care of any problem.

ASSEMBLYMAN MAZUR: The FCC responded to you?

LT. VARICK: Yeah. They had the chief from Deptford write us a letter, and they tried to run a couple of tests. But, the problem is still there. It has never been resolved.

ASSEMBLYMAN MAZUR: So, did they run the tests?

LT. VARICK: Yes, back in-- I would say it was in November of '85 that we first contacted them. The problem is still there. We have spoken to Deptford, and they said that sometimes we blast them off the air.

MR. MILLER: I am from Gloucester County, where Deptford is. They do not have a high site. I am not defending Deptford, but, you know, some of these sites are so high. You know, they are high on a hill; they are 200 foot towers, and they really do a lot of damage. But this is not a high site. That is why I was curious about where your town was and how high the antenna was.

LT. VARICK: I would say our antenna is under 140 feet.

MR. KIRKWOOD: What is the geographic elevation of the town?

LT. VARICK: It is about 140 feet.

MR. KIRKWOOD: Above sea level?

LT. VARICK: Above sea level, I believe.

MR. KIRKWOOD: And the antenna is on top of the water tower, which is another--

LT. VARICK: No, it is on top of a telephone pole -- a utility pole.

MR. MILLER: Thank you, Lieutenant.

ASSEMBLYMAN MAZUR: Captain Saia?

CAPTAIN SAIIA: Lieutenant, just one thing. Would you characterize this as annoying or actually interfering? Has it ever interfered with calls so that you couldn't conduct your business?

LT. VARICK: Yes. Their car numbers are the same as ours, so we would be answering them and it wouldn't be our cars. Sometimes we have to wait until they clear the radio airwaves before we can transmit.

CAPTAIN SAIIA: Do you know of any occasions where a job has been lost, or not responded to in a timely manner?

LT. VARICK: We just wait until it is clear, and then we get on the air.

CAPTAIN SAIIA: Does it actually interfere so that communications cannot take place during this period?

LT. VARICK: Yes.

MR. MILLER: Is that situation still the same today, in spite of letters and correspondence? It's no better?

LT. VARICK: This report was written last night, and they are still on the frequency.

ASSEMBLYMAN MAZUR: Mr. D'Alessio?

MR. D'ALESSIO: Lieutenant, in your last sentence you talked about possible equipment changes or repairs that would help to eliminate the problem. Do you have any specific things in mind that you are talking about? Do you know, in fact, that it may be a repair problem?

LT. VARICK: No. We have had our communications people out. If we operate on private line, we would not be able to receive Livingston or any of the other towns on our frequency, and we work quite closely, hand to hand, in everyday operations with them. So, it is not advisable to put it on private line, because you are going to miss a lot of police calls.

MR. D'ALESSIO: This is a very basic question, but I'll ask it anyway. I assume that when the FCC assigns



frequencies, they also assign power limits that you may operate the frequency at. Correct?

LT. VARICK: I do not know.

MR. D'ALESSIO: Okay. Can anyone help me with that?

MR. MILLER: It is based on the recommendations of the coordinator for that particular service, but I don't know how long-- We have a gentleman here who does that. I don't know if he would care to respond. Do you know anything about this situation, Norm?

N O R M A N C O L T R I: If you would care to defer that, I am going to make a presentation on that subject.

MR. MILLER: Okay.

LT. VARICK: Deptford has only been on our frequency for probably the last three or four years. We have had the same frequency for probably 25 years.

MR. KIRKWOOD: One last question, if I may, Mr. Chairman?

ASSEMBLYMAN MAZUR: Yes.

MR. KIRKWOOD: The reason you choose not to utilize your protected channel coding scheme is because of your communications with adjoining municipalities. Would it be possible that the inter-municipality communication could be done by land line, and the airwaves saved for the mobile communications, for example?

LT. VARICK: Well, the other problem is, we have eight patrol cars, and we only have private line, I believe, in three or four of them right now.

MR. KIRKWOOD: So, there would be an added expense to--

LT. VARICK: We have been adding them for the last couple of years when we were updating our radio equipment.

MR. KIRKWOOD: Thank you.

ASSEMBLYMAN MAZUR: Are there any other questions from the members of the panel? (no response) A gentleman had his hand up.

MS. STEFANE (Commission Aide): Would you please come up to the mike?

R O N L O S E F S K Y: Well, I am going to testify later, so I will just make my comment at that point.

ASSEMBLYMAN MAZUR: The next witness will be Dr. Roger Szanto, Chief Radio Communications Officer and Emergency Management Coordinator for Hasbrouck Heights. Is Dr. Szanto here? (negative response) I guess he got lost on the way here. Then, we will go on to Ron Losefsky, of the West Milford First Aid Squad.

MR. LOSEFSKY: I have a stronger background in communications than I do in first aid. I was a Projects Manager with Motorola for a number of years. I am presently Chief Engineer for a radio common carrier, Page and Company. So I am familiar with our system designs and problems.

To address the problem of the Lieutenant, the licensing is usually done-- Obviously, the licenses are granted by the FCC, and there is normally a power rating -- a maximum ERT -- on the license, which limits the amount of power that a particular agency can run; that is, the amount of radiated power.

The other question is, sometimes the system-- It is really a problem of RF system design, more than anything else. Some of those problems can be alleviated by using directional antennas and selecting the locations of the sites. I think, in the case of Deptford, they probably could use some kind of a directional antenna pointed south. Maybe Bob would let them go on his tower down there, but some kind of an antenna pointed south, and then the community up here have an antenna oriented to the north, which would give them a considerable amount of isolation. That should alleviate the problem to a great degree. We have only so many channels, given the finite number of frequencies and the infinite number of users, so there are going to be situations where there are co-users.

To get to my point: West Milford is in the northwestern part of the State. We are really not troubled by congestion to the degree that some of the other people obviously are. We are essentially dispatched by our local Police Department on the police channel. All right? Let me define dispatch. We have a tone alert system which is on one of the notorious dispatch systems used by bus companies, taxicab companies, etc., etc. Then, following that, we communicate with the Police Department with a standard police radio. We have experienced no interference per se, but we are bothered by co-channel users, as everyone else is. We can hear them and they can hear us, but we don't really-- They do not cause us to miss dispatches. Okay? I think that is important. They are an annoyance, as we annoy them.

I question the JEMS plan. In our area, we are severely terrain limited on VHF. In our community, we are equipped with JEMS radios. My point is, is there a possibility of modifying the existing JEMS frequency plan to allow for an additional frequency to be paired up with either Channel 1, Channel 3, or possibly even Channel 4, to allow for repeater operation -- still use the channel as a simplex channel, but in those areas where we need a repeat function, we could have another frequency to use as a repeater input side, so that you wouldn't ordinarily be interfering with other people on the channel, because you would be listening to the channel in your normal operation? That could be protected by some PL plan established and coordinated at the State level.

MR. MILLER: Is that a question?

MR. LOSEFSKY: That is essentially what I would like to have done, yeah.

MR. MILLER: Would you like me to answer that, Mr. Chairman?

ASSEMBLYMAN MAZUR: Yes. Could you elaborate on that for us, please?

MR. MILLER: Sure. I believe what he is referring to is that the current JEMS plan calls for a four-frequency radio, with the frequencies specifically spelled out. That plan is under review now. There are several committees looking at it. One of the current recommendations is that other frequencies can be added, providing the first four follow the plan. In other words, you could do what you want on Channel 5 or Channel 6 or whatever, providing the radio had the spread, of course.

MR. LOSEFSKY: Okay, but those channels-- In other words, Channel 5 would be 152.00, but that would be specified in the plan.

MR. MILLER: No, no, Channel 5 could be whatever you want; Channel 6 could be, as long as the first four would follow the plan.

MR. LOSEFSKY: Okay. The problem there is, with the current situation in trying to get coordinated on the channels, it is very difficult. My point was to get another frequency for the JEMS plan, and set it aside in those areas where the repeat function is necessary. In some towns you don't need it.

MR. MILLER: Do you have one in mind?

MR. LOSEFSKY: Well, possibly, yeah.

MR. MILLER: I am not trying to be facetious.

MR. LOSEFSKY: I understand; I understand.

MR. MILLER: I think if you have a recommendation then for a second mutual aid type or whatever, I believe the agencies are looking at that plan, and this is one of them that they would be very receptive to -- you know, receptive to considering your recommendation.

MR. KIRKWOOD: Do I understand correctly that it is your desire to be able to communicate on the JEMS channel assigned to your area, but in some locales you are not able to do that, and you would like to be able to repeat out on the JEMS channel?

MR. LOSEFSKY: Yeah. We would like to be-- Essentially, the way the JEMS channel is set up now, Frequency 1 is set up for dispatch. Okay? We really do not have a need for a dispatch channel, because we are dispatched by the Police Department, as are all the other towns in our area. It works nicely. But, in those cases where you just want to be -- you strictly want to-- For instance, if there is some sort of an incident where there is a lot of police activity, and there is EMS activity, and there is fire activity, we don't want to be on the same channel. We want to have some way we can get anyone with JEMS radios -- the other first aid squads -- so they can communicate separately, and at some point be tied back to a common dispatcher, not necessarily at that location.

In very hilly terrain, it is difficult to do because you have very limited range with a 100-watt mobile radio and the antenna height given for a mobile. If it is base station to base station, it is no problem. In South Jersey, that is an easier situation because the terrain is relatively flat. But in our case, you can drive around the block and go over the hill, and she's gone. Then you have to go back on the police channel, and there is a lot of other stuff going on there. It's difficult.

MR. KIRKWOOD: Is that a repeated arrangement?

MR. LOSEFSKY: No. The other issue is, there are some first aid squads that wish to upgrade to the JEMS situation, but they cannot afford it. Is there any way the State can provide some matching funds or grants? Radios bought off a State contract are a little less expensive than if one goes out to buy them locally in the local Motorola Service Shop, or whatever. Is that a possibility?

ASSEMBLYMAN MAZUR: It's always a possibility. I don't say it is a probability, but a possibility. It is certainly something we will explore.

MR. LOSEFSKY: A statement was made by the first gentleman who spoke concerning dispatcher training. It would seem to me that-- Again, I have to say I have been involved in training-dispatchers. As a Project Manager, I was involved with providing a system -- a large communication system, and I was then involved in training the dispatcher. It seems to me that there should be some commonality in terminology. You know, you go to some places and the police call -- a motor vehicle accident is 10-zero. So, we are used to calling it 10-zero now. If we go down to Jersey City to help them out, they call it something else. You know, it's difficult. When you get out there in the heat of combat, sometimes things don't register. It would seem that a common terminology-- I think that should come from a set of guidelines established for dispatcher training, whether or not the State mandates that dispatchers be trained at a specific location, or just provides the training material and the training guidelines.

ASSEMBLYMAN MAZUR: Are you talking about the fact that there should be statewide uniformity in coded symbols for X, Y, or Z emergencies?

MR. LOSEFSKY: Well, no, I think it has to go deeper than that, because you can publish a list of terminologies, and they will put it on the wall, but they do not necessarily-- They really have not been trained to use that. They have been trained by their local police departments, which do things a little differently. But, you know, the State says we have to use this, so it is there. What I am saying is, a set of guidelines should be established: "This is how you train your dispatchers. Here is a tape. Stick it in a VCR," or whatever, so we are all using the same terminology.

Finally, we, in our area, do not have a problem of congestion on hospital channels. One can hear other ambulances communicating with other hospitals, but there is enough separation between the systems that you really don't capture

the other guy's mobile and cause major interference. We find that a lot of hospitals-- Well, in a lot of cases, they don't listen to the radio. In our area, there is not a lot of garble. When someone calls in on JEMS radio, you can hear every word he says. Hospitals really do not respond to it.

The other thing is, they go out and purchase a shiny new base station and a new antenna, and then they put it up on the top of their hospital, which is a four-story building located in a valley with a bunch of hills around it. They talk to the hills. We have about a 15- or 20-mile trip to the closest hospital. It's difficult; it's really difficult. Even the paramedic units that support us have rather serious communications problems.

