

1 THE COURT: We'll get them, and then decide what to  
2 do.

3 THE COURT: Is any part of Mr. Foley's family sitting  
4 in the front row?

5 MR. KELLY: Those are -- no, those are  
6 Mr. Foley's wife, son, two daughters, and I believe a family  
7 friend. Mr. Foley has not attended, nor has  
8 Mr. Foley.

9 THE COURT: Is he going to be a witness?

10 MR. KELLY: Yes.

11 THE COURT: What he's going to testify about, what  
12 happened?

13 MR. KELLY: Yes, evidence of the device, what he saw,  
14 what he did.

15 THE COURT: Make sure his family is not here.

16 MR. KELLY: I will make sure they're not here.

17 ... end of conference at the bench.]

18 THOMAS H. WASKOM, sworn

19 Direct Examination by Mr. Libby

20 THE COURT: Would you please tell us your name.

21 THE WITNESS: Yes, your Honor, my name is Thomas H.  
22 Waskom.

23 THE COURT: How do you spell that?

24 THE WITNESS: The last name is W A S K O M.

25 THE COURT: Thank you.

1           You may proceed.

2           MR. LIBBY: Thank you, your Honor.

3           Q     What do you do for a living?

4           A     I'm an explosive enforcement officer with the Explosive  
5     Technology branch with the Bureau of Alcohol, Tobacco and  
6     Firearms.

7           Q     What does an explosive enforcement officer do?

8           A     I help coordinate and administrate the federal explosive  
9     laws under ATF.

10          Q     What do you physically do?

11          A     Physically I examine reports, physical evidence, exhibits  
12     and materials relative to questions arising from criminal  
13     investigations, regulatory inspections, industry, as well as  
14     the public, pertaining to the technical classification of  
15     explosive devices and materials under federal law that's  
16     administered by ATF.

17          Q     Are you familiar with the term "improvised explosive  
18     device"?

19          A     Yes, I am.

20          Q     What does that term mean?

21          A     An improvised explosive device is nothing more than a  
22     homemade bomb.

23          Q     So, specifically with respect to your duties and  
24     responsibilities as an explosives enforcement officer, what is  
25     your objective, what's your goal in dealing with an incident

1 involving an  
2 improvised explosive device?

3 A My duties as an enforcement officer are to examine the  
4 materials that's submitted or recovered at or after an  
5 investigation and determine how the device fits federal law  
6 and how the device was constructed and what the effects of the  
7 device would be.

8 Q Thank you.

9 How long have you been around improvised explosive  
10 devices or any explosives devices of any kind?

11 A Since 1974.

12 Q What were you doing at that time?

13 A In 1974 I was in the U.S. Army.

14 Q What branch, sir, what branch in the U.S. Army?

15 A Ordnance branch. I requested and received permission to  
16 attend the Explosive ordnance Disposal School, which is a  
17 military school for all four branches. It's located in Indian  
18 Head, Maryland. And its purpose is to train military bomb  
19 technicians.

20 Q And how long were you with the Explosive ordnance  
21 Disposal outfit, so-called?

22 A That is correct. I was I was a member of the the  
23 Explosive Ordnance Disposal, after graduating the course,  
24 several units of course. After graduating the course, in Ft.  
25 Knox, Kentucky. I was a team member, staff sergeant, on a

1 team. Five years later I went to Panama, Panama Canal Zone.  
2 I was there three years, and a member of the Explosive  
3 Ordnance Disposal team there. During my tour in Panama, I was  
4 promoted and became a team leader.

5 A team leader's duties are basically the same as a  
6 team member, with the exception that he is the one who is in  
7 charge. He is responsible for what happens. As time  
8 progressed I was transferred to the Hazardous Devices School  
9 in Redstone Arsenal in Huntsville, Alabama. And in 1988 I was  
10 promoted to master sergeant. And as a master sergeant, I was  
11 transferred again to Camp Shelby, Mississippi, where I was a  
12 senior supervisor of an active army bomb squad.

13 Q And as a senior supervisor you supervised bomb  
14 technicians?

15 A That is correct.

16 Q And how many and what type of capacity were you  
17 supervising these technicians?

18 A The unit in Camp Shelby had 12 bomb technicians the  
19 numbers varied slightly. A person would be rotated out and a  
20 new person would be rotated in.

21 The scope of my job was twofold, one, of course, the  
22 administration of the unit, but mainly because of the time I  
23 had had on the job and the experiences that I had encountered  
24 was to train and take care of the troops that worked  
25 underneath me.

1 Q What did you do in 1990?

2 A In 1990 I retired from the U.S. military and became a  
3 bomb technician on the Jefferson Parish Sheriff's Department  
4 in New Orleans.

5 Q How long did you serve with Jefferson parish?

6 A Only for approximately five or six months.

7 Q What did you do then?

8 A At that point I was asked to apply for a job with the  
9 Bureau of Alcohol, Tobacco & Firearms to be one of their  
10 explosives enforcement officers.

11 Q Have you been with them ever since?

12 A Yes, sir.

13 Q Now, with respect to your involvement in improvised  
14 explosive devices and a member, as a team leader, and so  
15 forth, have you had occasion to teach and instruct about  
16 improvised explosive devices?

17 A Yes, many times.

18 Q With respect to your active military time, would you give  
19 the court and jury the sense of the type of instruction you  
20 imparted?

21 A The instruction that's given in an active bomb squad  
22 covers the entire realm of explosive devices. We do a lot of  
23 inhouse training. Any information we receive from anywhere on  
24 the country on devices, we sort out the information. And the  
25 reason we do that is the better prepared we are, the safer we

1 are. During my active duty time, I was assigned to the  
2 Redstone Arsenal at the Hazardous Devices School.

3 Now, the Hazardous Devices School is a bomb  
4 technician school for civilian techs in the United States.  
5 It's funded by the FBI. And the range operations and actual  
6 classroom functions are held at Redstone Arsenal.

