

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
HONORABLE DAVID O. CARTER, JUDGE PRESIDING

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ECHOSTAR SATELLITE CORP., et)	
al.,)	
)	
Plaintiffs,)	
)	
vs.)	No. SACV 03-950 DOC
)	Day 2, Volume II
NDS GROUP PLC, et al.,)	
)	
Defendants.)	
_____)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS
Jury Trial
Santa Ana, California
Thursday, April 10, 2008

Debbie Gale, CSR 9472, RPR
Federal Official Court Reporter
United States District Court
411 West 4th Street, Room 1-053
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(714) 558-8141

EchoStar 2008-04-10 D2V2

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APPEARANCES:

FOR PLAINTIFF ECHOSTAR SATELLITE CORPORATION, ET AL.:

T. WADE WELCH & ASSOCIATES

BY: CHAD M. HAGAN

CHRISTINE D. WILLETTS

ROSS WOOTEN

WADE WELCH

Attorneys at Law

2401 Fountainview

Suite 700

Houston, Texas 77057

(713) 952-4334

FOR DEFENDANT NDS GROUP PLC, ET AL.:

O'MELVENY & MYERS

BY: DARIN W. SNYDER

DAVID R. EBERHART

Attorneys at Law

275 Embarcadero Center West

Suite 2600

San Francisco, California 94111

(415) 984-8700

-and-

HOGAN & HARTSON

BY: RICHARD L. STONE

KENNETH D. KLEIN

Attorneys at Law

1999 Avenue of the Stars

Suite 1400

Los Angeles, California 90067

(310) 785-4600

ALSO PRESENT:

David Moskowitz

Dov Rubin

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I N D E X

WITNESSES	DIRECT	CROSS	REDIRECT	RE CROSS
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LENOIR, Pascal

By Mr. Stone

4

By Mr. Welch

37

By Mr. Stone

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EXHIBITS

EXHIBIT NO.	IDENTIFICATION	IN EVIDENCE
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3	Picture of EchoStar's Smart Cards	54
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4	Picture of focused ion beam	65
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1 SANTA ANA, CALIFORNIA, THURSDAY, APRIL 10, 2008

2 Day 2, Volume II

3 (4:15 p.m.)

4 THE COURT: Okay. All right. This is
5 cross-examination by Mr. Stone on behalf of NDS.

6 MR. STONE: Thank you, Your Honor.

7 CROSS-EXAMINATION

8 BY MR. STONE:

9 Q. Good morning, Mr. Lenoir.

10 A. Good morning.

11 Q. And, if I recall correctly, you began your official
12 duties with NagraStar around March of 2007?

13 A. I became the CEO of NagraStar in March of 2007,
14 correct.

15 Q. And the CEO before you was.

16 A. Mr. Alan Guggenheim.

17 Q. And he was the person who was around during the events
18 that are the subject of the lawsuit, correct?

19 A. I believe so, yes.

20 Q. And it was your understanding that he, along with Mr.
21 Gee, were responsible for investigating the December 2000
22 postings?

23 A. Whether they were investigating the posting personally,
24 I don't know about that for Mr. Guggenheim. Regarding
25 Mr. Gee, he was our director of piracy investigation, so

1 he's certainly the right person, yes.

2 Q. Was the most senior executive in charge of piracy
3 investigations in 2001, correct?

4 A. In 2001, I don't know.

5 Q. Let me show you Exhibit 1298, please, which is
6 responses to interrogatories by plaintiffs. At the same
7 time, if we could also have you look at Exhibit 1297, which
8 is a verification under oath for those interrogatories.

9 A. Which page?

10 Q. Well, the page I'm going to focus on in the
11 interrogatories is page 1296-4.

12 A. Yes.

13 THE COURT: Since this is an interrogatory, you
14 can display the interrogatory.

15 (Document displayed.)

16 MR. STONE: Okay. And if we could hone in on the
17 question, please.

18 THE COURT: And, remember for the jurors, you have
19 that whole box. You can move around down by that other
20 monitor if you want to.

21 BY MR. STONE:

22 Q. First thing, Mr. Lenoir, you understand NagraStar was a
23 plaintiff and was required to participate in discovery in
24 this case, don't you?

25 A. I do.

1 Q. And in June of 2007, what was Mr. Gee's position with
2 NagraStar?

3 A. He was director of piracy investigations.

4 Q. And these interrogatories I'll represent to you were
5 signed on June 1st, 2007.

6 Were you aware that these interrogatories had been
7 prepared in the lawsuit in June of 2007?

8 A. To tell you the truth, I'm not familiar with
9 interrogatory documents, so if you would explain what they
10 are to me.

11 Q. They're questions from attorneys during discovery that
12 require the other party to answer truthfully under oath
13 those questions.

14 A. So they were your questions?

15 Q. That's correct. And the first question at issue is the
16 one that says: "If you contend that NDS is responsible in
17 whole or in part for the December 23rd and 24th, 2000,
18 postings identified in Paragraphs 129 and 131 of the 4AC" --
19 I'll represent to you that's the Fourth Amended Complaint --
20 "state all facts including the existence of any relevant
21 documents, if any, that support said contention."

22 Do you see that?

23 A. I see that.

24 Q. And is it your recollection that up until June 2007,
25 the claims in this lawsuit were based on a posting from

1 December 23rd and December 24th, 2000?

2 A. I have no certainty about that.

3 Q. Did anyone ever tell you that?

4 A. They were the only claims?

5 Q. That the claims in the lawsuit were based on these two
6 postings, one on December 23rd, and one on December 24th,
7 2000.

8 A. I know that they are part of our claims. That they are
9 the only claims, I'm not sure.

10 Q. Okay. But you knew that was the claim in the lawsuit
11 in June of 2007?

12 A. That they're part of it, yes.

13 Q. And June of 2007 is four years after, Mr. Ergen
14 testified, the original complaint was filed. Do you recall
15 that?

16 A. It's four years after 2003, that I know, yes.

17 Q. And you were here for Mr. Ergen's testimony?

18 A. I was, yes.

19 Q. And you heard him confirm that the complaint was filed
20 in June of --

21 A. Yes.

22 Q. Okay. Now, in the answer at Lines 20 through 23 to
23 this interrogatory, there's the usual lawyer talk, "subject
24 to and without waiving these objections" --

25 THE COURT: No, Counsel. That's lawyer-speak

1 also. Slower, slower.

2 BY MR. STONE:

3 Q. "Subject to and without waiving these objections,
4 EchoStar states Paragraphs 129 and 131 of the Fourth Amended
5 Complaint reference posts made on December 23rd, 2000, and
6 December 24th, 2000, by Chris Tarnovsky using the aliases
7 "xbr21" and "NiPpEr2000" respectively.

8 Do you see that?

9 A. I see that.

10 Q. And that was the sworn statement four years into this
11 lawsuit, correct?

12 A. Yes.

13 Q. And if you would look at Exhibit 1297, please -- and
14 I'm focusing on Page 2.

15 MR. WELCH: Your Honor, if we could have him read
16 the entire answer in under Rule 106.

17 THE COURT: You may.

18 MR. STONE: "The documents produced in this
19 litigation specifically including but not limited to the
20 affidavit testimony attached to the Fourth Amended
21 Complaint, the deposition testimony of Jan Saggiori,"
22 S-A-G-G-I-O-R-I, "and Graham James and the affidavit
23 testimony of Ron Ereiser, Graham James, and Anthony Dionisi,
24 the evidence that Tarnovsky made these posts, that Tarnovsky
25 was behind the December posts, is further supported by

1 materials prepared by the Internet Crimes Group."

2 And that's where mine ends.

3 MR. HAGAN: We can get a complete copy,
4 Your Honor.

5 THE COURT: Okay.

6 Counsel, you can do that during your redirect.

7 You can read that portion. Please continue.

8 BY MR. STONE:

9 Q. Okay. Looking at Exhibit 1297, Page 2, this is the
10 verification to those interrogatory responses. And it's by
11 Jerry Gee. Is that the same person as J. J. Gee?

12 A. Yes, it is.

13 Q. And it says he's the director of security and field
14 investigations for Plaintiff NagraStar?

15 A. That's what it says, yes.

16 Q. And was Mr. Gee the person who investigated these two
17 postings that were referenced in the interrogatory?

18 A. I don't know.

19 Q. Was the reason that Mr. Gee signed this verification
20 because he was the person who had the most knowledge about
21 this?

22 A. Certainly.

23 Q. It says: "I have personal knowledge of most of the
24 material matters set forth in the responses and am informed
25 by authorized representatives of plaintiffs, and thus

1 declare under oath that the responses are true and correct."

2 Do you know what other individuals informed Mr. Gee
3 about the December postings, if anyone?

4 A. I do not.

5 Q. And do you know what investigation Mr. Gee conducted
6 before he signed, under oath, interrogatory responses
7 claiming that Mr. Tarnovsky posted under the alias xbr21?

8 A. I do not.

9 Q. Did you ever have a discussion with Mr. Gee before he
10 signed these responses under penalty of perjury why he was
11 sure that Mr. Tarnovsky was xbr21?

12 A. No.

13 Q. Am I correct that plaintiffs no longer claim that
14 Mr. Tarnovsky is xbr21?

15 A. I don't know whether you're correct or not. I don't
16 know whether you're correct or not.

17 Q. Have you ever heard of a gentleman called Marco Pizzo?

18 A. I've heard that name during conversations with
19 counsels.

20 Q. Did you ever learn that NDS had found the person who
21 admitted to being xbr21?

22 A. Can you repeat the question, please?

23 Q. Sure. Have you heard from anyone that NDS found the
24 person posting as xbr21?

25 A. I've had conversation with counsels about that.

1 THE COURT: Well, just a moment.

2 Can there be a stipulation concerning that, or is
3 this something we're going to contest over a period of time?

4 MR. HAGAN: Your Honor, the plaintiffs will
5 stipulate that they no longer contend that Chris Tarnovsky
6 was xbr21. It is our contention for purposes of clarifying
7 the record, and Mr. Pizzo is going to testify in this trial,
8 that he simply reposted the hack methodology that the
9 defendants developed -- that Chris Tarnovsky posted two days
10 earlier.