MR. KIRKWOOD: Are the hospital and the attendant squads equipped with the DPMF encode/decode scheme that the JEMS plan calls for?

MR. LOSEFSKY: Yes, definitely.

MR. KIRKWOOD: And that doesn't encourage the hospitals to pick up the radio?

MR. LOSEFSKY: The hospital that I am speaking of -- and I won't mention the name of the hospital -- just put a paramedic unit on-line. One of the things that came along with the paramedic unit was a brand-new JEMS radio base station with an antenna, etc. They put the new one right where the old one was, which, as I said, is up three or four stories. It is really nice if you want to talk to them from the parking lot, but if you go up into West Milford and you are 15 or 20 miles away, it is difficult.

ASSEMBLYMAN MAZUR: In all the mountains?

MR. LOSEFSKY: Yes.

MR. MILLER: I'm sure you brought that to their attention.

MR. LOSEFSKY: Many times.

MR. MILLER: What did they say to you?

MR. LOSEFSKY: They didn't want to put it-- There is a 300-foot TV tower -- a cable tower -- that is available. They do not want to spend the money for the tie lines. They say it is unreliable, etc., etc., etc. -- the whole thing.

MR. D'ALESSIO: I have a question. You have alluded, a couple of times here I think, to maybe problems with installation of the equipment -- the one you are talking about now. Who installs this equipment?

MR. LOSEFSKY: The equipment is installed correctly. In other words, for example, you are a hospital administrator, and I am the owner of the local radio shop. You come to me and you say, "I bought this new piece of equipment from Mr. Hughes at Motorola, and I want to purchase installation." Now, I come to you and say, "Well, where do you want the radio installed? Where do you want the antenna placed?" and you show me. "I want it up on the roof of the building, and I want the cable run down." There is nothing wrong with the installation. It is the concept behind the installation. It is the concept in the system plan.

MR. D'ALESSIO: Now, the radio shop that does the installation-- Are those folks trained to understand?

MR. LOSEFSKY: Certainly.

MR. D'ALESSIO: They are?

MR. LOSEFSKY: And so are the engineers from the company that provides the radios. But, the hospital administrator says, "It is not cost-effective. I have to rent telephone lines and pay \$50 or \$60 a month" -- or whatever it is --- "\$100 a month for leased phone lines over to this radio site six miles away on a mountaintop." He does not want to pay it.

MR. KIRKWOOD: So, the system is correctly installed, but not sensibly installed?

MR. LOSEFSKY: Exactly. It is functionally correct, but--



MR. D'ALESSIO: It is not efficient.

MR. LOSEFSKY: It is not efficient because it is not installed -- it is not located in the right place.

MR. D'ALESSIO: I think you also mentioned directional antennas.

MR. LOSEFSKY: Yes.

MR. D'ALESSIO: That is another strategy that could be used, apparently, that--

MR. LOSEFSKY: It is a strategy that is used in the design of radio systems to reduce interference specifically. Okay? But, you know, the old school was to put up the biggest antenna at the highest elevation and run the most power and blow everybody else away. That is really where we are. Everybody has to have a 200-watt base station and 100-watt mobiles, when if the system were designed correctly, they could all use hand-held portables and just have three or four base stations, so that there wouldn't be all that interference.

I think that at some point, someone has to come to that realization. Those criteria have to be applied.

MR. D'ALESSIO: And the FCC really doesn't help much, does it?

MR. LOSEFSKY: Well, they establish parameters for the system, and they tell you how much power you can run, which is really based on height above ground and the coverage area. Okay? It is usually more than you need, and no one wants to turn it down. So, there you go.

MR. D'ALESSIO: Okay. I would like to ask another question, and I am asking you because it sounds as if you have a very good radio background, obviously. Are you familiar with cellular radio technology?

MR. LOSEFSKY: Yes. I will go you one step further. I was the Project Manager for the State Police system, that new trunk system, and I did all the pre-bid work and put that together. The answer is yes.

MR. D'ALESSIO: Okay. Given that you are an expert--

MR. LOSEFSKY: Absolutely.

MR. D'ALESSIO: The question I want to ask you then is, is cellular radio technology maybe part of the solution here?

MR. LOSEFSKY: Yes.

MR. D'ALESSIO: It is?

MR. LOSEFSKY: Yes, obviously. If I may, and I don't know if you want to get into this-- May I discuss the State Police system?

MR. D'ALESSIO: Sure.

MR. LOSEFSKY: We have two statewide trunked systems. Trunking technology is a little similar to the cellular. It is not cellular per se, but it is a system whereby you have a bank of frequencies, or channels. Let's say 20 channels, all right? And you have 20 base stations, okay? Now, your mobile, or your hand-held portable, talks to the computer. It is not a major mainframe computer, it is a small processor. It communicates with this processor whenever the radio is turned on. The processor manages the frequency loading on all of these 20 channels. Software in the computer establishes what parameters will exist. For instance, in the case of the State Police, the State Police may have-- The State Police is essentially divided into three sections -- South, Central, and North troops. Those troop cars all have the same radios in them. They each have a unique address. The system they are talking to knows -- is programed to respond to that address. All right? If address one keys up a microphone, the computer says, "Hey, there is an address one out there. Who should he be talking to -- six, seven, eight, and nine." It will take six, seven, eight, and nine and go in and find an open channel for him, and stick him on that open channel. So, it manages the frequencies.

So, if, for instance, in the Jersey City area, they had a trunk system -- a 20-channel trunk system -- and all of the agencies in the area -- all the police, all the EMS, all the sanitation, everybody involved at the government level -- were involved, then they would be divided into sub-fleets -- a police sub-fleet, a sanitation sub-fleet, an EMS sub-fleet. Whenever they went to talk, they would not interfere with one another, because they wouldn't hear one another. If there wasn't a channel available out of the 20, they would get a busy signal.

That is really the answer to a lot of the problems, because it provides for frequency management. And, the range on the 900 megahertz, or the 800 megahertz, is very small. The range is minimal, so you don't have-- You could reuse frequencies 50 or 100 miles away without having any interference.

MR. D'ALESSIO: Right. Now why, if that is a solution-- Why isn't it more widespread than just the State Police? Is it a question of converting to it?

MR. LOSEFSKY: I believe it is a matter of the financial outlay. You're talking about significant dollars, but--

MR. D'ALESSIO: And everything has to be changed out from what you currently have.

MR. LOSEFSKY: Exactly. Plus, you have to have the basic system in. Now, for instance, if you took the State Police system and expanded it to 60 channels -- okay? -- the way that State Police system is covered, the State Police could manage communications for every police agency in the State. I am not saying they would want to. There are other problems. There are administrative problems. There are political boundaries that one doesn't go across. Okay? But, technologically, the ability is there.

MR. KIRKWOOD: Is it technologically feasible, for example, within a global statewide system of this nature, to be able to maintain some local base operations that you find in local police, fire, or EMS operations?

MR. LOSEFSKY: Yes.

MR. KIRKWOOD: If you have "X" number of channels and "Y" number of mobiles, and "Z" number of--

MR. LOSEFSKY: Consider this: All the police radios in the State would be the same radio, with the same 20 channels in them. Okay? Now, I am simplifying it somewhat, but conceptually -- and anyone else here I think would agree with me -- you could buy all the same radios, and put in a system which was either done regionally or a single system with one major overview. Probably because of the numbers involved, you would want regional systems that could be tied together, if they had to be -- okay? -- because the more units you get on a system, the more the whole system slows down because you have to have a computer to handle the whole thing. So, given that-- But, you could regionalize it to a very great degree.

In a given area, on a given channel, if two radios talk at the same time from two different police departments, they are interfering with one another, and they have major interference. But, the scope of the problem is not-- The numbers involved are small. Now, if those police departments had 20 channels, then the probability that they would each have to talk at the same time, or that all 20 of them would have to talk at the same time, is-- Statistically, you are way ahead of the game. But, it is a matter of frequency management.

You have to select sites, and there is an awful lot involved. New Jersey Transit purchased a system similar to that. We have those two statewide microwave systems. Essentially, the Garden State Parkway is a statewide microwave system now. So, the backbone for the whole thing is there.

ASSEMBLYMAN MAZUR: Are there any further questions?

MR. MILLER: I would like to ask Mr. Coltri a question. You can just stay there, Ron. Do you plan to talk about trunking later?

MR. COLTRI: Yes.

MR. D'ALESSIO: I would like to ask another question. Okay?

ASSEMBLYMAN MAZUR: Yes.

MR. D'ALESSIO: I want to follow up on the cellular question, if I may. I am trying to understand this. Right now, as we all know, I think, 50% of the cars that ride on the New Jersey Turnpike have a cellular phone in them, it seems like in the morning when I drive in. The State is rapidly being designed and engineered to provide cellular type telephones. Is there any way, in your mind, that that network that is already being built could in any way be used to solve this problem?

MR. LOSEFSKY: Theoretically, you could say that that would be great. We will all go all and rent cellular telephones. Let's just--

MR. D'ALESSIO: That is not what I am suggesting.

MR. LOSEFSKY: No, no. I want to answer your question.

MR. D'ALESSIO: That is not what I am suggesting. I don't want you--

MR. LOSEFSKY: No, no. I want to answer.

MR. D'ALESSIO: I just want to understand if the network, in any way, could--

MR. LOSEFSKY: To put a second network in place--

MR. D'ALESSIO: Yeah?

MR. LOSEFSKY: I mean a cellular telephone system is an awful lot of hardware, more than just a phone. And, you know, to be cost-effective to put a cellular telephone system in, you have to have users by the thousands to pay for it, because it is a very expensive capital outlay, and then there is a lot of maintenance involved, and it is ongoing. So, the

answer to your question is, I don't see it, because it's really not feasible from the standpoint of-- How do you finance it?

The trunk system essentially provides the same thing, because you separate the areas of the State. You provide a set of base stations. Let's say you have 20 channels. You put Channels 1 through 10 on the George Washington Bridge, and then at the Lincoln Tunnel you put -- just for argument's sake -- 11 through 20. Okay? Then at the river you start over again from 1 to 10, so you have some isolation. Of course, I may not be far enough apart, but it is a resource that is reusable. The further south you get, the lower the density and the less the channel requirement is. So, in the south, you don't have to have as many channels. It is dependent upon how much traffic you have.

You know, we could sit here-- I am sure this gentleman over here-- He and I could sit here and argue all night about, you know, the pros and cons of various concepts, but the overall concept is really probably the way it is going to be forced to go, because we just don't have the frequencies available any more. It is a resource that has vanished.

ASSEMBLYMAN MAZUR: Captain Saia?

CAPTAIN SAIIA: Yes. Mr. Losefsky, West Milford-- I am really not familiar with the location. Do you have cellular coverage out where you are?

MR. LOSEFSKY: No.

CAPTAIN SAIIA: Okay, I think that is one of the problems with setting the coverage. It is not universal statewide. It was suggested for EMSs in a lot of areas of the State, but the telephone company cannot give us a projection when they will have universal coverage throughout the State. So, it is very difficult to plan to use that in the EMS community or the police community. Technically it is feasible, but it is tough to plan on it, from our point of view.

Thank you.

MR. MILLER: I might add, we have other problems with cellular. It is basically a one to one. You dial a person. Naturally, you can conference call, and so forth, but it is not the type of system that you can put a fleet of 50 vehicles on, or do whatever.

You mentioned that besides your problems on VHF and the hospital-- You made a comment with reference to the paramedics having some problems with communications. Could you please expand on that a little bit?

MR. LOSEFSKY: Well, okay. In our area, our primary hospital is Chilton Memorial. There is a paramedic unit that is dispatched -- essentially dispatched and controlled by St. Joe's. I am not absolutely sure what repeater site they are using.

MR. COTRONEO: Excuse me. Are you talking about St. Joe's in Paterson?

MR. LOSEFSKY: Yes.