7 During my period there, we trained from the  
8 identification of IEDs, the handling of IEDs, transportation,  
9 effects of explosion, investigation techniques used to recover  
10 components, construction techniques used to train the  
11 students.

12 In order to train, a bomb technician, you need to  
13 provide materials. And the best way to provide materials to  
14 train a bomb technician is to take actual cases and  
15 reconstruct the devices that were used in those cases, and  
16 then provide it for the student to do his procedure, to see  
17 how well he's learned his lesson as far as what to do when he  
18 encounters such an item.

19 Q Now, since you've been with the Alcohol, Tobacco and  
20 Firearms, Mr. Waskom, have you had occasion to instruct in  
21 that capacity?

22 A Yes, sir, I've instructed on several occasions.  
23 Enforcement officers are the explosive experts for ATF. In  
24 that capacity we teach our agents. The explosive enforcement  
25 officers are not agents. We're basically explosive experts,

1 hired as experts for that position. Our agents on the street  
2 run into devices numerous times through their career. And in  
3 order to keep them safe, they need to have a working knowledge  
4 of what they can do and what they can't do. To do this, we  
5 have what we call, an NAT course, a new agent training  
6 course. We also have explosive handlers which are our  
7 agents. We have two classes for them. We have an explosive  
8 certification course and an explosive recertification course  
9 to keep the agents updated as time go goes along.

10 Q And in the course of that do you teach both investigative  
11 procedures as well as identification of componentry, of what  
12 would go into an improvised explosive device?

13 A Yes, we do.

14 Q Other than your new agent training, I believe you  
15 mentioned recertification training?

16 A Yes, sir.

17 Q That is for whom, sir?

18 A The recertification training is for older agents who have  
19 already been certified. And we feel if you teach them once  
20 and you forget about them, they forget also. So every 18  
21 months to two years, they go back through. They go through  
22 pretty much the same program. Anything that is new that is  
23 covered in the realm of bombs, we give them information at  
24 that time.

25 Q Have you had occasion in the past years as an ATF

1 explosives enforcement officer, Mr. Waskom, to instruct and  
2 state or local bomb technicians?

3 A Yes, that's another one of our duties. As a matter of  
4 fact, within the last two months I was in Indianapolis,  
5 Indiana. Bomb technicians have an organization known as  
6 IABTI, the International Association of Bomb Technicians and  
7 Investigators. Numerous times they all call on the  
8 enforcement officers to go to different parts of the company  
9 -- to the country, excuse me, and explain what current events  
10 are going on, what trends we've seen in bombings in the United  
11 States, any new components we've run into, any techniques or  
12 procedures used in handling devices; we try to handle the  
13 whole realm.

14 THE COURT: Any objections to his qualifications?

15 MS. GERTNER: No.

16 MR. LIBBY: I'll move along. I just want to finish  
17 up.

18 Q Overtime how many bomb techs have you instructed?

19 A At Redstone Arsenal alone over 3,000.

20 Q And with respect to your duties and responsibilities as  
21 an explosives enforcement officer, do you only teach?

22 A No, sir.

23 Q What else do you do, sir?

24 A Our other duties, of course, are actually participating  
25 in investigations. We do this in two ways. In some instances

1 we go out to the actual crime scene. In other instances, we  
2 receive evidence at the laboratory. My specific job is to  
3 determine how the device fits federal law. In order to  
4 determine that, I typically need to reconstruct the device.  
5 Sometimes physically build it, sometimes mentally build it, to  
6 where I understand what the device's capabilities are and how  
7 it functions.

8 Q Now, in addition to your other duties constructed  
9 casework, are you also assigned to a so-called NRT, a National  
10 Response Team unit?

11 A Yes, sir, I am.

12 Q Which unit is that?

13 A I'm on the northeast team.

14 Q Who is your team leader?

15 A Mr. Dan Boeh.

16 Q How long have you been on that team?

17 A Since 1990.

18 Q How many times have you been called out to bomb,  
19 improvised explosive devices situations?

20 A The National Response Team has been called out seven  
21 times of which I have participated.

22 Q And the number involving explosive devices?

23 A I would estimate two.

24 Q They being what, sir?

25 A One call out was the Roslindale bombing, the other call

1 A Initiation is the beginning point, what sparks it off or  
2 triggers it.

3 Q Thank you.

4 MR. LIBBY: At this point, your Honor, the Government  
5 would ask Mr. Waskom be allowed to give expert testimony in  
6 the scope of design, affect, placement, construction and  
7 reconstruction on improvised explosive devices.

8 THE COURT: The defendant had agreed along time ago  
9 that he's qualified.

10 MR. LIBBY: Thank you.

11 Q You were involved in this investigation, correct?

12 A Yes, sir.

13 Q You were notified both as to the, the occurrence of the  
14 explosion in Roslindale, Massachusetts, and the detonation of  
15 the explosive device on October 28?

16 A That is correct.

17 Q When did you get into Boston, do you recall?

18 A We arrived in Boston late that evening.

19 Q Who is we?

20 A Myself and Larry McCune, another enforcement officer.

21 Q Was he resigned to the National Response Team?

22 A Yes, sir, he was assigned to the National Response Team  
23 also.

24 Q Did he arrive that week?

25 A Yes, sir.

1 THE COURT: We're not going to go through the  
2 crawling of the grass again, are we?

3 MR. LIBBY: No, just his whereabouts, what he did  
4 very briefly, very generally?

5 A Yes. We arrived in Boston. The next morning, we went to  
6 the police station. At that time we received a briefing on  
7 what information was known at that time, later on that day we  
8 went out to the scene.

9 Q And your objective, as you understood it as the explosive  
10 enforcement officer, was with respect to this investigation  
11 was what?

12 A Several things. The initial purpose for the explosive  
13 enforcement officer on the team was to protect people and also  
14 to protect our agents. Many times when you go on a bombing  
15 scene, there is not only one bomb, sometimes more, so we do  
16 it, we go out and insure that the scene is safe for the people  
17 to work. We provide information to the agents to help guide  
18 them through their investigation. They are the investigators  
19 on the scene. We give them information on certain areas they  
20 might want to check, certain components they might want to  
21 look for. This is all done at the scene.