11 THE COURT: All right. Counsel, please continue.

12 BY MR. STONE:

13 Q. Have you read Mr. Pizzo's deposition in this case at
14 all?

15 A. No.

16 Q. So you don't have any understanding as to what he's
17 testified to under oath. Is that a fair statement?

18 A. I do not have.

19 Q. Did you commission anyone to go back and reinvestigate
20 the postings after you learned that xbr21 was not
21 Mr. Tarnovsky?

22 A. I did not.

23 Q. Did you ever learn that there was a unique password in
24 the code on the December 24th posting by NiPpEr2000?

25 A. What do you mean by "code"? What do you mean by

1 "unique code"?

2 Q. Unique password at the EEPROM address E020. The
3 16-byte hexadecimal password. Did you ever learn that was
4 in the code on the December 24th, 2000, posting?

5 A. During conversations with counsels.

6 Q. And that is a code that is placed into the cards by
7 Kudelski. Is that your understanding?

8 A. That's my understanding.

9 Q. And it's part of a password that the engineering
10 department can use to put the card into what's called
11 "system mode"; isn't that true?

12 A. That I don't know.

13 Q. Do you know what that password is used for?

14 A. No.

15 Q. And when did you first learn that fact that there was a
16 password and hexadecimal code in the December 24th posting?

17 A. Two weeks ago, three maybe.

18 Q. And in your job duties at NagraStar, had you ever
19 become aware prior to that point in time that postings of
20 EEPROM memory portions of EchoStar access cards contained
21 unique identifying information such as a password?

22 A. I know that there is a "UA" that stands for "unique
23 address." I don't know specifically about keys or code, the
24 way you use it.

25 Q. Have you ever learned that the password, the unique

1 password that we've talked about that is in hexadecimal code
2 in the access cards, can be correlated to a card ID number?

3 A. So your question is, if I knew that before?

4 Q. Yes, as part of your responsibilities as --

5 A. I did not.

6 Q. Okay. You just learned that as part of this lawsuit?

7 A. The first time I heard about what I think you're
8 describing was two weeks ago, two or three weeks ago.

9 Q. And you now understand that that unique password can be
10 used to trace to a unique identification; is that correct?

11 A. I think that's what we did.

12 Q. Let me show you Exhibit 1510, please.

13 Okay. Mr. Lenoir, you've seen Exhibit 1510
14 before, correct?

15 A. I don't think so.

16 Q. Did you become aware that there was a search done using
17 the password in the December 24th, NiPpEr2000 posting?

18 A. Yes.

19 Q. And I'll represent to you that counsel have agreed that
20 this document reflects the card number that traces to the
21 password in the hexadecimal code in the December 24th, 2000,
22 NiPpEr2000 posting.

23 MR. HAGAN: Your Honor, that misrepresents our
24 stipulation. We stipulated that the information provided to
25 us by the defendants led to the identification of a

1 particular card number. It is the plaintiff's contention
2 that that information that was posted on the Internet master
3 changed. So I think it mischaracterizes the stipulation
4 between the parties.

5 THE COURT: You don't have a stipulation, then, I
6 take it; is that correct?

7 MR. STONE: Apparently not.

8 THE COURT: Apparently not.

9 Please continue.

10 BY MR. STONE:

11 Q. Sir, after learning that this search had been
12 conducted, did you commission any investigation into the
13 hexadecimal code that's contained in the posting from
14 December 24th, 2000, to match it up to a card ID number?

15 A. I did not, and I could not.

16 Q. Did you ask anyone to do that?

17 A. No.

18 Q. Did you understand from the process that was done that
19 certain information had been gathered about the card ID
20 number from the information contained in the
21 December 24th, 2000, posting?

22 A. That would be this, right?

23 Q. Yes, sir.

24 A. Yes, I did.

25 Q. And when did you first learn that?

1 A. Maybe two weeks ago, same time frame.

2 Q. And your understanding is that what was posted on
3 December 24th, 2000, was the dump of the EEPROM contents of
4 a pirate card, correct?

5 A. Correct.

6 Q. And I take it, in your position, that whenever facts
7 come to you that indicate piracy is afoot, you investigate
8 those immediately, right?

9 A. I would not say immediately, but we're certainly very
10 diligent about it. We have 100 open investigations right
11 now. So we are very diligent, yes.

12 Q. Has it ever come to your attention that pirates in
13 Canada have used U.S. addresses to falsely set up EchoStar
14 subscriptions?

15 A. I have no knowledge about that.

16 Q. And has it ever come to your attention that a
17 residential subscriber -- if it turns out to be, in fact, a
18 commercial address -- is sometimes an indicator of piracy?

19 A. Frankly, I would have to speculate here on your
20 question. I don't know.

21 Q. Did anyone ever tell you that they took the information
22 that produced Exhibit 1510 in this lawsuit and ran that same
23 process back in December of 2000 when the posting was on the
24 Internet?

25 A. Could you repeat the question, please?

1 Q. Has anyone ever told you that they took the 16-byte
2 hexadecimal password in the December 24th, 2000, posting and
3 run that through the databases of plaintiffs back when the
4 posting was on the Internet on December 24th, 2000?

5 A. I never heard of that.

6 Q. Has any investigation been conducted into the address
7 at 600 Main Street, Tonawanda, New York?

8 A. I do not know.

9 Q. Have you ever heard the name Dawn Branton?

10 A. No.

11 Q. Did you ever discuss Ms. Branton with Mr. Guggenheim?

12 A. No.

13 Q. Have any facts ever come to your attention that
14 Ms. Branton was involved in piracy in Canada?

15 A. No.

16 Q. Have you ever heard of a company called
17 M+M Freight Forwarding?

18 A. No.

19 Q. Have you ever heard of companies in New York near the
20 Canadian border that ship EchoStar receivers and cards to
21 pirates in Canada?

22 A. No.

23 Q. Has EchoStar or NagraStar, to your understanding, ever
24 conducted an investigation into commercial outfits in
25 upstate New York who have dealings with pirates in Canada?

1 A. I do not know.

2 Q. Have you ever heard of the name Jim Waters?

3 A. I heard it yesterday.

4 Q. Prior to yesterday, had you ever heard it?

5 A. No.

6 Q. Now, you testified on direct that part of NagraStar's
7 mission statement is to conduct piracy investigations. Am I
8 correct?

9 A. You're correct.

10 Q. And the head of those investigations, as you understand
11 it, in 2001 would have been Mr. Gee?

12 A. I don't know when exactly he became responsible for
13 this department, so I cannot confirm the date. You're
14 saying 2001. I don't know that.

15 Q. Let me show you Exhibit 374, which is a report of
16 investigation prepared by Mr. Gee.

17 THE COURT: What page?

18 MR. STONE: Looking at the first page, 374-1.

19 BY MR. STONE:

20 Q. Have you seen investigative reports such as this
21 prepared by Mr. Gee in the past?

22 A. You mean similar to this?

23 Q. Similar to that.

24 A. Not similar to this.

25 Q. And I take it you've not seen any written report

1 specifically of an investigation into the source of the
2 December 2000 postings?

3 A. No.

4 Q. Now, did you ever have an opportunity to discuss
5 Exhibit 374, the report prepared by Mr. Gee, with Mr. Gee?

6 A. No.

7 Q. Now, you'll notice the report in the first page says
8 that it's prepared for Mr. Allen Guggenheim, CEO, NagraStar?

9 A. I see that.

10 MR. WELCH: Your Honor, I'm going to object. The
11 document's not in evidence, so if he's going to continue to
12 read from it or identify parts --

13 THE COURT: I'm going to sustain that, Counsel. I
14 assume that we're going to hear from these other gentlemen.
15 It's not going to come through this gentleman. He hasn't
16 seen this document, and the gentleman may be back on the
17 stand testifying later.

18 MR. STONE: Thank you, Your Honor.

19 BY MR. STONE:

20 Q. Did Mr. Gee ever tell you that he had been told by
21 anyone that they knew that Jim Waters in Barrie, Ontario was
22 Nipper or NipperClause?

23 A. Never heard that.

24 Q. Did you ever ask Mr. Gee if he had any information at
25 the time of the postings in December 2000 that Nipper was

1 related to pirates in Canada?

2 A. I never asked that question.

3 Q. And did Mr. Gee ever specifically bring this report,
4 Exhibit 374, to your attention?

5 A. No.

6 Q. Did Mr. Gee ever tell you that he had prepared a report
7 that had information in it about who Nipper and NipperClause
8 was?

9 A. No.

10 Q. Do you know what investigation, if any, Mr. Gee
11 conducted into Jim Waters and Barrie Ontario?

12 A. I have no knowledge of that.

13 Q. Do you know whether Mr. Gee had a piracy investigation
14 budget in the year 2001?

15 A. I would have to speculate. He was in charge of the
16 department at the time. I would expect him to have a
17 budget, yes.

18 Q. Do you have any idea what the amount of that budget was
19 in 2001?

20 MR. WELCH: Objection, Your Honor. No foundation.

21 THE COURT: Overruled. If the plaintiffs have
22 chosen to go back and have him retrace the history of the
23 lawsuit, then I think fairness allows NDS to come back and
24 ask far-reaching questions that go back prior to his
25 employment also. That's for the jury to weigh, how valuable

1 that testimony is across the board.