MR. COTRONEO: That is dispatched from Hackensack. St. Joe's units--

MR. LOSEFSKY: I'm sorry. The dispatch might come from Hackensack, but when a paramedic-- That is not a problem. But, when they start to use their telemetry and their UHF channels, they have some problems. They can't communicate. There was some talk about them getting a site on that monstrous cable TV tower in Pompton Lakes. If that issue is resolved -- and it may have been-- If that issue is resolved, then they shouldn't have any problems. But it is a matter that they are just too far out, you know, back behind a hill, and it is just impossible for them to communicate, even with the fact that they use a mobile repeater.

MR. KIRKWOOD: The bottom line is, you have to have line of site communications on UHF.

MR. LOSEFSKY: Well, reasonably line of site.

MR. COTRONEO: Your unit has trouble communicating with the hospital itself?

MR. LOSEFSKY: Yeah. We have trouble communicating with the major hospital we go to. Other hospitals in the area we can communicate with, but we do not go to them that often, because they are further away.

MR. COTRONEO: Is this the individual hospital we are talking about?

MR. LOSEFSKY: Yeah, exactly.

MR. COTRONEO: In effect, actually, the telemetry and the radio communications throughout West Milford would be okay, if that one particular hospital was at, say, a higher level, or if you had a repeater somewhere in the area?

MR. LOSEFSKY: Yeah. We would be able to communicate with that particular hospital if they were to locate their HEAR radio antenna at a reasonable location. That would resolve that problem. We would still have the problem of being able to communicate on other than the police channel, which is a low band channel. To use the JEMS radios, it would really be nice if somehow that plan could be augmented to have a simplex repeat channel, so in those cases where you had to go and you had to talk mobile to mobile over a longer distance than you could do because of the terrain, it would be nice to switch over to another mode, and say, "Okay, now I can do it," and have that coordinated at the State level so that everybody wasn't doing it.

ASSEMBLYMAN MAZUR: Are there any further questions?

CAPTAIN SAIIA: Just one more, if I might. Mr. Losefsky, getting back to the assistance you get from the FCC or from the frequency coordinator, is that a service channel that you are having a problem with -- power problems -- or was it coordinated by the Office of Frequency Coordination?

MR. LOSEFSKY: I was addressing the problem in, Jersey City I guess it was.

CAPTAIN SAIIA: You said people are given more power than they actually need on many occasions.



MR. LOSEFSKY: Well, if you go and look at one of your licenses -- one of your low-band licenses -- it says, a certain location so many feet above ground, 250 watts. Okay? Well, the question is, do you really need 250 watts, and do you really have to be 250 feet up in the air to communicate with the vehicles you have, which only have to communicate back to the base station over a two and a half or a three square mile area? That is the issue.

CAPTAIN SAIIA: Okay, but you won't find any of our base stations at 250 watts.

MR. LOSEFSKY: Well, I know that, yeah. I just--

CAPTAIN SAIIA: It isn't the policy through our Office of Frequency Coordination. We have been dropping the powers and minimizing the radiated power. I am wondering if you found something contrary to that.

MR. LOSEFSKY: No. Someone asked the question before, "Who sets the power?" It is through the licensing. I guess the way it is really stated is "the minimum power required to communicate."

CAPTAIN SAIIA: Thank you.

MR. LOSEFSKY: Have I said enough? (no response)  
Thank you.

ASSEMBLYMAN MAZUR: Thank you very much. You stimulated a lot of interest from the panel. I think we may want to get in touch with you further, Mr. Losefsky.

Charles Aughenbaugh?

C H A R L E S   A U G H E N B A U G H,   J R.: Thank you, Mr. Chairmen and members of the Commission. The previous speaker had-- I am not a technical person, but he was on the right track -- trunking. I am really here to speak of county communication centers -- fire and EMS. But, that is one of the ways to go, looking at trunking, because there are only so many frequencies out there. You fill up the basket with the apples, and you have to look elsewhere. We definitely have a

problem in the State of New Jersey as far as command goes. If we ever face another large fire again, or a hazardous material emergency, we are really going to be embarrassed -- again.

Mr. Chairman, my name is Charles Aughenbaugh, Jr. I use "Chuck." I am testifying this evening as an individual, and not on behalf of any fire organization.

I have over 30 years experience in the fire service, both as a volunteer and a career fire fighter. I have taught fire science as a member of the faculty at Jersey City State College and Passaic County Community College. I am the past President of the New Jersey Society of Fire Service Instructors, and have chaired various fire programs at the Fire Departments' Instructors' Conference, which is sponsored by the International Society of Fire Service Instructors. I have served as Tour Commander of the Belleville Fire Department, Belleville, New Jersey, which is located in Essex County. I am currently serving on the Training and Education Advisory Council to the State Fire Commission, where I serve as Chairman of the Basic Fire Fighter Subcommittee.

Yes, I am the person who is fighting for mandatory training in the Fire Service.

As a career fire officer, and with my background of fire service experience, I feel qualified to testify on behalf County Fire and Emergency Medical Service Dispatching Centers.

We live in a State that has the Princeton University, the Bell Labs, the New Jersey Institute of Technology, and the ITT Research Laboratories, which really are only a few of the educational and research facilities that call New Jersey their home. Our Federal government, using New Jersey's research and technology, has developed a "submarine warning system" that can detect the smallest noise at the bottom of the Atlantic Ocean. This system can tell the difference between two romantic whales and the type and class of a Russian submarine by the smallest sound.

We also have the ability to communicate, nearly instantaneously, with a person that walks on the moon. But a New Jersey fire officer cannot talk to a fire officer from the next community by radio during an emergency situation.

The fire in the City of Passaic on Labor Day 1985, is one of the many examples of the lack of a coordinated radio communications system that directly affects the command structure needed to manage a fire successfully or to handle a hazardous material incident.

The Passaic County Grand Jury presentation on October 23, 1986, clearly brings this forth -- that the lack of a compatible radio system was one of the major factors leading to the destruction of 25% of the tax base of Passaic, New Jersey. However, the City of Passaic is only one of our cities in New Jersey that lacks a compatible radio system to communicate with other fire departments during times of emergencies.

It is also interesting to note that the Passaic County Grand Jury report recommended that only the City of Passaic establish a better radio communication system. One has to wonder why the Grand Jury did not look at the county as a whole entity and recommend a County Fire and Emergency Medical Service Dispatching Center that is fully staffed and operational 24 hours a day, seven days a week.

Several attempts have been made within the past 20 years to establish county fire dispatching centers that would correct the problem of each municipality within the county having its own separate radio channel and spending hundreds of thousands of dollars to purchase and maintain a system that can only communicate with the fire companies within that municipality.

Each time there was movement within the State of New Jersey to encourage county emergency dispatch centers, we heard the cry of "Home rule -- you are taking away our rights as a municipality and you are telling us how to spend our money."

However, when a fire that burns 25% of a city's tax base occurs, or other large-scale emergencies such as a hazardous material incident, combined with a loss of life and a large amount of damage, there is never a cry, "Home rule -- the municipality will pay the damage itself," but rather there is a cry for the State and Federal governments to immediately supply financial assistance due to this "act of God."

God is really getting a bum rap in the State of New Jersey. It is really due to the negligence of our municipal and fire service leaders.

The resources of small municipalities and some of our largest cities are simply not adequate to meet large-scale emergencies which they have the responsibility to control. Yet, they refuse to propose a regional or county cost-effective system of command or radio communications because they are building individual castles at public expense.

On January 4, 1987, there was a devastating train crash that killed 16 people in Baltimore County, Maryland. When I first heard the news reports of this train disaster, I tried to visualize what would occur if the Amtrak accident happened along the New Jersey rail corridor. I asked a few people in the fire service if we could develop a brief scenario on the command problems that would occur due to the lack of an incident command system or coordinated emergency radio system.

One of the fire service people I asked to participate in this scenario sent me a short note in the mail which read, "Thank God it didn't happen in New Jersey. But it would take more than 16 dead for New Jersey to change." I am deviating from my written testimony, but believe me, that is really a true statement from the people I deal with trying to get training or a change in the fire service in New Jersey, and that is a shame.

Subsequently, I found out that "Firehouse" magazine was going to do a research article on the Amtrak accident and

would highlight the coordinated command structure and the use of a compatible radio system in management of a disaster. Through the courtesy of "Firehouse" magazine, I have secured 23 copies of the April 1987 edition which contains the story of the Amtrak crash in Baltimore County, Maryland. With your permission, Mr. Chairman, I ask that pages 51 through 56 of the April 1987 edition of "Firehouse" magazine be accepted as part of the record and as my testimony. Thank you, Mr. Chairman.

As previously stated, Mr. Chairman, I am a career fire officer in the Belleville Fire Department, Belleville, New Jersey. The Township of Belleville is located in Essex County.

Approximately 10 years ago, Essex County installed a one frequency county fire radio system. Each municipality has a base receiver, a transmitter, and one portable county fire radio. The system was to be tested once a week, at a certain time on a stated day, as outlined in a memorandum from the County Fire Coordinator. Because Essex County has a number of volunteer fire departments in the county, fire radios were installed in the police departments of these various municipalities. Quite frequently, those municipalities in which the police handled fire dispatching would not participate in the weekly radio testing of the system because of police duties.

The Essex County fire radio system has not had a radio test of the municipalities within the last two and a half to three years, to my knowledge. In fact, many of the county radio base stations are either unplugged or used for different purposes. It can still be used in case of an emergency, but it would require an individual to phone each municipality to have the county fire radio frequency turned on -- and hopefully they would all work.

This is not the way to run a ball game.

Several years ago, there was a proposal made for Essex County to have a fully staffed county fire dispatching center

that operated 24 hours a day and dispatched all fire companies in Essex County. Several of the larger cities in Essex County flatly refused to participate in, or be part of, any county fire dispatching system on a daily basis. I find this to be a very unusual position for these cities to take, because they are the largest users of mutual aid in Essex County.

One may wonder why these cities are the ones that scream the loudest each year for more State aid or their cities will be forced to lay off hundreds of fire fighters. There is an additional question there, Mr. Chairman.

Would it not be more logical for these cities to participate and be part of a county fire and emergency management dispatching center that is more cost-effective and more efficient than the present systems they are using to dispatch their fire companies and to communicate with mutual aid companies when there is a large fire or disaster?

It may be prudent for the State of New Jersey to refuse to supply State aid unless the cities and towns within the various counties operate under a county dispatching system.

There are specific problems with a single 911 emergency system. The police traffic usually overwhelms the system to the detriment of the fire service and the emergency medical services. I would recommend that the State of New Jersey propose, in urban communities, to have separate fire and emergency medical service dispatching centers at the county level.

In the rural counties, it may be advisable to have all three services -- police, fire, and emergency medical service systems -- dispatched from a single dispatching center.

Mr. Chairman, I would like to recommend that your Commission take three specific bus day trips on rented buses to the following locations-- I put in rented buses because the last time I testified at a public hearing, Mr. Chairman, there was a misunderstanding. They thought I was going to rent the

buses, which was not the case, I want to tell you that. I would like you to go:

1) To the New York City Fire Department Dispatching Center in the Borough of Brooklyn, New York;

2) To the Burlington County Emergency Dispatching Center in Burlington County, New Jersey; and,

3) To the Baltimore County Emergency Dispatching Center in Baltimore County, Maryland.

The above three day trips on buses--

ASSEMBLYMAN MAZUR: The Commission has already visited the Baltimore facility.

MR. AUGHENBAUGH: Oh. Well, I hope the Commission feel obligated -- at least a little bit -- to see New York City's because it would bring out the problem on the fire end, as they deal with the 911 system. I will mention that at the end of my testimony, if I may, Mr. Chairman.

The above day trips on buses will bring the members of your Commission and staff the benefits of a county dispatching emergency system. I would be more than willing to assist your staff in setting up the pre-mentioned trips, or to be available to the Commission for further testimony.

