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

ECHOSTAR SATELLITE CORP., et )
al., )
)
Plaintiffs, )
vs. ) No. SACV 03-950 DOC
) Day 6, Volume I
NDS GROUP PLC, et al., )

Defendants. )
$\qquad$ )

## REPORTER'S TRANSCRIPT OF PROCEEDINGS

 Jury TrialSanta Ana, California
Thursday, April 17, 2008

Debbie Gale, CSR 9472, RPR
Federal Official Court Reporter
United States District Court
411 West 4th Street, Room 1-053
Santa Ana, California 92701
(714) 558-8141

EchoStar 2008-04-17 D6V1

APPEARANCES:

FOR PLAINTIFF ECHOSTAR SATELLITE CORPORATION, ET AL.:
T. WADE WELCH \& ASSOCIATES

BY: CHAD M. HAGAN
CHRISTINE D. WILLETTS
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

I N D E X

WITNESSES DIRECT CROSS REDIRECT RECROSS

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DirecTV

771 E-mails

1568 E-mail
2010
NDS Form 10-K

SANTA ANA, CALIFORNIA, THURSDAY, APRIL 17, 2008

Day 6, Volume I
(8:04 a.m.)
(Outside the presence of the jury.)
THE COURT: Okay. We're on record outside the presence of the jury.

Counsel for NDS, Mr. Snyder.
MR. SNYDER: Yes. Thank you, Your Honor. Two issues.

First, I'd like to renew our request that Mr. Rubin either be allowed to testify first thing this morning or that his testimony be deferred until next week. Dr. Rubin has been the company's corporate representative, and I alerted the Court before the trial started that he has plans to return to Israel for the holiday Passover, and to see grandchildren he has not yet had a chance to meet.

There is a 1:15 flight from LAX. It is the last flight to Israel.

THE COURT: He's going to Israel. That's granted. We can do that.

MR. SNYDER: Thank you, Your Honor.

Second, I need to put on the record our objection to the e-mails between Mr. Menard and Mr. Dawson. Now, as we indicated in our Motion in Limine No. 6 those documents have not been properly authenticated. They purport to be
e-mails between Mr Menard and Mr. Dawson. The only
testimony regarding the authenticity of those e-mails from any of the participants is that they are forgeries. And we believe that they lack adequate foundation and that it is unduly prejudicial to play testimony regarding those e-mails and put them before the jury before any foundation has been laid.

THE COURT: Now, eventually, you're representing that the foundation will be laid by --

MR. HAGAN: Mr. Ereiser, Your Honor.
THE COURT: -- by Mr. Ereiser.
Second, a witness is allowed to even consider hearsay in their opinion. The difficulty becomes what the Court instructs concerning that: That it's not for the truth; that it goes towards the formation of the opinion of the expert and that person's testimony, et cetera.

I could take that approach and caution the jury that it is not to be taken for the truth of the matter, but with the representation that Mr. Ereiser's going to lay that foundation and validate those. Then, we would be coming back and undoing an instruction. So I think I'm simply going to take them subject to a motion to strike.

All right. Would you please get the jury.
(In the presence of the jury.)

THE COURT: Good morning.

Counsel, if you would please have a seat for just a moment. We're going to finish the testimony of the gentleman, Mr. Norris -- Mr. Norris should be on the witness stand. Thank you.

And after Mr. Norris, we're going to take a gentleman out of order who was scheduled for later today, Dr. Rubin. He's going to take the stand, and then we'll come back to cross-examination of Mr. Norris. Mr. Rubin's a relatively short witness, 20 minutes for each side.

Thank you very much. If you would please retake the stand, sir.

JOHN NORRIS, PLAINTIFF'S WITNESS, PREVIOUSLY SWORN

RESUMED THE STAND

THE COURT: The gentleman introduced himself yesterday to the jury as Mr. John Norris, and we are continuing with the direct examination by Mr. Noll.

DIRECT EXAMINATION

BY MR. NOLL:
Q. Good morning, Mr. Norris.
A. Good morning.
Q. I'm going to ask you to focus your attention on Exhibit 103. We were about to look at that last night before we broke. So I'll ask Steve to hand you Exhibit 103 and ask you to take a look at it and let me know if you can identify it.

I think you've seen Exhibit 103 before, Mr. Norris?
A. I believe I may have.
Q. Okay. If you look at the bottom right-hand corner of Exhibit 103?

THE COURT: Just a moment. "I believe," "I may have" -- hear me out -- "could have been," "possibly," "might have," "to the best of my recollection," no.

THE WITNESS: Okay.

THE COURT: You either did or you didn't or you don't know.

THE WITNESS: I don't know, sir.

THE COURT: That way we have an accurate record.

BY MR. NOLL:
Q. Your testimony is, you've never seen Exhibit 103?

MR. KLEIN: Objection, Your Honor. Misstates the
testimony.

THE WITNESS: I don't know that I've seen it
before.

BY MR. NOLL:
Q. Do you know whether Exhibit 103 is an NDS document or not?
A. I don't know.
Q. Okay. We'll move on, then.

Yesterday you testified that Mr. Tarnovsky had reverse-engineered certain EchoStar conditional access
devices. Do you recall that?
A. Okay. Yes.
Q. All right. And you don't know how many receivers or devices EchoStar -- Mr. Tarnovsky reverse-engineered that related to EchoStar in any way; is that correct?
A. I'm sorry. Could you ask it again, sir?
Q. Sure. We know that Mr. Tarnovsky reverse-engineered certain EchoStar devices, right?
A. Right.
Q. You just don't know how many EchoStar devices

Mr. Tarnovsky reverse-engineered, correct?
A. That's correct.
Q. And in order to train Mr. Tarnovsky -- we talked a little bit about it yesterday -- you gave him an employee handbook and that's it, correct?
A. I gave him an employee handbook; that's correct.
Q. You can't recall if you placed any restrictions on Mr. Tarnovsky's assignments that he was performing in the hacker community, correct?
A. Yeah. I would have given him -- I did give him restrictions on his assignments in the hacker community.
Q. You recall giving a deposition in this case, sir?
A. Yes, I do.
Q. And you told the truth at the time of your deposition?
A. Yes, I did.
Q. And are you saying something different here today, sir? A. No, I recall giving Mr. Tarnovsky instructions when he went on an assignment in the field. MR. NOLL: Okay. May I ask Steve to hand Judge Carter Page 28 (sic), lines 8 through 13 for review. MR. FERGUSON: (Complies.) THE COURT: Thank you. Lines, Counsel? MR. NOLL: Page 28 -- page 128, Lines 8 through 13.

THE COURT: This is not the correct document. MR. FERGUSON: (Provides another document to the court and witness.)

THE COURT: Okay. Thank you. You may read that. MR. NOLL: Can we play the video, Your Honor? THE COURT: You may. MR. NOLL: Play clip 42, please -- no, 62. (Videotape played as follows:)
"QUESTION: Did you place any restrictions on Mr. Tarnovsky's assignments that he was performing in the hacker community?
"ANSWER: I don't recall."

BY MR. NOLL:
Q. Mr. Norris, you were aware it was a possibility that

Mr. Tarnovsky would continue to pirate satellite systems, correct?
A. It's a possibility.
Q. You weren't concerned about that; right, sir?
A. I would say I wasn't worried about it. I think concern and worry -- $I$ probably said I wasn't concerned.
Q. You make a distinction between concern or worry?
A. I think if I had a -- yes, I do.
Q. What is that distinction?
A. I think if there was some response or something that $I$ didn't understand, I would be worried. I think concern is something that is not really based on his action, an action he might have taken. I would have been worried about an action he may have taken if $I$ didn't understand or know about it in advance.
Q. Let's move to Exhibit 51, please.

Steve's going to hand you 51.
A. Sure.
Q. Can you identify 51?
A. It's a series of e-mails.
Q. Okay.
A. Can I look at it?
Q. Yeah. You know it's a series of e-mails that involve you; is that correct?
A. Can I look at it?
Q. Sure.
A. Okay.
Q. Okay. Before we talk specifically about Exhibit 51, you can't recall, sir, if anyone at NDS Israel asked you to retain EchoStar access cards; is that correct?
A. To retain? I don't recall.
Q. And you can't recall sending any EchoStar access cards or Smart Cards to Israel; is that correct?
A. That's correct.
Q. And you don't specifically recall asking Mr. Tarnovsky to retain any EchoStar Smart Cards; is that correct?
A. Not specifically, no.
Q. Okay. Going back to Exhibit 51, is my understanding correct that you can identify that document as a series of e-mails that you were involved with?
A. Yes, I was.
Q. You don't have any reason to believe that document, Exhibit 51, is somehow incorrect?
A. I have no reason to believe that. MR. NOLL: Okay. Plaintiffs offer Exhibit -- I tell you, let's go back to -- hand him another exhibit, Steve. Exhibit 1568. My apologies. MR. FERGUSON: (Complies.) THE WITNESS: Thank you.

BY MR. NOLL:
Q. Can you identify Exhibit 1568, Mr. Norris?
A. Yes.
Q. What is 1568?
A. It's a summary or it's an e-mail or an attachment to an
e-mail that $I$ had on my computer, an encrypted document or
e-mail.
Q. Okay.

MR. NOLL: Plaintiffs offer Exhibit 1568,

Your Honor.

THE COURT: Any objection?

MR. KLEIN: No, objection.

THE COURT: 1568 is received.
(Exhibit No. 1568 received in evidence.)

What about 51?

MR. NOLL: Let's focus --

THE COURT: What about 51?

MR. NOLL: We'll offer 51 if there's no objection.

MR. KLEIN: No objection.

THE COURT: Received.
(Exhibit No. 51 received in evidence.)
BY MR. NOLL:
Q. Focusing on Exhibit 1568, let's look at the top part, the top first paragraph.

There's reference to -- it says, "The hard copy I
received from Mr. Strong was missing." Do you see that, sir?
A. I do.
Q. Who is Mr. Strong?
A. I have no idea.
Q. You don't know who Mr. Strong is?
A. No, I don't.
Q. Is this an e-mail between yourself and Mr. Chaim Shen-Orr, the head of engineering at NDS Israel?
A. I don't know.
Q. You found this document -- this document was stored on your computer, but you don't know what it is, sir?
A. Correct.
Q. Who at NDS would know who Mr. Strong is?
A. Whoever wrote this e-mail.
Q. Let's be clear, sir. This document was found on your computer, correct?
A. Correct.
Q. And you don't know who Mr. Strong is?
A. I don't know Mr. Strong.
Q. Who at NDS would know --

THE COURT: That wasn't the question. The
question is, if you know who he is.