2 So overruled.

3 You can answer the question.

4 THE WITNESS: I have no idea.

5 BY MR. STONE:

6 Q. Have you ever had an opportunity to speak with Mr. Gee
7 and find out how he could have been so wrong that
8 Mr. Tarnovsky was xbr21?

9 A. You're saying it was so wrong?

10 Q. Yes.

11 A. That's your characterization of this? I'm not going to
12 say such a statement.

13 Q. Did Mr. Gee ever explain how he concluded Mr. Tarnovsky
14 was xbr21 when it turned out to be Mr. Pizzo?

15 A. No.

16 Q. Now, you talked about informants a little bit earlier,
17 and one of them I think you mentioned was Mr. Ereiser?

18 A. Correct.

19 Q. And it was your understanding that Mr. Ereiser was a
20 satellite pirate?

21 A. Yes.

22 Q. And it's your understanding that he was pursued by NDS
23 at one point in time?

24 THE COURT: "Pursued"? What does that mean?

25 MR. STONE: Pursued civilly and criminally.

1 THE WITNESS: I do not know any details about
2 that.

3 BY MR. STONE:

4 Q. Were you aware of those facts that Mr. Ereiser had been
5 pursued both in civil courts and criminally by NDS at one
6 point in time?

7 MR. WELCH: Your Honor, I'm going to object.
8 Assumes facts not in evidence.

9 THE COURT: Sustained. And NDS doesn't pursue a
10 criminal matter, Counsel.

11 BY MR. STONE:

12 Q. Did you ever learn there was a judgment against
13 Mr. Ereiser by NDS?

14 A. I have no knowledge of that.

15 Q. Did you ever become aware of any criminal prosecutions
16 against Mr. Ereiser in the United States?

17 MR. WELCH: I object, Your Honor, that we're going
18 down this path.

19 THE COURT: Overruled.

20 You can answer that question.

21 THE WITNESS: I have no specific knowledge about
22 that.

23 BY MR. STONE:

24 Q. And is Mr. Ereiser currently a NagraStar-paid
25 consultant?

1 A. We pay --

2 THE COURT: Excuse me. Sir, answer the question.

3 THE WITNESS: We pay GES. And Mr. Ereiser works
4 for GES.

5 BY MR. STONE:

6 Q. And do you know what "GES" stands for?

7 A. No.

8 Q. Who else works for GES?

9 A. I do not know.

10 Q. Does the name Chris Gerlinski ring any bells?

11 A. Yes.

12 Q. And was Mr. Gerlinski a pirate engineer at one point in
13 time, to your understanding?

14 A. I do not know.

15 Q. And is Mr. Ereiser paid indirectly on behalf of
16 NagraStar by any other entity?

17 MR. WELCH: Objection, Your Honor. Foundation.

18 THE COURT: Do you know the answer to that, sir?

19 THE WITNESS: I think the answer is yes.

20 THE COURT: Okay. Thank you.

21 Overruled.

22 BY MR. STONE:

23 Q. And what other entity pays Mr. Ereiser indirectly on
24 behalf of NagraStar?

25 A. I believe it's IDC.

1 Q. And who owns IDC?

2 A. That I don't know, who owns IDC.

3 Q. Do you know where they're located?

4 A. I believe it's in Switzerland.

5 Q. And am I correct you're responsible for approving the
6 invoices for payment to Mr. Ereiser?

7 A. You're correct.

8 Q. And does that include the IDS invoices?

9 A. No.

10 Q. Who approves those? Do you know?

11 A. Oh, I do approve all invoices, but I thought your
12 question was if that was the same invoice.

13 Q. No. Do you approve the invoices from GES as well as
14 invoices from IDC for Mr. Ereiser?

15 A. I do.

16 Q. And does IDC have any connection to Mr. Saggiori?

17 A. Yes.

18 Q. What is that connection?

19 A. I believe Mr. Saggiori works for IDC.

20 Q. Do you have any knowledge that Mr. Saggiori was sued by
21 Direct -- excuse me -- by NDS and DirecTV for satellite
22 piracy at one point in time?

23 A. I have no knowledge.

24 Q. Have you ever met with Mr. Ereiser?

25 A. Yes.

1 Q. And when was the last time?

2 A. I believe it was March of 2007.

3 Q. And how much is Mr. Ereiser paid monthly by IDC and
4 NagraStar?

5 A. My -- so for GES, I think it's -- if I recall, it's
6 about 12,000; IDC, I don't know the breakdown.

7 Q. Do you have any estimate for how much they pay him on a
8 monthly basis?

9 A. That would be a guess, and it would be several
10 thousands.

11 Q. Pardon?

12 A. Excuse me. Several thousands.

13 Q. So am I correct that Mr. Ereiser is paid approximately
14 20,000 a month, thereabouts?

15 A. Or less.

16 Q. Between 15 and 20,000? Is that a good estimate?

17 A. Yes.

18 Q. And what does he do for the 15 to 20,000 a month?

19 A. They research pirate devices, pirate software. They
20 give us information. That's a lot of analysis and research.

21 Q. When you say "research," do you mean Internet research?

22 A. No. I mean research into pirate devices or pirate
23 software.

24 Q. And NagraStar has set up or paid for a laboratory for
25 Mr. Ereiser?

1 A. For GES.

2 Q. Which is his company?

3 A. That I don't know, if it's his company.

4 Q. It's the entity that pays Mr. Ereiser after you pay
5 GES?

6 A. Correct.

7 Q. What does GES do, then?

8 A. They do antipiracy investigations into pirate devices
9 and pirate software for us.

10 Q. Okay. And where is the lab located that Mr. Ereiser
11 has access to?

12 A. In Canada.

13 Q. And how many miles away from your headquarters in
14 Colorado is that?

15 A. Well, let me think. Might be 1200 miles, maybe, or
16 1400 miles.

17 Q. And --

18 A. You're going to have to help me with this one.

19 Q. Over a thousand?

20 A. Yes.

21 Q. And have you ever visited that lab?

22 A. I visited Mr. Ereiser once a year ago, and the lab was
23 not yet in place at that time.

24 Q. And isn't it true that nobody from NagraStar has
25 visited the lab in Mr. Ereiser's house in Canada?

1 A. It's not true.

2 Q. Okay. Is it true that as of August of 2007, nobody
3 from NagraStar had visited that laboratory?

4 A. And there is a reason for that. That's because we
5 probably did not have the equipment, so we did not -- had
6 not purchased the equipment at that time. So there was no
7 lab basically in August of 2007.

8 Q. Have you read the depositions of either Mr. Gee or
9 Mr. Guggenheim in this case?

10 A. Yes, we certainly had started. We were in the process
11 of setting up the lab, but my belief is that the lab was
12 completed just a couple of months ago.

13 Q. And that's based on what?

14 A. That's based on the fact that we actually own the
15 equipment of the lab. So I've been approving purchasing of
16 equipment over several months.

17 Q. And who has visited the lab that you're aware of?

18 A. Mr. Gee.

19 Q. When was that?

20 A. In March of 2008.

21 Q. So about a month before this trial?

22 A. Three weeks, maybe.

23 Q. And that was the first time Mr. Gee had visited the
24 lab, correct?

25 A. The lab being completed, yes.

1 Q. And that was so he could come into court and testify
2 that he had made at least one visit to Mr. Ereiser's lab,
3 correct?

4 A. That's your statement, not mine.

5 Q. Did Mr. Gee tell you why he was visiting the lab in
6 March of 2008?

7 A. He didn't have to tell me because I told him to go
8 there and visit the lab.

9 Q. And does NagraStar have any ongoing monitoring of that
10 lab?

11 A. What do you mean by "monitoring"? You mean like video
12 cameras or --

13 Q. Any way in which you regularly monitor it.

14 A. We have conversations, phone conversations, with these
15 people. We sometimes exchange -- they give us documents or
16 reports. It's -- they're consultants for us, so they do
17 research, they analyze, they give us back some information.
18 We talk to them on the phone, and from time to time we
19 obviously visit the lab. It's important to have those
20 face-to-face conversations and see the equipment, see what's
21 going on.

22 Q. And so far there's been one visit to that lab in Canada
23 that you're aware of?

24 A. Yes. And that's because the lab was completed very
25 recently.

1 Q. And did you get a list of equipment from Mr. Ereiser
2 that he wished to be purchased for that lab?

3 A. That's how we would work. They tell us that they will
4 need this kind of equipment, I would look at it with
5 Mr. Gee, and like I said earlier, it's a low-budget lab, so
6 we would purchase used equipment, so we would take our time
7 actually. We would not just rush into it. We pretty much
8 had a good deal on every equipment we bought for that lab.

9 Q. Does the lab have a microprobing station?

10 A. I do not know.

11 Q. Does it have a scanning electron microscope?

12 A. I believe so.

13 Q. Does it have a focused ion beam?

14 A. I do not know.

15 Q. Does it have a machine that de-encapsulates chips from
16 cards?

17 A. I don't know.

18 Q. Does it have a logger or sniffer device that logs
19 communication streams between cards and receivers?

20 A. I do not know.

21 Q. Does it have any computers that allow for decompiling
22 of code?

23 A. Probably.

24 Q. And the lab that Mr. Ereiser has has the ability to
25 extract code from smart cards, doesn't it?

1 A. I don't know.

2 Q. And just to be clear, Mr. Ereiser is currently a
3 consultant to NagraStar?

4 A. Yes, as part of GES.

5 Q. And IDC?

6 A. That's not clear to me, with IDC. I pay IDC.

7 Q. Does IDC ever provide you with written reports of what
8 Mr. Ereiser is doing?

9 A. That I don't know.

10 Q. Do they provide you with time sheets of any kind?

11 A. It's -- you're talking about the IDC invoice?

12 Q. Yes, sir.

13 A. It's a very simple invoice. That's on the invoice
14 itself that I see that I sign off. It may be one or two or
15 three lines. I can't remember exactly.