In closing, Mr. Chairman, I would like to give you six recommendations for a statute law as it concerns the radio tape logging systems. The specific recommendations are as follows:

1) All taping systems for radio and phone communications in any police, fire, or emergency medical service center or office be equipped with tamper-proof radio logging systems, that the time and date that is automatically put into the recording tape by an electronic means cannot be turned off during the recording of the tape;

2) Each tape of a phone or radio communication shall be kept for a minimum of 90 days;

3) That the recording tapes in an emergency dispatching center be replaced every four years or sooner, if the manufacturer of the tapes so recommends;

4) That the Attorney General's office, under this proposed statute, shall be equipped with at least six portable tape playing machines with the same capabilities as the one supplied to the prosecutor's office in each county;

5) That each prosecutor's office be equipped with at least one portable tape recording machine that has the capacity to detect if the electronic signature of time and date has been tampered with; and,

6) That a specific penalty be included in this proposed statute for the failure to follow the requirements of the statute.

Mr. Chairman, thank you for your courtesy in allowing me to appear before you.

ASSEMBLYMAN MAZUR: Thank you very much. Do any of the members of the Commission have any questions for this witness?

MR. KIRKWOOD: As a matter of fact, yes.

ASSEMBLYMAN MAZUR: Good.

MR. KIRKWOOD: I would first like to commend Mr. Aughenbaugh for his initiative in providing us with the excellent resource of "Firehouse" magazine. Coincidentally, the issue also contains an article that it was my intention to use in future testimony. Perhaps the record could also have pages 41 to 44 included, for purposes of discussion, because those pages relate to a New Jersey incident, at which extensive county mutual aid was involved. I will quote from page 42 -- the far column. This issue, for those of you who do not have it in front of you, refers to a major junkyard fire in South Jersey which burned out of control for a good number of days, and required a huge effort involving most of the South Jersey counties to bring under control.

The article says: "Communications posed a major problem. There were five field communication cars on the fireground." I know the Burlington County bus with



(indiscernible) antennas was there. I imagine Bob's was there also. "Each field car could communicate with apparatus from its own county, but no other apparatus. The State Police brought in 20 portables with the same frequency and distributed them to key officials," all within the fire service, highlighting some of the difficulties we face.

MR. MILLER: I might add, since you brought that up, that those of us in South Jersey take exception to that article. For one, my field communication unit was there. They could talk to everybody in South Jersey. So, there is a problem with that article. I believe the unit from Camden County had much the same capacity.

I do have a question for you, though, sir.

MR. AUGHENBAUGH: Yes, sir?

MR. MILLER: You made some suggestions, or recommendations, on having some specific tape recorders.

MR. AUGHENBAUGH: Yes, Dictaphone systems.

MR. MILLER: As you are probably aware, there are 10-channel recorders -- 20, 40 channels. There are 1/2 inch, 1/4 inch, and one inch tapes. So, if you are really making recommendations to have these players, you would really have to have-- If you are saying six portables, you would have to have six of variety A, six of variety B, and so forth.

MR. AUGHENBAUGH: That is not my understanding, sir. I didn't want to put a specific manufacturer in there, but the largest company I know that is used in the State of New Jersey -- at least in my area -- is Dictaphone. They have--

MR. MILLER: Those are one inch tapes.

MR. AUGHENBAUGH: Pardon me?

MR. MILLER: If it is the 40 channel or above, it is a one inch tape.

MR. AUGHENBAUGH: Right -- reel to reel 24-hour tape; 10- to 12-channel tape. What I am told -- and they have offices right here on Route 46 in Parsippany-- Their portable

machine has the capability of going through to 10 or 12 channels. It will not erase the tape, and it will definitely tell if the time has been altered on the tape. The time machine, as you play the tape back and forth-- If there is an alternation -- if the tape has been altered -- the time will stop. The tape will continue on, but when the times stops you know the tape has been erased. There was one incident I happened to run into personally, and I would like to see something like that corrected.

MR. MILLER: I am not taking issue with that. I am just suggesting to you that some tape players take one inch reels.

MR. AUGHENBAUGH: Okay.

MR. MILLER: Some are half inch; some are quarter inch, even with Dictaphone. I am just saying, if you wanted to have the capability--

MR. AUGHENBAUGH: I am told this one machine would handle the different widths of tape. Now, I may be incorrect, sir. You know, that is what I was told by Dictaphone. You would have to actually get-- The staff would have to get that information from Dictaphone. They said the market, or the industry, has that capability. It is just that it hasn't been requested to be installed.

MR. KIRKWOOD: Is this in response to what you perceive as a widespread problem?

MR. AUGHENBAUGH: I don't perceive it as a widespread problem, but it could be. It is for the benefit of a commander to ensure that the phone and the radio log is kept for a period of time. The question was-- I'm sorry, would you please restate the question?

MR. KIRKWOOD: My question was-- You recommended what would appear to be a major program of recording radio conversations. Outside of the fact that it appears that this is done in a lot of places, the emphasis seems to be-- It

appears to be a solution to people frequently altering dispatch recording tapes.

MR. AUGHENBAUGH: Well, I would not say it is frequently, but it is a situation that I happened to run into. From a command point of view, you want your tape secured. If there is a problem that you have to go to court with, you want to make sure that when you walk in, or when the prosecutor's office plays it in front of you, that the tape has not been altered; if there is an erasure on the tape, that it comes out clearly, so that what you state for the record, with your signature, is the correct position that is validated by the tape.

ASSEMBLYMAN MAZUR: Are there any other questions?  
(no response) Thank you very much.

MR. AUGHENBAUGH: Thank you, sir.

ASSEMBLYMAN MAZUR: Mr. John Newkirk, Wharton Rescue Squad? (no response) Has Dr. Roger Szanto from Hasbrouck Heights shown up? (no response) Mr. Norman Coltri, New Jersey State Police Frequency Coordination.

MR. COLTRI: Mr. Chairman, members of the Commission, thank you very much for the opportunity to be here this evening. I am going to touch on a number of subjects revolving around many of the topics you have already heard testimony on, both tonight and other evenings. I am going to go rather rapidly through them, so as not to take too much of your time, but I definitely invite questions at the end.

I am involved with frequency coordination through an organization known as APCO -- the Associated Public Safety Communications Officers. APCO has volunteer frequency coordinators in all of the 50 states. We recommend to the Federal Communications Commission licensing parameters for all of public safety. We at APCO are involved with police and local government radio services. There are other organizations that handle fire radio service, namely the IMSA -- the

International Municipal Signals Association. There are other organizations that handle special emergency radio service, specifically IMSA, in association with the International Fire Chiefs Association and the National Association of Business and Educational Radio.

Frequency coordination is not the cure to the problem. Basically, we are trying to manage a very limited resource to the best available method we have. We are charged with the responsibility to recommend radio frequencies for new police agencies, and for modifications of their communications systems, in an attempt to minimize the impact of that new operation, be it modification or a new facility, upon other existing licensees, in an attempt to ensure that that police agency has the best communications capabilities available at the time they make their application.

What we cannot do is guarantee exclusive frequencies, because that is not our prerogative. It is the prerogative of the FCC to allocate radio frequencies. We cannot indicate that the frequency will be forever guarded or forever clean and free of interference, because every day the radio spectrum gets more and more congested. I often tell applicants, "The way your radio system works today is the best it will ever be. Tomorrow it will be worse, and the next day worse."

There are more and more applications every day. The number of radio frequencies, while we do get spurts of additional frequencies, remains relatively constant. We always have more applicants than we have radio frequencies.

The police radio service was allocated by the FCC with exclusive radio frequencies that are allocated to the police, and that is in quotes -- "radio service." These frequencies are only available to police departments, and they are only available to "conduct official police business." We heard testimony earlier that some emergency rescue squads are operating on police frequencies. In strict interpretation of

FCC rules, that is not proper communications. If a complaint were ever brought to the FCC, as has been done in other agencies in other states, those operations would be forced off of the police frequency.

There is a series of radio frequencies that are assigned to local government. By that, they are eligible to be used by any agency of a local government. They can be used by police, fire, and may be used by the sanitation department, the road department. Can it be used by a rescue squad? Only if that rescue squad is operated by the local government. If it is a private rescue squad -- a nonprofit corporation -- it cannot use local government frequencies.

Fire has a specific allocation of radio frequencies. Again, for the servicing of fire radio frequency allocations, they would serve as fire calls. Now, there is a provision under the fire radio service which indicates that fire companies that are organized to provide fire protection to a municipality are eligible for fire frequencies. This allows not only paid fire departments, but also the volunteer fire departments to obtain a license.

Special emergency is probably the worst radio service we have to deal with. Luckily, as of last October, my office was relieved of the responsibility, and I gladly gave it up. It was more headaches than I care to mention at this time. Frequency coordination was turned over to the International Municipal Signals Association, along with the International Association of Fire Chiefs, mainly for one reason. In dockets with the Federal Communications Commission, APCO made it plain that APCO will not coordinate the radio frequencies on an equal basis. We will not give equal representation to school buses, veterinarians, and non-emergency response units. If we had to make a choice, we would pick the emergency responder who had the frequency allocation. The FCC told us that was not acceptable, that we must treat everyone equally, because they

are all co-equal eligibles. The other organization, composed of business radio, said, "Yeah, we will do it equally," and they have coordination of the frequencies.

Everything is quite new, as I mentioned. It just started in October. We have yet to see what the results will be. I hope -- I seriously hope -- we will not see a further deprivation of our emergency medical response.

There are a number of frequency bands that further complicate our assignment of radio frequencies. Land Mobile Radio Service, which we are all part of, started out in low band and gradually progressed to the higher frequencies of VHF, UHF, into TV sharing, and now up to the 800 megahertz band. Each of these bands are totally independent, and not interrelated, meaning that the equipment cannot operate on more than one band. Therefore, we have severe limitations. When a department buys radio, for example, in VHF high band, and becomes overcrowded on their one dispatch channel and requests an additional channel, we are limited. We can only recommend additional frequencies in that one band. Those frequencies may not be available. If there are frequencies available in a different band, that does no good to that department, because now they would have to change out every piece of radio equipment.

This also limits inter-operability. If you have a police agency with VHF and a fire agency with low band, and they are on the scene, and their commanders want to intercommunicate, they can't do it on their existing radios. They now must go to an additional radio in one of the vehicles or, as someone mentioned, we have a supply of portables under our statewide police emergency network that are available on our spend frequencies, which we can bring in and give everyone a portable so that they will have common communications. But with diverse frequency bands, we lose that common link; we lose that compatibility that we so vitally need.

We have compatibility in other services. You can take a citizens' band radio and go anywhere in the country, and you will have those same 40 channels and you can talk. You can take an AM or an FM entertainment radio anywhere in the country, and turn it on and you can hear music. You can watch TV, you can fly an airplane anywhere in the world, and be able to communicate, because they have common bands. The same with a boat in the marine radio service. But yet, you take a police, fire, or emergency medical unit out of its normal operating area, and it is tenuous as to whether they can communicate with anyone in the outside world at all. There seems to be a dichotomy there.

What we really need is compatibility -- compatibility not only between our languages and being able to communicate, as someone mentioned with codes, but we need it in radio frequencies. I feel we really, at this point, do not need more radio frequencies. What we need is contiguous radio frequencies and a managed assignment of the radio frequencies.

At the present time, there is an effort in Washington called the National Public Safety Planning Advisory Committee. I have been privileged to participate in that Committee. It has representatives from all over the country. It was called by the Federal Communications Commission to look into the needs of public safety, now and through the year 2000. The FCC did not do this out of the goodness of their heart. They were mandated by Congress to develop a public safety communications plan to satisfy the needs of public safety through the year 2000 and, rather than do the planning themselves, they turned it back to the users, and told us, "You come up with a plan."

Unfortunately, although they were able to shift the responsibility to the users to develop the plan, they did not give us the resources to develop it with. They didn't give us the frequencies to be able to implement a plan that is going to be usable. They have alluded to the fact that they have some

additional frequencies -- between 120 and 200 -- which they plan to give out in the very near future. They have also alluded to the fact that maybe after those frequencies are gone, they may have additional channels to give us.

But, we really can't do firm, hard planning without the ability to massage the system we are working with, to be able to reallocate frequencies, to be able to juggle frequencies, to be able to make different assignments. I see the national plan as nothing more than a document that will end up on a shelf, not doing very much good. That plan calls for inter-operability. The key word, the Federal people tell us, is inter-operability. The reason: They want their Federal agencies to be able to have a place where they can talk to state and local agencies.