THE WITNESS: No, I don't, sir.
THE COURT: Thank you.

THE WITNESS: No, I don't.

BY MR. NOLL:
Q. Do you have any idea of anyone at NDS who would know who Mr. Strong is?
A. No, I don't.
Q. Okay. Let's focus down a little bit further.

It says, "Your request is, Chaim, the field told our contact of their requirement for a second image of the code."

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Do you see that?
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A. Yes.
Q. Now, who's "the field"?
A. I don't know who they're talking about. I don't know who the field is. I don't know who wrote that.
Q. Who at NDS would know who "the field" is, Mr. Norris?
A. Whoever wrote this e-mail. And I don't know who wrote this e-mail.
Q. You have no idea who the field is, sir?

I mean, I'm trying to get understanding of what your
testimony is here today. And that's my understanding:

You're head of security for NDS in the United States. This
e-mail was found on your computer. You don't know who

Mr. Strong is, and you don't know who "the field" is. Is
that a correct understanding?
MR. KLEIN: Your Honor, I object. It's argument,
and he's asking for speculation.

THE COURT: Overruled. You may answer the question, sir.

THE WITNESS: I don't know who Mr. Strong is, and I don't know who wrote this e-mail. BY MR. NOLL:
Q. Okay. Let's keep going through it.
"Number 1, I need another image of a second CAM." Do you see that, sir?
A. Yes.
Q. What is a CAM?
A. That's a DirecTV NDS conditional access module.
Q. "Number 2, I need to know what IRD number goes with each of the images. Remember, I cut off the info from the cartoon -- the cartons and sent to you with the cards."

Do you know what that means?
A. The person is asking what integrated receiver descrambler number goes with, I believe, images of a CAM or DirecTV card.
Q. Now, let's focus on the next paragraph, which is important.

It says, "they need to be absolutely certain there is not the hidden possibility of identifying the ID of the EchoStar card that the code comes from. Some kind of a fingerprint or receiver's serial number, if a card has been
paired, in the code that is developed. They can do this if they have code from a second card."

Do you see that, sir?
A. I do.
Q. Do you know what that's referring to?
A. It's technical information about the identity of an EchoStar card and where that EchoStar card code comes from. Q. Isn't this language talking about masking the identity of information from the inside of an EchoStar card that would allow that card to be identified to someone?
A. I don't know.
Q. Okay. Let's flip to the third page of Exhibit 1658, Mr. Norris.

Do you see at the top it says, "Norris_..properties"?
A. Yes.
Q. And this is why you believe this document was found on your computer, 'cause this is the metadata that shows that it was on your computer, correct?
A. Correct.

THE COURT: Just a moment, Counsel.

Would you put that up, please, on the screen. Would you show us what you're referring to. (Document displayed.)

MR. NOLL: It's the third page of Exhibit 1568.

There it is. He's got it now.

THE COURT: It's the fourth page, isn't it? MR. NOLL: Well, my copy it's the third page. THE COURT: Thank you.

BY MR. NOLL:
Q. Okay. If we focus down, Mr. Norris, it says: "Created date Sunday, August 23rd, 1998." Do you see that, sir?
A. Yes, I do.
Q. You have no reason to dispute that that was when this Exhibit 1568 was created, correct?
A. Correct.
Q. You are aware of EchoStar's claims in this case that NDS hacked and posted EchoStar's codes on the Internet, correct?
A. Correct.
Q. Have you ever seen a document called the Headend Project Report, sir?
A. I don't recall.
Q. Do you have any knowledge as to whether or not NDS reverse-engineered or hacked Echostar's --

THE COURT: Just a moment. Just a moment. I want you to think very carefully about the answers for a moment.

I've reminded other witnesses consistently, so I'm not bearing down on you: Words such as "to the best of my recollection," "could have been," "might have been,"
et cetera -- make absolutely certain as you think through that that you can't recall.

If that's your answer, so be it.

THE WITNESS: Yes, sir.

THE COURT: Okay.

THE WITNESS: Yes, sir.

THE COURT: Thank you very much.

Counsel, your next question or the same question. MR. NOLL: Thank you, Your Honor.

BY MR. NOLL:
Q. Have you ever seen the Headend Project Report done by NDS, sir?
A. I don't recall.
Q. Do you have any knowledge as to whether or not NDS reversed-engineered EchoStar's security system in 1998?
A. Yes.
Q. And what is that knowledge, sir?
A. It's my understanding that it was reverse-engineered.
Q. And that -- do you have any knowledge that that
reverse-engineering started in or about the middle-1998 time
frame?
A. I don't have that knowledge.
Q. Do you know when that reverse engineering project was concluded by NDS?
A. No, I don't.
Q. Focusing back on what my copy shows as the second page of Exhibit 1568, at the top --
A. Okay.
Q. -- do you see, sir, it says: "Chip ID"? It says, "ver.2chip Chip ID." Do you see that line at the top?
A. Yes, yes, I do.
Q. And at the end of that line it says: "ID ROO17942225." Do you see that, sir?
A. Yes, I do.
Q. Do you know what that ID R0017942225 is?
A. No, I don't know.
Q. Do you have any understanding as to whether or not that's the way that EchoStar puts serial numbers on its Smart Card's receivers?
A. No, I don't.
Q. Do you know whether or not this ROO number relates to a particular EchoStar Smart Card or satellite receiver?
A. No, I don't.
Q. Do you have any knowledge to whether or not this

ROO number relates to Mr. Tarnovsky's satellite Smart Card or receiver that he had subscribed to from the DISH Network?
A. No, I don't.
Q. Did you get Mr. Tarnovsky's Smart Card from him and send it to NDS Israel to be reverse-engineered for the Headend Project, sir?
A. No, sir.
Q. Okay. Just so I'm clear, Mr. Norris. You don't understand who "the field" is, Mr. Strong is, or our contact as it is referred to in Exhibit 1568?

MR. KLEIN: Objection, Your Honor. It's argument. THE COURT: Overruled. THE WITNESS: I don't.

BY MR. NOLL:
Q. And you don't know who at NDS would know that information?
A. No, I don't.

MR. NOLL: Now, lets put up Exhibit 51, please. We've already offered that, and it's been admitted into evidence.
(Document displayed.)

BY MR. NOLL:
Q. Exhibit 51 -- I'm going to focus your attention, Mr. Norris, on the center of Exhibit 51. It's a series of e-mails. Do you agree with that, sir?
A. Yes.
Q. Okay. And in the center, it's from John Norris, sent Monday, November 13th, 2000. Do you see that, sir?
A. Yes, I do.
Q. And it's sent to Andy Schwartz, Yoni Shiloh, Dani Ratner, and there are some other names there. Do you
see that?
A. Yes.
Q. Now, the people you sent this e-mail to are NDS employees; is that correct?
A. Yes, they are.
Q. And I'm going to read for you from the body of that e-mail.

It says, "Perhaps a little off topic, but when I was at Mike's yesterday, he took an EchoStar hack file from the Internet, put it in a P1, put the P1 into an EchoStar receiver, and got all the programming."

It says, "The same thing can be done with the P2. We're seeing a lot of requests for Pls on the Internet now. JN."

Do you see that, sir?
A. Yes, I do.
Q. Now, when you say "Mike," "Mike" is Christopher Tarnovsky, correct?
A. Yes.
Q. Mike George was Mr. Tarnovsky's nickname at NDS, correct?
A. That's correct.
Q. And when you say you were at Mike's, you're saying you were at Mike's California residence or his home office, correct?
A. Correct.
Q. And what Mr. Tarnovsky did was, he took an EchoStar hack off the Internet and demonstrated for you that it worked, right?
A. Correct.
Q. And Mr. Tarnovsky was able to receive all of EchoStar's programming for free, correct?
A. Correct.
Q. Let's go to Exhibit 113, please.

Do you see Exhibit 113, sir?
A. I do.
Q. Now, you're aware that EchoStar claims in this lawsuit that Mr. Tarnovsky posted EchoStar's codes on the Internet on December 21st, 2000, correct?
A. Correct.
Q. And you've seen Exhibit 113 before, right?
A. Yes, I have.
Q. It's an internal e-mail between yourself and

Mr. Tarnovsky, correct?
A. Correct.
Q. And it's dated December 22nd, 2000, correct?
A. Correct.
Q. One day after EchoStar claims that Mr. Tarnovsky posted its instructions and codes on the Internet, correct?
A. Correct.

MR. NOLL: Your Honor, I offer Exhibit 113.

THE COURT: Any objection?

MR. KLEIN: No, objection.

THE COURT: Received.
(Exhibit No. 113 received in evidence.)
BY MR. NOLL:
Q. Let's focus on the signature line for a second, Mr. Norris.