16 Q. And, I'm sorry, the last time you spoke to Mr. Ereiser
17 was when?

18 A. Yesterday.

19 Q. And what was the purpose of that discussion?

20 A. The purpose of that conversation was to come here.

21 Q. I'm sorry?

22 A. To be here.

23 Q. To convince him to come here?

24 A. Talk to him about coming here.

25 Q. Have you ever heard the name Martin Mullen?

1 A. I don't think so.

2 Q. And has the payments to Mr. Ereiser increased since he
3 finished the lab, or have they remained the same?

4 A. Can you say that again, please?

5 Q. Sure. You testified earlier that he was being paid
6 15 to 20,000 a month. And I want to know whether that
7 amount has gone up or down since the lab was completed.

8 A. Has not changed.

9 Q. So before the lab, it was 15 to 20,000; and now that he
10 has the lab to do work, it's still 15 to 20,000?

11 A. Yes.

12 Q. Now, you've testified that NagraStar's business is
13 providing conditional access systems, correct?

14 A. Correct.

15 Q. And it's a competitive industry, correct?

16 A. And what?

17 Q. And it's a competitive industry?

18 A. Yes.

19 Q. And you've testified that one of NagraStar's
20 competitors is NDS, correct?

21 A. Correct.

22 Q. And when NagraStar competes in the marketplace, I take
23 it that it does not share with its competitors confidential
24 documents regarding customer proposals?

25 A. Yes -- no, it does not share. It does not.

1 Q. And it doesn't share confidential documents regarding
2 its technology with competitors; is that true?

3 A. It is true.

4 Q. And it doesn't share confidential documents with its
5 competitors regarding its products; is that correct?

6 A. It's true.

7 Q. And it doesn't share with competitors its confidential
8 documents regarding weaknesses or possible hacks of its
9 system; is that correct?

10 A. I believe it's correct.

11 Q. And what is the reason you don't share those documents
12 with competitors?

13 A. You're talking about NagraStar?

14 Q. Yes, sir.

15 A. We would not give our technology documents to our
16 competitors. No, we would not do that.

17 Q. And that's true of customer proposals as well?

18 A. In customer proposals, generally what you do, you
19 explain your technology in general terms. I mean, you may
20 have some graphics or visual about how it works, like block
21 diagrams, but you certainly don't give like the -- all the
22 underlying secrets. So I would say, in general terms we
23 have to do this because we have to establish the strength of
24 our technology and how it works. But it's general terms.

25 Q. Did NagraStar ever have in its possession confidential

1 proprietary NDS documents that NDS did not agree NagraStar
2 could have?

3 A. Can you repeat the question, please?

4 Q. Sure. Did NagraStar ever have in its possession
5 confidential NDS documents that NDS did not agree it could
6 have?

7 A. Yes.

8 Q. Okay. I'd like to show you Exhibit 366, and you can
9 tell me if that is one of them.

10 A. That was your question?

11 Q. Yes. Is this one of the documents you're referring to,
12 which is Bates stamped ESC155785, which I will represent to
13 you means the plaintiffs produced it in this lawsuit?

14 A. I have no knowledge of the documents --

15 Q. And what --

16 A. -- so I cannot confirm.

17 Q. How did you learn that NagraStar had confidential NDS
18 documents that NDS did not agree it could have?

19 A. Through conversation with counsels.

20 Q. And what is the title of this document?

21 A. "NDS Overview for Digital Pay TV System."

22 MR. STONE: Your Honor, I'd like to publish this
23 to the jury. It's been produced in this litigation.

24 MR. WELCH: Your Honor, this document has not been
25 admitted into evidence.

1 THE COURT: It's not been received yet, Counsel.
2 I'm going to need more foundation.

3 MR. STONE: Okay.

4 MR. HAGAN: And Mr. Lenoir isn't the witness for
5 that. Mr. Guggenheim will be here for the trial.

6 THE COURT: Well, eventually is this document
7 going to have a sufficient foundation, Counsel?

8 MR. STONE: Through Alan Guggenheim and Jerry Gee,
9 yes, Your Honor.

10 THE COURT: Is there any objection to taking it
11 through a motion to strike, or would you like to have this
12 gentleman back on the stand?

13 MR. HAGAN: He's going to be here. He's the
14 corporate rep.

15 THE COURT: Counsel, it's very simple. We can do
16 it now, or we can do it later.

17 MR. HAGAN: I think it would be best done through
18 Mr. Guggenheim.

19 THE COURT: Well, it doesn't matter. This
20 gentleman will still be testifying potentially from this
21 document.

22 You have no information or knowledge of this
23 document?

24 THE WITNESS: No.

25 THE COURT: Will Mr. Guggenheim be in court?

1 MR. HAGAN: Yes, Your Honor.

2 THE COURT: I'll sustain the objection at this
3 time. Mr. Guggenheim is the appropriate witness to testify
4 to this document.

5 MR. STONE:

6 Q. Did you ever become aware of how many confidential NDS
7 documents NagraStar possessed?

8 A. No.

9 Q. Did you ever become aware how those documents came into
10 NagraStar's possession?

11 A. I had conversations with counsels.

12 Q. Did you ever ask Mr. Ereiser whether he had provided
13 these confidential documents to Mr. Guggenheim and Mr. Gee?

14 A. No.

15 Q. Was there a reason why not?

16 A. I had no reason to ask that question.

17 Q. Did it ever come to your attention that Mr. Ereiser was
18 in possession of certain confidential NDS documents?

19 A. No.

20 Q. Mr. Gee and Mr. Guggenheim never told you that fact?

21 A. No.

22 Q. And I take it you're not aware of anyone asking for
23 NDS's written permission to possess any of the confidential
24 documents that NagraStar possessed?

25 A. I have no knowledge of that.

1 Q. Has anyone within the organization ever told you that
2 they had received written permission from NDS to possess
3 confidential documents?

4 A. I never heard that.

5 Q. Mr. Lenoir, could you look at Exhibit 411, please.

6 A. Yes.

7 THE COURT: What page, Counsel?

8 MR. STONE: The page with the signature. Page 3.

9 THE COURT: 003 is the Bates number, sir.
10 Counsel, your question.

11 BY MR. STONE:

12 Q. That your signature, Mr. Lenoir?

13 A. Yes, it is.

14 MR. STONE: And, Your Honor, I would move this
15 into evidence at this time.

16 MR. WELCH: No objection, Your Honor.

17 THE COURT: Received.

18 (Exhibit No. 411 received in evidence.)

19 BY MR. STONE:

20 Q. Mr. Lenoir, is Mr. Dionisi also a paid consultant to
21 NagraStar?

22 A. I believe through GES.

23 Q. So he's part of GES?

24 A. That's my understanding, yes.

25 Q. Does he also work in the lab?

1 A. I don't think so.

2 Q. And what is he paid?

3 A. You're asking how much?

4 Q. Yes, sir. How much was he paid?

5 A. Maybe several thousands. I don't have the exact
6 number.

7 Q. And what does he do for that money?

8 A. Same. They are doing research on pirate devices,
9 pirate softwares, analyze those devices and software when
10 they find them.

11 Q. Are you aware that he's testified that he simply uses
12 the Internet for his research?

13 A. I'm not aware of that.

14 Q. And who does he report to?

15 A. I do not know. Probably Ron Ereiser. That would be my
16 guess.

17 Q. And then Ron Ereiser reports to who at NagraStar?

18 A. At NagraStar? He doesn't report to anyone at
19 NagraStar.

20 Q. Does he --

21 A. He's a GES employee. That would be my understanding.

22 Q. Who does GES answer to at NagraStar?

23 A. They are a consultant firm for us, so I'm not sure I
24 understand the word "report." It's a business relationship
25 between two companies.

1 Q. And who has the authority to end that relationship at
2 NagraStar?

3 A. That's Mr. Gee.

4 MR. STONE: Thank you. No further questions.

5 THE WITNESS: Thank you.

6 THE COURT: Redirect, please.

7 MR. WELCH: Yes, sir, Your Honor.

8 REDIRECT EXAMINATION

9 THE COURT: This is Mr. Welch on behalf of?

10 MR. WELCH: EchoStar and NagraStar, Your Honor.

11 THE COURT: Thank you very much.

12 MR. WELCH: First thing I would like to do is --
13 we found the remainder of the response to the interrogatory
14 answers. So for optional completeness, I'd like to read
15 that in.

16 THE COURT: I'm sorry. I think there's needs to
17 be support sitting in this chair immediately.

18 Counsel, there needs to be somebody sitting in
19 this chair immediately.

20 MS. WILLETTS: (Takes chair next to witness.)

21 THE COURT: Thank you very much.

22 Now, your request.

23 MR. WELCH: To go ahead under optional
24 completeness and read in the remainder of the response to
25 the interrogatory.

1 THE COURT: You may. And remind the jury what
2 exhibit that was, the interrogatory exhibit, so we know.

3 MR. WELCH: I think it was 1512 -- 1296,
4 Your Honor.

5 THE COURT: You may commence reading any portion
6 you would like to in that body.

7 MR. WELCH: Starting at line 20. "EchoStar states
8 paragraphs 129 and 131 of the Fourth Amended Complaint
9 reference posts made on December 23, 2000 and December 24th,
10 2000 by Christopher Tarnovsky using the aliases xbr21 and
11 NiPpEr2000, respectively. The documents produced in this
12 litigation specifically, including but not limited to, the
13 affidavit testimony attached to the Fourth Amended
14 Complaint, the deposition testimony of Jan Saggitori and
15 Graham James and the affidavit testimony of Ron Ereiser
16 Graham James and Anthony Dionisi, evidence that Tarnovsky
17 made these posts.

