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IN THE SUPREME COURT OF THE UNITED STATES

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DANNY LEE KYLLO, :  
Petitioner, :  
v. : No. 99-8508  
UNITED STATES OF AMERICA :  
- - - - - x

Washington, D.C.  
Tuesday, February 20, 2001

The above-entitled matter came on for oral  
argument before the Supreme Court of the United States at  
10:14 a.m.

APPEARANCES:

KENNETH LERNER, ESQ., Portland, Oregon; on behalf  
of the Petitioners.  
MICHAEL R. DREEBEN, ESQ., Deputy Solicitor General,  
Department of Justice, Washington, D.C.; on  
behalf of the Respondent.

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2  
3 CHIEF JUSTICE REHNQUIST: I think it's fitting  
4 to note that February 4th, last February 4th, marked the  
5 200th anniversary of John Marshall's swearing in as the  
6 fourth Chief Justice of the Supreme Court of the United  
7 States, as it then was called.

8 I am quite convinced that Marshall deserves to  
9 be recognized along with George Washington, Alexander  
10 Hamilton, and Thomas Jefferson as one of the Founding  
11 Fathers of this country.

12 Marshall served as Chief Justice from 1801 until  
13 1835. He authored more than 500 opinions, including most  
14 of the important cases the Court decided during his  
15 tenure.

16 Using his remarkable ability to reason from  
17 general principles to conclusions based on those  
18 principles, he derived from the Constitution a road map of  
19 how its checks and balances could be enforced in practice.  
20 I don't think I overstate the case to say that it is in  
21 large part because of Marshall's tenure on the Supreme  
22 Court that the third branch of our Government occupies the  
23 coequal position it does today.

24 One occasionally hears the expression that an  
25 institution is the lengthened shadow of an individual. It

1 may be risky to suggest that any institution which has  
2 endured for over 200 years, the way the Supreme Court of  
3 the United States has, could be the length and shadow of  
4 one individual, but surely there is only one individual  
5 who could possibly qualify for this distinction, and that  
6 is John Marshall.

7 In honor of the 200th anniversary of John  
8 Marshall's appointment to the Court, our curator's office  
9 has put together an exhibit located near the statue of  
10 John Marshall on the ground floor.

11 [10:14 a.m.]

12 CHIEF JUSTICE REHNQUIST: We'll hear argument  
13 now on number 99-8508, Danny Lee Kyllo versus the United  
14 States. Mr. Lerner.

15 ORAL ARGUMENT OF KENNETH LERNER  
16 ON BEHALF OF THE PETITIONER

17 MR. LERNER: Mr. Chief Justice, may it please  
18 the Court, this case is about thermal imaging of a home  
19 without a warrant, and whether that constitutes an  
20 impermissible search under the Fourth Amendment. Our home  
21 is the basic refuge for all citizens. It's where we have  
22 our greatest expectations of privacy, where we are free to  
23 let down our guard, and where we should have our greatest  
24 feeling that we are free from government spying.  
25 Unreasonable and unwarranted searching of the home is the

1 chief evil that the Fourth Amendment protects us against,  
2 and it has a specific -- the home itself has a specific  
3 mention in the Constitution, and as a bedrock principle,  
4 the home is a place where we have our most heightened  
5 expectations of privacy.

6 QUESTION: Mr. Lerner, I thought the district  
7 court here made some findings in that regard.

8 MR. LERNER: Yes.

9 QUESTION: To the effect that the thermal  
10 imaging device cannot and did not show any people or  
11 activity within the walls of the structure, and the device  
12 cannot penetrate walls or windows to reveal conversations  
13 or human activities. It recorded only the heat being  
14 emitted from the home. Now, I guess you accept those  
15 findings, do you not?

16 MR. LERNER: Well, I accept the finding, Your  
17 Honor, that the thermal imager is capturing emissions as  
18 they are coming from the wall.

19 QUESTION: Well, let me ask you this. Do we,  
20 reviewing the judgment here, have to accept those findings  
21 as correct?

22 MR. LERNER: Well, I think some of those  
23 findings are mixed questions of fact and law, such as what  
24 is activity and what activity does the Constitution  
25 protect. I don't think those are findings that the Court

1 has to accept, but I am perfectly comfortable with the  
2 finding that the thermal imager was capturing the  
3 information on the outside of the home. However, I think  
4 that is an incomplete view of thermal imaging because  
5 there would be no image at all if it weren't for the  
6 thermodynamic process. There must be a constant heat  
7 source to heat up the wall so that you will see it.  
8 Therefore there is something behind the wall that provides  
9 and radiates heat to the wall, the wall reradiates it out,  
10 but if it's not constant, if it's not a dynamic process,  
11 you will not see anything, and therefore it is the purpose  
12 of the thermal imager and the function of the thermal  
13 imager is to detect what is beneath the surface by  
14 scanning that surface.

15 QUESTION: Well, don't we have at least a  
16 lodging here that indicates that the thermal imager will,  
17 in fact, or can, in fact, produce images of what is  
18 happening of objects and what is happening to those  
19 objects inside the walls?

20 MR. LERNER: Yes.

21 QUESTION: All right. What's the status of the  
22 lodging, what are we supposed to make of it?

23 MR. LERNER: Well, I think the Court should look  
24 at, first of all, the videotape that's been lodged, and a  
25 few things you should know about the videotape. First of

1 all, it is not an original exhibit. The original exhibit  
2 has been misplaced or lost in some way, but you have a  
3 third generation copy of the original thermal image that  
4 was taken at the time in front of Mr. Kyllo's house.

5 QUESTION: Was the original of that introduced  
6 in evidence?

7 MR. LERNER: Yes, the original was introduced in  
8 evidence. So I don't know exactly --

9 QUESTION: How could the judge make the finding  
10 that he made if he accepted the original item of evidence,  
11 assuming that it is substantially identical to what we  
12 have lodged with us, because one of the sights that  
13 appears from the videotape is the sight of individuals  
14 moving inside a house, I believe with the shades drawn.

15 MR. LERNER: Well, that is one of the exhibits  
16 that we have lodged, Exhibit 107 and 108, do show an  
17 individual inside behind glass, but there is nothing with  
18 the shades drawn. That was -- if that was ever mentioned  
19 --

20 QUESTION: Was it supposedly taken in darkness?

21 MR. LERNER: The thermal imaging?

22 QUESTION: Well, tell me, was the -- I looked at  
23 the lodged videotape, and it showed individuals moving, or  
24 an individual moving inside the building, inside an  
25 apartment. Was that image made solely with the infrared

1 process?

2 MR. LERNER: That's right.

3 QUESTION: So that in total darkness of visible  
4 light --

5 MR. LERNER: That's right.

6 QUESTION: -- that image could have been made by  
7 the thermal imaging device?

8 MR. LERNER: That's correct. That is correct.  
9 And that was a demonstration that our expert provided to  
10 the court.

11 QUESTION: The district court had that before it  
12 when it made these findings?

13 MR. LERNER: Yes, it did.

14 QUESTION: So presumably to the extent the  
15 findings are inconsistent with that exhibit, the district  
16 court did not give full accord to it?

17 MR. LERNER: That's correct, Your Honor, and I  
18 would like to say that I think Judge Frey at the district  
19 court level, was trying to determine what this thermal  
20 imager would do and what it did in this case, and she did  
21 not --

22 QUESTION: Mr. Lerner, would you qualify --

23 QUESTION: I think he is answering my question.

24 QUESTION: I'm sorry.

25 MR. LERNER: And so there is -- apparently



1 that's what the limit of her factual holding is that in  
2 this particular case, it did not show any person or  
3 activity, but she did not say that it's not capable of  
4 showing what our expert did show, that it can show people  
5 inside of windows.

6 QUESTION: Now may I qualify that what you're  
7 talking about now, the one that shows people, was not the  
8 one that was involved in this very case?

