reason. All right?

A Correct.

Q What would you do?

A I would take the data off the microwave unit so that the microwave unit would go on the air in Fort Lee.

Q Well, wouldn't you have to use the remote control unit to take the data off the microwave unit?

A You could do that, but if the unit weren't working, the buttons were broken on it, which is teleprompt to this day.

Q Okay.

A If it didn't work properly, you would want to take this data off the microwave, and the way you would do that, there would be a couple of ways, but the easiest way,Your Honor, would be to pull the plug out for the TC-8 remote control unit.

Q So if you just turned off power to the TC-8 control unit as a last resort kind of thing, the way you have this you could then -- it would automatically home onto the audio path in the microwave and you would be on the air for emergency purposes?

A Yes, in Fort Lee. Yes.

MR. NAFTALIN: Did that help?

MR. ARONOWITZ: Not really.

JUDGE STEINBERG: What's the data -- what's on the

data pack. What are the TC-8s telling each other?

THE WITNESS: It basically sounds like fax machine data, Your Honor.

JUDGE STEINBERG: All right, but what does it represent?

THE WITNESS: And what it is telling is it -- what this thing is really doing at the Fort Lee translator is, the Fort Lee translator is waiting to say, "Hey, are you there?" It's like a telephone, "Are you there?" That's all it's asking all the time. "Are you there? Are you there?" And then you can give a command to switch transmitters, whatever. But it's tell me, "Hey, by this data, I'm here. I'm waiting for you."

When you take that data away, Fort Lee says, "Oh, my God, my partner has gone away. What do I do? I got a problem. I'm in failure. Something has happened on the other side."

And you can program this thing any way you want and you can say, "My partner has gone. Close a relay." What do you want to do with that relay?

You can do whatever you want with it. My choice as an engineer who was concerned about where I live and the people that live in my community was I have to get this on the air in the event of an emergency if everything else fails.

JUDGE STEINBERG: Can the data path go down in a non-emergency?

THE WITNESS: It has never -- in all my years as an engineer using this type of a path, Your Honor, I have never ever seen a microwave path fail ever.

JUDGE STEINBERG: Data path or audio path or both?

THE WITNESS: I'm talking about microwave, Your Honor. I've seen 56 kilobyte circuits crash all the time, but I have never ever seen a microwave path crash.

Now, Mr. Loginow made a statement on the stand when he was up here. He said, "This is bad engineering. This is really stupid. You know, someone wouldn't do this type of thing who know what they are thinking about."

Well, I thought about that, and I said, "You know, unless you know the other half of an equation, I would probably say the same thing too."

If you have an alternate means, which this is, Your Honor, for turning this thing on in Fort Lee, you need an alternate means to turn it off. Okay, God forbid, the remote control blows up, goes on fire. Now I'm operating illegally. I'm using the microwave to feed Fort Lee. I've got a problem. How do I turn it off?

Very simply. Turn the whole microwave unit off. When the whole thing disappears, there is a second relay that says, "No microwave? I'm out of here. Go back to

Pomona."

JUDGE STEINBERG: Okay, so let's just say the data path is interrupted and the TC-8 in Dumont or in Fort Lee falls back on its own?

JUDGE STEINBERG:

THE WITNESS: The TC-8 forces the microwave unit in Fort Lee to feed audio to the translator.

JUDGE STEINBERG: Okay, the TC-8 -- okay. TC-8 where?

THE WITNESS: If the TC-8 in Fort Lee doesn't see the other unit.

JUDGE STEINBERG: Okay, it says, "Hello, are you there?" And hears nothing?

THE WITNESS: "Hello, are you there? Oh, oh, you're not there." Something has happened.

JUDGE STEINBERG: Yes.

THE WITNESS: It closes a relay. And when it closes that relay, it can do anything I ask it to do or preprogram.

JUDGE STEINBERG: Okay, so the TC-8 in Fort Lee loses the data from Dumont. It will pick up -- it will fall back on, and pick up the audio coming from Dumont to Fort Lee?

THE WITNESS: Correct, Your Honor.

JUDGE STEINBERG: Okay. Okay, so you've got data,

all this is going through the air, not through -- I have trouble when things go through the air, not through wires, because I can picture those little electrons hitting each other and pushing themselves. But in the air -- anyway, that's a joke. Only the engineer got that.