18 "That Tarnovsky was behind the December 2000 posts
19 is further supported by the materials prepared by Internet
20 Crimes Group, TD International that were also approached in
21 this action. NDS is responsible for the postings made by
22 Tarnovsky under the theories of direct, vicarious and
23 secondary liability set forth in the Fourth Amended
24 Complaint."
25

1 BY MR. WELCH:

2 Q. Now, Mr. Lenoir, we talked about this lab that -- for
3 GES. We talked about Mr. Ereiser and we talked about
4 Mr. Dionisi. And I believe your testimony, just to make
5 clear, was that they used their equipment to investigate
6 into pirate devices; is that correct?

7 A. That's correct.

8 Q. Okay. Does NagraStar pay any of its consultants to
9 reverse-engineer and distribute information about
10 competitors' information or competitors' products?

11 THE COURT: Excuse me, Counsel. Those are two
12 separate questions, very close questions. There's a
13 tremendous difference between the two, potentially.

14 BY MR. WELCH:

15 Q. Does NagraStar pay people like Mr. Dionisi and
16 Mr. Ereiser to reverse-engineer competitors' equipment or
17 competitors' conditional access?

18 A. We do not.

19 Q. And if they have any information, does NagraStar
20 authorize or ratify those paid consultants to disseminate
21 information throughout the Internet?

22 A. No. We have strict guidelines about that. We do not
23 do that.

24 MR. WELCH: I have no further questions,
25 Your Honor.

1 THE COURT: Recross.

2 MR. STONE: Thank you, Your Honor.

3 THE COURT: This is Mr. Stone on behalf of NDS.

4 RECROSS-EXAMINATION

5 BY MR. STONE:

6 Q. Mr. Lenoir, could you go back to Exhibit 1296, and
7 specifically page 1296-003?

8 A. (Complies.)

9 Q. Okay. Now, looking at this interrogatory response,
10 this is the one that says that Chris Tarnovsky used the
11 aliases xbr21 and NiPpEr2000 respectively, correct?

12 A. Yes.

13 Q. And your counsel read some support for that statement,
14 and it included affidavits or testimony of Jan Saggitori,
15 Graham James, Ron Ereiser, and Anthony Dionisi, correct?

16 A. Yes.

17 Q. And those gentlemen were all paid consultants by
18 NagraStar, correct?

19 A. Correct.

20 Q. And could that possibly explain how Mr. Gee got it so
21 wrong that Mr. Tarnovsky was xbr21?

22 MR. WELCH: Objection, Your Honor.

23 THE COURT: Sustained.

24 BY MR. STONE:

25 Q. Is this the information that formed the basis of the

1 conclusion that Mr. Tarnovsky was xbr21, as far as you know?

2 A. As far as I know? I don't know.

3 MR. STONE: Thank you very much.

4 THE COURT: All right. Thank you very much, sir.

5 I'm going to have the same admonition for each of
6 the witnesses who testify. We began that admonition with
7 Mr. Ergen.

8 You are -- look at the jury. I'll remind you that
9 they're literally volunteering their time. They're
10 hard-working people. They have jobs. And they're
11 attempting to resolve this dispute between the two of you.

12 You're to be on 48-hours call. If this Court
13 needs you, you are to respond immediately to this Court, or
14 it will place an adverse inference on you and the party you
15 represent. Is that understood, sir?

16 THE WITNESS: It's understood, sir.

17 THE COURT: You may step down.

18 (Witness steps dow subject to recall.)

19 THE COURT: Counsel, your next witness, please.

20 MR. NOLL: David Noll for the plaintiffs, Your
21 Honor. We're going to call Zvi Shkedy, the engineer from
22 Haifa, Israel.

23 THE COURT: Thank you very much. Now, Counsel, I
24 put him on 72 hours until the end of this case, to be back
25 immediately if this Court calls upon him in the future.

1 Thank you, sir. Would you step forward.

2 Is this an interpreter with the gentleman?

3 Now, would you raise your right hand.

4 (Sworn by Court.)

5 ZVI SHKEDY, PLAINTIFF'S WITNESS, SWORN

6 THE WITNESS: I do.

7 THE COURT: Thank you, sir.

8 Could I also be introduced to the lady who's the
9 interpreter? What's your name?

10 THE INTERPRETER: Hebrew interpreter. Ayalla
11 Dollinger. My oath is on file.

12 THE COURT: Thank you very much. If you would
13 approach, please, and bring the gentleman with you to the
14 witness box and then ask him to be comfortably seated.

15 Once again would you state your name as the
16 interpreter for us and spell your last name, please.

17 THE WITNESS: My name is --

18 THE COURT: I'm sorry, the interpreter.

19 Do you need an interpreter?

20 MR. NOLL: For certain questions maybe.

21 THE INTERPRETER: Hebrew interpreter, Ayalla
22 Dollinger. A-Y-A-L-L-A, D-O-L-L-I-N-G-E-R. My oath is on
23 file.

24 THE COURT: Thank you very much. It's a pleasure
25 meeting you.

1 Now, you're interpreting for Mr. Shkedy?

2 THE INTERPRETER: I know the gentleman by the
3 first name of Zvi.

4 THE COURT: Would you state your full name for the
5 jury. Also, would you move your chair forward. Tell the
6 jury your name, sir.

7 THE WITNESS: My name is Zvi Shkedy. My first
8 name Z-V-I, and my last name is Shkedy, S-H-K-E-D-Y.

9 THE COURT: Do you need an interpreter?

10 THE WITNESS: I hope that I can do with English.
11 If not, I will ask the assist of the interpreter.

12 THE COURT: I think that would be acceptable.
13 Let's try English. You seem to understand English as long
14 as counsel speaks slowly and distinctly, and that would give
15 the jury a good flavor of your testimony.

16 If at any time you do not understand a question,
17 then please turn to the interpreter and ask for
18 clarification or translation. Would that be acceptable,
19 sir?

20 THE WITNESS: Yes, sir.

21 THE COURT: I think that will knock down the
22 barriers, also, to direct communication between the witness
23 and counsel.

24 Therefore, Counsel, frame your questions slowly.
25

1 BY MR. NOLL:

2 Q. Good morning, Mr. Shkedy.

3 A. Good morning.

4 Q. You probably remember me. My name is David Noll. I
5 took your deposition in New York.

6 THE COURT: That's too fast.

7 THE WITNESS: Yes.

8 BY MR. NOLL:

9 Q. Mr. Shkedy, you're employed by NDS in Haifa, Israel; is
10 that correct, sir?

11 A. It is correct, sir.

12 Q. And you went to work for NDS in 1997; is that correct?

13 A. It is correct.

14 Q. And NDS is in the conditional access business; is that
15 true?

16 A. It is true.

17 Q. And conditional access, that term includes Smart Cards;
18 is that correct?

19 A. Part of the system is Smart Card.

20 Q. And your job with NDS in Haifa, Israel was as principal
21 engineer; is that correct?

22 A. It is correct.

23 Q. In fact, that's the only position you've ever held in
24 your tenure at NDS; is that correct?

25 A. Correct.

1 Q. You got your job at NDS through another engineer named
2 Mr. Chaim Shin-Orr; is that correct, sir?

3 A. Yes.

4 THE REPORTER: Spell that, Counsel.

5 MR. NOLL: C-H-A-I-M, first name. S-H-I-N -
6 O-R-R.

7 BY MR. NOLL:

8 Q. At the time you were hired, Mr. Shkedy, NDS kept secret
9 from you that you would be reverse-engineering competitors'
10 conditional access systems; is that correct?

11 A. No, it's -- partially yes, partially no. They didn't
12 disclose the entire scope of work, but I knew that I would
13 work with Smart Cards.

14 Q. Okay. But the truth is, sir, that you have
15 reverse-engineered competitors' conditional access systems
16 in your work at NDS, correct?

17 A. Yes, it is correct.

18 Q. And you're aware of a Black Hat team at NDS in Haifa,
19 Israel; is that correct?

20 A. Yes.

21 Q. And you were a member of that Black Hat team; is that
22 right?

23 A. Excuse me?

24 Q. I'm sorry. You were a member of the Black Hat team; is
25 that correct?

1 A. A member of the Haifa team, which was known in those
2 days -- nicknamed Black Hat team.

3 Q. And it was nicknamed the Black Hat team for the group
4 in Haifa, Israel that reverse-engineered competitors'
5 conditional access systems, correct?

6 A. Amongst other tasks, yes.

7 Q. And you also knew, Mr. Shkedy, through your work at
8 NDS, that NDS employed satellite pirates and hackers; is
9 that correct?

10 A. Not at the time. Afterward I found out.

11 Q. And when you took the position at NDS in 1997, you
12 didn't receive any training from anybody at NDS; is that
13 right?

14 A. I didn't receive any training.

15 Q. Instead, the training that you received was from a
16 gentleman named Mr. Oliver Kommerling. He taught you
17 everything you needed to know; is that right?

18 A. He taught me many things, yes.

19 Q. And you knew that Oliver Kommerling was a satellite
20 pirate and hacker; isn't that true, sir?

21 A. Yes, previously it was. I would like to say it was an
22 ex-hacker.

23 THE COURT: An ex-satellite pirate.

24 THE WITNESS: Yes, sir.

25 THE COURT: Thank you very much.

1 BY MR. NOLL:

2 Q. So Mr. Kommerling -- it's your testimony Mr. Kommerling
3 was a satellite pirate, then he was hired by NDS and he was
4 no longer a pirate; is that right?