9 MR. LERNER: That's right.

10 QUESTION: It was a different one?

11 MR. LERNER: That's right.

12 QUESTION: So I think there is some confusion on  
13 that point. The one in this case didn't show any people  
14 or didn't show any --

15 MR. LERNER: That's right. What you'll see on  
16 Government's Exhibit Number 2, which is lodged with this  
17 Court, is a very slanted image, almost as if Picasso was  
18 taking a video, and it's an indistinct image of the home,  
19 but you can clearly see the home, and what I would like  
20 the Court to look for is towards the end of the videotape,  
21 as it shows the back view of the home, you can see three  
22 distinct circles of light along the very top of the roof,  
23 which is the heat from heat lamps coming out of the roof,  
24 and that is what the thermal imager was capturing in this  
25 particular case.

1                   QUESTION: Well, Mr. Lerner, you say that in  
2 this particular situation the thermal imaging did only so  
3 much, but we shouldn't just look at that we should look at  
4 what it's capable of.

5                   MR. LERNER: Absolutely.

6                   QUESTION: I don't think you're correct in that.  
7 I think in a Fourth Amendment case we decide what was  
8 actually done, not what something was capable of doing.

9                   MR. LERNER: Well, you know, you're the Supreme  
10 Court, so you will do what I assume you will do, but I  
11 think that you will probably have then a series of cases  
12 every time a thermal imager is used on a different wall or  
13 on a window or the newest version of the technology comes  
14 up, and I think it really makes sense, unless the Court  
15 wants to revisit this every few years, to look at what the  
16 capability of the science is.

17                   QUESTION: Well, what about the proposition that  
18 so long as it is not showing anything that couldn't have  
19 been discovered without the visual imager, in this case  
20 when you're talking about how warm the roof is, I assume  
21 that if the police had waited for a good snowfall, they  
22 could have found out exactly what they found out through  
23 this thermal imaging.

24                   MR. LERNER: Well, I --

25                   QUESTION: I mean, the snow would have melted on

1 other roofs, it would not have melted -- I mean, it would  
2 have melted in these portions, it wouldn't have melted  
3 elsewhere.

4 MR. LERNER: Well, two things I would like to  
5 say about that Justice Scalia. First of all, there was no  
6 snow on Mr. Kyllo's roof, and we don't dispute that. If  
7 there had been snow and it had been melting, they could  
8 have seen that, but there was no snow, and it does not  
9 snow very frequently in Lawrence, Oregon, because it's on  
10 the Oregon coast, and it's not something that normally  
11 would be expected, and so you would not be able to see  
12 anything from a normal vantage point that the public would  
13 maintain on a regular basis.

14 QUESTION: Well, have we upheld, for example,  
15 the use of night vision glasses by law enforcement  
16 personnel to see things that they couldn't see with  
17 natural vision --

18 MR. LERNER: No, you have not.

19 QUESTION: We've not?

20 MR. LERNER: No.

21 QUESTION: Other courts have?

22 MR. LERNER: Some courts have, Your Honor, yes.

23 QUESTION: But if we did, if we had such a case  
24 under your view, we'd have to ask what potentially they  
25 could see, and getting back to the Chief Justice's

1 question, I just don't know if there's authority for that.  
2 Suppose we had a case and we stipulate that it's lawful  
3 for the police to listen with an electronic, enhanced  
4 listening device to a conversation that takes place on the  
5 street, let's assume that's lawful. We would judge that  
6 under its own terms. We wouldn't say, oh, well, now, this  
7 could potentially have been -- had its listening power  
8 turned up so it could hear what was going on inside. We  
9 don't decide cases that way, do we?

10 MR. LERNER: Well, I don't know if you do or you  
11 don't. It seems like you would want to look exactly at  
12 what happened in this case and what the technology does  
13 and can do because this is a new technology and it  
14 supersedes the human senses.

15 QUESTION: Well, on that point, it seems to me  
16 you take somewhat inconsistent positions. On the one hand  
17 you said this could pinpoint with great accuracy what  
18 happens, and then in the next couple pages you say, well,  
19 now, these images can be manipulated by the police. I  
20 mean, which is it? Is this thing accurate or not  
21 accurate? Those seem to me like inconsistent --

22 MR. LERNER: Well, that's not the question  
23 that's before this Court, but in the lower court we did  
24 claim that it was not accurate and should not be used in  
25 search warrants. It's not accurate because it can be

1 manipulated, and there was no showing that it was a  
2 reliable device.

3 QUESTION: But my point is, you do make this  
4 argument to us. You say, number one, it's an unacceptable  
5 invasion of privacy because it's so accurate. Then number  
6 two you say, well this is very dangerous because it can be  
7 manipulated, it's so vague. It seems to me those are  
8 inconsistent.

9 MR. LERNER: This particular machine is very  
10 subject to manipulation, but thermal imaging itself is  
11 not. It's based upon the thermodynamic process, and on  
12 scientific principles. We were concerned about this  
13 particular machine and the image that it produces, and  
14 that was our complaint. But it still does what all  
15 thermal imagers do, which is pinpoint the heat at a  
16 particular place coming from the inside of a house, from a  
17 private place.

18 QUESTION: It didn't matter it came from a  
19 particular place. I mean, what was the significant  
20 information that the police derived was that there was an  
21 extraordinary amount of heat being generated in this  
22 house, right?

23 MR. LERNER: Well, it wasn't extraordinary  
24 amount of heat in the house. It was the extraordinary  
25 amount of heat in very particular locations of the house.

1 QUESTION: Well, would it have mattered whether  
2 it was in the cellar or in the roof? I mean --

3 MR. LERNER: It may or may not have.

4 QUESTION: Well, it seems to me, would it have  
5 been a violation for the police -- I think they did use in  
6 the search warrant here the fact that the utility bills  
7 for this home were much higher than surrounding homes. Is  
8 that a violation of the privacy of the home, the police  
9 finding out that these people are using an extraordinary  
10 amount of electricity?

11 MR. LERNER: We haven't raised that as an issue,  
12 Your Honor, and I think this Court's holdings in Miller  
13 and Smith versus Maryland seem to say that if someone has  
14 records that are being held by a third party, they don't  
15 have an expectation of privacy that those records might  
16 not be searched, so the fact that they were able to  
17 subpoena and obtain Mr. Kyllo's energy records I don't  
18 think is a matter that we've raised as --

19 QUESTION: May I ask you if you think the --  
20 that that information in those records would have been  
21 adequate probable cause to get a warrant to use the device  
22 in this case?

23 MR. LERNER: We don't believe that it would,  
24 Your Honor, no.

25 QUESTION: So that really the question before us

1 is not just procedural, but whether or not they can use  
2 these devices at all?

3 MR. LERNER: That's right. Well, whether they  
4 can use the devices without a warrant on the home.

5 QUESTION: And would the --

6 QUESTION: And if they had enough probable cause  
7 to use the device, they probably wouldn't need the device?

8 MR. LERNER: Well, that's absolutely true, and I  
9 think that's the same argument that was used in Karo, that  
10 if we need probable cause to use this to monitor the  
11 beeper, then we'll effectively use this.

12 QUESTION: Let's go in the house and look.

13 MR. LERNER: So the court said that's not a good  
14 enough reason.

15 QUESTION: Well, could it vary? How fixed is  
16 that in the precedents? I mean, could you have enough  
17 cause to warrant a beeper -- warrant a thermal imager,  
18 which is far less intrusive than going into the house? Or  
19 do you think it's absolutely fixed that you either have  
20 probable cause to rummage through the bedroom or you can't  
21 do anything?

22 MR. LERNER: I think anytime that the Government  
23 is seeking to capture information from a private place  
24 like the home, and they cannot do it with their own  
25 unaided human senses, then they may not use technology to

1 do the same thing.

2 QUESTION: Suppose your choice was exactly that,  
3 that you -- when faced with that dilemma, the court holds  
4 that you can use it without any warrant, and how would you  
5 prefer as a fallback, you need at least a warrant but less  
6 cause than to rummage in the home itself or is that so  
7 fixed in the law there is really just the absolute  
8 dichotomy?