The e-mail was sent to you from Mike George on December 22nd, 2000. Subject of the e-mail: "Cat's out of the bag." Do you see that, sir?
A. I do.
Q. Then he says, "There is a public file on the Internet I saw via www.interestingdevices.com, as well as dr7, and it's the syntax to dump any ROM 3 NagraVision card. Mike." Do you see that, sir?
A. I do.
Q. One day after EchoStar claims Mr. Tarnovsky posted codes on the Internet, you receive this e-mail, correct?
A. Correct.
Q. Do you know what Mr. Tarnovsky meant when he said, "Cat's out of the bag"?
A. He said that the EchoStar card is hacked. It's public. The cat's out of the bag. It's visible. Somebody has posted it on these two sites.
Q. Did you go to the sites yourself to look at the information that was posted?
A. Probably not -- uh, no, I didn't.
Q. Did you have any discussions with Mr. Tarnovsky about this e-mail, "cat's out of the bag"?
A. No.
Q. Did Mr. Tarnovsky's job duties and responsibilities in any way relate to EchoStar's security system?
A. In some ways, yes, it did.
Q. How is that?
A. Such as the earlier e-mail where there was code posted on the Internet, and part of his job was monitoring the Internet, and people were citing in the Internet that you could take EchoStar code that was pirated code and put it in an NDS or DirecTV conditional access card, and then that card being placed in an EchoStar receiver would then allow the EchoStar services to come in the clear, things like that. He would monitor that. He would report it, he would test it, and we would report it back to our labs -- or to our staff.
Q. Did your job duties and responsibilities as head security officer for NDS Americas relate in any way to EchoStar's conditional access system?
A. We monitored all piracy, so I would say, yes.
Q. You monitored all piracy. You had your finger on the
pulse of the pirate industry; is that correct?
A. We tried.
Q. You've prosecuted a lot of pirates in your time at NDS; correct, sir?
A. Correct.
Q. You've had some thrown in jail, correct?
A. These are people convicted and went to jail.
Q. You've had pirate websites taken down, correct?
A. Correct.
Q. Okay. And the e-mail references "www.dr7.com." You agree with me, sir, that's a pirate website?
A. Correct.
Q. And you saw the EchoStar code there, correct? You just don't recall when?
A. I don't recall seeing the EchoStar code. I wouldn't recognize EchoStar code. I'm not really technical.
Q. And as it relates to Mr. Tarnovsky, you understand, Mr. Norris, that at least one point Mr. Tarnovsky was asked by NDS to set up an account on a pirate website, correct?
A. I believe so, yes. Yes, I did.
Q. Mr. Norris, you understand through your investigations in the piracy world that individuals who post on these websites most oftentimes use aliases or nicknames, correct?
A. Correct.
Q. And you understood that Mr. Tarnovsky used certain
aliases and nicknames when he posted information to piracy websites, correct?
A. Correct.
Q. You were Christopher Tarnovsky's supervisor from the operational security standpoint throughout the course of the time Mr. Tarnovsky worked for NDS, correct?
A. Correct.
Q. You never asked Mr. Tarnovsky to provide you a list of the Internet aliases that he used, correct?
A. Correct.
Q. In fact, you don't recall Mr. Tarnovsky ever providing such a list to NDS, correct?
A. Correct.
Q. You don't recall having any concerns that Mr. Tarnovsky may post information on piracy-related websites while he was an employee of NDS, correct?
A. I'm not sure I understand that question. Could you repeat that?
Q. You were Mr. Tarnovsky's supervisor, right, sir?
A. Yes.
Q. And you didn't have any concerns with Mr. Tarnovsky posting information on piracy-related websites, correct?
A. I would say that's correct.
Q. You never asked Mr. Tarnovsky to provide you with copy of the registration pages or the profiles that he used to
set up Internet aliases, correct?
A. Correct.
Q. And Mr. Tarnovsky was issued computers from NDS that he used at his house in California, correct?
A. Correct.
Q. And you personally never took any steps to monitor

Mr -- or supervise Mr. Tarnovsky's use of any NDS computers outside of NDS's facilities, correct?
A. Mr. Tarnovsky was supervised on the Internet by our Internet Group out of Jerusalem. I did not take personal steps to monitor posting.
Q. Let's turn to Exhibit 41, please.
A. Okay.
Q. Can you identify Exhibit 41, Mr. Norris?
A. Yes.
Q. Is this a document that's an e-mail that involves exchanges with you?
A. Yes.
Q. You have no reason to believe that this is somehow an incorrect e-mail?
A. No reason to believe that.

MR. NOLL: Offer Exhibit 41, Your Honor.

THE COURT: Any objection?

MR. KLEIN: No, objection.

THE COURT: Received.
(Exhibit No. 41 received in evidence.)

BY MR. NOLL:
Q. Focus your attention to the second page. It's a series of e-mails, a thread. We'll start with the first one. It's the original thread.

It's from Beth Erez, sent February 6th, 2001, to John Norris and others and cc Reuven Hasak. Do you see that?
A. Yes.
Q. It says, "Hi, John and Avigail. We are working with others to produce a document for a Korean DTH system. They were really excited about the DirecTV Black Sunday event. We would like to take advantage of it by pointing out how EchoStar is so terribly hacked. It would help us to know whether EchoStar was also carrying the Super Bowl and, if yes, if we could guess at how many illegal viewers of EchoStar were able to view the event. Any ideas?"

Do you see that, sir?
A. Yes.
Q. Who was Beth Erez?
A. She was a PhD and ran the marketing department for Israel.
Q. What is Black Sunday, Mr. Norris?
A. That was an electronic countermeasure that NDS developed for DirecTV, our customer, to turn off or disable pirated DirecTV cards, and it was a successful
countermeasure.

THE COURT: Just a moment, Counsel.

I'm familiar with the document. Could you show me where that's located on this document?

MR. FERGUSON: What?

THE COURT: Show me, please, where that is located on this document you handed me.

No. The original document you handed me. Stay with that document, please.

MR. FERGUSON: (Complies.)

THE COURT: Okay. Thank you.
Now, is the difficulty that I've got three pages and you have two? Do you have a hard copy that you're referring to?

MR. NOLL: Yes, Your Honor.

THE COURT: Turn to the page from now on. Because what's happening to me is we have a hard copy out there that has a front and back. You've been kind enough to xerox three pages. That's the confusion.

MR. NOLL: Well, you --

THE COURT: I keep looking at Page 3, and you're on Page 4, so you've got the hard copy. I have a xerox copy.

> All right. Thank you very much.
> Now, please continue.

MR. NOLL: Okay.

BY MR. NOLL:
Q. So, Mr. Norris, you say that Black Sunday was a major electronic countermeasure sent by NDS and DirecTV to kill pirate devices of DirecTV, correct?
A. That's correct.
Q. And this countermeasure was effective in -- it was implemented in January 2001, correct?
A. Yes, it was.
Q. And it was implemented right before the Super Bowl. Do you recall that?
A. Correct.
Q. Part of the goal was so that the pirates of DirecTV would have their TV turned off before the Super Bowl, correct?
A. Correct.
Q. Was it January 21st, 2001? Can you recall?
A. I don't recall.
Q. Okay. Now, focusing back to the front page of

Exhibit 41 -- and I'm going to focus on the e-mail thread that's from Michael George sent Wednesday, February 7, 2001. Do you see that, sir?
A. Yes.
Q. To John Norris, cc Avigail Gutman. Subject is
"EchoStar." Do you see that?
A. Yes.
Q. You know Mike George is Christopher Tarnovsky, correct?
A. Yes.
Q. Mr. Tarnovsky says, "I'm guessing there are at least 100,000 original cards professional E3M'd or EchoStar 3M. Now, the ROM for 2 and 3 ROMs presently in use by the USA are public and have more disassembly done to them than the P2 ROM."

So the P2 ROM, the DirecTV ROM?
A. It appears he's talking about the EchoStar ROM.
Q. But P2 -- is P2 DirecTV?
A. P2 is DirecTV.
Q. Period 2 card for DirecTV, correct?
A. Yes.
Q. He says, "There's more disassembly done to them than the P2 ROM, the ROM where their hole is located, of which they can never shut down. They can only swap out."

Do you see that, sir?
A. I do.
Q. Now, Mr. Tarnovsky, to your knowledge, is saying that EchoStar can only swap out its ROM 3 cards?
A. That's what he was saying, yes.
Q. Okay. If we go to the next sentence: "EchoStar is hackable via PIT card. There's a hack for EchoStar on all older hardware/plastic original cards that have been around
for DTV," and he gives some examples. Do you see that?
A. Yes, he does.
Q. Then after the examples, he says, "NagraVision is hacked worldwide because they use the same card around the world. NDS -- NDS is hacked in North America."

Do you see that?
A. I do.
Q. Then skipping to the next paragraph, he says, "I would guess there must be well over another 100,000 users using \$5 AVR cards or older battery cards for either ExpressVu or EchoStar."

Do you see that?
A. Yes.
Q. Mr. Tarnovsky sent you this e-mail approximately a month and a half, maybe a little less, then, after

EchoStar's codes were posted on the Internet in

December 2000, correct?
A. Correct.

MR. NOLL: I'm going ask Steve to pass you
Exhibit 77, please.
THE COURT: The difficulty is the court reporter just approached the Court. She believes the small words are being left out from what she's reading on the screen and your reading of the same document. So she's going to take
your words.

MR. NOLL: Okay.
THE COURT: Okay, Counsel.

BY MR. NOLL:
Q. Do you have Exhibit 77, Mr. Norris?
A. Yes, I do.
Q. And you've heard of a gentleman named Dean Love; is
that correct?
A. Correct.
Q. You understand that Dean Love used a nickname,
"Northsat"?
A. Yes.
Q. Have you seen Exhibit 77 before, sir?
A. Yes.
Q. And is Exhibit 77 an e-mail exchange between you and

Dean Love?
A. Yes.

MR. NOLL: Your Honor, plaintiff's offer

Exhibit 77.

THE COURT: Any objection?

MR. KLEIN: No, objection.
THE COURT: Received.
(Exhibit No. 77 received in evidence.)
BY MR. NOLL:
Q. Focus down on -- let's look at the top. From Northsat.

You see that?
A. Yep.
Q. December 7th, 2000, is the date?
A. Yes.
Q. And the subject is, "Could you find out?" question mark. Do you see that?
A. Yes.
Q. Mr. Love said -- says, "that was someone you guys should have some interest in if he's not already on the roll: Von. But BTW, John, when we were talking here earlier and we were talking about J from EDM area, I was confusing him with this guy. This Von is they [sic] guy who also popped the Nagra and did all the Swiss cheese crap that was released through dr7."

Do you see that, sir?
A. I do.
Q. And Dean Love told you this as of December 7th, 2000, correct?
A. Correct.
Q. And when you got this e-mail, you didn't do anything to investigate Mr. Tarnovsky?
A. Correct.
Q. In fact, Dean Love, he's a former -- or he's a satellite pirate, right?
A. Correct.
Q. And NDS was interested in recruiting Mr. Love; is that correct?
A. There was an interest.
Q. That's partly why you're having this e-mail exchange with him, 'cause you were in the process of recruiting him, correct?
A. Correct.
Q. Dean Love ultimately refused to go to work for NDS, right?
A. Correct.
Q. You don't recall ever authorizing Mr. Tarnovsky to send access cards to Al Menard; is that right, sir?
A. Correct.
Q. I mean, if you did, you just can't remember doing it.

Is that a fair statement of what your testimony would be here?
A. That's correct.
Q. Let's look at Exhibit 771, please.

Could you identify Exhibit 771, Mr. Norris?
A. Yes. E-mails between myself, Yoni Shiloh, and

Michael George/Chris Tarnovsky.
MR. NOLL: Your Honor, offer Exhibit 771.

THE COURT: Any objection?