22 Q And you arrived at the crime scene the following morning,  
23 the 29th?

24 A Yes, sir.

25 Q Being a Tuesday. Do you recall that?

1 A Yes.

2 Q And how did the crime scene appear to you?

3 A The crime scene had been taped off with a typical law  
4 enforcement tape, precluding people from doing anything to  
5 affect the crime scene. We try to keep it as pure as possible  
6 before we begin our investigation.

7 Q And what was the first thing you did when you got on the  
8 scene?

9 A Myself, Special Agent Dan Boeh, the team leader, I  
10 believe Cindy Wallace, the chemist, and also Larry McCune,  
11 another law enforcement officer, took kind of an initial  
12 assessment; we looked at the crime scene area.

13 Q Now, in the course of your on site involvement with  
14 respect to this case, this investigation, you handled evidence  
15 in the case?

16 A Yes, sir.

17 Q Mr. Waskom, and you consulted with the team members as to  
18 what they found and what they could likely find?

19 A Yes, sir.

20 Q In the course of your presence on the scene, you also  
21 consulted with Ms. Wallace?

22 A Yes.

23 Q And Mr. McCune?

24 A Yes, sir.

25 Q It was on an ongoing basis?

1 A Yes, at all times.

2 Q Who was the evidence technician, Mr. Waskom?

3 A The evidence technician was Chris Perciniak.

4 Q Chris Porreca?

5 A Mr. Porreca, yes.

6 Q Can you describe to the jury, please, what relationship  
7 you had, if any, with Mr. Porreca as regards real evidence  
8 recovered?

9 A Mr. Porreca's function on the team as an evidence  
10 technician is to insure that the evidence is, of course,  
11 gathered. He needs to make sure that it is marked, so it can  
12 be identified. Nothing gets mixed together. Everything needs  
13 to be separate. And it's particularly important to identify  
14 it correctly so that it can be kept separately.

15 The questions that we talked about as evidence would  
16 come into the C P, the command post, we would learn more and  
17 more about how the situation is unrolling. We would learn in  
18 what areas we would typically find certain components, certain  
19 parts. Maybe in another area we would find components also  
20 from something different, and by that we could build a story.  
21 We could understand what happened.

22 Q Do you recall any instances where a team member  
23 approached you with a bit of what purported to be real  
24 evidence and asked your opinion on it?

25 A Yes, sir, there was a piece of plywood that was found in

1 the garage at the rear of the driveway, in the back of the  
2 residence.

3 We examined the plywood. The plywood also had some  
4 paint markings on it and had been cut into odd shapes. We  
5 examined it to see if it matched any of the other materials we  
6 had been recovering, to see whether it was part of the device  
7 or whether it had been used to help make the device.

8 Q Do you recall the results there?

9 A Yes, sir. The wood was different. It was three layered  
10 plywood. It was not the some kind of play wood and the paint  
11 didn't match, just in appearance.

12 Q Do you recall a team member approaching you with a piece  
13 of material which you ultimately did rule in as being part of  
14 the original device explosive?

15 A Well, several, several pieces were ruled in. There were  
16 many pieces collected on this investigation.

17 Q Now, with respect to your role as an explosives  
18 enforcement officer, particularly with this investigation, did  
19 you reach any conclusions especially with respect to the size,  
20 dimensions, configuration of this improvised explosive device?

21 A Yes, sir, I had.

22 Q And what did you look to, sir, in reaching your  
23 conclusions?

24 A All during the investigation, of course, we received  
25 information. We had interviews from eyewitnesses that saw the

1 device before it had functioned. We had information from Miss  
2 Cindy Wallace. She puts out a report of which I receive a  
3 copy to help make my determination.

4 Q Did you reach any conclusions as to first the dimension  
5 and configuration and appearance of the device which detonated  
6 on October 28, 1991 in Roslindale?

7 A Yes, sir, I have.

8 Q Would this marked device, Exhibit 4, assist you in  
9 explaining your conclusions to the jury?

10 A Yes, sir, it would.

11 MR. LIBBY: With the Court's permission can the  
12 witness step down.

13 THE COURT: You can't do it from there and have the  
14 jury see what you're doing?

15 MR. LIBBY: Your Honor, I believe the witness is  
16 going to be pointing out specific things on the device.

17 THE WITNESS: It would be much more clear to the  
18 jury.

19 THE COURT: Go ahead, but wait until the reporter  
20 gets resettled.

21 Q Now, if you would, Mr. Waskom, did you reach any  
22 conclusions as to the dimensions of the larger box, please?

23 A Yes, sir. In looking at the evidence that was recovered,  
24 we could reconstruct part of the pieces of the box. Of  
25 course, the box got blown into many pieces, but it can often

1 be put back together. And in doing this, we discovered the  
2 exact thickness of the large box. We did that from  
3 information received from materials such as this which are  
4 just fragments of the box and also materials such as this.

5 We know approximately the width of the box across  
6 here. We don't know exactly. We could not get all the pieces  
7 fit in. The length of the box, the majority of the  
8 information coming to draw a conclusion to the length of the  
9 box was from eyewitnesses that saw the box before it  
10 functioned.

11 We know that the box was approximately 12 to 14  
12 inches long. We know the components that went inside, so we  
13 know there has to be this much room. It could be up to this  
14 much room, but we don't know exactly on dimension.

15 Q Would you describe to the jury, please, how the box was  
16 actually put together and kept together, the larger box?

17 A The larger box was, of course, cut out into sections. It  
18 was glued and nailed, so it was a very sturdy box. As a  
19 matter of fact, on several occasions it was referred to as  
20 having the appearance of a solid 2 by 6 which tells me it was  
21 very well constructed.

22 Q Speaking of construction, Mr. Waskom, drawing your  
23 attention to Government's 17 H, have you seen this photograph  
24 before?

25 A Yes, sir.

1 Q What do you see here that assisted you in making your  
2 determination about the dimensions and composition of the  
3 larger box?