9 MR. LERNER: Well, I think the Court has  
10 repeated so many times that to enter the home or to search  
11 the home that you need a warrant --

12 QUESTION: Well, I know that, and what you'd  
13 have to say is it's probable cause not to enter the home.  
14 It's probable cause to get an imager.

15 MR. LERNER: Well, I think that's a very  
16 dangerous road to go when we start talking about imagers  
17 and technology because what it's capturing really is  
18 molecular information that migrates through our walls and  
19 therefore if we are now saying that we can capture that  
20 kind of information without a warrant, we can reduce our  
21 whole world to that type of wave and molecule, and our  
22 walls mean nothing because our walls cannot contain that  
23 kind of information.

24 QUESTION: Mr. Lerner, could you just explain to  
25 me what this thermal imaging revealed that was not



1 revealed by the utility records which you say under our  
2 precedent it was permissible for the police to obtain?

3 MR. LERNER: Well, utility records give you  
4 generalized information about someone's electrical use,  
5 and we actually did have quite a complete hearing about  
6 those records and heard from utility industry people, and  
7 people's energy bills vary quite dramatically depending,  
8 frankly, on how many women live in the home versus men,  
9 how many times you do laundry, who is taking showers,  
10 things that you plug in. It doesn't necessarily mean that  
11 you're using heat lamps or that you're growing marijuana.  
12 So it's too generalized type of information to really  
13 persuade a magistrate that that means there's marijuana  
14 growing.

15 QUESTION: Mr. Lerner --

16 MR. LERNER: In this case --

17 QUESTION: -- you say that you can't use -- look  
18 into the home with anything other than the unaided senses.  
19 Is it unconstitutional to use binoculars to look into a  
20 window that's left unclosed without a curtain? Is that  
21 what our case law says? I don't think it does --

22 MR. LERNER: The Court hasn't really addressed  
23 that point yet, so that's going to be a very difficult  
24 question when it comes up.

25 QUESTION: But you're saying we ought to address

1 it right now because that ought to be our standard of what  
2 is reasonable expectation. Wasn't that your argument?

3 MR. LERNER: My standard is if it is unavailable  
4 to the unaided eye, simply because there is a window and  
5 you can see deep inside that window that no one else in  
6 the normal course could have seen with some high-powered  
7 technology --

8 QUESTION: But eyeglasses are okay?

9 MR. LERNER: Eyeglasses are fine.

10 QUESTION: Okay. But not binoculars?

11 MR. LERNER: Well, eyeglasses give you normal  
12 vision, and they are an accepted way of repairing disabled  
13 vision --

14 QUESTION: Why should --

15 MR. LERNER: -- but when you start to use  
16 technology, that takes us beyond the human senses, now the  
17 Court has said --

18 QUESTION: How about --

19 QUESTION: Why is that relevant? I mean, you're  
20 saying some things that take us beyond the human senses  
21 are okay, eyeglasses, binoculars, maybe not. But things  
22 that are sort of abnormal in use cross the line. Why  
23 should the line be drawn there? What's the -- what's your  
24 reasoning behind that?

25 MR. LERNER: Well, the line is drawn there

1 because the privacy is predicated upon what someone can  
2 knowingly or unknowingly expose, and once we're in the  
3 level of technology, people have no way of knowing when  
4 they are voluntarily exposing something. Yes, we could all  
5 live in rooms that totally close the windows off --

6 QUESTION: So you're saying that reasonable  
7 expectation is in part based on fact, what do you, in  
8 fact, expect, and that informs, should inform the standard  
9 of reasonable expectation, is that the nub of what you're  
10 saying?

11 MR. LERNER: Yes. It is partly what we all  
12 expect.

13 QUESTION: What about a dog sniff, how about a  
14 dog sniff?

15 MR. LERNER: How about a dog sniff?

16 QUESTION: Yeah, we've used dog sniffs to detect  
17 something that the human nose doesn't detect, haven't we?  
18 So under your test that's out, too, but we've upheld some  
19 of those.

20 MR. LERNER: Right. The Court -- well, I'm not  
21 going as far as the Court did in Place because Place was  
22 limited to narcotics and sensing only, very specifically  
23 contraband in a very public place and a very transitory  
24 place, and I think that the Court has been careful to  
25 limit Place to that circumstance. We're not saying that

1 you can't use technology out in the world, but we're  
2 saying that the home has such a heightened expectation of  
3 privacy, to use technology to pry into our homes is a  
4 very, very different point, and the Court has not  
5 addressed whether we can just have police dogs running  
6 around people's homes yet.

7 QUESTION: How about a policeman with 10/10  
8 vision, is that okay?

9 MR. LERNER: With 10/10 vision?

10 QUESTION: Yeah, I guess that's better than  
11 20/20, I don't know. I'm not --

12 QUESTION: Mr. Lerner, you were explaining to  
13 me, and I haven't quite grasped it, why the utility  
14 records wouldn't tell you the same thing. Will the thermal  
15 imaging tell you that it's not women taking showers?

16 MR. LERNER: The thermal imaging will give you a  
17 more specific impression such as here it showed three  
18 distinct, evenly spaced circles of light at the peak of  
19 the roof from which they could conclude that this is very  
20 similar to other marijuana growing that they have seen.  
21 They did not have any other information about Mr. Kyllo,  
22 no one had been inside his home, there was no tip that he  
23 was growing marijuana, so sometimes the utility records  
24 are enough when you have a specific tip about what someone  
25 might be doing in their home, but when you lack that type

1 of specificity, the normal heat and electrical records  
2 don't really tell you whether the high electricity is  
3 because they're growing marijuana or if it's because they  
4 take a lot of showers and do a lot of laundry, have a lot  
5 of appliances or an inefficient heating system or  
6 anything, taking saunas or anything else.

7 QUESTION: And the imaging will tell you that?

8 MR. LERNER: The imaging will give you specific  
9 heat impressions from various places in the home, coming  
10 through the wall, telling you what's on the other side of  
11 the wall.

12 QUESTION: May I ask to what extent your theory  
13 depends on the sophisticated nature of the equipment?  
14 Supposing the police had rented the house next door, and  
15 they leaned out the second story window with a long pole  
16 with a thermometer on it, they could kind of track the  
17 wall and find out what part was hot and what wasn't, would  
18 that violate the Fourth Amendment?

19 MR. LERNER: Well, that would be a different  
20 question than the use of technology.

21 QUESTION: Why would that be different?

22 MR. LERNER: Because they would be intruding on  
23 the curtilage, where they physically invading and touching  
24 the wall, I'm not sure that they're --

25 QUESTION: Well, say the houses were only six

1 feet apart and they could stay on their side of the  
2 boundary line.

3 MR. LERNER: I'd say then that is something that  
4 would be permissible because it's something that is akin  
5 to our normal human senses, that they could determine how  
6 hot the wall was by feeling it.

7 QUESTION: No, not feeling it. They had to use  
8 a thermometer, and they had to reach out parallel to the  
9 walls of the houses to do it. They're using some kind of a  
10 magnifying equipment.

11 MR. LERNER: Well, obviously I don't think that  
12 we would prohibit things like thermometers or watches or  
13 things that we typically use in our daily lives.

14 QUESTION: But a drug-sniffing dog you couldn't?  
15 I mean, if you brought the drug-sniffing dog up to the  
16 window and it has a fit?

17 MR. LERNER: Right. I think that --

18 QUESTION: In your view, you couldn't do that?

19 MR. LERNER: -- that would be a really different  
20 question, yes.

21 QUESTION: Why don't your reasonable  
22 expectations of privacy include technology? Why don't  
23 your reasonable expectations include the fact that you  
24 know there are such things as binoculars, so that even if  
25 your house is a long distance away from where anybody else

1 can stand, you pull your curtains if you want privacy  
2 because you know people have binoculars?