THE WITNESS: I got it.

JUDGE STEINBERG: Okay. He will explain it to you later, Mr. Aronowitz.

MR. ARONOWITZ: I don't want to know.

MR. RILEY: He enjoyed it as much as anybody in the room.

JUDGE STEINBERG: Okay, so where was I? The data, the data path goes down. The Fort Lee TC-8 will now be getting -- will now be getting only audio from Dumont on the microwave, correct?

THE WITNESS: The TC-8 sees a failure and --

JUDGE STEINBERG: Sees a failure, and then when you say "falls back upon itself," then it starts picking up audio from the microwave from Dumont?

THE WITNESS: And putting it on the air on the translator.

JUDGE STEINBERG: Okay. And putting it on the air, putting it over the air?

THE WITNESS: Yes.

JUDGE STEINBERG: That's what I wanted to know.

So no longer will the audio path go into the --

THE WITNESS: Dummy load.

JUDGE STEINBERG: Into the dummy load. No longer will it go into space, but it now gets broadcast?

THE WITNESS: Exactly

JUDGE STEINBERG: Over Fort Lee?

THE WITNESS: Exactly.

MR. NAFTALIN: Let me follow up on a couple of those because we are right there.

BY MR. NAFTALIN:

Q Now, what happens -- tell us again, I think you said, but tell us again, if you lose the entire microwave path, audio and data both go away. The microwave gets turned off say. What happens?

A If you lose a 951 megahertz carrier at the transmitter in Fort Lee, if 951 megahertz disappears, there is a relay that closes that says, "I don't care what's going on. You're going to Pomona or Monticello." I'm using Pomona for example here. It says, "You're going back to translation. I don't care what's going on." And that's what it does, it overrides everything.

Q Now, from late October of 1994 to early January of 1995, all right, in other words, the period of time before Pomona was retranslated, rebroadcasting the Monticello station, what would have happened? Give us an example of

what would have happened then.

Q Instead of going to Pomona?

Q Yes.

A It would have gone to Monticello.

Q All right. Let me walk you through this one more time because I think this is hard.

Let's say it's December of 1994, all right? The Fort Lee translator is picking up the transmission of the Monticello station directly off the air.

A Yes.

Q Okay, and the microwave is -- the microwave is sending its data and a dummy audio, okay? Just the way you've described.

Okay, if the data path is interrupted on this, say it's December 15, 1994, okay? The data path gets interrupted for some reason. What happens?

A The translator in Fort Lee would pick up the microwave audio and rebroadcast it.

Q Okay. In other words, it would replace reception directly from Monticello with reception of the audio on the microwave?

A That is correct.

Q Okay. Did that ever happen?

A Only once.

Q Well, between late October of 1994 and early

January of 1995?

A Never.

Q Okay.

A No.

Q Now, again, lt's say we're in December 15, 1994, some time in the period of time we're discussing. If Fort Lee is receiving Monticello directly off the air and rebroadcasting it, and the microwave is humming right along, and someone trips over the power cord in the Dumont studio and turns off the microwave, what's the effect?

A None.

JUDGE STEINBERG: The second relay would still close though, right?

THE WITNESS: The second relay would be saying, "You better be translating Monticello." Well, you already are.

JUDGE STEINBERG: Right. So something would happen.

THE WITNESS: I'm sorry.

JUDGE STEINBERG: The second relay would be closed or tripped, whatever the word is, the engineer --

THE WITNESS: Energized.

JUDGE STEINBERG: Energized. It can't be just on and off, or closed and open. It's energized.

THE WITNESS: Or raise and lower.

JUDGE STEINBERG: The second relay is energized, but what was heard what was being broadcast over the air on the translator would remain the same?

THE WITNESS: Yes, sir.

JUDGE STEINBERG: So there would be an over-the-air signal from Monticello and not the audio coming from the microwave?

THE WITNESS: Yes, Your Honor.

JUDGE STEINBERG: I thought I had a question.

Why -- yes, this is a -- see if I can ask you intelligently. I don't know that I can ask it intelligently.

(Pause.)