5 A. Yes.

6 Q. And to use your words, Mr. Shkedy, Mr. Kommerling had a
7 special contact with NDS; is that right?

8 A. Special contract, yes.

9 Q. And you were given a code name by NDS for your dealings
10 with Mr. Kommerling; is that true?

11 A. Yes.

12 Q. And the code name you were given was "Larry"; is that
13 right?

14 A. Yes, it is right.

15 Q. And, in fact, you used that code name Larry for your
16 dealings with other satellite pirates and hackers that were
17 employed by NDS?

18 A. I don't remember if I use the same code name for as a
19 pirate, but might be.

20 Q. Okay. And you used the techniques that you were taught
21 by Oliver Kommerling to expose the weak points in NDS's
22 competitors' conditional access systems; is that true?

23 A. Yes.

24 Q. And these skills and techniques that you were taught by
25 Mr. Kommerling, you taught the other engineers in the Haifa,

1 Israel lab these same techniques; is that true?

2 A. Yes, I did.

3 Q. Mr. Shkedy, according to you, the term "hacking" means
4 trying to find weak points in a conditional access system;
5 is that correct?

6 A. Yes, this is a meaning of hacking that we use inside
7 HRC, which is Haifa Research Laboratory.

8 Q. Just by way of one example, NDS hacked the Viaccess
9 card. Isn't that right, sir?

10 A. Yes.

11 Q. And the deposition --

12 THE COURT: Just a moment. Did you say Visa?

13 MR. NOLL: Via, V-I-A access.

14 THE COURT: Thank you.

15 BY MR. NOLL:

16 Q. And the deposition that you gave in this case, sir, was
17 not the first time that you've testified under oath; is that
18 correct?

19 A. It is correct.

20 Q. In fact, you had another deposition taken in 2002,
21 right?

22 A. Yes.

23 Q. And that deposition was in the Canal+ litigation
24 against NDS; isn't that correct?

25 A. It is correct.

1 Q. And you understood at the time you gave that deposition
2 that Canal+ blamed NDS for posting its secret codes on the
3 Internet; isn't that correct, sir?

4 A. It is correct.

5 Q. You knew that Canal+ was a direct competitor of NDS,
6 correct?

7 A. Yes.

8 Q. And the truth, sir, is that you did, in fact,
9 reverse-engineer the Canal+ system; is that right?

10 A. Yes.

11 Q. You can't specifically recall where you got the Smart
12 Cards from to reverse the Canal+ system, though; is that
13 right?

14 A. It is right.

15 Q. But you do recall that somebody in NDS's operational
16 security group gave you those Smart Cards; isn't that
17 correct, sir?

18 A. It is correct.

19 Q. But you didn't ask too many questions, right?

20 A. Sorry?

21 Q. You didn't ask too many questions?

22 A. No, I didn't.

23 Q. In fact, you would come to learn who was behind the
24 Canal+ codes being posted on the Internet; isn't that true,
25 sir?

1 A. Sorry. Can you repeat, please?

2 Q. You came to learn who was behind the Canal+ Smart Card
3 codes being posted on the internet; isn't that correct, sir?

4 A. One moment, please.

5 THE WITNESS: Can you translate?

6 THE INTERPRETER: (Complies.)

7 THE WITNESS: No, I don't know who put it on the
8 Internet.

9 BY MR. NOLL:

10 Q. Sorry, did you finish your answer?

11 A. I don't know who put the code of the Canal+ file on the
12 Internet.

13 Q. Did you ever come to learn who did put the Canal+ code
14 on the Internet?

15 A. No.

16 Q. Do you have any understanding as to who put the Canal+
17 code on the Internet?

18 A. No.

19 Q. Did you ever hear from anybody who put the Canal+ code
20 on the Internet?

21 A. No.

22 Q. Let's focus on the EchoStar system. In 1998 you knew
23 that NagraStar was a competitor of NDS, correct?

24 A. Correct.

25 Q. And NagraVision was a company who provides the

1 conditional access technology to EchoStar, correct?

2 A. Yes.

3 Q. And just as with the Canal+ case, you knew that
4 EchoStar's code was also posted on the Internet, correct?

5 A. Afterward I found out that also this file was posted on
6 the Internet.

7 Q. And the truth is, sir, that NDS also
8 reversed-engineered EchoStar's access cards, correct?

9 A. Correct.

10 Q. And it's your testimony here that you believe the
11 instruction that you got to reverse-engineer EchoStar's
12 access cards came from your boss, Chaim Shin-Orr, correct?

13 A. Yes.

14 Q. He instructed you to hack the EchoStar system; isn't
15 that correct?

16 A. Yes, to reverse-engineering and to find out all the
17 secrets.

18 Q. And Mr. Shin-Orr was the top officer at NDS in Haifa,
19 Israel, correct, sir?

20 A. Yes.

21 Q. And Haifa is, in fact, the place where NDS
22 reverse-engineered EchoStar's Smart Cards, right?

23 A. Right.

24 Q. Then, in this process of reverse-engineering EchoStar's
25 Smart Cards, you worked on between five and ten EchoStar

1 access cards, correct?

2 A. Yes. This is a normal amount of cards that we need for
3 reverse-engineering.

4 Q. Okay. I'm going to ask that you be handed something
5 that's been premarked as Plaintiff's Demonstrative Exhibit
6 No. 3. I ask you to take a look at that, sir.

7 MR. SNYDER: I've never seen this before,
8 Your Honor.

9 MR. NOLL: Yeah, you have. Those are the --

10 THE COURT: Just a moment, Counsel. This is what
11 we're doing at night. Every piece of evidence is to be
12 shown to the Court.

13 MR. HAGAN: With the exception of demonstrative
14 aids. They've produced them to us since we met, Your Honor.
15 And we've done the exact same thing with them. This is just
16 a picture of the Smart Cards that they produced.

17 THE COURT: What you should know we're doing at
18 night is -- a lot of courts spend time in the hallway
19 discussing things like when to go to lunch. I'm just
20 kidding you. But you should be here at 8:00 and work until
21 5:00, and we shouldn't have any interruptions. So that's
22 what we do at night. We go over every piece of evidence for
23 the next day or the next week so that there are no
24 interruptions. You're hard-working people and you deserve
25 that.

1 Counsel, I don't see any objection to taking this
2 subject to a motion to strike. You may continue.

3 BY MR. NOLL:

4 Q. Have you had a chance to look at Plaintiff's
5 Demonstrative No. 3, sir?

6 A. Yes.

7 Q. And you've seen EchoStar Smart Cards before, sir; is
8 that correct?

9 A. Yes.

10 Q. Is this a picture of EchoStar's Smart Cards?

11 A. Seems like it.

12 Q. Do these look like the Smart Cards you would have used
13 to reverse-engineer EchoStar's system?

14 A. I saw this card previously.

15 THE COURT: I'm sorry. Say that --

16 THE WITNESS: I saw those card previously.

17 THE COURT: Saw those cards.

18 MR. NOLL: Okay. Your Honor, we offer

19 Demonstrative No. 3.

20 THE COURT: What is this labeled? Demonstrative
21 No. 3?

22 MR. NOLL: Yes, sir.

23 THE COURT: Any objection, Counsel?

24 MR. SNYDER: No, objection.

25 THE COURT: Received.

1 (Exhibit No. 3 received in evidence.)

2 BY MR. NOLL:

3 Q. Okay. So we've got a picture up here of seven Smart
4 Cards; is that correct?

5 A. Correct.

6 Q. And you recognize these cards, right?

7 A. Yes.

8 Q. And these appear to be the cards that you would have
9 reverse-engineered in Haifa, Israel, correct?

10 A. Similar to the ones that we -- okay.

11 Q. Now, the actual cards that you used to do the
12 reverse-engineering, they didn't actually have active
13 subscriptions to the DISH Network; is that correct?

14 A. Sorry? Can you repeat, please.

15 Q. Yes. The actual cards that you used in the
16 reverse-engineering process --

17 THE INTERPRETER: (Interprets.)

18 THE WITNESS: Okay. Can you finalize the
19 question, please?

20 BY MR. NOLL:

21 Q. Yeah. The cards you used to hack EchoStar's system did
22 not have active subscriptions to DISH Network, correct?

23 THE INTERPRETER: (Interprets.)

24 THE WITNESS: Correct.

25

1 BY MR. NOLL:

2 Q. And the cards you used to hack EchoStar's system were
3 given to you by NDS's operational security group, correct?

4 A. Yes.

5 Q. But the same is true with the Canal+ cards: You can't
6 remember who in operational security gave you those cards?

7 A. No, I cannot.

8 Q. And the process for hacking EchoStar's Smart Cards took
9 months; isn't that right, sir?

10 A. Yes.

11 Q. And part of the reason is EchoStar's Smart Card had
12 memory split into six different regions; isn't that correct,
13 sir?

14 A. This was not the reason why it takes about, say, about
15 one and a half months.

16 Q. Okay. What was the reason it took so long?

17 A. It take so long? There is a whole process until you
18 got -- how -- when you extract the code -- you have to take
19 the chip -- sorry.

20 If you don't mind, I will switch to Hebrew. It will be
21 easier, I hope.

22 THE INTERPRETER: It takes a while to find the
23 chips.

24 THE WITNESS: To take out the chip out of the
25 card.

1 THE INTERPRETER: It is takes time to take the
2 chip out of the card.

3 THE WITNESS: The second step is to use some
4 chemistry in order to find out and understanding the chip.

5 BY MR. NOLL:

6 Q. Okay. And later on we're gonna walk through the
7 process.

8 A. You ask why it take one and a half months, and I try to
9 explain there was a process that we have to undergo in order
10 to find out how to extract the code.