4 A In looking at the wood that was recovered, we notice some  
5 ink markings of some type along this line. Ink markings  
6 basically tell us that a person wasn't didn't just have a saw  
7 and was building something and saying this would make a nice  
8 bomb. The person planned what he was going to do. He knew  
9 what he was cutting this for; he knew it would be just right  
10 for what he needed.

11 Q With respect to the smaller box, referring to Government  
12 Exhibit 4, did you reach a conclusion as to the location of  
13 the larger box and the smaller box?

14 A Yes, we have, and it also relates to our evidence at this  
15 point. The smaller box contain two contained two things. It  
16 contained what is technically known as a Servo motor. A Servo  
17 motor is a small motor in a plastic housing which has the  
18 ability to move a lever back and forth.

19 Also inside the small box was a switch and the Servo  
20 motor's job or the function in the device was to throw this  
21 switch, to turn from on to off or off to on. The way we know  
22 this is from our reconstruction. We got the actual pieces of  
23 the smaller box that told us how thick it was, exactly how  
24 wide it was, and exactly how far across it was.

25 Q Now, with respect to this view that I'm holding for the

1 jury, can you show the jury how it is that you look at this  
2 device and marry it up with the photograph?

3 A Okay. This would be the correct orientation here. This  
4 portion here is the portion that's here.

5 Q Thank you.

6 With respect to the color and configuration of the  
7 surface of the device, Mr. Waskom, did you reach any  
8 conclusion as to that?

9 A From the fragments we collected as you can see on this  
10 and many other pieces of the wooden fragments, the outside of  
11 the blocks were painted black. Miss Cindy Wallace, the  
12 chemist, says it was a flat black. It isn't quite as shiny.  
13 It doesn't glare quite as badly when light hits it.

14 Q With respect to the magnets on the single side of the  
15 device, did you reach any conclusions with respect to the size  
16 and layout of the so-called button magnets and the larger  
17 surrounding magnets?

18 A Yes, I had an opportunity to talk to two of the  
19 eyewitnesses, actually three of the eyewitnesses that saw the  
20 device before it functioned.

21 The eyewitnesses told us what they saw, that they saw  
22 that these are the button magnets, the smaller magnets. The  
23 larger magnets were in this singular position. They are not  
24 exact. We didn't get measurements telling us where each  
25 button magnet was. They told us there were approximately 12

1 magnets. In our evidence we recovered approximately 12  
2 magnets. These are the magnets we recovered which are exactly  
3 the same as the magnets here and another view of them is  
4 here.

5 Q Thank you, Mr. Waskom.

6 Now, with respect to the profile of the box, that is  
7 its width, its thickness, and having the magnets affixed to  
8 one side alone, did you reach any conclusions with respect to  
9 them?

10 A Well, I reached a conclusion with respect to the purpose  
11 of the magnets, magnets do one thing, they stick to metal,  
12 they adhere to metal. This many magnets on an item or one of  
13 the little stick magnets you put on a refrigerator has one  
14 purpose, that's to hold something on.

15 Q With respect to the stick magnets, did you have reach any  
16 conclusion what the device was designed for?

17 A Well, I did in several different instances. I had the  
18 opportunity to look at the car, the car that testimony and  
19 interviews had told me that the device was originally attached  
20 to.

21 The purpose of the magnets are fairly common insofar  
22 as attaching an explosive device to an automobile. I looked  
23 underneath the vehicle. It went to the police station where  
24 they do the mechanical work on their mobiles. It was put on  
25 the list.

1 I looked at the underneath of the car. I saw several  
2 scratch marks, several scrapings, and I also saw tiny pieces  
3 of broken magnet. We took those tiny pieces of broken magnet  
4 off the vehicle. We also saw a small streak of orange paint.  
5 And at the time I knew that these smaller magnets, the button  
6 magnets are commonly painted orange.

7 Q Is that what we see here in Exhibit 30?

8 A That is correct. The lab analysis, Miss Cindy Wallace's  
9 analysis tells me that the orange paint under the car is the  
10 exact same paint that is on the original magnet. So that  
11 tells me that this device was placed under the vehicle.

12 Q Now, did you reach any conclusion, Mr. Waskom, with  
13 respect to the design, means of initiation as you define that  
14 term, with respect to this device?

15 A Yes, sir, I have.

16 Q And what was your conclusion?

17 A The device used a system known as a "remote control  
18 system." Remote controls are used most commonly in hobby  
19 kits. Some people like to build little cars, other people  
20 like to have these little cars do things. They make a remote  
21 control car. They can drive a small car, make it turn right  
22 or left and that's the purpose of the remote control system  
23 itself.

24 The device also had a separate circuit, two separate  
25 circuits in the system. One was the explosive side, the

1 firing side; and the other was the fusing side. And the  
2 fusing side was nothing more than this hobby type kit that was  
3 used to throw a switch on the firing side and initiate the  
4 device.

5 Q Is there a schematic here that you would assist the jury  
6 in explaining both circuits?

7 A Yes, sir.

8 MR. LIBBY: Can everybody see this, your Honor.

9 THE COURT: I think you need to move it back a  
10 smidgen.

11 Q Can you explain with respect to the so-called fusing  
12 circuit, how is that designated on your schematic?

13 A The fusing circuit is designated by what would be called  
14 the yellow conductor. It is like we said, it is a hobby kit  
15 for building little toy cars, toy boats. It's constructed of  
16 several components. The company that makes it is Futaba.

17 We know it's Futaba because, we know it's Futaba  
18 because of this small tag that goes on the Servo motor, a  
19 small tag that's portrayed in that photograph goes right  
20 here. It not only tells us it's a Futaba. It tells us which  
21 model of Futaba it is. The system as it's shown here has a  
22 receiver. The receiver is nothing more than like a radio in a  
23 way. It receives a signal. It gets radio waves. The antenna  
24 allows it to pull radio waves out of the air. The circuit  
25 board on the inside interprets these waves and determines

1 whether or whether or not it sends a signal to the Servo  
2 motor.