3 MR. LERNER: Right.

4 QUESTION: And so also you know there are things  
5 such as thermal image, and so if you're really concerned  
6 about that degree of privacy, I'm sure there are means of  
7 preventing the heat escape from the house, and therefore  
8 preventing that technology from being used. Why do we  
9 have to assume that we live in a world without technology?

10 MR. LERNER: We don't have to assume that we do,  
11 Your Honor, but technology has the ability to penetrate  
12 into our private lives, and that's the problem.

13 QUESTION: Yes, it does and we have the ability  
14 to protect our private lives as well if we really have  
15 expectations of privacy.

16 MR. LERNER: So that what I'm -- I guess our  
17 position is that the burden really is improperly placed on  
18 the citizen to anticipate what type of technology the  
19 Government may come up with, and perhaps you're correct  
20 that if it's sufficiently sophisticated rather than  
21 something that's very common and ordinary, then it  
22 shouldn't be the burden of the citizen to anticipate what  
23 they can't particularly know or may not know, and then  
24 take safeguarding measures.

25 QUESTION: Well, are you saying, in effect that

1 if thermal imaging becomes very common and every school  
2 kid has a \$5 thermal imager, that at that point it really  
3 would be unreasonable not to expect that the Government  
4 was going to use to it figure out what's going on in the  
5 house?

6 MR. LERNER: I'm not saying that because I think  
7 once we --

8 QUESTION: What's the effect of sophistication?

9 MR. LERNER: Well, at this point the effect of  
10 sophistication is that it is not commonly used by normal  
11 people in their every day life.

12 QUESTION: Yeah, but in my example, the school  
13 kids have all got thermal imagers. Does that change the  
14 Fourth Amendment analysis on your theory?

15 MR. LERNER: I would hope not, Your Honor.

16 QUESTION: Why not? Why not? I mean, people  
17 would at that world, which is an odd world, all the time  
18 be expecting everybody under the sun to know whether they  
19 are taking baths or not. Well, if you expect everybody  
20 under the sun to do it, you don't have an expectation of  
21 privacy, just as is the case with binoculars. So why  
22 doesn't that make the difference?

23 MR. LERNER: Well, we can now -- we have the  
24 ability to wiretap everybody's telephone.

25 QUESTION: Yeah, yeah, but you don't expect --



1 MR. LERNER: But we don't do that.

2 QUESTION: -- your phone to be wiretapped.

3 MR. LERNER: That's right. That's because the  
4 Court has said that.

5 QUESTION: But you do expect people to walk  
6 around with binoculars.

7 MR. LERNER: Right.

8 QUESTION: So why doesn't that make the  
9 difference?

10 MR. LERNER: Well, the only difference between  
11 the wiretap issue is because this Court has said you can't  
12 do that. We have privacy in our conversations.

13 QUESTION: Well, isn't there another difference  
14 other than what the Court said? We don't expect everybody  
15 in the sun to be -- under the sun -- to be tapping our  
16 phones.

17 MR. LERNER: And I agree with that.

18 QUESTION: We do expect quite often people to  
19 walk around with binoculars.

20 MR. LERNER: We may expect people may walk  
21 around with binoculars, but that does depend on the  
22 vantage point and where a person is located as well. But  
23 we don't expect them to walk around with thermal imagers.  
24 When they become so prevalent as Justice Souter has  
25 suggested, then it may present the issue of wiretapping,

1 where the Court needs to say, we don't expect or even if  
2 we do expect we do not want people to be intruding into  
3 our homes and finding out things that heat can reveal  
4 about our private activities.

5 QUESTION: Okay, then if that's the case, then  
6 the criterion of sophistication is not sufficient because  
7 if that's the case, then when thermal images are no longer  
8 regarded as sophisticated, when every kid has one, you are  
9 saying we still may, in fact, find that there is a Fourth  
10 Amendment value that is offended by admitting this stuff  
11 into evidence. So I think --

12 MR. LERNER: That's right.

13 QUESTION: -- you're getting -- I think you're  
14 dropping your sophistication point as being determinative.  
15 It may be helpful here, but if pushed you're saying, no,  
16 that is not really what it turns on.

17 MR. LERNER: That is not the value, that's  
18 correct, and unfortunately we do have already technology  
19 that the Court has already approved, such as field glasses  
20 and flashlights and illumination devices and things of  
21 that nature without analyzing it under Katz or the vantage  
22 point or the normalcy of people using it, and that's what  
23 Justice Breyer's bringing up. I do think that each of  
24 those situations would require the Court to evaluate.

25 QUESTION: Well, do you think a flashlight comes

1 under the head of something that's totally unexpected?  
2 Supposing the police shine a flashlight into some people  
3 who were hiding in a dark corner, is that a search because  
4 they had a right to keep the corner dark?

5 MR. LERNER: A dark corner of someone's home,  
6 Your Honor?

7 QUESTION: No, suppose outside someone's home.

8 MR. LERNER: We're not saying that they would  
9 have any expectation of privacy outside, in hiding.

10 QUESTION: Well, how would a flashlight -- you  
11 mentioned the term flashlight. How does that fit into  
12 your argument?

13 MR. LERNER: Well, it is a technological device  
14 that provides illumination that aids the human senses.  
15 The Court has said there can be some aids to the human  
16 senses such as that.

17 QUESTION: Well, there is a Brandeis opinion  
18 from the '20s that says you can use a bright light, I  
19 think.

20 MR. LERNER: Yes, there is the Lee case, Your  
21 Honor, in '27 did say that flashlight, search lights,  
22 actually it was on a boat, and it provided illumination of  
23 boats already out in the public view. This Court said in  
24 Texas versus Brown you can use a flashlight to inspect a  
25 car, which is also in public view and there's a lesser

1 expectation of --

2 QUESTION: But you can't shine it into the  
3 window of a house?

4 MR. LERNER: The Court hasn't said that you can  
5 shine it into the window of a house.

6 QUESTION: And you think you can't?

7 MR. LERNER: I think that it would depend on the  
8 vantage point and what the person has knowingly exposed  
9 and things of that nature.

10 QUESTION: Well, no -- what do you mean, it  
11 would depend on the vantage -- a policeman sees an open  
12 window, he suspects that this house has contraband in it,  
13 the window is left uncurtained, he shines a flashlight  
14 inside and sees stolen goods.

15 MR. LERNER: Well, I don't think that an officer  
16 can just walk up to anyone's home and start shining a  
17 flashlight into their home without a warrant. The Court  
18 hasn't answered that question.

19 QUESTION: Does it have anything to do with the  
20 range of normal and expected uses of the device? What I'm  
21 thinking of is flashlights are used for innocent purposes  
22 all the time. Thermal imagers I'm not so sure of. We saw  
23 in the lodging that thermal images may be used for the  
24 totally benign purpose of deciding how well-insulated a  
25 house should be so that people can go around and plug up

1 leaks, but I suppose outside of the specialized use of  
2 thermal engineering in building construction and design, I  
3 don't know that thermal imaging does have much benign use,  
4 does it? Is it -- in other words, is its real attraction  
5 the fact that it can, in effect, allow for an inference  
6 about what is going on in a very private place with the  
7 exception of the sort of the heat loss surveys?

8 MR. LERNER: Yes.

9 QUESTION: That is its only principal use  
10 outside of heat loss surveys, the penetration of privacy?

11 MR. LERNER: It is used in a number of  
12 industrial processes, Your Honor. For instance, where  
13 electrical circuits may be burning too hot and indicate  
14 there might be a short circuit behind metal, they would  
15 use a thermal imager.

16 QUESTION: But outside of that kind of use --

17 MR. LERNER: Yes.

18 QUESTION: -- are there other sort of benign  
19 uses that are neutral so far as law enforcement might be  
20 concerned?

21 MR. LERNER: Well, our expert said that the  
22 number of uses are probably unlimited. It just depends on  
23 the human imagination of what you can use -- gather from  
24 heat. But I think that they are mostly in law enforcement  
25 use to penetrate the home.