Inter-operability, in the context of the national plan, revolves around a frequency band known as 800 megahertz. This is a frequency band where the FCC has recently allocated between 120 and 200 channels nationwide. They have taken five of those channels and they have called them the inter-operable channels, to give the capability of those people operating at 800 to be inter-operable with other users of the spectrum. Unfortunately, that only works for those people who are fortunate enough to be operating at 800. Those agencies that are operating at lower frequency bands do not have the capability to enjoy that inter-operability.

Presently, in the New York area, we have people in line for the frequencies. I am currently holding applications for New Jersey users, as are my counterparts in New York and Connecticut, which far exceed the 200 frequencies that are going to be allocated. So, the way it looks, on day one the frequencies will be allocated, and on day two, the frequencies will be gone, remembering that we have certain geographic limitations that a frequency assigned in the New York City area or in the western Connecticut area cannot be used in the



northern New Jersey area, because of the interference potential. So, although 200 frequencies may sound like a lot, actually in New Jersey what we may come up with is 50 or 60 frequencies from that allocation.

The FCC is also proposing, down the line someday, expanded use of TV sharing. I would like to touch a little bit on what TV sharing is. In approximately 1974, the FCC first entertained TV sharing. What they did was-- In the Philadelphia area, they took two TV channels -- Channel 19 and Channel 20 -- and said, "I don't think we will ever use these for broadcasting, so therefore we will make them available to land mobile." In the New York area, they took Channels-- I'm trying to remember, I think it was Channels 14 and 15 in New York City, and they gave those to land mobile. Out of those frequencies, public safety was only a small portion because there were other services the FCC had to consider -- business radio, industrial radio, and the like.

We ended up with approximately 80 frequencies out of each pool, and those frequencies were quickly utilized in the area. One problem we had was that the Commission arbitrarily said, "Those frequencies are only available in a 50-mile arc, from the center of New York City, from the center of Philadelphia." Well, that did two things to New Jersey. That put us right in the middle, meaning that the frequencies that were allocated out of Philadelphia were not compatible with the frequencies allocated out of New York, so therefore if we wanted to build any type of a statewide system, we couldn't, because once you crossed that 50-mile line, the frequencies would change and your radio wouldn't work.

Second of all, there are areas in New Jersey -- specifically in the Sussex County area and in the Cape May/Atlantic County area -- that fall outside of that 50-mile arc, that had no access whatsoever to these new frequencies.

The FCC is currently proposing -- and it was withdrawn from their docket because the broadcasters protested so vehemently over losing more channels -- to again allocate additional channels out of New York and Philadelphia, again staggered assignments, so that we will not have compatibility in New Jersey. This time they proposed a 30-mile arc out of each city, which even further reduces the capability of using these frequencies in any type of statewide system, and also eliminates a good portion of our major metropolitan areas outside of New York and Philadelphia from utilizing these frequencies.

We hope to have the Commission reconsider the arc and increase it to 50 miles. However, we still have the compatibility problem.

That concludes what I basically wanted to open up. I would like to just touch on a few other areas that were mentioned earlier this evening. First of all, special emergency is a bad system to start out with, as far as frequency availability and sharing are concerned. But, there are other limitations. Because the frequencies are so under-allocated, the FCC prohibits the use of repeaters or mobile relays in special emergency. We had one proposal to utilize that in our JEMS plan. The reason it is not utilized is because it is prohibited by FCC rules.

In addition, we have, as I mentioned, a lack of frequencies at 800 megahertz, or any band, in the New York region. We have a little bit of frequency availability in southern New Jersey, but not really available in the bands we have requests for. We have requests mainly for VHF. We have very little, if any, VHF frequencies in South Jersey, and almost none in North Jersey. We do have some UHF assignments available in southern New Jersey out of the Philadelphia TV sharing pool, and we do have some 800 frequencies available. But, the northern New Jersey area-- Being impacted by New York

City and by the Connecticut area really puts us at a lack of frequencies.

I would really appreciate any questions that anyone might have.

ASSEMBLYMAN MAZUR: Captain Saiia?

CAPTAIN SAIIA: Could you comment on the Deptford incident? Are you at all familiar with that issue?

MR. COLTRI: I will have to comment from memory on that. It has been some time. I was involved with the situation. Deptford Township is coordinated on a mobile relay. I believe that is the output of the mobile relay. They are limited in ERP, as we limit all stations in ERP. The number 50 rings in my mind, 50 watts ERP -- I really could not be definite on that -- at a relatively low antenna height. The major problem seems to be a lack of tone squelch at the northern New Jersey end. However, we do experience, from time to time, what is called "ducting." I am at a loss to explain what happens. We seem to have had that between Atlantic City and Bucks County. That was another area where we had ducting. It seems like. It seems like certain geographic areas -- and not only of the State, but of the country -- have natural RF paths. You get a very strong signal. If I wanted to have a system to cover from Deptford to northern New Jersey, I probably couldn't design a system that would do it on a reliable basis. Where here, we seem to have a system that does it every day. It is geographically the exact locations of the antennas. We seem to have certain areas where the problem is more acute.

Now, over that type of a range -- over 100 miles -- we would not normally expect two systems operating at minimal antenna heights to even be able to hear one another, let alone cause interference. About the only thing we can suggest as a cure to that is to implement tone squelch, which is a viable option that will eliminate the annoyance of duplicate care numbers, which I understand was the most significant problem.

ASSEMBLYMAN MAZUR: Are there any other questions?  
(no response) If not, we thank you very much.

Mr. Charles Thom, Sussex County Office of the Fire Marshall?

C H A R L E S T H O M: Thank you, Mr. Chairman, for this opportunity. I am sorry I have nothing prepared to hand to you this evening, but finding out about the hearing 48 hours ago, I thought it was important to be here this evening to make a few statements.

Being in Sussex County, probably one of our most rural areas within the State of New Jersey, I have served as the County Fire Marshall and the County Fire Coordinator for the past 16 years. During that 16 years, I have found many times that some of my duties relate to attempting to coordinate some of the radio communications within our county.

We do have a very severe problem within Sussex County. Years ago, in the 1950s, there was very little radio communication. Many of our fire departments were just beginning to go into that field -- to use radio communications for the fire service. The frequency of 4610 was assigned to Sussex County by the FCC. Our entire county works off of 4610. This is used as a dispatching frequency, and is also used as a mobile frequency for working fires. Approximately six to seven years ago, we applied to the FCC and we were assigned the truck-to-truck frequency for working fires and fireground operations of 4640. The only other municipality in accord with the FCC coordinator at the time was Passaic, New Jersey, which was operating on 4640.

We have found that this does help. Our only problem, being in a rural area, is that many of our fire departments, of course, have to support themselves. They are not municipally supported, and have not been able to change over, even to be able to coordinate with the second radio frequency.

Another problem we have -- and I listened when the gentleman was talking about near the metropolitan area -- is the fact that we are overrun with our radio communications by Sullivan County, New York, by Bucks County, Pennsylvania, and by practically all of Long Island, which are all operating on 4610. Many times, Sullivan County actually overrides our truck-to-truck communications on working fires. Many times we also have a problem with the fact that with these other counties interfering-- We have found that some of our dispatching centers -- we have five of these within the County of Sussex dispatching for all of our fire departments -- will turn the radio down for the fire frequency, if it is not being used at that time, because of the outside interference from Bucks County, Sullivan County, and Long Island.

We find that these are very severe problems. We have looked at, and we hope to be able to come up with some compatible frequencies whereby we can also now divide our counties into four battalions -- which we have at this time -- and possibly assign a frequency to each one for a working frequency, in addition to the 4640. Of course, that comes back -- as one of the other gentlemen mentioned before -- to money, in order to attempt to change over with many of our fire departments. It would be helpful if somewhere within the State of New Jersey-- We see that moneys are coming out to assist with grants to the fire service, to the emergency service, and to the police service. Possibly with these grants, some moneys could be made available in order to reconvert or to purchase new radio equipment for the fire service.

We also find that it is important to work along with these radio frequencies -- and this was also mentioned -- with recording equipment. I personally know that we have some dispatching centers that are not recording the radio transmissions. Anyone who has been in the fire investigative field knows that this is extremely important, especially if at

any time you must go to court in the future, whether it be from a working structure fire-- Today, we have many problems where people are saying that there was a delay with an alarm; there was a delay in the transmission of that alarm; or there was a delay in the equipment arriving there. It is also very important if we have a fire fatality to be able to go back to that recording equipment and to be able to piece those time lapses together.

I want to thank you for the opportunity to come before you this evening to make my short presentation concerning Sussex County. I would be glad to answer any questions, if there are any.

ASSEMBLYMAN MAZUR: Well, Long Island is certainly a long way from Sussex County. Sullivan County is up in the Catskills, isn't it -- Roscoe and Liberty?

MR. THOM: Yes, sir, it is above Port Jarvis, New York. Montecello is the one that does the main dispatching for Sullivan County and Liberty. What they found a number of years ago was that because of the high terrain, they had to put repeater stations throughout Sullivan County, which now transmit into Sussex County. Of course, we are looking at the higher levels in the northern section of our county, where we have Vernon, and where we have Montague. These areas are overlapping and even interfere with truck-to-truck communication at times.

MR. KIRKWOOD: I have a question that maybe Mr. Coltri or Mr. Miller or Captain Saia can answer. APCO and the International Association of Fire Chiefs do frequency coordination. Is that at a State level, or do those organizations have multi-state jurisdictions in their frequency coordinating function?

CAPTAIN SAIIA: Norm, would you take a shot at that?

MR. KIRKWOOD: Shall I ask that again?

MR. COTRONEO: Frequency coordination.

MR. COLTRI: Yes. There are several diverse ways of handling frequency coordination. APCO has chosen to continue utilizing the local frequency coordinators, almost one in each state. There are some states where they have multiple coordinators. There are other states where they have one coordinator servicing two states. IMSA has chosen to use one coordinator nationwide to coordinate fire frequencies, and also the special emergency frequencies. So, that varies by coordinator. However, the FCC only recognizes the main agency -- the main coordination body -- that being APCO in New Smyrna Beach, Florida, as the coordinator, and APCO delegates that responsibility to the individual coordinators in the states. The other associations do it all in-house, and they do it nationally at one location.

MR. KIRKWOOD: Functionally, then, when frequency coordination decisions are made, since a lot of our problems seem to evolve from outside our borders, is a frequency coordination decision made in consultation with folks in lower Pennsylvania and lower New York and New Jersey together, or are they made simply with regard to existing and proposed licensees within the State of New Jersey?

MR. COLTRI: I can only talk for APCO in that regard. With APCO, we have counterparts in New York State, Pennsylvania, Maryland, and Delaware, and we do coordinate our requests with the adjacent states to verify the fact that the frequency is not going to cause harmful interference to their agencies. They likewise coordinate with us to verify for our state. So, we do touch base.

As far as the other agencies are concerned, they rely on computer data records. If a computer says there is no one in New Jersey they are going to interfere with, that is what they go on.

MR. KIRKWOOD: Is it a problem, then, that we do frequency coordination from some point forward, and that it is

not feasible, or has not been done, to go back and coordinate frequencies that were assigned 15 years ago?

MR.-COLTRI: The FCC will not permit us to go back and take a license that has previously been issued and make changes to it. Once it has been issued, as long as the licensee continues to keep the license updated, there is no way we can go back and relook at that frequency. We do have the opportunity, from time to time, when a licensee allows his license to lapse, now to go back in and recommend lower powers, lower antenna heights, much to the dismay of the licensee, who now has his system reduced to what he really needed, rather than the areawide coverage he originally had.

ASSEMBLYMAN MAZUR: Thank you. Are there any other questions? (no response) We would also like to thank you, Mr. Thom.

We have one more witness who has requested to speak, and that is Mr. Eugene Sabatino, Boonton Kiwanis First Aid Squad.

EUGENE P. SABATINO: Mr. Chairman, thank you very much, sir. My questions have all been answered in the testimony. I will not come forward. Thank you.

ASSEMBLYMAN MAZUR: You are welcome to.