3 Q Let me stop you there, Mr. Waskom. How do we know that  
4 Futaba receiver was in the device?

5 A We know that this Futaba was there because the evidence  
6 that was collected at the scene as portrayed here. The upper  
7 half are items that were purchased at a later date. The lower  
8 items are the exact components we recovered on the scene.  
9 From these components we recovered this piece of, like, tin  
10 foil material, and also from the box we recovered these  
11 markings and the markings were reversed. It was a mirror  
12 image that was on the box. It tells us that the information  
13 that was on this tag was transferred to the inside of the  
14 box. The reason that transfer occurred, I'm not a chemist,  
15 I'm assuming that it was glued in place. We know that the  
16 components were glued into the box and the glue apparently  
17 loosened the inking that was on the tag and transferred it to  
18 the box. We know by deciphering these backwards letters  
19 exactly which receiver was used.

20 Q Turning your attention to the slide switch, Mr. Waskom,  
21 the purchase of the slide switch, please?

22 A The slide switch comes with every Futaba remote control  
23 system, and it's a very simple purpose. If you've got a  
24 little boy at home that wants a remote control car, he plays  
25 with it a little while. If he doesn't turn it off, the

1 batteries go dead. You have to -- the next day you have to  
2 put in new batteries. The only thing the slide switch does is  
3 it powers up the Servo system. It provides power to the  
4 Futaba receiver as well as the Servo motor and it protects the  
5 batteries from going dead while not in use.

6 Q Do we know whether there was a slide switch in this  
7 Futaba receiver?

8 A Yes, sir, we do.

9 Q And what assisted you in that conclusion?

10 A The photograph here. Again, these were components  
11 purchased later in the investigation. These were components  
12 that were recovered on the scene. The screws, the little  
13 metal clip-ons, the little plastic housing comes from this  
14 Futaba switch. This Futaba switch on all Futabas that come  
15 out. On occasion, this particular, this switch is a little  
16 newer model than the switch that's on this. They function the  
17 same way. The company decided at a certain point instead of  
18 putting a plastic cover, we might put a metal cover, but the  
19 switch is the same.

20 Q Did you reach a conclusion as to the purpose of the slide  
21 switch, sir, with respect to this device?

22 A Yes, sir.

23 Q What purpose was that?

24 A The slide switch allowed the person that built the device  
25 to put these components inside. Then he glued the box

1 together, glued the lid on and nailed it. Once that's done,  
2 he has no way of getting back inside to turn this switch off  
3 or on, so for that reason, it's just plain common sense that  
4 he would have a small hole in the side of the box and out of  
5 that small hole is the small lever that turns the device on  
6 and off. Its total purpose is to keep the system from wearing  
7 the batteries down before the device is ready to be used.

8 Q Now, you told us about -- you talked about the Servo  
9 motor and the arm, sir?

10 A Yes.

11 Q How do we know we have that Servo motor and arm in this  
12 device?

13 A We know we have this exact Servo motor because of the  
14 small tag we recovered at the incident site, the scene site I  
15 show showed you a moment ago. The lever on it is called a  
16 horn, it is a horn. Futaba makes six different shapes of  
17 horns. This particular lever, if my knowledge serves me  
18 correctly, is for little cars. They have horns or different  
19 attachments that take a screw out. You take one off, you put  
20 a different one on. They've got one for boats. They have one  
21 for airplanes you can fly. They all function basically the  
22 same way. The actual use of them in a remote control car or  
23 plane is to push or pull a small rod. If you send a signal  
24 that causes a horn to turn one way it will cause the wheels to  
25 turn one way. If you're flying an airplane and you want the

1 plane to turn one way, same operation. It causes the Servo  
2 motor to have the plane do what the operator wants it to do.

3 Q Can you give a jury a sense as to how powerful a force  
4 that arm is once activated?

5 A It's in the instructions for it. It talks about foot  
6 pounds, how much pressure the Servo motor has a capability of  
7 providing. And thinking as far as initially when I look at  
8 something like this, I say well, it's not very strong. But  
9 inside, of course, is a little motor. The little motor is not  
10 extremely powerful but then it runs through a gearing system.  
11 A gearing system provides a tremendous amount of tort compared  
12 to the size and material it's made of. It could very easily  
13 do what its function was here.

14 Q Thank you very much, Mr. Waskom.

15 Now, turning your attention to the firing circuit.  
16 Would you explain that to the jury?

17 A The firing circuit is the one attached with the red. The  
18 firing circuit consists of four things. Red being a  
19 conductor. You have to have a conductor to make an electrical  
20 circuit. We have a power source. Power provides, the  
21 batteries, nine-volt batteries provide the power, to cause the  
22 system to function when it is initiated. Down here we have  
23 two detonators, two blasting caps. Of course, right here we  
24 have a toggle switch.

25 Q Now, how do we know we have this five 9-volt battery

1 eraser in the firing circuit?

2 A In the components recovered for many battery fragments,  
3 we have five housings from nine-volt batteries. And in  
4 examining Ms. Wallace's statement, and also looking myself,  
5 when you look at a 9-volt battery, it has a little date stamp  
6 on it that says basically use it before this time. And that  
7 stamp only appears once on each battery. We were able to  
8 determine from that because we had five pieces that, -- four  
9 pieces that had that marking on it, that we knew there were  
10 four. And then we recovered another piece that didn't have  
11 the marking, but it was too large to be a part of any of the  
12 other components. So we know that there were at least five  
13 9-volt batteries.

14 Q Do we know how they were wired, sir?

15 A Yes, sir, we do.

16 Q How do we know that?

17 A From materials covered at the site. We recovered pieces  
18 of wire such as this one, and these. The pieces of wire,  
19 actually this particular portion right here has been blown up  
20 in this photograph, enlarged to make it easier to see.

21 THE COURT: Excuse me. I think some of the jurors  
22 can't see.

23 MR. LIBBY: Thank you, your Honor. I'll hold it up.

24 THE COURT: If you go there, then the defense can't  
25 see. Just put it up on top while that part is being

1 explained.