MR. KLEIN: No, Your Honor.

THE COURT: Received.
(Exhibit No. 771 received in evidence.)

BY MR. NOLL:
Q. Let's focus on the first thread on the first page: From John Norris, Saturday, August 22nd, 1998, to Michael George, who we know is Chris Tarnovsky, correct?
A. Yep.
Q. And the subject is "Dr7's ECM-CAM," correct?
A. Correct.
Q. And you say, "why would dr7 name the CAM you gave him the same tech as the one you gave Ron?" Did I read that correctly?
A. Yes, you did.
Q. Now, CAM is a conditional access module, correct?
A. Correct.
Q. In other words, a Smart Card, correct?
A. Correct.
Q. And these are your words?
A. Correct.
Q. And you did in fact give permission to Chris Tarnovsky to give Al Menard a Smart Card in 1998; is that correct?
A. I don't think that's correct. No, that's not correct.
Q. Okay. How would you explain that, sir?
A. I think -- I think what I'm reading here is Tarnovsky gave a version of code to -- a DirecTV version of code that NDS developed to Al Menard and to Ron Ereiser, apparently,
and that they put that in their Smart Card. And when the Smart Cards went down, Mr. Menard's Smart Card did not go down, and there was confusion why it did not go down. Q. NDS was working with Al Menard as early as 1998, correct?
A. No.
Q. Okay. Focus up on the top thread from Mr. Tarnovsky back to you, August 23rd, 1998. I'm going to focus you on the last sentence of what appears to be the second paragraph, and I'll read for you; see if you can get there:
"Remember, he's my eyes and my voice when I'm not
there. The IRC" --

THE COURT: Just a moment. Where are you at, Counsel?

MR. NOLL: The last sentence of the second paragraph.

THE COURT: Just a moment. Underline that in yellow.

MR. NOLL: Starts with "Remember."
(Technician complies.)

BY MR. NOLL:
Q. Okay. We got it. "Remember he's my eyes and my voice when I'm not there, the IRC net. He does not need my card to watch the TV."

Mr. Tarnovsky is talking about Mr. Menard being his
eyes and his voice when Mr. Tarnovsky's not on the Internet, correct?
A. Correct.
Q. So you knew that Mr. Tarnovsky was working with Mr. Menard as early as 1998, correct?
A. It was a counter -- counter-piracy operation against Mr. Menard. He wasn't working with him. He was working an investigation against him.
Q. Earlier we talked about how you pride yourself in fighting piracy, correct? Let me ask you: Do you pride yourself in fighting piracy, sir?
A. Yes, I do.
Q. And you've prosecuted hundreds of pirates, correct?
A. Yes.
Q. You've shut down a lot of websites that were involved with piracy, correct?
A. Correct.
Q. But you have never prosecuted Al Menard; is that
correct, sir?
A. Correct.
Q. You didn't sue Al Menard, correct?
A. That's correct.
Q. You didn't work with government officials to raid

Al Menard, correct?
A. Correct.
Q. And you knew Al Menard's piracy website contained pirating of DirecTV as well, correct?
A. Correct.
Q. Early 2001, Mr. Norris, you became aware of a government investigation into Christopher Tarnovsky, correct, sir?
A. Correct.
Q. You understood U.S. Customs agents desired to image Mr. Tarnovsky's computer, correct?
A. Correct.
Q. You're aware that EchoStar was not allowed to image Mr. Tarnovsky's computers in this case?
A. I'm not aware of that.
Q. You recall the U.S. Attorney officials who were investigating Mr. Tarnovsky, correct?
A. Correct.
Q. One was a man by -- Attorney Chang, correct?
A. Correct.
Q. Another was an attorney named Spertus, correct?
A. Correct.
Q. And you personally met with Mr. Chang, correct?
A. Correct.
Q. You recall the meeting you had with Mr. Chang related
to the government's investigation of Mr. Tarnovsky because it had intercepted packages stuffed with cash concealed in
electronic devices in San Marcos, Texas, correct?
A. Correct.
Q. There are two shipments: One was $\$ 20,100$. The other shipment was $\$ 20,000$.

Do you recall that, sir?
A. Yes.
Q. There were multiple events relating to Mr. Tarnovsky as you recall, correct?
A. There were those two events.
Q. And also present at this meeting with the
U. S. Attorney was Mr. Hasak, Mr. Reuven Hasak, correct?
A. Correct.
Q. And Mr. Hasak, as we know, is the chief of global security for NDS, correct?
A. Correct.
Q. And also present at that meeting was Mr. Rick Stone, NDS's counsel sitting right there, correct?
A. That's correct.
Q. Mr. Tarnovsky wasn't present, was he?
A. No.
Q. In fact, you recall that $M r$. Stone set that meeting up with the U. S. Attorney's office, correct?
A. That's correct.
Q. And you don't recall whether you disclosed to Mr. Chang at that time the other cash that Mr. Tarnovsky received in

Manassas, Virginia we talked about yesterday, correct?
A. The other cash that Mr. Tarnovsky received in Manassas, Virginia?
Q. Yeah. I'll refresh your recollection. Yesterday you testified that Mr. Tarnovsky received $\$ 20,000$ cash stuffed in an electronic device that was sent to his Manassas, Virginia mailbox. Do you remember that virtual?
A. I do recall that now, yeah.
Q. And at the time you met with the U. S. Attorneys' office, you did not disclose that cash to the
U. S. Attorneys, correct?
A. That was not discussed.
Q. And according to you at this time you met with the
U. S. Attorneys in 2001, this is when you first learned that the cash was being sent to Mr. Tarnovsky's Texas mailbox, correct?
A. Correct.
Q. And after you found this out, you interviewed

Mr. Tarnovsky. Right, sir?
A. Correct.
Q. And you understood from Mr. Tarnovsky that he didn't know who this cash was from, correct?
A. Correct.
Q. You were concerned that Mr. Tarnovsky was receiving cash at a Texas mailbox, correct?
A. Correct.
Q. Bothered you, didn't it?
A. Yes.
Q. Bothered you that he received $\$ 40,100$ cash at his Texas mailbox during the 2000 time frame, correct?
A. Correct.
Q. But you never asked Mr. Tarnovsky to swear under oath that he did not have any involvement in the receipt of that cash, correct?
A. No -- I mean, correct.
Q. Tarnovsky denied it, correct?
A. Correct.
Q. You didn't fire Mr. Tarnovsky at that time, correct?
A. Correct.
Q. You didn't reprimand Mr. Tarnovsky, correct?
A. Correct.
Q. Took his word that he wasn't involved, correct?
A. We investigated the incident, correct.
Q. Wait a minute. You said you interviewed Mr. Tarnovsky?
A. Yeah.
Q. Right?
A. Yes, we did. Yes, I did.
Q. Okay. Shift gears for a moment.

You're aware that Oliver Kommerling was part of the NDS Haifa team in Israel; right, sir?
A. Yes, he was.
Q. And you understand that Mr. Kommerling claimed that Mr. Tarnovsky posted Canal+'s codes on the Internet; correct, sir?
A. Correct.
Q. And Mr. Tarnovsky reported directly to you throughout his tenure at NDS, correct?
A. Correct.
Q. And that tenure spanned approximately 10 years, right?
A. Correct.
Q. From 1997 till 2007, when Mr. Tarnovsky was fired, correct?
A. Correct.
Q. And in order to investigate the allegations that Tarnovsky was behind the Canal+ attack and posting of the codes, you questioned him, right?
A. Correct.
Q. And again, you understood Mr. Tarnovsky denied the allegations, correct?
A. Correct.
Q. You didn't reprimand Mr. Tarnovsky at that time?
A. That's correct.
Q. You didn't fire him?
A. That's correct.
Q. Wasn't put on probation?
A. No.
Q. Took his word for it?
A. That's correct.
Q. Now, focusing on the EchoStar case, you've read the EchoStar complaint, correct, sir?
A. I have.
Q. Once you read it, it's your testimony that you discussed it at great length with Mr. Tarnovsky, correct?
A. That's correct.
Q. And you understood there was just denial by

Mr. Tarnovsky, correct?
A. Correct.
Q. Best sense of what Mr. Tarnovsky said to you was,
"That's bullshit," correct?
A. That's correct.
Q. Mr. Tarnovsky gave no reasoning as to why he denied the allegations, correct?
A. He denied it. I don't recall any reasons, him giving any reasons.
Q. Right. He didn't explain, right? He just said, "I didn't do it. It's not me." Right?
A. Essentially that's correct.
Q. Let's talk about Al Menard for a minute.

You recall before 1998, Nagra's conditional access system used by EchoStar was not hacked in the United States,
correct?
A. Correct.
Q. You learned that Nagra was first hacked in the late 1990s or early 2000, correct?
A. Correct.
Q. You understood the code was posted on dr7's website, correct?
A. That's correct.
Q. That is Al Menard's website, right?
A. That's correct.
Q. And you were aware that Al Menard had a relationship with Christopher Tarnovsky, correct?
A. Yes, that's correct.
Q. And you first became aware of this relationship in the late 1990's or early 2000, correct?
A. Correct.
Q. And you understood that Mr. Menard and Tarnovsky had a meeting in Canada in 2000, correct?
A. Correct.
Q. In fact, you instructed Mr. Tarnovsky to attend that meeting, correct?
A. That's correct.
Q. This meeting we're talking about was a meeting of people involved in the piracy of satellite signals and services, correct?
A. That's correct.
Q. You never prosecuted Mr. Al Menard, we know that. Right?
A. That's correct.
Q. Instead, NDS entered into a consulting relationship with Mr. Menard, correct?
A. Correct.
Q. And NDS entered into this relationship March 31, 2003, correct?
A. That's correct.
Q. This was after you were aware that EchoStar was bringing claims against NDS for its alleged conduct and the conduct of Mr. Menard and Mr. Tarnovsky, correct?
A. Bringing claims or it already brought claims, I don't know.
Q. Yeah. Do you know EchoStar filed a motion to intervene in the Canal+ case in 2002?
A. Yes.
Q. Okay. And you hired Mr. Menard after that, right?
A. Correct.
Q. Let's turn to Exhibit 115, please.

Can you identify Exhibit 115, Mr. Norris?
A. It's a consulting agreement we had with Mr. Menard.

MR. NOLL: Plaintiffs offer 115, Your Honor.

THE COURT: Any objection?

MR. KLEIN: No, Your Honor.