JUDGE STEINBERG: Okay, I think this is what I want to ask. The data path is cut. The TC-8 at Fort Lee automatically starts broadcasting the audio of the microwave.

THE WITNESS: I'm sorry. You said the data path?

JUDGE STEINBERG: The microwave data path is cut.

THE WITNESS: Okay.

JUDGE STEINBERG: Then the TC-8 is configured to fall back upon itself and start broadcasting the microwave audio, the audio that's being carried over the microwave.

THE WITNESS: Basically, Your Honor, what the TC-8 is doing is it's telling the translator not to take the

Monticello audio. It's tell it to take the microwave audit.

JUDGE STEINBERG: Not the Monticello or Pomona audio?

THE WITNESS: Well, we're talking December 15th. I'm sorry.

JUDGE STEINBERG: Well, at whatever -- okay, when the Fort Lee translator is taking the Monticello audio, it would tell it don't take Monticello; take the microwave.

When it's translating the Pomona audio, it would tell it don't take Pomona anymore; take the microwave?

THE WITNESS: Yes, Your Honor.

JUDGE STEINBERG: How would you get the Fort Lee translator back to the Monticello or back to the Pomona audio?

THE WITNESS: Okay. Assuming the remote control isn't working. Let's assume that the remote control isn't working.

JUDGE STEINBERG: Let's say something happens and the translator is now broadcasting the microwave audio.

How do you get it back?

THE WITNESS: And the remote control isn't working?

JUDGE STEINBERG: Well, would this only happen if the remote control was not working?

MR. NAFTALIN: Give an example.

THE WITNESS: Okay. If the remote control were working, Your Honor, you would hit a switch and you would flip it back to Pomona or Monticello, if the remote control were working. I understand where you're going with this.

JUDGE STEINBERG: Yes.

THE WITNESS: Okay. If the remote control weren't working, and you were translating -- I'm sorry -- and you were rebroadcasting the microwave, what you would do, Your Honor, is you would turn the microwave unit off. And when Fort Lee sees no microwave signal at all, zero, it says --

JUDGE STEINBERG: It goes to Pomona?

THE WITNESS: Yes.

BY MR. NAFTALIN:

Q And where is the microwave unit located to be able to turn it off?

A Oh, it's right --

Q Right there in the studio?

A Right there in the studio.

JUDGE STEINBERG: Okay, and here's another.

If the Monticello broadcast was interrupted, such as the cut wire that we talked about.

THE WITNESS: On July 6th.

JUDGE STEINBERG: Yes.

THE WITNESS: Yes.

JUDGE STEINBERG: And therefore Pomona didn't

receive any signal.

THE WITNESS: No, Your Honor.

JUDGE STEINBERG: Okay. "No, Your Honor," what?

MR. RILEY: What's the question?

THE WITNESS: No, I'm sorry. I thought you were --

JUDGE STEINBERG: No, I'm setting it up.

Okay, Monticello broadcast is interrupted. If the Monticello broadcast is interrupted, then Pomona has got nothing to pick up?

THE WITNESS: Yes, Your Honor.

JUDGE STEINBERG: But it's still carrying the dead carrier?

THE WITNESS: Yes, Your Honor.

JUDGE STEINBERG: And Fort Lee receives the dead carrier?

THE WITNESS: Yes, Your Honor.

JUDGE STEINBERG: Would that trigger the remote control -- would that trigger the TC-8 at Fort Lee to go to the microwave audio?

THE WITNESS: No, Your Honor.

JUDGE STEINBERG: That was the question I had.

Okay, so basically, the only way that that audio, the microwave audio is going to wind up on the air is if the data path between the TC-8s in Dumont and Fort Lee is

interrupted?

THE WITNESS: Yes, Your Honor. Or --

JUDGE STEINBERG: Or?

THE WITNESS: -- if it's switched with button on the TC-8 remote control unit.

JUDGE STEINBERG: And that never happened, either of those events?

THE WITNESS: No.

JUDGE STEINBERG: How could you test it if you don't actually do it? Do it -- let's see, I'm suffering from the "it" complex, the I-T, not I-D.

You would want to know whether this whole system worked and whether the data path could be interrupted -- that when the data path was interrupted, the microwave data path was interrupted, you would want to know whether in fact the audio, microwave audio would go out over the air.