11 THE COURT: He can complete his answer, Counsel.
12 We're already at step 2.

13 THE WITNESS: Okay. So you have to understand
14 what is the circuitry inside the chip, where are what we
15 call interesting point inside the chip. So we have to
16 understand electronic circuitry, and then to find out a way
17 how to extract the code, and finally to do the job.

18 BY MR. NOLL:

19 Q. Okay. Thank you, sir.

20 And just so you know, in a few minutes I want you to
21 walk through a step-by-step process for the jury so they can
22 understand exactly what you did.

23 But for now let's focus back on the memory. Is it true
24 that the EchoStar Smart Card has memory split into six
25 regions?

1 A. Yes. Every chip has a memory management to it that
2 splits the memory into six parts.

3 Q. Okay. And is it true, sir, in your hack of the
4 EchoStar Smart Card, that you encountered difficulty
5 relating to the memory?

6 A. It was a small obstacle that we overcome it easily.

7 Q. Okay. You found a way around it; is that correct?

8 A. Yes, yes.

9 Q. And you used the techniques that Mr. Kommerling taught
10 you to dump the files that are contained on the EchoStar
11 Smart Card, correct, sir?

12 A. Yes.

13 Q. And the purpose of your efforts in hacking the EchoStar
14 Smart Card were to expose the weaknesses in the card; is
15 that true, sir?

16 A. Yes.

17 Q. And one of the weak points you found is that the card
18 can be compromised; is that true?

19 A. Yes.

20 Q. Okay. Now, let's -- if you bear with me here, let's
21 walk through the step-by-step process that you took in
22 hacking the EchoStar Smart Card.

23 Is it true the first thing that you did was you had to
24 take the card and remove the chip from the plastic?

25 A. Yes.

1 Q. And did you then immerse the chip in acid, or HNO₃,
2 to -- in order to dissolve the plastic?

3 A. Yes. The chip is covered with an epoxy that can be
4 easily removed with HNO₃.

5 Q. And you did this to understand the circuitry; is that
6 correct?

7 A. Yes.

8 Q. And did you then de-layer the chip?

9 A. Yes, I did.

10 Q. You took it layer by layer, correct?

11 A. Yes.

12 Q. And, then, you did this so that you could understand
13 the inner connection between the circuit and the chip,
14 correct?

15 A. Yes. If you let me explain.

16 Q. Okay.

17 A. When you have a chip, we have the circuit, which are
18 the functional block. It's on the first level. And then we
19 have interconnection between the cells, between the
20 functional block, what we denote as a metal layer. So there
21 might be one or two metal layer.

22 Just to give an illustration, let's assume that we have
23 a store and we have a way -- a road between the different
24 store or different part. So each store sells something, but
25 the interconnection is the metal layer that goes or like way

1 or corridor between the different part of the chip.

2 So we have to find out the interconnection, which is
3 the upper metal layer, in our name. So you have to de-layer
4 it one by one because each one of them is underneath the
5 other one.

6 So we take image of the first layer, we remove enough
7 it; we take image of the second layer, we remove it. We
8 come down to the functional block, and we understood them.

9 Q. Okay. And what you were doing, sir, is you were
10 attempting to identify the instruction latch; is that
11 correct?

12 A. Yes. We identify a block which is named "instruction
13 latch." And we manipulate the instruction latch to work
14 differently from the normal way of working.

15 Q. And you had to identify the instruction latch because
16 it holds the instructions while the CPU processes them; is
17 that correct?

18 A. Yes.

19 Q. And "CPU" means central processing unit, right?

20 A. Yes, sir.

21 Q. That's similar to what is in a regular computer, right?

22 A. Actually, this is a regular --

23 Q. Yeah. A little chip is an actual computer, correct?

24 A. Yes.

25 Q. Now, can you explain how the instruction latch works?

1 A. Yes, I try. It's a little bit complicated to do
2 without a board, but I make my best.

3 Normally the instruction are stored in the memory,
4 which name the ROM, read-only memory. During the process of
5 the program, the CPU, which you mention, retrieve one
6 instruction at a time and store it.

7 THE COURT: Stored?

8 THE WITNESS: Store the instruction in what they
9 call the instruction latch.

10 Okay. Now, it's a complicated part. There are
11 two types of instructions. First one what we call
12 arithmetic that do something like adding two number,
13 subtracting two number, moving one number from one place to
14 a next one. And the other instruction that controls the
15 flow of the program.

16 For example, we arriving to a certain point, and
17 we ask whether or not the number is zero or not. If it's
18 zero, do something. If it's not zero, do something else.

19 So the flow of the program is interrupted and we
20 have a jump. A jump.

21 So what we did -- okay. Before that, if we have
22 an arithmetic instruction, then the program go step by step
23 sequentially throughout all the memory. If we have a jump
24 instruction, then the flow of the program is interrupted.

25 So now is the trick. We convince the instruction

1 latch to store always arithmetic instruction. So the
2 program counters the flow of the program from the CPU point
3 of view should be linear, sequential, going through all the
4 instruction in the memory. So we have a linear dump of the
5 memory.

6 BY MR. NOLL:

7 Q. Okay. And that's what your goal was, to dump the
8 memory; is that correct, sir?

9 A. Yes, sir.

10 THE COURT: Counsel, is that referred to as the
11 buffer overflow?

12 THE WITNESS: No, sir.

13 THE COURT: Okay. Thank you.

14 MR. NOLL: That's a different hack, Your Honor.

15 BY MR. NOLL:

16 Q. Did you force the instruction latch to hold the same
17 arithmetic logic instruction? That's what you just
18 described, right, sir?

19 A. Yes, sir.

20 Q. And you did this to dump the chip?

21 A. Yes.

22 Q. Now, did you have to put any needles on the databus?

23 A. We need to put two needles, one of them on the load to
24 the instruction latch to persuade it to process the same
25 instruction again and again.

1 And you put another needle on the other side of the
2 instruction latch. That's just to see the flow of the
3 instruction to retrieve, form the memory.

4 Q. You needed to probe with the needle so you could
5 monitor each data line separately; is that correct?

6 A. Yes, because we want to use only one needle at a time.

7 Q. Are these needles very sharp. Were they like regular
8 needles?

9 A. No. They're sharp. The edge of the needle is about
10 half a micron. So we're using a millimetric or metric unit.
11 I don't know what the size is.

12 Q. What's something that is half a micron that the jury
13 could or I could get my hands on?

14 A. One millimeter -- 2 1/2 millimeter is 110th of an inch.

15 THE COURT: Is what?

16 THE WITNESS: One tenth of an inch.

17 Now, divide it by 1000 and then divide it by 2.
18 This is half a micron.

19 Okay. So I don't know how to translate it into
20 American units.

21 THE COURT: Small. It's very small.

22 THE WITNESS: It's small.

23 Just by comparison, my hair over here is about
24 100 microns, so divide it by 200 and you get it easy.

25

1 BY MR. NOLL:

2 Q. Now, did you have to drill a hole, Mr. Shkedy, in order
3 to attach these probes or needles to the databus?

4 A. Yes, I did, because it's a metal layer separated one
5 from the other, not to make short-circuit, by glass.

6 And so we have to remove this glass silicon dioxide in
7 order to gain an access to the line.

8 Q. Okay. So you drill through the silicon dioxide, in
9 other words, glass, in order to get to the upper layer of
10 the chip, correct?

11 A. Yes.

12 Q. Okay. In order to drill the hole, you had a choice to
13 use a laser cutter or a focused ion beam; is that correct?

14 A. It is correct.

15 Q. And the laser cutter is the most simple technique; is
16 that right?

17 A. It is simpler than the other one.

18 Q. And the focused ion beam is more complex; is that
19 correct?

20 A. It's more expensive, more complex, yes.

21 Q. And the acronym, when people say FIB, F-I-B, you know
22 they're talking about focused ion beam; is that correct?

23 A. Yes.

24 THE COURT: With all the acronyms that we're going
25 to have flying around, why don't we refer to it as a focused

1 ion beam to make it simple. Let's not go to FIB. That has
2 a whole bunch of meanings.

3 MR. NOLL: Thank you, Your Honor.

4 BY MR. NOLL:

5 Q. In the case of the EchoStar access card, just to be
6 clear, you did use the focused ion beam, correct?

7 A. It is correct.

8 Q. I'm going to ask you to focus your attention on
9 Plaintiff's Demonstrative Exhibit No. 4.

10 You looking at No. 4, sir?

11 A. Yes.

12 Q. Do you know what that's a picture of?

13 A. It says this is a focused ion beam, but I don't
14 recognize the label because there are many equipment that
15 resemble the focused ion beam from the outside. So look
16 like that, but I'm not sure.

17 Q. Okay. Do you have any reason to believe that that's
18 not a picture of a focused ion beam?

19 A. No.

20 Q. Do you think that it would aid the jury in your
21 testimony here today to show them a picture of the focused
22 ion beam?

23 A. Okay.

24 MR. NOLL: Okay. Offer Demonstrative No. 4.

25 THE COURT: Is there an offer of proof that you

1 can make the foundation that that this is a focused ion
2 beam? He doesn't recognize it specifically to be one, so
3 technically, unless there's an objection --

4 Is there an objection, Counsel?

5 MR. SNYDER: If plaintiffs are going to represent
6 that that's a focused ion beam --

7 MR. NOLL: I'll make that representation.

8 MR. SNYDER: -- the problem with the jury seeing a
9 focused ion beam -- I think it's a great idea. The problem
10 is nobody knows for sure yet what that's a picture of.

11 THE COURT: It shouldn't be that complicated.
12 Subject to a motion to strike --

13 If you represent to me that later on you'll lay
14 the foundation that this is a focused ion beam, I'll take it
15 subject to a motion to strike.