1 QUESTION: In any case, that's not a criterion  
2 for distinguishing between thermal imaging and  
3 flashlights.

4 MR. LERNER: If I'm -- I'd like to reserve the  
5 rest of my time unless there's another question.

6 QUESTION: Very well, Mr. Lerner. Mr. Dreeben,  
7 we will hear from you.

8 ORAL ARGUMENT OF MICHAEL R. DREEBEN

9 ON BEHALF OF THE RESPONDENT

10 MR. DREEBEN: Mr. Chief Justice, and may it  
11 please the Court, thermal imaging senses heat gradients on  
12 the exterior of a surface, in this case the structure was  
13 a house. It does not penetrate the walls of the house, it  
14 does not reveal particular objects or activities inside of  
15 a house, and the record in this case and the findings that  
16 the district court made indicate that it is not capable of  
17 doing so through walls of a house.

18 The question in this case is whether individuals  
19 have a reasonable and justifiable expectation of privacy  
20 in the heat that's on the exterior surface of their walls.  
21 We believe that they do not. Heat loss is an inevitable  
22 feature of heat in a structure. If a structure is  
23 generating heat, it will lose that heat, and everyone  
24 knows that. That's why there is an insulation industry.  
25 In addition, heat loss is frequently observable without

1 the aid of technology, as, for example, when snow melts on  
2 a roof.

3 QUESTION: But, you know, all of that could have  
4 been said but for a change of senses about Katz. What the  
5 bug in Katz was measuring was the effective sound on the  
6 exterior wall of the phone booth. When people talk in  
7 phone booths, frequently people can stand outside and hear  
8 what's going on inside, and it seems to me that what we've  
9 got in this case is a situation in which we are either  
10 going to say Katz is going to be the paradigm on which we  
11 decide this or Place is going to be the paradigm, the dog  
12 sniffing. Isn't that our choice? Because isn't  
13 everything you're saying something that you could have  
14 said but for a change of the sense organ in Katz?

15 MR. DREEBEN: Justice Souter, I think that Katz  
16 is fundamentally different in the respect that what the  
17 bug picked up in Katz was sound waves, which is what we  
18 hear with, and it amplified them and exactly reproduced  
19 what Mr. Katz was saying inside the booth.

20 QUESTION: Yeah, but it was the wave after it  
21 got through the phone booth, just as what infrared is  
22 picking up is the wave after it gets through the roof or  
23 the window.

24 MR. DREEBEN: No, I think what the infrared  
25 imager is picking up, and the record in this case again

1 corroborates this, is heat leaving the house. Now, there  
2 are a number of sources --

3 QUESTION: What's the difference between heat  
4 leaving the house and the sound wave leaving the phone  
5 booth?

6 MR. DREEBEN: Well, there are a number of  
7 sources for the heat that will leave the exterior of the  
8 house. There is the heat that it has absorbed during the  
9 day. There is heat that --

10 QUESTION: But so what? The phone booth will, I  
11 suppose, reverberate back the noise of a truck going by.

12 MR. DREEBEN: No, but what is picked up and what  
13 is discerned is the exact reproduction of the words that  
14 the person is speaking, and that is the invasion of  
15 privacy that Katz was concerned with. The whole point of  
16 Katz was not to look at it as a technological invasion or  
17 to focus on whether the police actually went inside the  
18 phone booth in order to acquire that information. The  
19 point was that the information that was acquired was from  
20 within the booth, whereas here that's not the case at all.  
21 What is acquired --

22 QUESTION: No, but the reason they're doing the  
23 thermal imaging is not to determine whether there is any  
24 heat being left by the sun's radiation that is reflected  
25 back in the nighttime. The whole point of the imaging is



1 to determine by a high probability analysis what the heat  
2 coming from the building shows about its source within the  
3 building, and in that respect its use is exactly the same  
4 use, albeit rather less sophisticated, than the use that  
5 is being made of the sound waves that penetrate through  
6 the phone booth in Katz.

7 MR. DREEBEN: Well, Justice Souter, I think that  
8 it's not only considerably less sophisticated, but it is  
9 also picking up something that is very different in  
10 character from the words that people speak within a  
11 particular place. That is unquestionably a private and  
12 protected activity, and that's what the Court was focused  
13 on in Katz.

14 Here we are talking about heat loss, and I think  
15 as some of the earlier questions have developed, the heat  
16 that is lost is heat that's generated inside a structure  
17 by virtue of the use of power. Here the police already  
18 had utility records that indicated that an abnormal amount  
19 of power was going into the house, which logically  
20 supports the inference that an abnormal amount of power  
21 may well be coming out of the house.

22 QUESTION: Okay, but if somebody wants to spend  
23 his time in a house lying under high electricity-using sun  
24 lamps, isn't that just as much the person's own business  
25 as what he speaks in the phone booth?

1 MR. DREEBEN: But the critical point here,  
2 Justice Souter is the thermal imager doesn't tell you that  
3 he's lying in the house under sun --

4 QUESTION: It doesn't tell you that because it  
5 at this point is not sophisticated enough to do it, but it  
6 takes you one step in the way. It says, for example in  
7 this case, yeah, this abnormal electricity usage which is  
8 showing up on the phone bill is apparently accounted for  
9 by certain uses, I forget whether they were in the attic  
10 or someplace like that, so it's getting you one step in  
11 the way of figuring out exactly what, in fact, the use is  
12 that's causing the electric bill to go up. It just  
13 doesn't get you 100 percent of the way the way the bug  
14 does in Katz.

15 MR. DREEBEN: It doesn't get you in that way in  
16 the same mechanism that Katz does, which is by exactly  
17 reproducing it. Here you --

18 QUESTION: Right. You have to go through a  
19 process of inference, which is necessary.

20 MR. DREEBEN: Exactly. And this Court has made  
21 clear that law --

22 QUESTION: But the object is the same, and the  
23 datum that is being used is the same.

24 MR. DREEBEN: But there's nothing wrong with the  
25 police attempting to use techniques from outside the house

1 that will allow them to draw inferences about the inside  
2 of the house.

3 QUESTION: Yeah, well, that's the question. We  
4 said in very narrow circumstances in Place that is true,  
5 and we said in Katz where the inferential process is  
6 simpler, all you really have to do is listen, that it's  
7 not so, and I think what your argument boils down to is if  
8 there are more interim steps to figure out what's really  
9 happening inside than was necessary in Katz, it's okay,  
10 it's not an invasion of privacy, and it doesn't violate  
11 reasonable expectation, but if there are fewer steps, then  
12 maybe it does. Is that the nub of your argument?

13 MR. DREEBEN: I think that the argument that I'm  
14 trying to present, Justice Souter, is more complicated  
15 than that because it's really focusing on the core  
16 question of whether there are reasonable expectations of  
17 privacy in heat loss, and in order to assess that --

18 QUESTION: It's not in heat loss. It's in what  
19 is going on in the house, and I suppose it's a question of  
20 what's going on in the house, and do you have a reasonable  
21 expectation of privacy, do you have a reasonable  
22 expectation that the kind of thing you're doing in the  
23 house will not be picked up by somebody out of the house,  
24 not a law enforcement officer, but just ordinary people.  
25 Where you're walking in front of a window, the answer is

1 no. Where you're walking in front of the window and people  
2 pick it up with binoculars, every bird watcher has a  
3 binocular. Where they're picking it up with flashlights,  
4 every Boy Scout has a flashlight. Who has a heat thermal  
5 device? Nobody, except a few. So there's no -- there is  
6 a reasonable -- that's the argument, I think that there is  
7 a reasonable expectation of privacy that what you're doing  
8 in your bathroom is not going to be picked up when you  
9 take a bath by somebody with one of these not very  
10 well-working machines.