2 Thank you.

3 A Okay. Two photographs: This one showing components  
4 recovered; this one showing an enlargement of this portion  
5 right here. This wire comes from snap connectors that go on  
6 9-volt batteries. A snap connector is nothing more than a  
7 little plastic housing with two contacts on it that snap over  
8 the posts on a nine-volt battery. Coming out of that plastic  
9 covering is a red wire and a black wire. From looking at what  
10 we have here, the only way that these batteries could be wired  
11 is for the positive of one battery, go to the negative of the  
12 next battery, positive of this one goes to the negative of  
13 that, back and forth.

14 You can wire batteries in two ways. You can wire  
15 them in parallel which means you get the same voltage as one  
16 battery, but it's much stronger amperagewise or you can add  
17 them in series which means you can add up the power in each  
18 battery. We had them wired in series. These connections here  
19 could only be this way if the situation is wired in series.

20 Q What was the entire voltage?

21 A 45 volts.

22 Q What's required, sir, to initiate these twin Rock Star  
23 detonator caps?

24 A The amount of voltage to blast blasting caps is very low,  
25 it doesn't take 1, 1 and a half volts at the most. The

1 voltage is what is needed to push your energy through. One  
2 and a half volts would have been plenty.

3 Q How and when do we see any electrical impulse flowing  
4 from that battery array reach the Rock Star detonator cap,  
5 sir?

6 A Okay. The only way that power can flow through this  
7 system is by closing or turning on this switch. The situation  
8 is nothing more than an opening in the circuit. You would  
9 have the same thing if we took the switch out and just had two  
10 bare wires sticking out not touching each other. We've got  
11 the same thing. We've got an opening in the circuit.  
12 Electricity will not flow unless it has a complete circuit  
13 capability to go all the way around, so what is preventing  
14 this from functioning at this point is the mere fact that this  
15 switch is turned off.

16 Q Now, it says here we have a Radio Shack toggle switch.  
17 How do we know that, sir?

18 A From Cindy Wallace's report --

19 THE COURT: Which she has told us about.

20 MR. LIBBY: Establishing the expert's own  
21 understanding, your Honor.

22 THE COURT: Right.

23 A And from my going to Radio Shack and purchasing this  
24 switch and looking at it, I know that that shack -- that Radio  
25 Shack store stocks this switch. According to the label on the

1 package it's exclusively made for Radio Shack.

2 Q Is that consistent with Government's Exhibit 36 B?

3 A Yes, sir, it is.

4 Q Now, finally, with respect to the Austin Rock Star  
5 electric detonators themselves, sir, you recovered two; is  
6 that right?

7 A That's correct.

8 Q And how do we know how they were wired?

9 A The way that we know they were wired in this fashion,  
10 this would be a series circuit, series means basically one  
11 circle. It has to go through one, through another one, and  
12 then on through the circuit. We know that because Rock Star  
13 blasting caps have a red wire and a yellow wire. We recovered  
14 a photograph of two yellow wires that had been twisted  
15 together that were the same gauge and same color insulation of  
16 wire as the rock masters, and had a piece of white tape over  
17 them.

18 If the wires were, if the blasting caps were hooked  
19 in parallel, there would have to be three wires going into  
20 each connection, one coming from the power source itself, and  
21 then one leg of each blasting cap wire under the table. We  
22 didn't have that. We had one yellow wire going to another  
23 yellow wire which is right here. This is the white piece of  
24 tape. This is where the two leg wires, "leg wires" is a term  
25 used for blasting cap wires were twisted together by only

1 having two wires coming to this join we know that they were  
2 hooked in series this way.

3 Q Now, directing your attention to Government Exhibit 12-1,  
4 Mr. Waskom, especially with the what's in the can, would you  
5 explain to the jury, please?

6 A What we have in the can is a remainder of a blasting cap  
7 after it had functioned. That was essential for us to  
8 determine what company made this blasting cap. We've been  
9 referring to it as Rock Star blasting caps. How do we know  
10 that?

11 We know that because we recovered the blasting cap  
12 itself. We recovered both of them. They were partly damaged  
13 because they functioned. They detonated, they blowup.  
14 Portions of them remained. What remains tells us that they  
15 are Rock Star is one the red plug. That's a plug and an  
16 electrical blasting cap where the wires go in. This red plug  
17 means it's made by Austin. Austin is a company that uses red  
18 plugs in their blasting caps.

19 Also, we recovered this fragment which is the  
20 business end, the explosive end of the blasting cap. Austin  
21 puts a number plus a little diamond shaped logo stamped into  
22 the cap. By getting this small portion here we know what  
23 company made it. We also know what the delay time it has. It  
24 has a No. 6 stamped on it. The No. 6 tells us that it was 150  
25 millisecond delay, a very short delay, but the companies build

1 delays into their blasting caps so they will function  
2 correctly for certain operations.

3 Q Mr. Waskom, is it common to see in your experience as an  
4 explosives enforcement officer, is it common to see where a  
5 maker of a bomb to set about to test his circuitry to see if  
6 it's working properly before it functions?

7 A Yes.

8 Q Would you explain to the jury how that's done?

9 A Okay. The system can be tested in more than one way, of  
10 course, and testing it has two purposes, one the guy that  
11 built something no matter what it is, wants to know it's going  
12 to work when it's done. With explosive devices, the builder  
13 wants to know if I turn this switch on or if something gets  
14 short-circuited, am I going to get blown up, am I safe to hook  
15 these blasting caps into the system. If he miscalculates and  
16 doesn't test, then when he hooks it up it might be all over  
17 for him at that point. So he checks his own system. The most  
18 common way of checking a system is to take the two blasting  
19 caps out of the item, these two caps and take an ordinary  
20 light bulb and put in place of these caps. An ordinary light  
21 bulb has two little contacts on it, put one for here, one for  
22 here or one all together, and if the light comes on you can't  
23 hook the detonators in. If you hook the detonators in when  
24 the light is on, the bomb functions.