MR. SABATINO: I only had one question, and that was the one--

MS. STEFANE: Would you please come to the microphone? (Mr. Sabatino complies with Ms. Stefane's request)

MR. SABATINO: Again, thank you very much, Mr. Chairman. The one question I would like to address to Mr. Coltri in response to the previous witness is: If a licensee who was given a license 15 or 20 years ago-- As long as he keeps that license current, you can't do anything about it. How about if that agency uses that license for other than the purpose originally stated? Can you do something at that point in time? For example, if it was a bus concern, or a private



ambulance service, if it is now using it for a delicatessen, and going to pick up this package and pick up that package, and talking about everything other than an ambulance on that system, is there anything we can do?

MR. COLTRI (speaking from audience): You can file a complaint with the FCC. That is the only agency which has enforcement authority.

ASSEMBLYMAN MAZUR: May we have that answer in front of the microphone? It will be made a part of the official record that way, you see.

MR. COLTRI: I don't like the answer I have to give you. That's why I didn't come up to the microphone.

Unfortunately, the enforcement authority for all radio frequencies rests with the FCC. That is a technical violation of the license -- if they don't use it for the intended purpose of the radio service -- and that would be something that would have to be complained about to the FCC, and they would have to look into it. Some recent examples of that happening-- We have had, in the past, some police departments that may have been operating on low band and then moved up to UHF. They may have left their emergency squad on low band and continued to dispatch EMS calls on the police frequency. We have had police departments in the geographic area complain about that, because they were then burdened with strictly EMS calls, and they were required to remove that activity, and move it over to the EMS frequencies. The Commission will act on that usually only if it involves a public safety entity.

MR. SABATINO: Thank you.

ASSEMBLYMAN MAZUR: Have they ever, to your knowledge, lifted a license?

MR. COLTRI: No, they haven't.

ASSEMBLYMAN MAZUR: I have asked this twice. Has Dr. Szanto of Hasbrouck Heights ever arrived? (no response) Did Mr. Newkirk of the Wharton Rescue Squad ever arrive? (no

response) These were telephone requests to speak that were put on the agenda. If not, is there anyone else who wishes to give any evidence here? Oh, yes, come on down. (in response to a gentleman in the audience)

**JAMES MCGOLDRICK:** I did try to phone today, but all I could get was a busy signal down at the office.

My name is James McGoldrick. I'll fill out one of those papers, if you want. I am the Deputy Chief of the Bergenfield, New Jersey Fire Department.

Most of what I had to say I think has been covered by the people who spoke before. I spoke with you at Paterson with regard to 911, but it is good to see the Commission going beyond 911. The 911, in itself, is great, but what you do with it after the call gets there is something else.

Someone spoke before regarding regional or county communications systems. In our area -- Bergen County -- there are 70-some odd municipalities. Frequencies are not quite as numerous as the municipalities, but the numbers are close.

Dispatch training -- another area. We have a problem in our area. Some communities have rectified it, but a large number of the departments -- fire departments and EMS -- where they are dispatched by the local police-- It is a common complaint nowadays because things are becoming so diverse in EMS and in fire as far as, you know, the people working your radio system and what kind of qualifications they should have and what kind of training they should have. In most cases, it is not the police officer off the street.

Radio frequencies-- I think that was covered also. There are probably enough frequencies out there, and all the different bands and everything like that. It is just that the management, by locality, is poor management. In Bergen County, we have a few different "fire only" frequencies. You know, fire departments work on it, and from local government to fire in an area. You will have one frequency. One group could be

working in the south end of the county and could have a severe incident going on with mutual aid and everything. Meanwhile, if it is six o'clock, the other half of the group on the same frequency in the north end, you know, goes out with their home alarm tests, and ties up the radio, simply because they are not operating together. They are assigned the same frequency, but they are not listening to the frequency at the same time.

That is pretty much all I wanted to say. As I say, most of those points have been covered by the people who spoke much better than I did a little bit earlier on.

ASSEMBLYMAN MAZUR: You speak quite well. Are there any questions? (no response) It seems that part of the incident you just referred to is not so much a problem of radio communication per se, but coordination amongst the local companies.

MR. MCGOLDRICK: Definitely. Like I say, a large proportion of the base stations are operated by the police. Sussex County mentioned how they turned it down because they are busy with police business, or whatever, and that is interfering or annoying them right when they are taking a phone call or communicating with a police car. So, they tend to turn it down. Meanwhile, there is a unit out there who could be calling in an emergency, and they are not responding because they don't hear them any more.

A lot of it is the human operations factors that enter into it. There is no doubt in my mind that the right way to go is to split it up into the different service areas, because they each have their own priorities. It should be done more on a reasonable basis, because when you get a larger incident, those people can then, you know, put those things in the right priority -- what has to be done in the fire field, what has to be done first in the EMS field, what has to be done first in the police field, and on down the line. Whereas, when you have each little segment handling their own, you know, a coffee

break is as important as the EMS call down the block sometimes, or around the corner in the next community. It is unfortunate, but that is the way it is.

ASSEMBLYMAN MAZUR: Any other questions?

MR. COTRONEO: When we talked in Paterson, didn't I ask you about Bergen County being split up into certain areas, and each one having a central communications band, or something, or is that private? Is it the fire companies that have that?

MR. McGOLDRICK: In Bergen County, you have different police mutual aid arrangements. You have different EMS mutual aid arrangements. You have different fire mutual aid arrangements.

MR. COTRONEO: That I understand. But, my understanding was that there were some communication vans located in Bergen County that carry all of the frequencies of their particular district. In other words, in Bergen County the fire districts-- You have two or three districts. Each one has a van that covers all of the frequencies in his particular district. He can coordinate them at any large incident.

MR. McGOLDRICK: I don't remember the exact number. I believe there are seven different mutual aid groups in Bergen County. My particular department happens to belong to two mutual aid groups. We are right on the border, so we belong to two. I know that of the two we belong to, one does not have any operations run by the mutual aid group, as far as a communications vehicle. The other vehicle is from the Teaneck Fire Department. It is their canteen/communications vehicle. You probably know it by Box 54; that is the name. That is available on call. There is also now a county police mobile command post unit, which was only put into operation in the last year and a half or two -- something like that.

You know, the effectiveness of some of these things sometimes-- A lot of times there is a delay in response. As far as the county vehicle is concerned, its use has been extremely limited because it is so new. It is run by the county police at this time.

ASSEMBLYMAN MAZUR: Are there any other questions? (no response) Thank you very much. Thank you for coming all the way out here from Bergenfield.

MR. MCGOLDRICK: Boy, what a place to find. (laughter)

MR. KIRKWOOD: Tell me about it.

ASSEMBLYMAN MAZUR: Would you like to testify? (speaking to a gentleman in the audience)

G E R A L D W. S H E A R D: Thank you, Mr. Chairman. I'm sorry I wasn't here earlier, but I was at another class two doors away. My name is Gerry Sheard. I am the Morris County Fire Marshall. I am also a past chief of one of the local fire departments in Budd Lake.

I have to agree with a lot of the comments I have heard. However, I would also like to bring up one other point. Don't forget the municipality that borders on different counties. (Indiscernible) Township happens to border on three different counties, as Mr. Thom will know. We have to maintain scanners in our trucks at the present time, because we operate off of six different frequencies when we go to different jurisdictions. It is something that really -- when I was chief -- caused considerable concern on major fires. Our ladder truck happens to be first due in part of Sussex County. We are also first due at Hackettstown, which is in Warren County. We are also first due in Washington Township in Morris County, which has gone to a higher frequency, and we are still on low band.

One of our biggest problems is that with low band we have dead areas, and we cannot even communicate with our own communications center in Budd Lake. So, this is a major

concern, when you start looking at this portion of it. I know Chief Cane (phonetic spelling) was looking into high band, but we couldn't get the frequencies. We were knocked down from getting our frequencies because they were not available.

As County Fire Marshall, I have to have four radios in the car in order to keep track of what is going on, because I have to respond throughout the county for any county facility. I am dealing with 39 different municipalities. It is almost an impossibility. It is something I think the Commission should really look at when it is looking at communications -- how to coordinate this, not only within a county, but within counties -- inter-county -- where I can be with Charlie Thom, or something.

ASSEMBLYMAN MAZUR: And, intra.

MR. SHEARD: Intra-county. I happen to be spoiled. I came from Maryland. There were three instances where a major concern was communications. I was involved in the riots in D.C. in 1968 -- coming from Maryland into D.C. However, we had a mutual aid channel, and we had no problems within the city, because we all went to the mutual aid. Most of us had four channels on our radios. I also responded to the Pentagon in Virginia. Again, we had a mutual aid channel down there, where we could do that from Maryland. This is something you really have to look at, when you start looking at your frequencies and how to coordinate emergency communications.

Thank you. That's all. I don't know what was said before, but I don't want to get involved too much with things that may have been discussed before. Thank you for allowing me to speak.

ASSEMBLYMAN MAZUR: Thank you. Anyone else? Yes, Mr. Contri?

MR. COLTRI: Mr. Chairman, it occurred to me that Mr. Miller raised a point on trunking, and I indicated I would address it. I don't know if I answered that point in my presentation, Mr. Miller.

MR. MILLER: I just wondered, you know, you being very familiar with the situation that we talked about, if you have any feeling whether perhaps that would be a viable alternative for at least special emergency and, there again, eventually possibly fire services throughout the State.

MR. COLTRI: Trunking does have a lot of advantages, as was presented earlier by other testimony. Trunking makes more efficient use of the number of radio frequencies that are assigned by taking a number of trunk channels and putting them into a pot, and only drawing those channels out when they are actually needed to communicate; then putting them back into the pot to allow someone else to use them. This has the ability to get much more efficiency out of each RF channel. In fact, the Federal Communications Commission is very adamant about the fact that trunking is the latest technology. They are looking toward requiring its use for at least a portion of the new 800 frequencies that will be allocated.

I think it is a viable system. It is going to cost dollars to put the system in, to provide trunking on any type of a statewide, or even a region-wide basis for EMS. However, you have to look at it as a network cost -- a single network cost -- as opposed to each county or each municipality going out and spending individual dollars to put their own systems in, if we were to have a backbone statewide system put in as a network, and allow other agencies to utilize this network. I might also elaborate that this network does not require any form of regionalization. We can use local control stations in each rescue squad building or each firehouse or each police department, and allow that individual control station to talk to their individual cars. We can go anywhere from that localized effort up to one central control point for the entire State, and anything in-between.

So, trunking does not limit the capabilities as far as the type of dispatching that can be done. What it does do

is-- It takes the responsibility of building individual networks and puts that into one large network. That, by the scale of economy, could be put in at a relatively inexpensive rate when you consider the agencies served, although it would be in the millions of dollars to put in something that would give statewide EMS communications.

Presently, the difficulties -- as I mentioned -- are in the New York area. We are out of frequencies. There will be more frequencies allocated, but I am not too certain as to whether there will be frequencies available even after the allocations are given, depending upon the number of people who are already waiting in line. That is one drawback we have at this point.

But, trunking, as a technology, is viable. Naturally, it would have to be fleshed out and actually put together to see if it would work. We couldn't make any firm commitments until some type of a study was performed. But, conceptually, trunking could solve that communications problem, and it would provide the inter-operability -- that key word that allows different units to inter-communicate. It would provide that, because we would have inter-operability among the users of an individual trunk system, plus, with the federally mandated inter-operable channels, we would also have inter-operability between trunk system users, so we would not only have it within our own system, we would have it between all of the systems at 800 trunking, or conventional operation.

The City of Passaic-- I was very fortunate to be able to work with them to locate two frequencies at 800. We are now working on a third, and we have very good prospects of being able to find them a third frequency at 800. They have already implemented the first two for the Police Department. The third one they are going to implement for their Fire Department. I heard the City of Passaic mentioned here before, and we were very fortunate to be able to help them. They are putting in a



conventional 800 system, but from the reports I've had from their communications people, they are extremely pleased with it.

--MR. MILLER: Thank you, Mr. Coltri.

