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

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ECHOSTAR SATELLITE CORPORATION, )

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et al., )
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    Plaintiffs, )
    vs. ) No. SACV 03-950 DOC
) Day 7, Volume II
NDS GROUP PLC, et al., )
Defendants. )
$\qquad$

REPORTER'S TRANSCRIPT OF PROCEEDINGS Jury Trial

Santa Ana, California
Friday, April 18, 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 2008-04-18 D7V2

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Dov Rubin

I N D E X

VIDEO WITNESS

FROST, Stanley (via video deposition)

Plaintiff's Designations
Defense Designations 9

Plaintiff's Rebuttal designations

WITNESSES DIRECT CROSS REDIRECT RECROSS

GUGGENHEIM, Alan

By Mr. Stone 22

SHELTON, Stanley (Outside the presence of the jury)

By Mr. Hagan 30

SANTA ANA, CALIFORNIA, FRIDAY, APRIL 18, 2008 Day 7, Volume II
(12:22 p.m.)
(In the presence of the jury.)

THE COURT: All right. The jury's present. All counsel are. Thank you for your courtesy.

If you would like to continue playing Mr. Frost's
testimony.

STANLEY FROST, PLAINTIFF'S WITNESS

PRODUCED VIA VIDEO DEPOSITION

PLANTIFF'S DESIGNATIONS
(Excerpt of Frost video deposition played.

Transcript of video incorporated herein as provided by plaintiff's counsel as follows:)

Page 178:13-178:17

178:13 A. I have to take the Fifth on that.
178:14 Q. Did you ever receive any packages

178:15 from Allen Menard where he used the sender

178:16 information NCRYPT, all in capital letters,

178:17 N-C-R-Y-P-T?

Page 178:19-178:21

| $178: 19$ | A. I have to take the Fifth. |
| :--- | :--- | :--- |
| $178: 20$ | Q. Did you ever receive a gift |
| $178: 21$ | certificate to Toys-R-Us from Allen Menard? |

Page 178:23-178:23 135: 8 with Christopher Tarnovsky about NDS's

135: 9 knowledge of his involvement in satellite
135:10 piracy of EchoStar conditional access system?
$178: 23$

Page 136:19-137:6

136:19
$136: 20$
$136: 21$
$136: 22$
$136: 23$
$136: 24$
$136: 25$

137: 1

137: 2

137: 3

137: 4

137: 5

137: 6

Page 135:7-135:11

135: 7

135:11 that. that.
A. No.
Q. Have you ever had any conversations with Christopher Tarnovsky regarding NDS reverse engineering EchoStar's conditional access system?
A. I'll have to take the Fifth on
Q. Have you ever had any conversations

Highly Confidential - Frost with Allen Menard regarding NDS reverse engineering EchoStar's conditional access system?
A. I'll have to take the Fifth on
Q. Have you ever had any conversations
A. I have to take the Fifth on that.

Page 134:16-134:23

134:16 Q. Have you ever had a conversation

134:17 with Christopher Tarnovsky dealing with

134:18 issues relating to his involvement in

134:19 reprogrammed EchoStar access cards and NDS's

134:20 knowledge of his involvement?
$134: 21$
A. It's a twofold question. No, I have to take the Fifth on that.

Page 145:9-145:13

145: 9
$145: 10$

145:11
$145: 12$

145:13
Q. Have you ever had any conversations with Christopher Tarnovsky regarding his ability to circumvent EchoStar's conditional access system?
A. I have to take the Fifth.

Page 151:17-151:22

151:17 Q. Did Christopher Tarnovsky ever

151:18 indicate to you that NDS could provide you
151:19 with protection from RCMP raids or

151:20 investigations if you agreed to participate

151:21 in the distribution of reprogrammed EchoStar

151:22 access cards?

Page 151:24 -151:24

151:24 A. I have to take the Fifth on that.

Page 141:13-141:15

141:13
Q. Have you ever communicated with

141:14 Christopher Tarnovsky using the alias Von?

141:15
A. I'll take the Fifth on that.

Page 142:22-143:2

142:22 Q. Have you ever had any

142:23 communications with Christopher Tarnovsky

142:24 with him using the alias Big Gun or an
142:25 abbreviated form of it, BG?

143: 1
Highly Confidential - Frost

143: 2
A. I'll take the Fifth on that.