11 MR. DREEBEN: And what you're doing in your  
12 bathroom is not picked up by the thermal imager. I think  
13 it's very --

14 QUESTION: It couldn't tell, for example -- I  
15 thought the thermal imager could tell if I go into the  
16 bathroom -- I happen to like a sauna, and I turn on every  
17 shower, and I have -- it really is hot and steamy, and  
18 there we are. You're saying it can't pick that up?

19 MR. DREEBEN: If you fog up the windows, you  
20 could probably actually see that from the street.

21 QUESTION: No, no, I don't have any windows.  
22 They're just these very modern Finnish wood. Now, do you  
23 tell me they can't --

24 MR. DREEBEN: I guess a modern Finnish thermal  
25 imager --

1 QUESTION: Can it pick it up or not?

2 MR. DREEBEN: I think that what the record in  
3 this case shows you is that it might be able to pick up  
4 exterior heat on the outside of the house, and it will not  
5 tell you what's going on inside the house.

6 QUESTION: It'll just tell you it's hot in  
7 there, which happens to be just the thing they want to  
8 know. They want to know if it's hot or if it's cold. And  
9 I suppose that there are instances where I would prefer  
10 people not know that. I usually spend three or four hours  
11 a day in my Finnish sauna. People think I'm working. I  
12 don't want them to find out what's going on. So do you  
13 see the point?

14 MR. DREEBEN: I do but I think what it overlooks  
15 is that the record in this case, the video in this case is  
16 particularly instructive. It is lodged with the Court,  
17 and it represents what is alleged to be a search here. It  
18 shows nothing of the kind. Contrary to petitioner's  
19 suggestion that it showed three evenly spaced heat spots  
20 that could only be the signature of a heat lamp, it  
21 doesn't show that, and nobody testified that that was the  
22 inference that was drawn. All that was drawn was an  
23 inference that there is an anomalous heat loss from this  
24 house compared to the structures nearby, and from that  
25 piece of information you could learn absolutely nothing

1 about what is going on inside the house.

2 QUESTION: Okay. But in that case you wouldn't  
3 want to bother to use the thermal imager because you can  
4 tell that from the public utilities records. Presumably  
5 the heat is not staying in the house, it's not a million  
6 degrees in there. The heat is escaping.

7 MR. DREEBEN: Well, the thermal --

8 QUESTION: The whole point of using the device  
9 is to tell you something more than you can get from the  
10 utility records.

11 MR. DREEBEN: The whole point of using the  
12 device to try to cross-corroborate various pieces of  
13 information so that you can better establish probable  
14 cause for the search warrant that was ultimately obtained.

15 QUESTION: Well, the utility records wouldn't  
16 tell you what the electricity was being used for, as  
17 somebody suggested earlier. He could have been doing  
18 laundry or listening to rock records at that high volume  
19 or a million other things other than making heat.

20 MR. DREEBEN: Most of those activities probably  
21 will make heat, Justice Scalia, but the thermal imager --

22 QUESTION: You missed my point. My point is  
23 that all of those activities consume electricity, so the  
24 electricity bills do not establish that an unusual amount  
25 of heat is being generated in this house.

1 MR. DREEBEN: Well, I actually think --

2 QUESTION: Which is what is needed to grow  
3 marijuana, I gather.

4 MR. DREEBEN: I realize that -- the point that  
5 you're making but I actually think that the physics of it  
6 are that if you use more electricity, probably a lot of it  
7 will end up as heat, but the point that the thermal imager  
8 gives you is real-time information, that there actually is  
9 what appears to be anomalous heat that is coming out of  
10 this house compared to its neighbors. Neither the imager  
11 nor the utility bills will tell you there is probably a  
12 marijuana-growing operation inside this house. It will  
13 not tell you that there's a sauna, it will not tell you  
14 that there's a bath or a dehumidifier or anything else.

15 QUESTION: May I ask this question about --  
16 would you agree that Katz would apply if the imager would  
17 tell you whether it was a marijuana operation, a hot  
18 shower or a sun lamp?

19 MR. DREEBEN: I would, Justice Stevens, if what  
20 it is doing is, in effect, revealing the activities that  
21 are inside the house, yes.

22 QUESTION: So your distinction is that Katz  
23 would have been decided differently -- or there would have  
24 been no search in Katz if they just revealed the decibels  
25 of noise as opposed to the specific conversations, and

1 you're saying here they're revealing the quantity of heat  
2 without really telling you what the source of the heat is?

3 MR. DREEBEN: Well, I think Katz may well have  
4 come out differently if what was being learned was nothing  
5 more than you could actually see through the booth, which  
6 is that somebody was using the booth.

7 QUESTION: But your distinction is based on the  
8 particularity of what is learned rather than the  
9 sophistication of the equipment?

10 MR. DREEBEN: That's right, and I want to --

11 QUESTION: Then I'm -- I'm sorry. Go ahead.

12 MR. DREEBEN: We're very clear about this for  
13 Justice Souter and Justice Breyer's questions, if the  
14 thermal imager functioned like an x-ray machine or if it  
15 functioned to be able to reach inside the house and pull  
16 out the sounds and listen to what was going on, then we  
17 don't dispute that it would be a search. Under Katz it  
18 clearly would be a search if what it does is reveal the  
19 activities that are going on inside the house or things  
20 that are inside the house.

21 QUESTION: But don't you also have to agree that  
22 even on your theory, you are one step removed from the  
23 distinction that you want to draw because you're saying if  
24 the only thing that Katz revealed was the decibel level,  
25 that would have involved no Fourth Amendment interest, but



1 here something more than what you want to characterize as  
2 the amount of heat or the amount of heat loss is being  
3 revealed because the image is revealing a pattern, it is  
4 revealing something about the physical locations in which  
5 the volume of heat loss is occurring in a measurable way,  
6 so we're learning something more than just the equivalent  
7 of decibel levels.

8 MR. DREEBEN: But what we're not learning is  
9 what activities are going on or where they are going on in  
10 the house.

11 QUESTION: Right.

12 QUESTION: It depends on how you define  
13 activities. You certainly learn that the generation of  
14 heat is going on in the house.

15 MR. DREEBEN: You do learn that.

16 QUESTION: There is a lot of heat generating  
17 going on in that house. Now, if I, you know, if I happen  
18 to be quite a private person and I don't want people  
19 knowing how much heat I'm generating, I suppose that that  
20 activity has, indeed, been disclosed to the world.

21 MR. DREEBEN: At that level of generality,  
22 coupled with inferences because you don't learn that  
23 directly from the imager at all, you don't learn directly  
24 from the imager at all that unusual amounts of heat are  
25 being generated. You have to couple that with inferences

1 about what other houses next door might be doing, and you  
2 probably don't know what's going on inside of those  
3 houses, and you have to couple it with inferences that it  
4 hasn't been unduly heated up by the sun or that there's  
5 not a local microclimate that is causing the imager to  
6 pick up additional radiated heat at that location. You  
7 have to factor in all of those things, which reduces the  
8 specificity and directness, the linearity of any  
9 inference that you draw. There isn't a one-to-one  
10 correspondence between heat on the exterior of the  
11 structure and heat on the interior of the structure.

12 QUESTION: But you are saying, then, that the  
13 expectation of privacy depends on whether there is this  
14 one-to-one correlation between what is picked up and the  
15 ultimate conclusion drawn for it. You're saying, I think,  
16 that if there is a process of inferential reasoning in  
17 which what is picked up is only one among other datum --  
18 data that are used for the reasoning there is no  
19 reasonable expectation of privacy. It's the inference  
20 that breaks the expectation -- the reasonableness of the  
21 expectation of privacy.

22 MR. DREEBEN: I think it's several factors,  
23 Justice Souter. That is one of the factors. The factor  
24 that you're relying on inferences to conclude that there  
25 probably is a heat-generating source inside the house that

1 is greater than average. Another factor is that heat loss  
2 is not that private a fact, as it corresponds roughly to  
3 consumption of energy, which is not private. And a third  
4 factor is that the imager is not picking up, again,  
5 activities that are inside the house directly. It is  
6 picking up the exterior surface of the walls.