16 MR. NOLL: Okay, Your Honor.

17 THE COURT: Okay. It's received into evidence.
18 You may display it.

19 (Exhibit No. 4 received in evidence.)

20 THE COURT: That will save a lot of time.

21 BY MR. NOLL:

22 Q. And NDS has a piece of equipment called a focused ion
23 beam in its lab in Haifa, Israel, correct?

24 A. Yes. We acquired it towards the end of '98.

25 Q. And this piece of equipment -- this picture, so we're

1 clear, is not the focused ion beam that NDS has, correct?

2 A. Yes.

3 Q. The one that NDS has in its lab in Israel cost about
4 \$1 million; is that correct?

5 A. Yes, but we got it on lease. We didn't buy it; we got
6 it on lease.

7 Q. Okay. Good cost consciousness.

8 Did you also in the hack of the EchoStar Smart Card,
9 use a logic analyzer?

10 A. Yes, we did.

11 Q. And what is a logic analyzer, sir?

12 A. Logic analyzer is a piece of equipment that can record
13 digital data.

14 THE COURT: Okay. Mr. Ken, would you help the
15 gentleman who's asleep back there in the yellow and wake him
16 up. Thank you.

17 Counsel, next question, please.

18 BY MR. NOLL:

19 Q. Logic analyzer is a device that costs between 10 and
20 \$20,000?

21 A. Might be even less, or sometimes we can buy a logic
22 analyzer that are much cheaper than the number you quote.

23 Q. Did you also use an oscilloscope in your hack of the
24 EchoStar Smart Card, sir?

25 A. Yes.

1 Q. And that's a piece of equipment that costs about
2 \$10,000; is that correct?

3 A. Sometime less, sometime more.

4 Q. So once you had the code dumped, then you had to merge
5 the files together and synchronize them to create a binary
6 of ones and zeros; is that correct?

7 A. It is correct.

8 Q. And the purpose of that was to get it assembled so that
9 you could analyze it; is that correct?

10 A. Yes, to convert it into a file that is understandable
11 by certain people.

12 Q. You put it into assembly language; is that right?

13 A. Yes, we convert it into assembly language.

14 Q. And to do so, you used a software program called IDE;
15 is that right?

16 A. No, it's IDA.

17 Q. Oh, I'm sorry.

18 Now, once you have the code in assembly language, then
19 you're able to analyze the code and see what the software is
20 really doing; is that correct, sir?

21 A. Yes.

22 Q. And there's another device you used to hack the
23 EchoStar Smart Card. It's a device called a "sniffer"; is
24 that right?

25 A. Yes, we did.

1 Q. And -- go ahead. I'm sorry.

2 A. Not to hack the entire system, not the Smart Card by
3 itself.

4 Q. Right. The sniffer was the device that would actually
5 monitor data that was going from the card to the set-top
6 box; is that correct?

7 A. Yes.

8 Q. And the sniffer is actually an NDS internal device that
9 your engineers built in Haifa, Israel, right?

10 A. Yes. I designed it.

11 Q. I'm going to hand you what's been marked as Plaintiff's
12 Demonstrative No. 5. Is this a picture, Mr. Shkedy, of the
13 sniffer that you built and used to hack the EchoStar Smart
14 Card?

15 A. It seems like the prototypes that I designed in those
16 day. Afterward we change -- I mean, we redesign it and we
17 convert it into a product, and NDS used it during the course
18 of manufacturing.

19 Q. Okay. You made it better; is that right?

20 A. They made it better, not me.

21 Q. Do you think this picture would aid the jury in
22 understanding what a sniffer looks like, sir?

23 A. I hope so.

24 MR. NOLL: Plaintiff's offer demonstrative No. 5.

25 THE COURT: Any objection?

1 MR. SNYDER: No, objection.

2 THE COURT: Received. You may display it.

3 (Exhibit No. 5 received in evidence.)

4 THE WITNESS: Okay. The -- in your home hopefully
5 you have the -- our product inside. You have the set-top
6 box and you have the Smart Card. There is exchange of
7 information between the set-top box and the Smart Card.

8 Normally the Smart Card is inserted in the set-top
9 box so you cannot see it. What we did, we took it out and
10 we insert it into an adapter. In the other side of the
11 adapter we put into the set-top box.

12 In the middle we put a small microprocessor, or
13 small computer, for our sake, that look, monitor the
14 information, the data that goes from one device to the next
15 one, and divert it or copy it into the external computer
16 that we put.

17 So you can see over here three edges: One is
18 connected to the Smart Card, the other one to the set-top
19 box, and the third one to the computer.

20 And sniffing or logging device is used.

21 BY MR. NOLL:

22 Q. Thank you, sir. So what we've described so far are the
23 steps that you took in the Haifa lab in Israel in order to
24 hack the EchoStar Smart Card, right?

25 A. These steps that we would make for hacking any card,

1 including NDS, Thomson, or any other chip.

2 THE COURT: Would this be a convenient time to
3 release the jury for lunch, Counsel?

4 MR. NOLL: It's actually a very good time.

5 THE COURT: Are you sure?

6 MR. NOLL: Yes.

7 THE COURT: Now, the jury, in discussing this this
8 morning, has decided they would like to keep the hours from
9 8:00 to 5:00. They'd like to have an hour for lunch to
10 start with, and see if that's acceptable instead of an hour
11 and 15 minutes or an hour and a half. They do not want to
12 go until 6:00 o'clock or 7:00 o'clock in the evening like
13 yesterday.

14 So we'll keep those hours of 8:00 to 5:00 each day
15 with the appropriate recesses and see how we go along.

16 I want to thank you for setting some hours. I'm a
17 workaholic, so literally I've been on the record till
18 1:00 o'clock before. But not with the jury, thank God.
19 With juries about 8:00 o'clock.

20 So I want you to set the hours that are
21 comfortable, but I suggest this: Let's get back promptly at
22 1:00 o'clock. Get back to work.

23 And after lunch is a tough time for some people.
24 If you're sleepy, just stand up, just come on over here.
25 There's nothing wrong with that. You'll see me stand up

1 during the afternoon. I don't want you to miss any of this,
2 okay? So don't worry about the formality of that. Just
3 stand up. The jury box is yours. You can sit anywhere you
4 want up in the jury box.

5 Have a nice lunch. You're admonished not to
6 discuss this matter amongst yourselves nor to form or
7 express any opinion concerning the case.

8 Counsel, if you would remain for just a moment.

9 (Jury exits the courtroom.)

10 THE COURT: And, Mr. Shkedy, I'll ask you and the
11 interpreter to remain during the lunch hour and talk to
12 Debbie about some spellings.

13 (Outside the presence of the jury.)

14 THE COURT: The jury is no longer present. Let me
15 talk to each of you for just a moment. I think this has
16 become important.

17 First of all, let me continually compliment each
18 counsel on your efforts to get people here. And let me
19 constantly remind you that this Court does not want a jury
20 placed in the position of deciding a case by snippets of
21 depositional testimony by pirates across the world who
22 decide first if they will even be deposed; second, deciding
23 which questions they will answer; and three, have counsel
24 placed in the position of taking a deposition two and three
25 years ago with all of this information flowing in, you know,

1 at the last moment.

2 You've really been able to accomplish in the last
3 couple of weeks or month more than you've probably been able
4 to accomplish in the last couple years.

5 You've all been forewarned about adverse
6 inferences. I want to know of the situation with
7 Mr. Ereiser. You spoke to him Mr. Lenoir last evening. Is
8 he coming to my court or not?

9 And I've warned you, since you've employed the
10 gentleman, just as I've browbeaten NDS on occasion, that
11 those employees under your control or who have a financial
12 or pecuniary benefit coming to them are subject to adverse
13 inferences by this Court, and they will be strong. And you
14 understand my reason.

15 In a democracy juries don't decide issues by
16 pirates or corporations or entities who decide what to
17 present, when to present for tactical advantage. These
18 people are to appear in court. I understand I do not have
19 jurisdiction outside 150 miles, but I do have jurisdiction
20 in terms of what I say to this jury.

21 Will Mr. Ereiser be here or not?

22 MR. LENOIR: I do not have an answer, Your Honor.

23 THE COURT: When will you have that answer?

24 MR. LENOIR: I'm working on it.

25 THE COURT: Get back on the phone. My adverse

1 inferences will not be kind.

2 MR. LENOIR: I understand, Your Honor.

3 THE COURT: Pirates do not decide lawsuits.

4 MR. LENOIR: That's not our intent.

5 THE COURT: You've employed him. He has a nexus
6 to your firm.

7 Mr. Kudelski has been nice enough to now appear
8 when he wasn't going to appear, claiming he was in
9 Switzerland -- a very wise decision by Mr. Kudelski.

10 NDS is performing in getting your witnesses here.

11 The same admonishment all the way down the line,
12 though. This jury is entitled to hear direct and
13 cross-examination with the latest information come into a
14 court. And pirates who trade between the two companies are
15 not going to decide this issue, nor are they going to choose
16 tactical advantage, nor are corporations. Okay.

17 Have a nice lunch. Promptly at 1:00 o'clock.

18 Thank you.

19 (Lunch recess held at 12:04 p.m.)

20 -oOo-

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2
3 CERTIFICATE

4
5 I hereby certify that pursuant to Section 753,
6 Title 28, United States Code, the foregoing is a true and
7 correct transcript of the stenographically reported
8 proceedings held in the above-entitled matter and that the
9 transcript page format is in conformance with the
10 regulations of the Judicial Conference of the United States.

11
12 Date: April 11, 2008

13
14
15 _____
16 DEBBIE GALE, U.S. COURT REPORTER

17 CSR NO. 9472, RPR
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