THE COURT: Received.
(Exhibit No. 115 received in evidence.)

BY MR. NOLL:
Q. You were the individual on NDS's behalf who decided to enter into this consultancy with Mr. Menard, correct?
A. Correct.
Q. You signed the agreement on NDS's behalf, correct?
A. Correct.
Q. And you entered this relationship after you read the lawsuit filed by EchoStar against NDS, correct?
A. Correct.
Q. You read Mr. Menard's name in that lawsuit, right?
A. Correct.
Q. And you considered the allegations made by EchoStar against Mr. Menard before you negotiated his consultancy, correct?
A. Correct.
Q. Importantly, you also knew the relationship between

Al Menard and Chris Tarnovsky, correct?
A. Correct.
Q. And you knew Mr. Menard's website contained information on how to hack EchoStar's security system, correct?
A. That's correct.
Q. Now, the services that NDS sought from Mr. Menard was
that Mr. Menard was able to image approximately 10 million documents related to satellite signal theft, correct?
A. Satellite signal theft of NDS technology.
Q. Is it your contention those 10 million documents didn't contain any satellite signal theft relating to EchoStar?
A. I don't know.
Q. You don't know because you've never seen that database; is that correct, sir?
A. That's correct.
Q. NDS has never gotten ahold of that database; is that right?
A. I think that's incorrect.
Q. NDS has the Menard database with 10 million documents relating to satellite piracy in it?
A. It's my understanding that the hard drive or contents are in the possession of NDS.
Q. Whose possession? Who has that at NDS, Mr. Norris?
A. I don't know the individual's name, but it would have been with our Internet group in Israel.
Q. Do you know whether those documents --

THE COURT: Just a moment. Who would be the supervisor or person in charge of that group? Is this the Jerusalem group or the Haifa group?

THE WITNESS: It's the Jerusalem group, sir.
THE COURT: Who would that person be in charge?

THE WITNESS: It could be -- I don't -- Ted Rose?

THE COURT: Thank you.

THE WITNESS: Ted Rose, I believe.

THE COURT: Thank you.

BY MR. NOLL:
Q. Do you know whether those documents have ever been provided to EchoStar in this case, sir?
A. I don't know.
Q. Let's focus on the first page of the agreement that NDS entered into with Al Menard. I'm going to focus your attention to Paragraph 2:
"Duties: Consultant shall render such consulting and advisory services concerning the business of company as may be requested by company from time to time to the best of consultant's ability."

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Do you see that, sir?
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A. Yep.
Q. What services does that mean?
A. The services were to monitor the Internet, actually, the global Internet, with postings that involve piracy of NDS technology, whether it's forums, websites, bulletin boards, anything on the Internet that contained attacks on NDS conditional access.
Q. Okay. Let's skip a sentence, okay? And to the next sentence that says, "Consultant agrees to devote a minimum
of 120 hours per month in performing his consulting services to company."

Do you see that?
A. Yes.
Q. Do you know if Mr. Menard devoted a minimum of 120 hours of work to NDS per month?
A. Yes, he did.
Q. Next sentence: "Consultant will maintain an accurate and detailed log of hours spent in fulfilling consultant -consulting obligations under this agreement."

Do you see that, sir?
A. Yes, I do.
Q. Mr. Menard keep a log?
A. I don't know.
Q. Have you ever seen a log?
A. No, I haven't.
Q. Do you know whether a log exists --
A. No.
Q. -- that Mr. Menard kept concerning his consultancy with NDS?
A. No, I don't.
Q. Next sentence: "A certified monthly copy of this log
will be made available to company upon written request."
Do you see that, sir?
A. Yes, I do.
Q. Did you ever make any written request to Mr. Menard for
a log of what he was doing on behalf of NDS?
A. No, I didn't.
Q. Are you aware of anyone at NDS ever making that request to Mr. Menard?
A. No, I'm not.
Q. Focus down to Paragraph 3 in the first page, "Compensation: Consultant shall be paid by company a monthly fee of 6,500 US."

Do you see that, sir?
A. Yes, I do.
Q. And Mr. Menard was, in fact, paid that amount per month; is that correct?
A. That's correct.
Q. And this relationship with Mr. Menard lasted approximately four years; is that right?
A. That's correct.
Q. So if we do the math, Mr. Menard was paid more than $\$ 300,000$ by NDS for his consultancy, correct?
A. Correct.
Q. And Mr. Menard's contract was not renewed by NDS on April 1st, 2007; is that right?
A. That's correct.
Q. That was your decision, correct?
A. Correct.
Q. And you interviewed Mr. Menard concerning the packages that were sent to Christopher Tarnovsky's mailbox in

San Marcos, Texas, right?
A. Correct.
Q. And your understanding is Mr. Menard denied involvement in sending those packages to San Marcos, correct?
A. That's correct.
Q. You didn't think Mr. Menard was lying, did you, sir?
A. No, I didn't.
Q. You believed him, right?
A. That's correct.
Q. You believed that he -- when he told you he wasn't involved, you believed it, correct?
A. That's correct.
Q. But you didn't renew his contract, right?
A. Correct.
Q. And you would say, sir, that the work Mr. Menard was performing was very important to NDS, correct?
A. It was very helpful, yes.
Q. I mean, Mr. Menard had excellent Internet skills, correct?
A. Correct.
Q. According to you, Mr. Menard helped out the government in at least one instance concerning satellite piracy, correct?
A. That's correct.
Q. And after you let Mr. Menard go, you didn't renew his contract, you didn't hire anyone to replace Mr. Menard; is that correct?
A. That's correct.
Q. In fact, is it your understanding that Mr. Menard is now sacking groceries in Canada for a living?
A. I have no idea.
Q. You don't know what he's doing now?
A. I do not.
Q. Now, focusing on Mr. Tarnovsky. Mr. Tarnovsky's employment with NDS was terminated on March 30th, 2007, right?
A. Correct.
Q. NDS has also not hired anyone to replace Mr. Tarnovsky, correct?
A. That's correct.
Q. But NDS still employs Mr. Tarnovsky's father, George Tarnovsky, right?
A. That's correct.
Q. And you understand there's no contemplation by NDS to terminate George Tarnovsky at this time, correct?
A. I have no contemplation to fire Mr. Tarnovsky at this time or...
Q. After the federal investigation of Mr. Tarnovsky, you
didn't fire him, right?
A. Correct.
Q. After U.S. Customs investigated him, you didn't fire Mr. Tarnovsky, correct?
A. That's correct.
Q. NDS didn't terminate Mr. Tarnovsky 'cause of the allegations in the Canal+ dispute, correct?
A. I'm sorry?
Q. NDS did not terminate Mr. Tarnovsky because of the allegations made against him in the Canal+ dispute, correct?
A. That's correct.
Q. NDS also did not terminate Mr. Tarnovsky when the allegations were leveled against him by DirecTV, correct?
A. That's correct.
Q. And the reason, according to you, that NDS terminated Mr. Tarnovsky after nearly 10 years of employment with NDS, was because NDS believed that Mr. Tarnovsky was less than truthful about the packages he received in San Marcos, Texas in 2001, correct?
A. That's not correct.
Q. Well, what is the reason, sir?
A. Well, he didn't receive the packages. He was not candid with us regarding who sent the packages, as far as we could tell.
Q. Six years earlier, right?
A. Correct.
Q. And to be clear on the packages, you're talking about the $\$ 40,100$, San Marcos, Texas, right?
A. That's correct.
Q. The lie told to you by Mr. Tarnovsky was that it was his position he didn't know who was sending him that cash, right?
A. That's correct.
Q. Now, you believe this day and time that Mr. Tarnovsky, he lied you to back then?
A. Correct.
Q. Now, Mr. Tarnovsky's employment and Mr. Menard's consultancy relationship ended on the same day; is that right?
A. That's correct.
Q. And it's your testimony, sir, that this was just a coincidence, correct?
A. It's not a coincidence.
Q. You supervised Tarnovsky for 10 years, right?
A. Correct.
Q. But you don't know who on behalf of NDS made the final decision to fire Mr. Tarnovsky, correct?
A. It was a collective decision, sir, of management.
Q. Something different than what you said in your deposition?
A. Yeah. I didn't know a specific person. It was a collective decision, $I$ believe, sir.
Q. Page 72 of your deposition:
"QUESTION: Just so I'm clear, you don't know who on behalf of NDS made the ultimate decision to fire Mr. Tarnovsky.
"ANSWER: That's correct."
A. That's correct.
Q. Is that still true here today, sir?
A. That's correct.
Q. You agreed with the decision, right?
A. Yes.
Q. And since Mr. Tarnovsky's been gone from NDS, you've referred him for employment to a company call Sirius Satellite, correct?
A. That's correct.
Q. In fact, you recommended him for a job position there, right?
A. For a project or consulting, not a job.
Q. And you felt comfortable recommending Mr. Tarnovsky, right?
A. Correct.
Q. But you didn't disclose to Sirius that Mr. Tarnovsky was the subject of several federal investigations, right?
A. That's correct.
Q. You didn't disclose to Sirius that he was a key player in several lawsuits that were filed against NDS, correct?
A. That's correct.
Q. And you also didn't disclose that NDS had recently terminated Mr. Tarnovsky, right?
A. That's correct.
Q. Don't you think Sirius would have wanted to know those things?
A. They would have discovered that or learned that if they wanted to enter into a relationship with him, when they did their due diligence.
Q. Just have a few more questions for you, Mr. Norris.
A. Certainly.
Q. These are important.

It's your position, sir, that you do not know whether Mr. Tarnovsky ever used the Nipper alias to post EchoStar's codes on the Internet, correct?
A. That's correct.
Q. The fact is you never asked Mr. Tarnovsky whether he used the alias Nipper, correct?
A. I may have asked him, "Who is Nipper?" and he said, I don't know.

I believe --

THE COURT: Well --

THE WITNESS: I'm sorry, sir.

THE COURT: Please answer the question.

THE WITNESS: Yes, sir.

Could you ask the question again, please?