MR. KIRKWOOD: Mr. Chairman, I think I just heard something very revealing. Early on in this Commission's process, we were educated as to how the enhanced 911 system could solve the problems that we couldn't address with the basic 911 system, that of allowing the local dispatch -- the local handling of calls -- while still having a statewide network handling that service. What I think I just heard you tell us was that with that same structure -- a single statewide network -- all of the local participants could still participate, without having to centralize dispatching, and so on. That would be feasible if someone would sit down and, number one, engineer and design it; number two, pay for it; and number three, be ready, with paper in hand, to grab those frequencies when the FCC says, "Here's what we've got," and say, "We're first in line, and we want them." Is that basically the limitations of what you are saying?

MR. COLTRI: That is correct; that is correct. Basically, a trunk system parallels what I understand you have developed for the E-911, in that you do need the backbone system. The backbone system is a shared system whereby the costs for that system have to be prorated on the users, and the actual results of that system can be anywhere from sending your E-911 calls to one center in the State, or sending them to each municipality. We can do the same thing with the trunk system. You could have one dispatch center that covered the whole State, if you so desired. I don't know why you would ever want to do that, but you could. Or, you could actually get down to the individual municipal level and allow each municipality to dispatch for their individual vehicles.

MR. KIRKWOOD: I find that extremely enlightening, and I thank you for bringing that out.

MR. COTRONEO: Very good.

MR. LOSEFSKY: I have a question.

MS. STEFANE: Please come up to the microphone so we can get your question on the record.

MR. LOSEFSKY: My question is, can we license police, fire, and EMS services into the same truck pools where they can use common frequencies?

MR. COLTRI: We could license police and fire into the same pool, because the way the FCC has allocated the frequencies at 800-- They have allocated them as public safety frequencies. They have not specifically identified pools. Again, we get into the EMS situation, where we can utilize the EMS services, provided they are sponsored by the local government entity they serve, because the frequencies are only available to government. As a governmental entity, you can operate on the system. As a non-governmental entity, there is that fine point which says you are not government and, therefore, you are not eligible.

MR. KIRKWOOD: Excuse me. How close does that affiliation have to be? This may be a fine point of the law, but--

MR. COLTRI: For this service, it is a very-- Now, if we were talking about putting a company that delivers fuel oil on the frequency, you know, we would be talking two different things. We would be talking about a service that is provided to the citizens, usually a service that is in some way supported by the local government entity. I think it is a very fine point that can easily be hammered out through the legislative end of it.

MR. KIRKWOOD: Is it sufficient, for example, for the Dover/Brick First Aid Squad, which is a private, nonprofit corporation that has a relationship with the municipality, to sign a contract with the municipality -- some sort of an agency agreement -- then, as agents of local government, agents of the

police department, or whatever, would they then be eligible for that service?

MR. COLTRI: That may well be enough to do that, yeah. As I indicated, if we were doing a fuel oil delivery service, and we were trying to say that was an agency of the local government, we would have a problem justifying it, but an EMS provider is definitely in a different category.

MR. KIRKWOOD: Nobody has ever really taken the bull by the horns and addressed where the EMS system fits into public safety versus private business. There are really two types of animals out there that drive ambulances. One of them provides emergency medical services, and the other one provides commercial inter-facility ambulance service. There is even a hybrid of the two; that is, a commercial service that provides EMS.

MR. COLTRI: About five years ago, the FCC rewrote the rules in all the land mobile services. APCO, at that time, petitioned the FCC to take the emergency medical portion of special emergency out of special emergency radio service and move it into public safety. But the FCC was so entrenched in the way things were, that they said that was not a viable option at that point. Unfortunately, the EMS community grew more slowly than the other public service communities. They were not really an organized service until the last few years, when they came into their own. They have always been a part of something else and, because of that, they were never recognized as being a vital radio service that provided a service to the public. We have dedicated frequencies for forestry; we have dedicated frequencies for highway maintenance, as well as fire and police. We do not have anything that is dedicated to special emergency, and that is a crime.

MR. KIRKWOOD: Perhaps we compound that because the EMS community in general is not a user of its own radio system. With most systems I am familiar with, the radio system

is managed by county central communications -- some agency of local government. The base radio is not physically operated by the EMS organization. Now, there are exceptions to that, absolutely, but probably I would venture that three-quarters of the EMS base radios in this State are not controlled, on a daily basis, by EMS organizations. They are controlled out of a police dispatch center, a fire dispatch center, perhaps a hospital. So, we are not, I guess, an effective constituent of the radio community.

MR. COLTRI: Of all the safety services, EMS is really in the worst communication shape. They have the most limited amount of spectrum of any of the services, and that limited amount of spectrum that they do have, they are forced to share with non-emergency providers. In fact, the regulations are worded to the effect that the EMS providers can only use the radio for emergency communications. However, school bus operators can use it for administrative work. So, it even gets more ridiculous the deeper you get into it. It is something that should be addressed.

ASSEMBLYMAN MAZUR: Mr. Miller, do you have a question you wanted to ask?

MR. MILLER: Yes. Mr. Coltri, I have a question about Passaic, and I'll bet you know what it is going to be. You said you had two frequencies, and a third one that the fire company was considering using. We had some testimony by Mr. Aughenbaugh -- and I apologize if I pronounced his name wrong -- that suggested that Passaic City is not an island, or should not be an island in itself; that it should be part of a cohesive countywide, or some type of system. The question is, if, in fact, the City of Passaic Fire Department goes on 800 megs, during a mutual aid crisis how are they going to communicate with neighboring fire departments?

MR. COTRONEO: Excuse me, may I answer that? I am from the City of Paterson, so we are right next-door, and we do

mutual aid with Passaic constantly. What we do have-- They are on a different frequency. They happen to be on low band now, as we are on low band, but we do have plectrons. We can receive their frequency, and they can receive ours -- not the trucks, but the dispatchers.

MR. MILLER: I am talking about fire fighting.

MR. COTRONEO: At a fire situation?

MR. MILLER: At the scene.

MR. COTRONEO: It doesn't make any difference. They are on 4640, and we are on 4620, and we still can't talk to them whether they are on 800 or 150.

MR. MILLER: But, wasn't that part of the problem?

MR. COTRONEO: Pardon?

MR. MILLER: Wasn't that part of the problem before?

MR. COTRONEO: Definitely. That was the problem, I think -- a large part of it.

MR. MILLER: Well, is the fix to go out on another island with 800 megs and still not be able to talk to the neighbors?

MR. COTRONEO: It would seem that that would even worsen the situation. At least we were both in the 46 area, and we could have probably had a radio that could have had both frequencies in it. Now, with an 800 frequency, we couldn't.

MR. COLTRI: The problem we have -- getting specific with Passaic and its Police Department -- is, the Police Department, up until several years ago, was on low band, and the major problem they had was that it is a small municipality physically -- geographically small -- and they used a lot of walking patrols. As you are well aware, low band portables just don't work. The antennas are monsters, and the efficiency is very poor. So, they had to upgrade their communication system in order to give the walking man the security he needed on the street. That is why we were able to assist him with some 800 frequencies in order to do that, and they now have

very good street coverage to their portables. Their Fire Department also has the same problem with portables. They use portables on the fire ground, and again run into the same difficulties of low band portables. Also, they have now lost inter-communications with the Police Department. They are hoping -- on the three frequencies -- to build a common system between their police and fire units to be able to inter-communicate.

Again, yes, it is going to create an island. The island is not created by the city. It is not created by the State. It is created by the FCC, which did not give us contiguous frequencies to start out with so we would be able to switch all to a common channel. As long as we have frequencies spread all over the frequency spectrum without the common capability of being able to switch all radios to a common channel, we are going to have inter-operability. It is just a matter of where that inter-operability line is growing.

MR. MILLER: Thank you.

MR. COTRONEO: Mr. Chairman, may I ask one more question?

ASSEMBLYMAN MAZUR: Yes.

MR. COTRONEO: With regard to what you were talking about before -- EMS not being able to use the police or fire channels -- ALS units, paramedics, asked, and received permission from the local municipalities to utilize their frequencies. Is that legal?

MR. COLTRI: Yes. The rules are very specific. They indicate that a radio frequency in a certain radio service, such as police, can only be used for official police activities. If a paramedic unit uses that frequency to talk to the police department about police matters, that is a legal use of the frequency. If the paramedic uses that frequency to communicate with the police department, or with other paramedic units on non-police matters, that would not be considered

proper use of the frequency. So, they are permitted to-- For example, if they call for an escort, or if they call for directions on how to get to a scene, that is a police matter. That is proper. If they go on the air and try to get vitals, that is not a police function, and that would not be legal.

MR. COTRONEO: Vitals?

ASSEMBLYMAN MAZUR: Vital signs.

MR. COLTRI: That would be an EMS matter. Technically, nobody is going to drop the gauntlet on them if they do it once or twice. Probably the only one who would really complain would be the police agency which is sharing that frequency. That would be the only agency to complain about it. The FCC will only act on complaints, and you really have to complain very loudly for them to act at all. I don't really foresee that being a problem.

MR. COTRONEO: What I was alluding to was, if you had an ambulance service in a town, and it happened to be volunteer, and they requested and received permission to work off of the fire or the police frequency of that local municipality for emergencies, they wouldn't have the problem with interference. They could still maintain their own frequencies insofar as private ambulance services and so on and so forth, but at least it would cut out any interference, wouldn't it?

MR. COLTRI: That is, assuming that the police and fire frequencies were clear.

MR. COTRONEO: Oh, yeah, I am assuming that. That is what I am saying.

MR. COLTRI: They would be clearer than the EMS frequencies undoubtedly.

MR. COTRONEO: They would only be able to use that in an emergency.

MR. COLTRI: Again, they couldn't do things such as tone alerting, which is to alert EMS units. That would not be a proper use of a police channel.

MR. COTRONEO: Oh, no, but they would use their own private frequency for that.

MR. COLTRI: They would use their own, yeah.

ASSEMBLYMAN MAZUR: We want to thank you all. This has been a very instructive, informative session. It was only the second hearing we have had in the series, but it has-- Did someone else want to say something?

MR. AUGHENBAUGH: Yes, may I?

ASSEMBLYMAN MAZUR: Yes, okay.

MR. AUGHENBAUGH: Three brief things, Mr. Chairman. You hit upon financial aid. The Legislature approved, initially, \$2 million to buy ambulances within the State of New Jersey. That concept could really be applied, as you apply, to radio equipment. Before that concept took effect, I really wish the Commission would review the testimony of the county fire coordinators and the Chief from Bergen County and myself, because there is a specific problem in the fire service, and the marriage along with that would be the EMS service. The police service has its own specific problems. They are different from the fire service; different from emergency medical service. They are constant. Most of the 911-- My community has a 911. If you dial 911, you may get a busy signal. If you dial the fire department number, you are going to get the fire department dispatcher. In the City of Newark, if you call 911, you get a busy signal. If you call the Fire Department number, you get the Fire Department dispatcher.

The reason I came here to testify tonight is, there is a problem in the State of New Jersey with the fires we have now -- the reduction in the fire fighting services and the problems we are going to have with hazardous materials. Even though the State Police -- which is an excellent organization as management structure goes in their function, and they have taken that area over-- The fire service is really the agency that is going to go in there and put it out. At the command



level, you can't really use the command vans. You can use vans in the incident command structure, where the incident commander has access to those vans, but in the sector command, you have to get in touch with all of your companies. If you are fighting a structural fire in a tall building, and all of a sudden you have to have your companies bail out, they have to be on the same frequency. You can't bounce back and forth between dispatchers. You are going to lose lives, like the City of Trenton. The City of Trenton had a different problem, but it was a communication problem also. You should look at the Department of Labor report.

ASSEMBLYMAN MAZUR: Do you mean they couldn't tell the men to get out?

MR. AUGHENBAUGH: No. In other words, the incident commander would have to reach the sector commander and all the company officers in that sector command. In a large situation, you have sectors by geography or by function. If a sector is inside and you can split that sector inside by geography and function, and you had, all of a sudden, a reenforced concrete building-- Suppose something was wrong, and you had to bail the companies out. Well, definitely, you should have a system. But if you use mutual aid companies and they are all on different frequencies, the incident commander has a problem. He is going to lose a large amount of fire fighters. The City of Trenton lost two because they had a problem. One of their problems was a communications problem.