7 QUESTION: But it is picking it up in a way, as  
8 Justice Breyer pointed out earlier that clearly reveals a  
9 fact about what is going on inside, and that fact was not  
10 known from utility records.

11 MR. DREEBEN: It complements the utility  
12 records. I do think that if the Government --

13 QUESTION: Well, it's doing something more than  
14 just confirming that there is energy use going on. It is  
15 -- what it is showing is that the energy use is generating  
16 heat, and that the heat is being concentrated in certain  
17 places in the house. That's new information.

18 MR. DREEBEN: It's not showing that Justice  
19 Souter, because we don't know the composition of the  
20 insulation within the house, we don't know the  
21 configuration --

22 QUESTION: Oh, we can't draw a conclusion with  
23 absolute certainty, but if we make the assumption that the  
24 house has not been whimsically insulated so that on the  
25 east end of the roof there's lots of insulation but when

1 they got to the west end, they had run out or said, what  
2 the heck, let's let the heat escape. If we don't make  
3 assumptions of whimsy, we are, in fact, going to be in a  
4 position to draw a probability inference, and that  
5 probability inference goes beyond anything that a utility  
6 record could show.

7 MR. DREEBEN: The ultimate inference that we  
8 would like to draw, of course, does but the question is  
9 whether the data that we are collecting from which we draw  
10 that inference constitutes a search. The steps of  
11 inference that we use once we have acquired the data  
12 cannot make a description --

13 QUESTION: All right, then you're saying there  
14 is no search when an electronic device fails to reveal the  
15 ultimate conclusion that is being used as evidence.

16 MR. DREEBEN: I would hesitate to say  
17 categorically that that is so, but I think --

18 QUESTION: I would, too, but I think that's your  
19 argument.

20 MR. DREEBEN: I think that my argument in this  
21 case depends on the nature of heat, what the imager  
22 actually detects, and the fact that we need to draw a  
23 series of inferences.

24 QUESTION: This is certainly not what the  
25 prosecuting attorney told the magistrate. He didn't say,

1 now, we can't draw any inferences from this. That's the  
2 whole point of getting the warrant. Let me ask you this.  
3 There's an element of circularity necessarily in our  
4 opinions as a reasonable expectation of privacy because  
5 the courts say so, and in Katz there was a reasonable  
6 expectation of privacy because this Court made the  
7 assumption, the finding, the inference, the conclusion  
8 that we don't want our private conversations intercepted  
9 when we are in a space which we think is private. What is  
10 different about the conversation, the contents of  
11 discussions on one hand and heat-generating activities on  
12 the other?

13 MR. DREEBEN: Well, I think there are several  
14 critical differences, Justice Kennedy. The first is that  
15 heat loss is inevitable from a structure. Everybody knows  
16 that. That's why there's an insulation industry in the  
17 first place.

18 QUESTION: Well, most people talk, too, so --

19 MR. DREEBEN: Most people talk, and when they  
20 talk within the four walls of their house, unless they  
21 have the windows open and they're screaming out the  
22 window, will make an assumption that they cannot be heard  
23 by people who are standing on the street.

24 QUESTION: I think that's somewhat of an issue.  
25 What other reasons?

1                   MR. DREEBEN: Well, in addition, the fact that  
2 heat is generated in a structure is largely a product of  
3 the power that's going into the structure, the electrical  
4 and other utilities that are brought into the structure,  
5 and there's no secret about that information because it  
6 comes from the utility company.

7                   Third factor is that heat loss itself is  
8 observable in a variety of circumstances without the aid  
9 of any technology whatsoever. In the examples of when  
10 snow is melting on a house or when, for example, smoke is  
11 going up a chimney.

12                   QUESTION: Same for conversation. If I happen  
13 to be going by a window that's open, I can hear the  
14 conversation. If I -- so that's also, it seems to me,  
15 neutral.

16                   MR. DREEBEN: Well, I don't think that it's  
17 neutral. I think that --

18                   QUESTION: I mean -- or neutral as a way of  
19 distinguishing the two cases.

20                   MR. DREEBEN: Well, there's a fairly significant  
21 difference between cases where the Court has said somebody  
22 has publicly exposed their activities to view and  
23 therefore doesn't have any reasonable expectation of  
24 privacy, and the very question of whether heat loss is a  
25 private enough fact in the first place.

1           QUESTION: Mr. Dreeben, the Ninth Circuit seemed  
2 to rely on a theory of it's like garbage thrown out, that  
3 when the homeowner has waste heat, it's somehow discarded,  
4 and there's no privacy interest left in it. Do you  
5 support that analogy? I thought --

6           MR. DREEBEN: I don't think that's --

7           QUESTION: -- that was a little hard to  
8 understand.

9           MR. DREEBEN: Well, I don't think it's the  
10 strongest analogy, although there are cases where I think  
11 the analogy would fit. The theory of the garbage cases is  
12 that by voluntarily abandoning --

13          QUESTION: Abandonment.

14          MR. DREEBEN: Correct.

15          QUESTION: It's hard to say the homeowner had  
16 abandoned this heat information.

17          MR. DREEBEN: Well, I think that there are cases  
18 in which the analogy would fit better; for example, where  
19 there is a very active ventilation system that is  
20 specifically attempting to draw the heat out of the house  
21 in order to provide a suitable climate for growing the  
22 plants that are inside, but the primary rationale that the  
23 Ninth Circuit used which is similar to the rationale that  
24 I'm articulating here is that the thermal imager doesn't  
25 pick up any intimate details or particularly private

1 details about what is going on inside of the house.

2 QUESTION: Mr. Dreeben, what about a more  
3 general proposition, that there is no unconstitutional  
4 invasion of privacy when the police deduce from what goes  
5 on outside the house what is going on inside the house,  
6 intimate or not. I suppose the police can certainly  
7 surveil a house over a long period and see people carrying  
8 in hot dogs every day, and they can deduce that the eating  
9 of hot dogs is going on in that house. And that is surely  
10 no violation of the Constitution, is it?

11 MR. DREEBEN: Absolutely correct, and I do think  
12 that that illustrates --

13 QUESTION: If you accept that rationale, it  
14 seems to me you would decide Katz differently if instead  
15 of having the device on the roof of the phone booth they  
16 had it six feet away.

17 MR. DREEBEN: No, I don't think so. I think the  
18 whole point of Katz, Justice Stevens, was that that  
19 physical intrusion is irrelevant. What matters is what  
20 information you were acquiring, and in Katz, and in the  
21 hypothetical of removing the bug from six feet, the  
22 information that you are acquiring is direct information  
23 from inside the house. In the thermal imager it's not.  
24 It's a fusion of heat from a variety of sources. It's a  
25 very weak correlation between what's going on outside the



1 house and what's going on inside the house. It's not like  
2 seeing a visual heat impression of a particular object  
3 that's outlined as if it were in silhouette on the outside  
4 of the house. Nothing of the kind occurs.

5 QUESTION: Okay, but that gets back to I think  
6 to the point, that it's the process of inference necessary  
7 to reach the ultimate conclusion you want, e.g. marijuana  
8 in the house, that makes the difference between a search  
9 and a nonsearch and I guess makes the difference between  
10 reasonable expectation and nonreasonable expectation.

11 MR. DREEBEN: Certainly if what you are  
12 acquiring is information that is not itself the product of  
13 a search, as in Justice Scalia's hypothetical, the fact  
14 that you can draw inferences, including very detailed and  
15 intimate inferences about the inside of the house doesn't  
16 convert the original observation into a search.

17 QUESTION: Absolutely right. But the question  
18 here is whether part of that -- whether that information  
19 is acquired as a result of a search so that you can't use  
20 that rationale to answer the question in front of us.

21 MR. DREEBEN: Well, I think that the opposite is  
22 actually what holds true. You cannot use the fact that  
23 inferences can be drawn from the observations to  
24 categorize the observations as a search.