BY MR. NOLL:
Q. Yeah. You never asked Mr. Tarnovsky if he was Nipper, correct?
A. Correct.
Q. You can't recall even asking Mr. Tarnovsky whether he used the Nipper alias in any shape or form, correct?
A. That's correct.
Q. And you, the head of NDS Americas security, have no idea who is responsible for the hack of EchoStar's first generation Smart Card, correct, sir?
A. That's correct.
Q. But you do know that EchoStar's first generation Smart Card is the point of most, if not all, pirate websites today; isn't that correct, sir?
A. I'm sorry. Could you please repeat that again?
Q. You do know, sir, that the hack of EchoStar's Smart

Card is the point of most, if not all, pirating websites today, correct?
A. I'm -- I don't understand the question, "the point of most"?
Q. It's the focus.

THE COURT: What do you mean, Counsel?

MR. NOLL: I'll reask the question.

THE COURT: I'm going to strike the question. It's not understandable.

MR. NOLL: Okay.

BY MR. NOLL:
Q. You don't know who's responsible for the EchoStar hack, right?
A. That's correct.
Q. But you do know that the focus of all hacking efforts on piracy websites today is upon the EchoStar conditional access system, correct?
A. That's correct.

MR. NOLL: Okay. No further questions. Pass the witness.

THE COURT: All right. We're going to take a witness out of order for just a moment.

Sir, if you would be kind enough to step down.

And we'll call you back in just a moment.

THE WITNESS: Okay.
THE COURT: Thank you very much.
(Witness steps down.)

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

MR. WELCH: Your Honor, we would like to call Dov

Rubin to the stand.

For the record, my name is Wade Welch.

THE COURT: Thank you. This witness is being called out of order.

Sir, would you raise your right hand, please.

DOV RUBIN, PLAINTIFF'S WITNESS, SWORN

THE WITNESS: I do.

THE COURT: Thank you, sir. If you would please be seated on the witness stand. Sir, would you state your full name.

THE WITNESS: My name is Dov Rubin.

THE COURT: Would you spell your first name, please, for the jury.

THE WITNESS: First name is D-O-V.

THE COURT: And your last name, sir.

THE WITNESS: Last name's R-U-B-I-N.

THE COURT: Thank you.

This would be direct examination on behalf of

EchoStar and NagraStar.

MR. WELCH: Thank you, Your Honor.

DIRECT EXAMINATION

BY MR. WELCH:
Q. Mr. Rubin, where do you currently work?
A. I work at NDS Americas.
Q. What's your current title there?
A. I'm the vice president and general manager.
Q. Could you give the jury a flavor for what it is you do as a vice president and general manager of NDS Americas?
A. First of all, here in the United States I'm responsible for support of our large customers -- or all our customers in North and South America. I'm responsible for sales, new sales, also for our Smart Card manufacturing plants that we have right down the road here in Costa Mesa. And I also participate in the management forum and executive committee of our company.
Q. Now, Mr. Norris, the gentleman that just got off the stand, does he report to you?
A. Yes, he does.
Q. Is it a direct report? He's right underneath you?
A. Yes. We have a matrix arrangement in the company, and so each region has the local employees reporting to a local manager, in this case --

THE COURT: Slow way down. THE WITNESS: Okay. Apologize. THE COURT: Strike the question. (To the reporter:) We're going to strike the answer, Debbie. We're going to start over again very slowly. MR. WELCH: Sorry about that, Your Honor.

BY MR. WELCH:
Q. And what is the relationship between you and

Mr. Norris? Is it a direct one?
A. Yes, it is.
Q. Okay. And the business of NDS Americas and NDS Group is providing conditional access service to satellite providers such as EchoStar and DirecTV, correct?
A. Among other things, yes.
Q. Now, could you please tell the jury what the relationship is between the two defendants in this case? You have NDS Group and NDS Americas.
A. NDS Americas is a direct subsidiary of NDS Group, which is based in the UK.
Q. So does NDS Group own 100 percent of NDS Americas?
A. They do.
Q. Now, who do you report to?
A. I report to the chairman and chief executive of the company, Dr. Abe Peled.
Q. And where does Mr. Peled reside?
A. He resides in the UK. That's England.
Q. Now, up to this point the jury's heard some testimony about a corporation called "News Corporation." Are you familiar with that company?
A. I am.
Q. And could you tell us what News Corporation is?
A. News Corporation is a shareholder of -- within the News group.
Q. And News Corporation actually controls the NDS Group company, correct? The defendants in this case?
A. They own 79 percent of the company. And the other 21 percent is publicly traded on the NASDAQ.
Q. And as the controlling shareholder, News Corporation gets to appoint the majority of the board members for NDS, correct?
A. That's correct.
Q. Now, you were here for Mr. Ergen's testimony, correct?
A. Yes.
Q. And he's the top as far as it goes, as far as running EchoStar, correct?
A. Yes.
Q. Okay. Now, if we talk about News Corporation, who's at the top of that chain?
A. It's Mr. Rupert Murdoch.
Q. But he's the chief. That's where the buck stops, is Mr. Murdoch, correct?
A. I'm not sure what you mean by "the buck stops."
Q. Okay. But he's the top guy?
A. Yes.
Q. And Mr. Peled reports to Mr. Murdoch?
A. Hum. I guess. I don't think that there's a formal
structure other than, again, it's Mr. Murdoch, News

Corporation, is a shareholder in the company. I'm not sure
what the formal relationship is in that sense.
Q. Okay. Now, you're aware that one of NDS's primary competitors is NagraStar, the conditional access supplier for EchoStar, correct?
A. No.
Q. Sir, could you please look at Exhibit 210--2010.

If you could turn to page 12 in the document. I don't know if yours is numbered, but you go 12 pages in.

First of all, can you tell the jury what Exhibit 2010 is?
A. Well, I haven't seen this before. It says on the title page Form 10-K. Form $10-\mathrm{K}$ would be a form of public filing that a public company has to do.
Q. I'm going to represent to you that this is a $10-\mathrm{K}$ that we pulled off the Internet for the NDS group of companies.

Okay?
A. Okay.
Q. Do you have any reason to dispute that that's an
accurate copy of the $10-\mathrm{K}$ ?
A. No, I don't.

MR. WELCH: Your Honor, at this time we would like to move for admission of Exhibit 2010.

THE COURT: It's received.
(Exhibit No. 2010 received in evidence.)

BY MR. WELCH:
Q. Now, do you see it has a line entitled Competition?
A. I counted 12 pages, but I don't have it here.

THE COURT: Just one moment.

BY MR. WELCH:
Q. Do you see where it says --

THE COURT: Counsel, Counsel, Counsel.
MR. WELCH: Did you give him 2010, Steve?

THE COURT: Counsel, no.

For the record, what we're doing is making certain
that the Court has the accurate document in front of it and the page so the Court can listen to both the testimony as well as following the document.

Did you leave out that page, Counsel?

MR. WELCH: Sorry about that, Your Honor. Your copy's double-sided.

THE COURT: No problem. I just appreciate having
that in front of me, as we discussed over the weekend.

All right. Thank you. Please continue, Counsel.

MR. WELCH: Thank you, Your Honor.

THE COURT: Thank you for your courtesy, sir.
BY MR. WELCH:
Q. Could you please just read -- I'm going to read it for you. The first line under Competition says, "We compete primarily with technology such has NagraVision developed by

Kudelski SA."

That's the first one listed, correct?
A. That's correct.
Q. And they supply the conditional access system to the plaintiffs, correct?
A. That's correct.
Q. Now, NDS provides conditional access services to a company called "DirecTV," correct?
A. That's correct.
Q. And you're aware that DirecTV's competitor is EchoStar Corporation, correct?
A. Yes.
Q. Now, for the jury, if you could just let us know about DirecTV and NDS. DirecTV today is the largest client of NDS, isn't it?
A. Yes, it is.
Q. It accounts for over a quarter of the revenues of NDS?
A. That's approximately correct.
Q. Now, it wasn't always that way, right?
A. What specifically?
Q. Yeah. DirecTV, you actually didn't have a relationship
with DirecTV until approximately '92; is that right?
A. That's correct. That's when DirecTV was started.
Q. And you had no presence in the United States on a conditional access platform up until that point in time,
correct?
A. That's correct.
Q. Would you agree with me today that the crown jewel of NDS in providing conditional access services is DirecTV?
A. No, not necessarily. We have other crown jewels.
Q. Well, DirecTV is the largest provider of revenues to you, isn't it? We established that.
A. Fairly close, yes.
Q. Would you agree with me that it's important for NDS to keep the DirecTV business?
A. Absolutely, yes.
Q. And when you entered into that agreement in 1992, you knew that the United States had a large television market, didn't you?
A. It has a large potential market, yes.
Q. And you knew that there was a potential that DirecTV could become your largest source of revenues, didn't you?
A. We certainly hoped so.
Q. Now, this isn't the first time we've met, is it, sir?
A. No, it's not.
Q. We actually met back in '98, didn't we?
A. We did.
Q. Remember, we met during the first litigation between EchoStar and News Corporation. Do you recall that, sir?
A. I do.
Q. And do you recall that one of the main points in that litigation was whose conditional access system was better, whether it be NDS or the Nagra system?
A. Yes.
Q. Okay. Now, I want to focus -- that time period, that litigation was filed in '97, correct?
A. Something in that time frame, yes.
Q. Now, at that point in time, you know that the Nagra system wasn't hacked, correct?
A. I didn't have direct knowledge of that. No, I didn't.
Q. Okay. And if we focus on that '97 time period when that litigation began, the conditional access system that your company was providing to DirecTV, that was hacked, wasn't it?
A. I believe we had seen some hobbyist level abilities, from what $I$ could tell. Yes, there were ways of circumventing the system. Yes.
Q. Now, if one of the main contentions in that litigation or one of the sticking points was whose system was better -A. Yes.
Q. -- the Nagra system or the NDS system, would you agree with me that it would be beneficial to NDS to be able to show that the Nagra system was compromised?
A. No, not at all.
Q. Are you sure?
A. Yes. In fact, during that litigation I issued a memo of about 10 points and 10 reasons why $I$ felt that the Nagra system going forward was actually a poor choice for EchoStar to take. I enumerated those reasons in a memorandum. That was one of the centerpieces of that litigation.

And I still uphold by those points even today. Despite the fact that there may have been some temporary penetration of our system, of the DirecTV system, we felt that we would be recovering from that, and we still think that it would be a better decision for EchoStar.
Q. Let's talk about --

THE COURT: No, Counsel. I want Debbie to make sure we have an accurate transcript, and as the answers get longer and the two of you get more excited in your conversation...

Okay. Counsel, please.