25 Q Can you achieve the same purpose with a so-called test

1 lamp?

2 A Yes, you can.

3 Q Did you bring something today to assist you to explain to  
4 the jury how this double circuitry system worked?

5 A Yes, sir.

6 MR. LIBBY: With the Court's permission if I could  
7 set this up.

8 THE COURT: Is this an exhibit or chalk, or what?

9 MR. LIBBY: It's a chalk, your Honor.

10 Q Would you describe what we have here, Mr. Waskom?

11 A Okay. On this exhibit on the board, we have the exact  
12 components that were used in the device. It's not a drawing,  
13 it's the actual workable --

14 THE COURT: Excuse me, do we need to have it this  
15 close to the jury for them to see?

16 MR. LIBBY: When we demonstrate, your Honor, we'll  
17 move it back.

18 THE COURT: There are certain participants in the  
19 trial who can't see it.

20 MR. LIBBY: I understand, your Honor. We'll move it  
21 back a little bit.

22 THE COURT: Thank you.

23 A The components that we see here, again, as I've talked  
24 before, the two systems, the power source for the Futaba  
25 remote control, the power switch, the on and off switch for

1 the Futaba, the Futaba receiver that receives the signal and  
2 the Futaba Servo motor that actually does the mechanical  
3 movement. On the other side we have the firing system which  
4 is an on and off switch, red conductor, power source and our  
5 two Austin Rock Star detonators.

6 Now, on this particular one, to show how it  
7 functioned or that it does function, instead of operating the  
8 system, and having an explosion, we don't want that in the  
9 courtroom, we have two small flash bulbs hooked up. The flash  
10 bulbs functioning would be the same thing as the detonators  
11 functioning. They basically need the same force applied to  
12 cause the flash bulbs to function as they do the detonators to  
13 function.

14 Q In order to demonstrate this, Mr. Waskom, what steps  
15 would you take to ready that functional schematic to operate?

16 A Well, the only real step that's needed on what we have  
17 right here is to turn on this switch, the power switch for the  
18 Futaba system. And the bomber making a device, placing a  
19 device, he would have access to this switch some way or  
20 another. There has to be some way for him to keep these  
21 batteries from going dead. He would place the item and throw  
22 this switch and then back away.

23 Q With the Court's permission, your Honor, if the  
24 Government could demonstrate the double circuitry wiring  
25 system in the subject device?

1 THE COURT: Go ahead.

2 Q Please, go ahead.

3 A The only thing that needs to be done is to turn this  
4 switch on. That provides power from these batteries to the  
5 Futaba receiver to the Servo motor.

6 Q How is that system initiated, sir?

7 A This system is designed to be initiated by a  
8 transmitter. When you buy a system at the little hobby store,  
9 you need this plus a transmitter that sends a signal to be  
10 picked up by the receiver.

11 Q Is there any relationship, specific relationship between  
12 a receiver and a transmitter?

13 A No physical connection. The transmitter produced  
14 manufactured by Futaba in their own advertisements are listed  
15 as being effective from a mile away line of sight. Now, "line  
16 of sight" means that the transmitter could see the receiver,  
17 there's nothing in the way, straight line. And they do that  
18 because by saying it's a mile, it sounds along way away.  
19 There are things that can affect that. If you are in a city  
20 where you have buildings you can't get that straight line of  
21 sight. If you're in a residential area, you have the same  
22 thing. So in actuality the effective distance is cut down  
23 from that limit of a mile. It's still effective, you can be a  
24 half a mile away and in a residential area, and it would be  
25 fine. If you were close to a mile, the receiver wouldn't be

1 picking up strong enough of a signal to allow it to function.

2 Q The bomber would want to stay close to the device in line  
3 to the device?

4 A Yes.

5 Q If we could demonstrate it, the double circuit with the  
6 Court's permission. Explain to the jury what you're doing,  
7 sir?

8 A Okay. This is a Futaba transmitter. It's their Attack  
9 model. They've got different models of their transmitter. I  
10 don't know exactly how many models of transmitter they make.  
11 In our investigation we at no time recovered a transmitter.  
12 We do know they produce a certain number of transmitters.  
13 They all basically do the same thing. Some are more  
14 decorative, have little lights, they are all very basic. They  
15 do the same thing. A transmitter works off of a crystal.

16 Now, a crystal is a small electronic device which  
17 determines the frequency at which the transmitter will  
18 transmit. The same type of crystal is in the receiver which  
19 will tell the receiver what frequency it will pick up, which  
20 frequency means something to it. Other frequencies don't mean  
21 nearly as much to it.

22 In order for the operator to function the system like  
23 this, he would get his transmitter, turn the transmitter on,  
24 and raise the antenna and then it's ready to use. In order  
25 for him to get something like this to function, and if I may I

1 want to move back towards the back and show some of the  
2 distance. In order for the operator to get something like  
3 this to function, he would be some ways away, both for his own  
4 protection and the fact that it's a crime, and he doesn't want  
5 to get caught and that. He would have it in this  
6 position, ready position, he raises the antenna slightly -- if  
7 you would watch the board -- what I'm going to do is push this  
8 lever which will send a signal to that receiver which sends  
9 the signal to the Servo motor, turns the arm and throws the  
10 switch.

11 3, 2, 1, fire.

12 Q Thank you, Mr. Waskom.

13 Now, Mr. Waskom, have you reached any conclusions  
14 with respect to the layout within the device of these various  
15 components that you talked about --

16 THE COURT: I'm sorry.

17 Q Within the device, your Honor, the layout of the  
18 component you described to the jury. We see here your double  
19 circuit detonation system schematic. Have you reached any  
20 conclusions with respect to the layout within the device?

21 A Yes, sir, I have.

22 Q And you have obviously prepared for the jury this  
23 Plexiglas mockup of the device?

24 A That's correct.

25 Q Would you please describe for the jury what you see here?

1 A Okay.

2 THE COURT: Excuse me. Are we marking any of these  
3 markups and devices so we know what we're talking about.

4 MR. KELLY: Your Honor, for the record, the schematic  
5 which is the large board is Exhibit 19.

6 THE COURT: For identification?

7 MR. KELLY: For identification. 20 is the smaller  
8 board with the physical items on it, and the Plexiglas mockup  
9 here is 18 for identification.