25 QUESTION: That's right. That's exactly right.

1 But Justice Scalia had an inference, had a situation where  
2 you use your eyes and your brain. Nothing against that.  
3 Here they are using a machine. You keep telling me that  
4 what's inside the house isn't that important, it's very  
5 vague and general. What is the nature of the information  
6 to do with it? I would have thought nothing. If  
7 somebody's inside the house singing Maresy Dotes, Doesy  
8 Dotes, who cares what he's singing? The fact is where he  
9 was singing it, and he was singing it inside his house. So  
10 you're taking information from inside the house. Maybe our  
11 problem is my seventh grade science class. I mean, I used  
12 to think, perhaps wrongly, that sound went to a wall, then  
13 the electrons start to vibrate in the wall, and pretty  
14 soon the wave goes outside, and here it seems to me heat  
15 goes to the wall, heats up the wall, and then the heat  
16 goes outside, so I just find it difficult to distinguish  
17 between sound and heat, but I find it easy to distinguish  
18 in terms of whether a person inside the house has a  
19 reasonable expectation that a lot of people outside the  
20 house are going to be using this machine.

21 MR. DREEBEN: Well, but my seventh grade science  
22 classes don't help me very much with this, either, and I  
23 think what the Court's cases indicate is that it's not  
24 essentially a science question. It's a question about, as  
25 the latter part of your comment indicated, the reasonable

1 expectations that people have, and I think people have  
2 different expectations about what is outside of their  
3 house from what is inside of their house, and there are a  
4 variety of ways --

5 QUESTION: Right, good, that's exactly it. What  
6 is it that would lead me reasonably to expect a lot of  
7 these machines around picking up the heat?

8 MR. DREEBEN: Probably very little, although so  
9 far there has been some commercialization of thermal  
10 imaging in cars that will help it detect animals in the  
11 road and so forth, and there probably will be other uses  
12 in the future. I don't think that this case turns on  
13 whether thermal imaging is so prevalently in use that  
14 everybody would expect it would be used on their house. I  
15 think the core question is whether the heat loss on the  
16 outside of their house is sufficiently revealing of what's  
17 inside of the house to be considered a search.

18 QUESTION: But, you see, that distinguishes it  
19 from the garbage case, Greenwood, and as I recall, the  
20 word abandonment was not used in Greenwood. I looked at  
21 it just quickly. Abandonment was a theory the Court  
22 stayed way away from. The Court said there's no objective  
23 expectation of privacy because we all put our garbage out  
24 and we all take this risk. But that just doesn't fit with  
25 what we have before us today based on the conversation and

1 the exchange you were just having with Justice Breyer. We  
2 just don't know about these things. Most people don't  
3 know that their heat's going to escape and be measured.

4 MR. DREEBEN: No, but the California versus  
5 Greenwood analysis is not the only analysis that could be  
6 used for expectations of privacy. The Court was clear in  
7 that case that the people could expect that their garbage  
8 would be rummaged through once they put it outside and  
9 therefore couldn't expect that the police would not do  
10 that, but that doesn't mean that people do intrinsically  
11 have an expectation of privacy that their houses are  
12 losing heat. Most people do not go around thinking about  
13 that as something that they view as a particularly private  
14 fact. They ventilate heat, they try to put insulation in  
15 to keep it from leaving the house, and they buy  
16 electricity and other sources of power that are going to  
17 generate it. What they do expect is that they will not be  
18 able to be viewed engaging in their personal activities or  
19 listened to in the house.

20 QUESTION: But if the device became more  
21 sophisticated and the police could say, well, it's not  
22 just heat in general, we can tell that it's a lamp or a  
23 shower, would that be a different case?

24 MR. DREEBEN: I think it would be a very  
25 different case, Justice Ginsburg, because then it would

1 begin to approach an x-ray device or some other device  
2 that could actually penetrate the barriers of the walls,  
3 and there the expectations that would be intruded upon  
4 would not be simply heat leaving the house but would be  
5 the very detailed activities that go on inside of the  
6 house.

7 QUESTION: Let me ask you a question. Does the  
8 record tell us how extraordinary the amount of heat  
9 produced by these lamps and so forth is as compared to  
10 normal use? Is it five or six times the amount or just  
11 slightly more?

12 MR. DREEBEN: I think there's information in the  
13 search warrant that tends to show that they produce --  
14 that they consume an inordinate amount of electricity, and  
15 there is testimony that the halide lights that are used  
16 for growing marijuana generate a high amount of heat.

17 QUESTION: But they don't tell us what -- they  
18 don't quantify that, say it's ten times as much the normal  
19 use or anything like that?

20 MR. DREEBEN: I don't recall whether there's a  
21 direct --

22 QUESTION: Because it does seem to me that the  
23 expectation of privacy, say with sound if you had a rock  
24 band in the attic, you'd have lesser expectation of  
25 privacy that someone can hear it than if you had a soloist

1 or something, and here if you had heat that, you know,  
2 really was a tremendous amount of heat you might say well  
3 you really didn't expect that to be private, but we don't  
4 measure it that way.

5 MR. DREEBEN: The thermal imager doesn't really  
6 measure it that way, either. All it detects is relative  
7 amounts of heat. It doesn't detect absolute amounts of  
8 heat, and accordingly, officers tried to use a reference  
9 structure. Now, they're going to have to draw a lot of  
10 inferences by comparing one structure to another because  
11 it's not a perfect control. They don't really know what's  
12 going on inside the house next door, and even the  
13 inference that there's an anomalous amount of heat that's  
14 going on in 878 Rhododendron Drive, which is what the  
15 thermal imager produced in this case, is an inference that  
16 depends on things that the officers don't really know,  
17 that what is going on in the house next door that makes it  
18 look cooler compared to the house that they're actually  
19 surveying, and all of those factors contribute to make the  
20 data that is obtained in this case qualitatively different  
21 than the data that would be obtained in a wiretap case or  
22 in a case where an x-ray-type device actually penetrated  
23 the house.

24 Now, if this Court were to hold that thermal  
25 imaging is a search, it could have a very chilling effect

1 on uses of the thermal imager other than the kind of use  
2 that it was put to in this case. Thermal imagers are often  
3 used in fugitive apprehension, in perimeter surveillance  
4 for law enforcement, and for search and rescue operations  
5 in which they pick up an enormous amount of data,  
6 including houses that may be nearby to where a fugitive or  
7 a missing person is located. And if the Court concludes  
8 that -- thank you.

9 QUESTION: Thank you, Mr. Dreeben. Mr. Lerner,  
10 you have two minutes remaining.

11 MR. LERNER: Thank you, Your Honor.

12 REBUTTAL ARGUMENT OF KENNETH LERNER  
13 ON BEHALF OF THE PETITIONER

14 MR. LERNER: First of all, the Government's  
15 position that they were just seeing generalized heat loss  
16 is not correct. I disagree with that. If you look at the  
17 video taken, you will see that it's very specifically  
18 showing three glowing areas, evenly spaced. That's very  
19 specific private information that it's obtaining about the  
20 inside of the house. It's not generalized heat loss, and  
21 it is information that they could not have determined any  
22 other way. Only by the use of the thermal imager.

23 I also think that the Government's test is  
24 really going to lead down a difficult road for this Court.  
25 When will information become private enough that it's

1 protected or when is it going to be specific enough that  
2 it should be protected? These are very vague concepts  
3 that every case is going to turn on the specifics of the  
4 facts which I think is going to be very troubling for  
5 courts and for the police in the future, and really don't  
6 set any guidance for how to use this machine. I think  
7 that's a very problematic area that the Court's going to  
8 have to grapple with.

9 If there are any other questions --

10 QUESTION: Thank you, Mr. Lerner. The case is  
11 submitted.

12 (Whereupon at 11:13 a.m., the case in the  
13 above-entitled matter was submitted.)

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