BY MR. WELCH:
Q. Now, you said that there was some -- you had some idea that there was some penetration into the NDS service. I think that's what you said in your last answer.
A. Correct.
Q. That's not entirely accurate. If we talk about the '96 time period, DirecTV was already hacked in '96 too, wasn't it.
A. Yes, it was.
Q. It was even hacked in '95.
A. Yes. And as your CEO pointed out, there were different levels of the activity.
Q. Okay. Now, I want to focus on this '97 time period. We've got the litigation, and you've got Nagra Secure, you've got NDS is hacked. Okay. I want to start -- that's my starting point.

In 1997 NDS went out and hired Christopher Tarnovsky, didn't they, sir?
A. I believe that was the time frame.
Q. Now, at the time that your company hired Mr. Tarnovsky, you were aware, weren't you, that he was a hacker?
A. Yes.
Q. And you understand that when a company such as yours that's entrusted with protecting revenues -- that's what conditional access service does, isn't it?
A. Yes.
Q. And it protects copyrighted programming, correct?
A. Yes.
Q. Now, you understood that the risks of hiring hackers were that not only, one, they could hack your system, correct?
A. Yes.
Q. Okay. And were you aware that that was one of the things that Mr. Tarnovsky was doing when he was hired, is
that he was involved in hacking DirecTV?
A. Well, we had proceeded -- starting the company back in 1988, to proceed developing straightforward Smart Card conditional access systems.

MR. WELCH: Your Honor, I'm going to object as nonresponsive.

THE COURT: Sustain the objection. Strike the answer.

THE WITNESS: Could you repeat the question, then? I'm sorry. BY MR. WELCH:
Q. Yes. At the time that you hired Mr. Tarnovsky in '97, you were aware that he was involved in hacking the DirecTV system, which was one of your clients?
A. Yes.
Q. But you hired him anyway, correct?
A. That's correct. We needed to --
Q. I think we've got it.
A. Okay.
Q. Now, you understood not only was there a risk that he would continue to hack your clients, you knew that there was a risk that he'd hack Nagra, didn't you --
A. I --
Q. -- or any of your competitors?
A. I did not think of it that way, no.
Q. Now, I want to move forward in time. We've got the litigation in '97 where whose system was better is at issue. And I want to move you forward to '98.

In 1998 was the DirecTV contract, the original one that started in '92 -- was it set to expire?
A. Yes.
Q. And in 1998 you entered into a one-year extension of that contract, correct?
A. Sometime during the negotiation. We began the negotiation, and the contract was due to expire. And by mutual agreement, we agreed to that one-year extension while we negotiated the new agreement.
Q. Okay. And during that time period, you learned from DirecTV, didn't you, sir, that they were actually shopping around or looking to see if they might want to switch from your conditional access system to the Nagra system? You're aware of that, aren't you?
A. No, I'm not.

MR. WELCH: Could you please hand Mr. Rubin his deposition, and also the Court, page 58, lines 20 to 23.

BY MR. WELCH:
Q. Now, while we're getting that, Mr. Rubin, you were deposed in this case, correct?
A. Yes, that's correct.
Q. And you were deposed as what's called a corporate
representative of NDS, correct?
A. That's correct.
Q. You were there to talk as if you were NDS?
A. That's correct.
(Documents provided to witness and Court.)

MR. WELCH: Your Honor, the lines are 20 to 23.

THE COURT: You may read those portions.

BY MR. WELCH:
Q. I'm just going to read it for you, sir, okay?

The question put to you was, "Did you ever consider that one of those conditional access or CA providers was NagraStar, or NagraStar's -- one of NagraStar's parent companies, NagraVision?"

And your answer was, "We assumed that was one of 'em."
So you did, in fact, know in 1998 when DirecTV was shopping around?
A. We did not know; we only assumed.
Q. Okay, you assumed.
A. Your original question was -- no.
Q. Sorry about that, sir.
A. Okay.
Q. Now, you would agree with me, sir, wouldn't you, that it would be beneficial to NDS if the Nagra system -- if there was some evidence, say, out on the Internet published about it that maybe it was compromised? That would assist
you in your negotiations, wouldn't it? Yes or no.
A. No.
Q. If we talk about that time period in '97, you believed that the Nagra system was inferior to your system, correct?
A. Yes.
Q. Now, you've heard the testimony up to this point. You heard from Mr. Shkedy and you heard from Mr. Mordinson, correct?
A. That's correct.
Q. And you're aware that in 1998 NDS began efforts to
reverse-engineer this inferior system?
A. I'm aware of these activities, yes, of the chip.
Q. And Mr. Peled, your direct supervisor, he was the one that gave the order to reverse-engineer, correct?
A. That was my understanding.

THE COURT: Excuse me, sir. I'm going to counsel
you, as I have all the other witnesses, to be as clear as you can. Words like "may," "could be," "to the best of my recollection."

THE WITNESS: Okay.

THE COURT: If you want to clarify that answer, that's fine. If you want to stay with the answer, that's fine. But some adverse inferences may be drawn at the end of this case in terms of what $I$ call qualifying and hedge words by any witness and all witnesses across the board,
from NDS to EchoStar. Understood?

THE WITNESS: Yes, sir.

THE COURT: All right. Reask the question, Counsel. MR. WELCH: Sure. THE COURT: Ladies and gentlemen, I may be instructing you at the end of the case, when it's done, you can view some of the answers given by all the parties and all the witnesses. I'm still making up my mind about that. But you've heard me repeatedly say words like "to the best of my recollection" -- just those hedge words.

I think the jury deserves the best recollection of all the people who testify.

Now, that's going to apply across the board to both sides, NDS and EchoStar. And we'll discuss that later. Thank you. You can ask the question, Counsel. BY MR. WELCH:
Q. Mr. Peled would have been the person at NDS who made the decision to reverse-engineer EchoStar's conditional access system, correct?
A. He may have been the one to approve that decision.
Q. Now, you recall Mr. Shkedy and Mr. Mordinson's
testimony that it took approximately -- I think it was six months -- we did this planes, trains, automobile thing. It took them approximately six months to reverse-engineer this
inferior system, didn't it?

MR. SNYDER: Objection, Your Honor. There is no reason to reprise for the jury the testimony of other witnesses that the jury has heard and in which Dr. Rubin has had no involvement.

THE COURT: It's foundational. Overruled.

BY MR. WELCH:
Q. Would you like me to reask it, sir?
A. Yeah.
Q. Okay. Now, you recall that Mr. Shkedy and Mr. Mordinson testified that it took them approximately six months to reverse-engineer this inferior conditional access system, correct?
A. Considering that to --
Q. Yes or no?
A. Sorry.
Q. Is that a "yes" or "no"?
A. I'm sorry. I lost the question. I'm sorry.
Q. Okay.
A. One more time.
Q. You recall that Mr. Shkedy and Mr. Mordinson testified that it took approximately six months to reverse-engineer
this inferior system, correct?
A. Yes.
Q. And do you recall the testimony that some of the ROM
code was published on the Internet in 1999?
A. I've heard testimony. I don't have direct knowledge of that.
Q. Okay. Now, after a portion of the EchoStar ROM code -or the Nagra ROM code was posted on the Internet, NDS and DirecTV entered into a longer-term agreement; isn't that correct, sir?
A. Yes, that's correct.
Q. And they entered into that long-term agreement after the one-year extension?
A. Yes.
Q. They entered into that agreement in approximately

August of '99, correct?
A. That's correct.
Q. And I believe that was a four-year deal?
A. That's correct.
Q. Now, at the time that they entered into this agreement, the end of '99, what's referred to as the P3, or the period 3 card, was being rolled out with DirecTV, correct?
A. That's correct.
Q. And what the August '99 agreement related to was the development of a P 4 , or a more secure card, correct?
A. That is correct.
Q. And that P4 card didn't get -- DirecTV simulcast or simulcrypt between the P3 and the P4 for a period of time,
correct?
A. That is correct.
Q. And you didn't shut the P3 stream off until April of 2004, correct?
A. (No audible response.)
Q. Somewhere thereabouts?
A. I'm trying to think when DirecTV gave us the instruction. When to turn it off would have been up to DirecTV to tell us.
Q. Okay.
A. I don't recall the exact time frame.
Q. Do you recall that it was sometime after Mr. Murdoch, or News Corporation, made its bid to purchase DirecTV?
A. Yes. The timing was coincidental, but yes.
Q. And once News Corporation purchased DirecTV, DirecTV finally became secure, didn't it?
A. Yes, it did.
Q. And so it was secure in 2004 when News Corporation owned it, correct?
A. Yes.
Q. It was secure in 2005 when News Corporation owned it?
A. Yes.
Q. It was secure in 2006 when News Corporation owned it?
A. Correct.
Q. Was it secure in 2007?
A. 2007 and to 2008 and even after they sold it, yes.
Q. Okay. Now, if we back up before Mr. Murdoch bought it -- or News Corporation bought it -- sorry, sir -- it was pretty much compromised every year, wasn't it?
A. There were hacks as long as the older cards were still in the system and not flushed out of the system and it wasn't a new complete card swap to the period 4. Yes, it was.
Q. So we can take the period '95, say, all the way up until the time News Corp. buys it in 2004 , and it was compromised for that entire period, wasn't it?
A. Well --
Q. At some level?
A. At some level, yes.
Q. Now, sir, I'm going to have you look at what's been marked as Exhibit 650 .

Before we get into that, I want you to focus on the time period 1999 when you did your contract -- your new four-year contract in August of '99. Are you with me?
A. Yes, I am.

THE COURT: Counsel, I'm sorry. Could you remind us, what year did News Corp., or Mr. Murdoch, make the bid to purchase DirecTV?

MR. WELCH: I believe it was fall 2003, Your Honor, and it actually closed in April 2004.

THE COURT: Let's find out from the witness.