THE WITNESS: Yes, Your Honor.

JUDGE STEINBERG: Did you ever test that?

THE WITNESS: It was tested once by me, and I'll show you in a moment how I did that. And the FCC tested it for me on May 15th.

JUDGE STEINBERG: Okay. So at the time you tested it then wouldn't the microwave audio have been broadcasting --

THE WITNESS: No, I had it disconnected. I had it

so that the relay would close but it wouldn't go on the air.

JUDGE STEINBERG: I"m sorry I have taken so long.

THE WITNESS: Oh, no. You've asked great questions.

BY MR. NAFTALIN:

Q Now, you said the microwave audio went onto the air just one time. You've referred to May 15, 1995.

Would you tell us how that happened?

A It was in the afternoon. I was sitting in my office on the telephone. I was on hold at the time. And anyone who works for me will tell you that I listen to Jukebox Radio probably about 18 hours a day, much to my wife's chagrin. I have it on in the car, I have it on in my office. I listen all the time. Even when I'm on the phone, I listen.

On that particular day I remember having the facility on, and I remember hearing this strange sound that I had never heard before. I mean, CDs skip, CDs jump, tapes are not cued. There is dead air and you expect it, you know. In the middle of me sitting in the office I heard the audio quality change, and I heard this thumping sound, and "che-che-che-che-che-che-che," and I heard the translator go to dead carry.

And I would say five to 10 seconds later I heard the facility come back on again and the audio wasn't the

same, and I said, "What the heck's going on?" So I ran upstairs. It may be a minute, a minute and a half had gone by. I don't remember exactly how long it was.

I ran upstairs to the on-air studio, and I looked and I saw that light number six was lit. And I looked down and I said, "Son of a gun," I said, "the microwave rolled over on itself." I said, "Something is jamming the microwave."

So I flipped it back to either Pomona or Monticello. I don't remember which one it was. And I flipped it back to probably Monticello would be my guess. I really don't know. I flipped it back, and I was really angry because I figured -- I knew that someone had jammed it. I knew that what they had done was wrong. I know that they had cause and effect that was illegal. And I really thought it was the engineers or someone from Universal Broadcasting that had done this.

And rather than call up counsel, I called up Herman Hurst that day cause he knows engineering better that anybody, and I told him what happened. And he said, "Gee," and I told him the whole story that I just told you now, I told him the whole story. And I said, "Geeze, they caused this things to operate illegally. I'm really angry about this. I'm really upset about this."

And he says, "Well, Jerry, I got to tell you.

It's probably the FCC that did it, and they can do anything they want."

I said, "But look what they did? They caused this thing to operate illegally, and they left it. They walked away."

He said, "Ah, don't worry, you know, don't worry about it. There is nothing you can do about it." And I was really angry about it.

And that was basically the gist of my conversation with Herman that day. I was pretty angry about it.

A number of months had gone by and the FCC came to inspect the facility on approximately August 2nd of 1995, and it was a surprise raid. He shows up out of nowhere. He calls me up.

Q Who is "he"?

A I'm sorry. Serge Loginow calls me approximately 10:30 in the morning, unexpected, unanticipated raid; calls me. I take him through the facility. I show it to him. I don't want to give specifics of that right now, but go through the whole thing; take him to Pomona, show him the whole thing.

Driving back, knowing what Herman told me, I let him know that I was very angry about what he had done and attempted to do, and that he had jammed the microwave. And eh looked kind of surprised like, "How did you know?" And

I didn't want to tell him, "You left your calling card by doing what you did."

And I said, "You know, you shouldn't have done that. It was the wrong thing to do. You don't know what impact you had on the system when you did that. It's a very complicated system."

And he looked at me and he had that big grin on his face, and he says, "You know, you just never know, do you?"

And I never forgot that, and I was really upset about it but I didn't want to get into an argument with him in my car because we had a long ride ahead of us back to Fort Lee. But I knew then that he had jammed it and caused the effect of this thing to operate illegally.

Q Mr. Turro, do you want to walk us through how the TC-8 units had worked in the Fort Lee set up?

A This is a very basic set up and a very simple --

JUDGE STEINBERG: Let's go off the record for a minute.