10 (Exhibits 19, 20 marked for identification.)

11 MR. LIBBY: Thank you, your Honor.

12 Q Would you explain to the jury please what you have  
13 prepared here?

14 A What I've prepared here is from all the evidence I  
15 received, all the evidence I've received, all the discussions  
16 I've had with investigators on the scene, people who actually  
17 saw it before it functioned, I've come up with this. The only  
18 two things that I know of that are not the same on this as  
19 were on the original item is the thickness of my Plexiglas. I  
20 couldn't find the right thickness. So the device is slightly  
21 thinner than the actual one. What we have inside and what we  
22 know as far as where the components were at --

23 THE COURT: Excuse me. Can you move back a little  
24 bit so counsel can see it. Thank you.

25 A We recovered the smaller box portion and from the shaking

1 of the wood and physical markings on the wood, we know that  
2 the Servo motor was attached in this position. There was a  
3 small, part of a circle left inside on the wood with thread  
4 markings that show us exactly where that toggle switch was  
5 at. On the underneath side of this piece of wood that was on  
6 the device, we have markings that show us exactly where these  
7 nine-volt batteries were at. It left impressions, much as a  
8 receiver did. It left impressions, and markings, and the  
9 glue.

10 Q Now, do you have a conclusion, Mr. Waskom, with respect  
11 to this device as to whether it contained a detonated charge  
12 used for and initiated detonation on October 28, 1991?

13 A Yes, sir, from the chemist report and from the material  
14 that I recovered and examined. It contained two Austin Rock  
15 Star detonators, mostly called blasting caps, and also an  
16 explosive charge of ammonia dynamite.

17 Q How do you know that?

18 A We know the ammonia dynamite was there from the chemical  
19 test of the residues recovered from several locations on the  
20 scene. Residues that can only be ammonia dynamite.

21 Q We see it's wrapped in tape. How do we know that, sir?

22 A The recovered materials of the explosive section  
23 consisted of four different things, actually. It had the  
24 explosive itself, the actual physical explosive. Around it  
25 was wrapped a page out of a magazine, a muscle magazine. We

1 know that was in direct contact with the explosive material,  
2 because of the fragments, the portions, residue of the  
3 explosive that was left on the magazine on the paper. Stuck  
4 to that was gray duct tape. Some people call it hundred mile  
5 an hour tape, some people call it duct tape, but it was  
6 approximately two inches wide. The paper page had a wrapping  
7 of that. Over the top of that, according to examination, was  
8 six layers of black electrician's tape. We know the material  
9 looked very similar to this.

10 Q How is ammonia dynamite normally wrapped?

11 A Ammonia dynamite, normally when it comes from the factory  
12 in stick form, it is like a long cylinder. It's approximately  
13 as large as a broom handle. It's an inch and a quarter across  
14 the diameter of the stick. The stick is typically eight  
15 inches long, wrapped with a brown paper and crimped on each  
16 end.

17 Q Is there any preprinting or any printing of any kind  
18 typically on the manufactured dynamite stick?

19 A There are printing marks on it for two things. One the  
20 company that built it taking credit for their product, they've  
21 got their logo on it, and the particular name of the  
22 dynamite. There are many different types of dynamite.  
23 There's also a date shift code. A date shift code is a series  
24 of letters and numbers, that tell us what company made it,  
25 what company made it, when they made it, what shift made it.

1 This particular number where did you send it, was it sent to  
2 New Orleans, was it sent to Chicago. It helps us track  
3 explosive usage in the United States.

4 Q So in this case, Mr. Waskom, you found ammonia dynamite  
5 residue on some wrapping and the main charge, did you or did  
6 you not find any brown wrapping?

7 A We found no pieces of brown wrapper which is not  
8 consistent with what's normal. A lot of it is consumed  
9 because a lot of the brown wrapper is touching the explosive,  
10 but there's almost always fragments of it that remain.

11 Q Does that signify anything to you, sir?

12 A It signifies to me that the person that built it  
13 understood that those markings meant something and by taking  
14 actually removing the wrapper, taking the markings away from  
15 the explosive, it was less likely that he would be caught.

16 Q Did you reach any conclusion as to the amount of main  
17 charge material in this device, sir?

18 A Yes, sir. We figured the amount, we normally use the  
19 term "stick"; a stick of dynamite is a half a pound. And by  
20 looking at the effect of the explosion in several ways, the  
21 distance that items were propelled away from the explosion,  
22 the small crater in the ground that was produced when the  
23 explosive functioned.

24 Q We have that picture here, 9 F, could you point to the  
25 crater, the seat of the blast, sir?

1 A It's very difficult to see. The crater is right in this  
2 portion. On the scene --

3 THE COURT: Hold it, so you need to turn it around so  
4 the jury can see. Not all did?

5 A The crater is right in this portion. The, I'm going to  
6 back up on that. I need to see it from this position. The  
7 crater is in this position. The way we know where the crater  
8 is at, it leaves a hole. A lot of times it's not a big hole,  
9 but it leaves a hole. It breaks the ground into smaller  
10 pieces there, gravel, it's easier to see a dip in the earth.  
11 In a picture sometimes it's difficult to see. By the size of  
12 the crater and by the injuries that the bomb technician  
13 received that was working on the device, and by the effects of  
14 the explosion, the distance that things were propelled, we can  
15 estimate the amount of explosive that was contained in the  
16 device.

17 Another thing we use is the size of the device. We  
18 know that the person who builds it is physically restricted by  
19 the amount or size of what he puts it in. By the damage and  
20 the size of the crater, we're estimating two or three sticks  
21 of dynamite which would be a pound or a pound of and a half.

22 Q Government's Exhibit 18 depicts the device as with both  
23 with respect to dimension and layout of the components inside  
24 of the device?

25 A That is correct.