THE WITNESS: I believe those are the time frames.
I'm just...
BY MR. WELCH:
Q. Do you have any reason to doubt that --
THE COURT: Well, just a moment.
THE WITNESS: Why don't you give me the time
frames. I'm happy to --
THE COURT: I'm sorry. Who would know if you
don't? In other words, how do I get accurate information --
THE WITNESS: It would come from me. I just need
to think. I wasn't thinking about it, but --
BY MR. WELCH:
Q. Would Mr. Murdoch know?
THE COURT: Excuse me. Your answer is?
THE WITNESS: I should know that.
THE COURT: What are the dates?
THE WITNESS: The bid, I think, was made in late
2003, and maybe it was approved sometime in 2004, but I'm
not sure about the month.
THE COURT: Okay. Thank you very much.
THE WITNESS: Okay.
BY MR. WELCH:
Q. Now, I want to focus you on the late '99 time period,
okay? In August '99 we have the four-year contract to
extend the business that NDS is gonna get from DirecTV, correct?
A. That's correct.
Q. Now, at that point in time, NDS was a wholly owned subsidiary of News Corporation, correct? It was not a public company?
A. No. We went public sometime after that, yes.
Q. Approximately three months later, correct?
A. That's correct.
Q. Now, could you tell the jury what it means to go public or have an initial public offering?
A. Well, that means that part of our company is being offered to the public as shareholders, and we would be traded openly on the stock market, that portion of the company.
Q. Now, you would agree with me that when you're going to take a company public, it's nice to have a four-year deal with DirecTV in your pocket, isn't it?
A. It's good to solidify all your deals.
Q. Okay.

Now, if we talk about that time period of 1998 and 1999 before you go public, Mr. Murdoch was chairman of the News Corporation, correct?
A. Yes.
Q. And he was actually News Corporation's largest
shareholder, approximately 30 percent, correct?
A. I'm sorry. I don't sit on News Corporation. I will take your word for it.
Q. Now, if we talk about when the contract was extended or you have this four-year deal that starts in '99, there came a point in time where DirecTV became concerned about NDS's practice of hiring and employing hackers, correct?
A. Some of that information was known to me as the corporate representative during the deposition.
Q. So is the answer yes?
A. The answer is a qualified yes, simply because I was not personally involved.
Q. And you're aware that as the corporate rep -- now, you got prepped by your lawyers in that deposition, correct?
A. I did.
Q. Okay. And you're aware after this prep session that

DirecTV went so far as to ask NDS to remove Christopher
Tarnovsky from any DirecTV projects, correct?
A. I'm aware of that, yes.
Q. And NDS didn't do that for 'em, did it?
A. We did.
Q. Did you do it right after they asked?
A. To my recollection, yes, pretty much -- pretty soon after that.
Q. Now, did you do it 'cause you had concerns that maybe
where there's smoke, there's fire?
A. No. I did it out of concern. For most of the things that $I$ do, we're responsive to our customers; and if the customer asks for certain things, we may not necessarily want to agree with it, but he is the customer, so we did comply.
Q. But you didn't terminate Mr. Tarnovsky when they asked, did you?
A. No, we didn't. We complied with DirecTV's request, though, to move him off the DirecTV project.
Q. But you kept him employed otherwise?
A. Yes, we did.
Q. Now, was part of his job to go out and try to hack the plaintiff's system?
A. Not to my knowledge, no.
Q. Now, if we talk about the reverse engineering that your company did, Mr. Mordinson and Mr. Shkedy with their planes, trains and automobiles, all that stuff, you're not aware of anything that your company did to improve its conditional access system as a result of all those efforts, are you?
A. I wasn't known of -- I don't know of any direct benefits that we got out of it. However --
Q. Thank you.

And you did not come up with any new electronic countermeasures as a result of their reverse engineering,
correct?
A. It was not known to me.
Q. And that was one of the things that you were there to talk about in your deposition, correct?
A. That's correct.
Q. Now, I want to go to the Exhibit 650 that we have in front of you. Do you recall being asked questions about this in your deposition?
A. Yes, I do.
Q. And could you tell the jury what Exhibit 650 is?
A. This is a list of revenues that we received year by year from DirecTV.
Q. And this shows the revenues you got from having this one-year extension, correct?
A. The one-year extension is in there.
Q. And it also shows the revenues you got from getting
this four-year deal?
A. All revenues received. There's no differentiation. MR. WELCH: Your Honor, at this time we'd like to admit Exhibit 650 .

THE COURT: Any objection? MR. SNYDER: No, objection.

THE COURT: Received.
(Exhibit No. 650 received in evidence.)

BY MR. WELCH:
Q. Now, this is important, Mr. Rubin, so I'm gonna kind of go slow here, okay?
A. Okay.
Q. In 1999 NDS made $\$ 94$ 1/2 million off of retaining the DirecTV business, correct?
A. That's correct.
Q. And in 2000 NDS made $\$ 94$ million off of retaining the DirecTV business?
A. That's correct.
Q. And in 2000 NDS made $\$ 91$ million off of retaining -THE COURT: You said -THE WITNESS: 2001.

BY MR. WELCH:
Q. 2001, sorry. Is that correct?
A. I'm sorry. Repeat the number.
Q. Yes. And in 2001 the NDS defendants made approximately \$91 million off of retaining the DirecTV business?
A. That's correct.
Q. And in 2002 NDS -- the NDS defendants made approximately $\$ 112$ million off of retaining the DirecTV business, correct?
A. That's correct.
Q. And in 2003 the NDS defendants made approximately
\$155 million off of retaining the DirecTV business, correct?
A. That's correct.
Q. And in 2004 you made approximately $\$ 81$ million off of retaining the DirecTV business, correct?
A. That's correct.
Q. And that's the year that News Corporation bought it. It went down. That's the year that News Corporation bought DirecTV, correct? -- or bought controlling interest in it?
A. Sometime in that time period, yes.
Q. And if you go on to 2005, after you bought it -- or after News Corporation bought it, it jumps way up to \$202 million, correct?
A. Yes. Especially considering they took other products as well.
Q. I missed the number --
A. Oh, sorry.
Q. In 2005, the year after you closed the deal, you made approximately -- NDS made approximately $\$ 198$ million off it, correct?
A. That is correct.
Q. And then the jury can look and see what you made for 2006 and 2007 .

Now, would you agree with me, sir, that a hack of a conditional access system can have devastating effects both to a conditional access supplier as well as a satellite platform?
A. Yes.
Q. It could require you to have to perform a card swap?
A. It could.
Q. And when these companies have several millions of subscribers, would you agree with me that a card swap could cause significant business interruption?
A. Depends how it's handled.
Q. Okay. But you're going to see spikes in customer service calls, things like that?
A. Well, if it's done properly, I think that you can actually manage it.
Q. Could piracy or hacking of a conditional access system cause a company such as DirecTV, or in this case EchoStar, to lose profits? You would agree with me on that, wouldn't you?
A. Yes, with an explanation, of course, if I may explain.
Q. Your attorneys will be able to cover that with you.
A. Okay.
Q. Now, you heard the testimony of Mr. Norris about these cash payments that he knew Mr. Tarnovsky was receiving. You heard that, didn't you?
A. Yes, I did.
Q. Were you ever told about those cash payments in 1998?
A. No, I was not.
Q. Would you have liked to have been told?
A. No.
Q. Okay.

Were you aware in 2000 of the cash that was found by Detective Cumberland through his investigation into Mr. Tarnovsky's Mailbox and More account in San Marcos, Texas? Anybody tell you about that?
A. I was not told about it, no.
Q. I --
A. I read about it.
Q. You're aware that Mr. Norris was aware of the '98 cash payments related to DirecTV, aren't you?
A. I heard that in yesterday's testimony.
Q. Okay. And you're aware that Mr. Norris was aware of this investigation into Mr. Tarnovsky in 2000, correct?
A. That's correct.
Q. Would you have wanted to know about this investigation into the Mailbox and More account in 2000?
A. I would want to know that we were doing the most to find out what the story was, because I had full belief in my personnel.
Q. Okay. Your business has -- what you provided to us as -- I believe it is Exhibit 1027 that we talked about previously.
A. Yes.
Q. Okay. That is -- it sets forth certain business
practices and standards that you want your employees, especially officers such as Mr. Norris, to adhere to, correct?
A. That's correct.
Q. Okay. We had asked you to see if there was any previous drafts of this or any versions that NDS had in its records. Were you able to do that for us?
A. Yes, I was.
Q. Were you able to find any?
A. Yes, I was.

MR. WELCH: Your Honor, this hasn't been produced
to us, so we may end up having to --

THE WITNESS: I only was able to get hold of it
this morning. Everything is coming together. But, yes, I have a previous version of this document.

BY MR. WELCH:
Q. When was that version enacted?
A. That version was enacted in May of 2004.
Q. May of 2004?
A. Yes.
Q. So there were no written standards to guide your
company and its hacking employees prior to 2004? There was nothing in writing?
A. It depends on the region within NDS.
Q. How about in America?
A. Okay. So in the United States from --
Q. Was there a written document?
A. Yes, there's a written document for the United States.
Q. And what's the date of that?
A. That would be 1998.
Q. 1998?
A. Yes.
Q. Did you give that to your lawyers to give to us?
A. We -- they have an electronic copy. I made an electronic copy available this morning.
Q. Okay. I guess we'll be talking to you next week.
A. That's fine.
Q. Now, if you had known that Mr. Tarnovsky was receiving these cash payments in 1998 related to DirecTV piracy, and the decision was put to you, would you have terminated him?
A. I would have investigated and seen what the circumstances were. I would like to not be judge and jury. I think I'd rather hear the side and hear the situation. Q. Well, you heard Mr. Norris testify that he went up to Canada and he had $\$ 20,000$ shipped down to him and that Mr. Norris told him to keep the money. You heard all that, didn't you?
A. I haven't had a chance to hear our own cross-examination. I'd like to hear the benefit of both sides.
Q. Now, you're not aware of any reason why Mr. Tarnovsky would need this Headend Report, Exhibit 98? You're not aware of why he would need that to do his job, are you?
A. I'm not aware.
Q. And you're aware that Exhibit 98 contains sensitive information about the plaintiff's conditional access system?
A. Yes. I've seen that here in court.
Q. Now, you're aware that Mr. Tarnovsky was deposed in this case in approximately April of 2007 , correct?
A. I believe so. I don't have direct knowledge of the dates.
Q. Okay. I was there. I'm gonna tell you -- I'm gonna represent to you that it was on a Tuesday, approximately April 4th of 2007.

THE COURT: Why don't we take the recess right now.

MR. WELCH: Thank you, Your Honor.

THE COURT: We've been in session two hours.

You're admonished not to discuss this matter among
yourselves, nor to form or express any opinion concerning
the case.

Would 20 minutes be acceptable to you? About
20 minutes, okay. Have a nice recess.

Counsel, have a nice recess.
(Recess held at 10:02 a.m.)
(Further proceedings reported by Jane Rule in Volume II.)
-OOO-


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