We are going to run into large-scale hazardous material incidents in the State of New Jersey -- in Essex County, Newark, the rail corridor. When we run into the cyanide families, when we run into the noxious oxides, we have a large problem. I really wish the Commission would look -- would consider -- even if you ask for additional testimony from the county fire coordinators-- It cannot be based on a municipal system; it has to be based on a county dispatching

center, with 10 to 14 frequencies, EMS frequencies included, if you want to include them, but there must be several command frequencies. There has to be a State frequency where you can contact anyone in the State, and a county frequency -- maybe two county frequencies -- to cover a problem, so that when you run, the county coordinators can shout, "Hey, Morris, I need 50 more engines. I need three more trucks. I need them right now. I need air-pack units."

There is a problem, and it will build as the hazardous material incidents come about. It will bring a larger amount of deaths to fire fighters, unless the command function of communication is corrected.

Thank you very much.

ASSEMBLYMAN MAZUR: Thank you.

CAPTAIN SAIIA: Mr. Chairman?

ASSEMBLYMAN MAZUR: Yes, Captain Saiia?

CAPTAIN SAIIA: Just one brief question here. Does the fire community have an equivalent plan to the JEMS plan, or to the SPEN plan that the police community has? What is being done by the fire community itself to forward this?

MR. AUGHENBAUGH: I am not really up on that, Captain, but to my knowledge it doesn't have. Am I correct, it doesn't have it?

UNIDENTIFIED SPEAKER FROM AUDIENCE: No.

MR. AUGHENBAUGH: The JEMS plan is an excellent plan because the State Department of Health realized that the ambulances had to talk to various trauma centers around the State. In my area, my fire department runs the ambulance. We run into Route 21 where I run into multiple casualties. We bring paramedics in from Mountainside. In Newark, we get on the REMS radio. I tell the ambulance to get on the hospital radio and tell the REMS unit, "I need four paramedics and I need five ambulances." That is a good system. I know of no plan in the State of New Jersey for the fire people to develop that, no.

CAPTAIN SAIIA: That is just the point I was making. You are involved with State organizations, and all. I just wonder why that hasn't been brought up, why there has not been some movement in that direction.

MR. AUGHENBAUGH: We come back to home rule, and "You are going to take my castle away." People can't see past the drawbridge. It really would improve their system. It would not take anything away from them. But we really have to educate them, and convince them of that. The problem is, will they die in the meantime? That is the problem.

CAPTAIN SAIIA: Thank you.

ASSEMBLYMAN MAZUR: Some of these people have come a very long way, and it is after 10 o'clock. So, once again, I want to thank you very much.

Our next meeting will be on Wednesday, May 20, at 7:30 p.m., Room 105, Career Building, Camden County College, College Drive, Blackwood, New Jersey. There will also be a meeting in Trenton on Wednesday, June 3, at two p.m. -- two in the afternoon -- in Room 424 of the State House Annex. If any of you can make any of the other meetings, or if you can think of anything further and you want to communicate with us, please feel free to do so.

(HEARING CONCLUDED)

APPENDIX

New Jersey State Library



DEAN A. GALLO  
11TH DISTRICT, NEW JERSEY

PUBLIC WORKS AND  
TRANSPORTATION COMMITTEE

SUBCOMMITTEES:  
ECONOMIC DEVELOPMENT  
WATER RESOURCES

SMALL BUSINESS COMMITTEE

SUBCOMMITTEE:  
SBA AND SBIC AUTHORITY,  
MINORITY ENTERPRISE AND  
GENERAL SMALL BUSINESS  
PROBLEMS

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515**

November 20, 1985

WASHINGTON OFFICE  
1724 LONGWORTH BUILDING  
WASHINGTON, DC 20540  
(202) 225-5034

DISTRICT OFFICES  
140 LITTLETON ROAD  
PARSIPPANY, NJ 07054  
(201) 334-8000

22 NORTH SUSSEX STREET  
DOVER, NJ 07801  
(201) 328-7413

2 E. NORTHFIELD ROAD  
LIVINGSTON, NJ 07033  
(201) 994-9226

Mr. Walter R. Critchett  
Chief of Police  
Borough of Roseland  
140 Eagle Rock Ave.  
Roseland, New Jersey 07068

Dear Mr. Critchett:

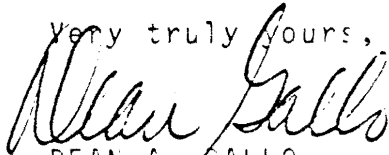
Thank you for sending me a copy of your letter to the Federal Communications Commission concerning the problem the police department is experiencing with their radio frequency.

Please be assured that my office will monitor this situation until it has been resolved satisfactorily.

As soon as I receive information from the Federal Communications Commission, I will contact you.

Again, thank you for providing my office with the opportunity to be of service to you.

Very truly yours,

  
DEAN A. GALLO  
Member of Congress

DAG;mjn

22X

DEPARTMENT OF POLICE

Borough of Roseland

140 EAGLE ROCK AVENUE

ROSELAND, NEW JERSEY 07068

COUNTY OF ESSEX  
(201) 226-8700

WALTER R. CRITCHETT  
CHIEF

November 8, 1985

Mr. Alexander J. Jimmy  
Federal Communications Commission  
201 Varick Street  
New York, New York 10014

Re: Borough of Roseland  
Police Radios  
Frequency 159.150

Dear Sir:

This department, along with other area police departments, shares the same radio frequency.

The town of Depford Township is approximately 100 miles south of us. Washington, D.C. is approximately 250 miles south of us. Both of these departments must be assigned the same radio frequency (159-150) as us. They continually break in on our radio transmissions, cutting us out completely. This interference causes dangerous situations for our men. They cannot receive messages from headquarters or call needed information to headquarters.

I have spoken with representatives of the other agencies involved in the use of this frequency and find that they are experiencing these same problems.

Any help you can provide in this matter will be greatly appreciated.

Should any additional information be needed, please contact Lt. Varick of this agency.

Sincerely,

Walter R. Critchett  
Chief of Police

WRC/jt

cc: Hon. Dean Gallo

23X

FEDERAL COMMUNICATIONS COMMISSION  
FIELD OPERATIONS BUREAU

November 25, 1985  
#9986

COPY

ADDRESS REPLY TO:

ONE OXFORD VALLEY OFFICE BLDG.  
Room 404  
2300 E. Lincoln Highway  
Langhorne, PA 19047-1859

Deptford Township Police Department  
Gloucester County  
Deptford, NJ 08096  
ATTN: Chief of Police

RE: Frequency 159.150MHz

Dear Sir:

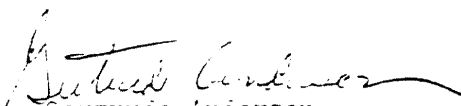
This is in reference to a communication received from the Boro of Roseland Police Dept., another licensee, regarding the operation of your two-way radio system.

Please be advised that the radio frequencies are assigned on a shared basis and that effective use of these frequencies requires the cooperation of all the licensees sharing the frequencies.

It is requested that you contact Chief Walter R. Critchett in Roseland, NJ in order to conduct tests at a mutually convenient time to determine how the problem of co-channel interference may be resolved. Combined efforts of the licensee and complainant are often indispensable to the solution of impaired reception problems of this nature.

A report of your findings would be appreciated within 15 days of receipt of this letter. Your cooperation in this matter is appreciated.

Very truly yours,

  
Gertrude Anderson  
Contact Representative

5  
cc: Critchett



FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D. C. 20554

NOV 27 1985

IN REPLY REFER TO

7330-03

Honorable Dean A. Gallo  
U.S. House of Representatives  
Washington, D. C. 20515

Dear Congressman Gallo:

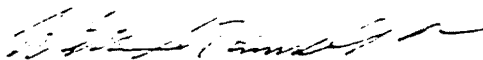
Your constituent, Police Chief Walter R. Critchett of Roseland, wrote to the FCC District Office in New York to complain about interference on his department's radio frequency. The New York office referred the complaint to the Philadelphia office, which has enforcement responsibility for most of New Jersey.

A staff member here at Commission headquarters discussed the problem with Ms. Gertrude Anderson, a Public Service Specialist in Philadelphia. She said she will contact the police departments in Depford Township and Washington, D.C., the apparent sources of the interfering transmissions, and ask them to work directly with Chief Critchett's department to resolve the problem.

The Commission has learned from experience that the best way to solve interference problems like this is to bring the affected licensees together and help them find a way to accommodate one another's operations. Chief Critchett will soon be notified of any action taken by the Philadelphia office.

Thank you for bringing this matter to our attention. If you have any further questions, please call Ms. Anderson in Philadelphia at (215) 752-1324.

Sincerely,



William A. Russell, Jr.  
Director, Office of Congressional  
and Public Affairs

New Jersey State Library

25X

Anne Stetane  
New Jersey Emergency Response  
System Study Commission  
State House Annex, RM 239  
CN-068  
Trenton, NJ 08625

## EPSC POLICE COMMUNICATIONS QUESTIONNAIRE

1. What frequency band(s) does your police department use?  
☒ Low Band      ☐ VHF High Band      ☐ UHF Band  
☐ UHF Up-Band      ☐ 800 MHz.      ☐ Other  
 If other, please explain:
2. What specific frequency or frequencies does your police department use for dispatch? 159.150 MHz.
3. What percentage of police departments in your immediate area can you communicate with? 100%
4. What frequency or frequencies does your police department use for inter agency communications? 159.150 MHz.
5. Do you have a countywide common police frequency? yes  
 If yes, please list frequency: 158.865 MHz.
6. Do you use dedicated channels for any of the following?  
☐ patrol      ☒ Y traffic      ☐ detectives  
☐ data loops      ☐ other (please cite 158.940 )
7. How many radio channels are routinely utilized by your department? 2
8. Are communications ever interrupted or interfered with between your police units or between your police units and your dispatcher? Y
9. Please approximate the percentage of times of interference. 25%
10. This interference is caused by:  
☒ X other police units within your immediate area  
☒ X other police units elsewhere in New Jersey  
☐ other police units outside New Jersey  
☐ other local government agencies in New Jersey  
☐ other local government agencies outside New Jersey
11. Do you consider this interference detrimental to your police activities? Yes
12. Is your police department part of a countywide or regional communications plan? Yes
13. Can you communicate either directly by radio or indirectly through a communications center with EMS & fire units? Yes
14. Is the ability to communicate with other public safety (EMS and fire) agencies desirable? Yes

EPSSC POLICE COMMUNICATIONS QUESTIONNAIRE CONT. (Page 2)

15. Which of the following best describes who dispatches you:  
X Self-dispatched    \_\_\_ Multi-municipal dispatch  
\_\_\_ County dispatch
16. Is your police department familiar with the SPEN Plan? Yes
17. Is SPEN operational at your dispatcher's location? Yes
18. Is SPEN operational in your police vehicles? Yes  
If yes, what percentage of your vehicles? 40 %
19. Do your vehicles utilize in-car data terminals? No
20. Do you feel that regional dispatch is an advantage or a disadvantage? Disadvantage  
Please comment: Many times we must wait for air time due to traffic from other agencies..Also being cut out by larger transmitters..
21. What do you consider a region? 6 towns
22. Please describe and comment on any problems that you feel may exist with police radio communications today:  
See attached letter to FCC.  
Larger, more powerfull transmitters not observing radio etique and cutting out smaller agencies.. Also radio interference being observed especially on night shifts from stations with repeater systems, making it difficult to read your units..
23. What suggestions does your organization have to improve police radio communications?  
Larger towns getting own frequency to cut down on traffic .

Police Department: Roseland Police Dept. Date: 03/19/87

Address: 140 Eagle Rock Ave. Roseland, NJ 07068 203-444-1111

Municipality: Roseland County: Essex

Chief: Walter R. Critchett Signature: Walter R. Critchett