(Discussion off the record.)

JUDGE STEINBERG: Back on the record.

Mr. Aronowitz had a question about Chart 2.

MR. ARONOWITZ: Mr. Turro, and I will not touch the chart.

THE WITNESS: You already knocked it over once

today.

MR. ARONOWITZ: Absolutely; almost twice.

You have upon Chart 2 a green path indicating audio.

THE WITNESS: Right.

MR. ARONOWITZ: And you have a blue path indicating data?

THE WITNESS: Yes.

MR. ARONOWITZ: And is it safe to characterize these as two paths of the same signal? Is this one microwave signal?

THE WITNESS: Yes.

MR. ARONOWITZ: Okay. And again just so I understand this, I'm going to have more questions later, the data that is between the two TC-8 boxes, one in Dumont and one in Fort Lee, operates two ways.

THE WITNESS: No, it does not.

MR. ARONOWITZ: All right. Was it your testimony this morning that the data path, and this isn't it, but the data path in Monticello went two ways?

THE WITNESS: Yes.

MR. ARONOWITZ: But this is different?

THE WITNESS: One way.

MR. ARONOWITZ: Okay.

JUDGE STEINBERG: Which way does it go?

THE WITNESS: From Dumont to Fort Lee, Your Honor.

JUDGE STEINBERG: Okay.

BY MR. NAFTALIN:

Q Mr. Turro, why don't you lead us through a demonstration of the TC-8 equipment that's configured in a sort of simple Fort Lee mode.

A This is very simple, okay. What I have done here is this is the box that sits at the Fort Lee translator, Your Honor. This is the box that sits at the Dumont facility, Your Honor, the studios.

If I were to come along and either cut this wire or short it --

JUDGE STEINBERG: Which wire?

THE WITNESS: I'm sorry. The wire that connected the telemetry between the two of them so they can talk to each other.

BY MR. NAFTALIN:

Q And does that wire represent the microwave radio path we have just been discussing in Chart 2?

A Yes.

Q Okay.

A If I were to take it and short it, it will give you the same effect of someone jamming it. And if I -- excuse me for a second. If I jam the back of this, as Mr. Loginow did on May 15th, if I can get to it.

THE WITNESS: Alan, were you messing with this?

MR. ARONOWITZ: No.

THE WITNESS: I think it was on.

MR. NAFTALIN: It blinked.

THE WITNESS: Well, it should stay on.

MR. ARONOWITZ: This one is blinking.

JUDGE STEINBERG: Wait, wait, wait. When you're all finished -- oh, let me describe what Mr. Turro has done is he has taken, I guess, he shorted a wire at the TC-8 Fort Lee transmitter. When the wire was shorted at the Fort Lee transmitter, the red light indicating loss of data on microwave lit up. I couldn't see what -- was anything happening to the Dumont TC-8?

THE WITNESS: Let me get behind here, Your Honor.

JUDGE STEINBERG: Okay.

THE WITNESS: What I am doing is I'm shorting the data path between the two units so that one unit can no longer talk to the other unit. It's basically what I'm doing here.

JUDGE STEINBERG: And you're shorting it out at the Fort Lee end?

THE WITNESS: Yes, sir.

JUDGE STEINBERG: Okay, and so the red light indicating loss of data on the microwave is lit up, and the digital displays on both of the TC-8s aren't affected. They

didn't blink.

THE WITNESS: Well, what should be happening on the Dumont one -- I'm not in front, Your Honor -- is starting to flash. It may take a second or two for it to start to do that.

JUDGE STEINBERG: No.

MR. ARONOWITZ: But it was before.

THE WITNESS: Okay, for it to understand what's going on, it may take 10 seconds to say, "Houston, we have a problem." There may be a little delay.

Now, you can see how unreliable these things are too in terms of fail-safe with this stuff.

JUDGE STEINBERG: It's still not flashing.

But, Mr. Aronowitz, when Mr. Turro did it for the first time the digital lights --

MR. ARONOWITZ: Yeah, I have no idea what he was dong. I just saw the Dumont -- the only thing I could see was the Dumont box.

THE WITNESS: Believe me, it will flash.

JUDGE STEINBERG: And the numbers were flashing?

MR. ARONOWITZ: They appeared to be, yes.

JUDGE STEINBERG: Okay.

THE WITNESS: That's correct.

BY MR. NAFTALIN:

Q Okay, and do you consider this demonstration you

have just shown us, Mr. Turro, to be a valid and reasonable explanation of what you understood happened on May 15, 1995?

A Doesn't get any better than that.

Q Okay.

JUDGE STEINBERG: Okay, what did the red light represent? Okay, when the red light lit, it just -- it means that the data path was cut. Okay, all that red light meant to show was that the data path was cut?

THE WITNESS: Yes, Your Honor.

JUDGE STEINBERG: And is there anything in the Dumont studio similar to that little red light, or that had the same function, that would tell you in Dumont that the data path was cut?

THE WITNESS: Let me make something clear, Your Honor. That red light is just for demonstration purposes. That red light replaces a relay that would be at the Fort Lee transmitter. It's kind of hard to see a relay work. I can do that if you want it, but what the red light is indicating is that there is 12 volts there at that point, and that the 12 volts will be pulling down a relay.

Your answer about Dumont, a failure, Mr. Aronowitz saw it. Eventually the lights will start flashing in Dumont saying, you know, you've lost the ability to communicate with Fort Lee.

JUDGE STEINBERG: Okay. Is there any objection to

the receipt into evidence of Chart 2? Mr. Aronowitz?

MR. ARONOWITZ: None, Your Honor.

JUDGE STEINBERG: Mr. Helmick?

MR. HELMICK: No, no, Your Honor.

JUDGE STEINBERG: Mr. Riley?

MR. RILEY: No, Your Honor.

JUDGE STEINBERG: Okay, then Turro Exhibit 34 is received.

(The document referred to, having been previously marked for identification as Turro Exhibit No. 34, was received into evidence.)

BY MR. NAFTALIN:

Q Mr. Turro, would you give us an explanation -- if you would like to use the TC-8 unit, I think that may be helpful since it's three dimensional. Would you explain which indicator light, the one through eight indicators lights, which one represented which status at the Fort Lee translator from the period of -- let's talk about for the period of time October, late October 1994, say to September of 1995, for the Dumont?

If you go to the TC-8 unit that represents Dumont, and we will pretend we are in the on-air room at the Dumont studio. Would you explain to us as best as you remember

which indicator lights represented which functions?

A Yes, I can do that.

JUDGE STEINBERG: You're talking about the status lights?

MR. NAFTALIN: Yes, the status lights.

JUDGE STEINBERG: That's in the record already.

MR. NAFTALIN: Well, there is a -- I think we need to go through it, if you don't mind, Your Honor.

THE WITNESS: Okay, and I'll make this brief, Your Honor. Light number -- there are two transmitters in Fort Lee. There are two transmission facilities in Fort Lee as licensed by the Federal Communications Commission. There is a main and an aux. A main at approximately 35 watts.

BY MR. NAFTALIN:

Q What does "aux" mean?

A An auxiliary at approximately 9 watts.

Light number one indicates that the main transmitter is on and running. Light number two is blank, no function. Light number three, blank, no function. Light number four indicated that that nine watt facility was on the air, okay.

The left hand side of the remote control, for the sake of logic, represented transmitter output functions; what transmitter was on the air. So the left hand side of the remote control unit, for the sake of logic and ease of

my mental state of mind to keep things straights, the left hand side was transmitter only.

The right hand side displayed what the translator was translating. Light number five on, lit, meant Pomona was on the air. Light number six --

Q What do you mean by "Pomona was on the air"?

A Pomona was being translated by Fort Lee.

Q Thank you.

A I'm sorry.

Light number six meant that the microwave was on the air.

Q In other words, the microwave was being translated by Fort Lee?

A I'm sorry. Yes.

Q Okay.

A Light number seven meant there was a broadcast circuit broadcasting on the translator, an 8 kilohertz phone line.

Q Okay.

A Light number eight indicated audio failure in Pomona, and there is something that I forgot to add to this list. No light, zero lights, five not lit, six not lit, seven not lit, eight not lit meant that Monticello was on the air.

Q What do you mean by "Monticello on the air"?