Page 140:19-141:6
Q. Have you ever had a conversation

140:20 with Christopher Tarnovsky regarding his use
140:21 or alleged use of the alias Nipper 2000 to

140:22 post information relating to EchoStar's

140:23 conditional access system?
$140: 24$
$140: 25$

141: 1
Highly Confidential - Frost

141: 2 with Allen Menard regarding Christopher

141: 3 Tarnovsky's use of the alias Nipper 2000 to

141: 4 post information relating to EchoStar's

141: 5 conditional access system?

141: 6
A. I'll take the Fifth on that.

Page 143:8-143:16

143: 8
Q. Have you ever had any

143: 9 communications with Christopher Tarnovsky

143:10 with him using the alias Nipper 2000?
$143: 11$

143:12
$143: 13$

143:14
$143: 15$

143:16
A. I'm take the Fifth on that.
Q. Have you ever had any
communications with Christopher Tarnovsky with him using the alias Nipper Clauze, $C-l-a-u-z-e ?$
A. I'll take the Fifth on that. Page 145:14-145:18

145:14

145:15

145:16

145:17
$145: 18$ EchoStar piracy?
A. I'll have to take the Fifth.

Total Length - 00:22:49
(End of plaintiff's designations.)

THE COURT: Does that conclude the tape?

MR. HAGAN: For the plaintiffs, it does.

The defendants have some additional offering.

THE COURT: Please.

These are the designated portions by the plaintiff
that have just been played.
Now, these are now designated portions by the
defendant.

DEFENSE DESIGNATIONS
(Excerpt of Frost video deposition played.

Transcript of video incorporated herein as provided by defense counsel as follows:)

Page Range: 009:2-009:6
9: 2 Q. And you're appearing today with
9: 3 your attorney; is that correct?
9: 4
A. That's correct.

9: 5
Q. And your attorney's name is who?

9: 6
A. Anthony Gordon.

Page Range: 062:2-62:10
62: 2 Q. When did you retain Mr. Gordon to
62: 3 represent you?
62: 4
A. Within a month after the -- I

62: 5 received the subpoena I would say.
62: 6 Q. A subpoena for this litigation?
62: 7 A. No. I was a defendant originally,
62: 8 because they had me as a witness, and I
62: 9 hadn't returned their phone calls, and they
62:10 turned me into a defendant.

Page Range: 063:18-63:21
63:18 Q. Do you have any agreement with NDS
63:19 regarding your legal fees in connection with
63:20 the EchoStar-NDS litigation?
63:21 A. No.
Page Range: 039:25-40:11
39:25 Q. Okay. Have you ever been employed

| 1 | 40: 1 Highly Confidential - Frost |
| :---: | :---: |
| 2 | 40: 2 by NDS? |
| 3 | 40:3 A. No. |
| 4 | 40: 4 Q. Have you ever been a consultant for |
| 5 | 40: 5 NDS? |
| 6 | 40: 6 A. No. |
| 7 | 40: 7 Q. Have you ever been paid by NDS? |
| 8 | 40:8 A. No. |
| 9 | 40: 9 Q. Have you ever been paid by anyone |
| 10 | 40:10 on behalf of NDS? |
| 11 | 40:11 A. No. |
| 12 | Page Range: 059:18-060:2 |
| 13 | 59:18 2. What work have you done for DirecTV |
| 14 | 59:19 in 2007? |
| 15 | 59:20 A. I -- I monitor any satellite piracy |
| 16 | 59:21 that's going on. |
| 17 | 59:22 Q. And which forms? On the Internet? |
| 18 | 59:23 A. Yeah, on the Internet. |
| 19 | 59:24 Q. Any other forms? |
| 20 | 59:25 A. Through contacts, people I know, |
| 21 | 60: 1 Highly Confidential - Frost |
| 22 | 60: 2 phone. |
| 23 | Page Range: 053:24-054:7 |
| 24 | 53:24 Q. Have you provided services to any |
| 25 | 53:25 other clients in 2007 separate and apart from |


| 1 | 54: 1 Highly Confidential - Frost |
| :---: | :---: |
| 2 | 54: 2 DirecTV or Galaxy Latin America? |
| 3 | 54:3 A. No. No. |
| 4 | 54: 4 Q. Who are the clients that you |
| 5 | 54: 5 serviced in 2006? |
| 6 | 54: 6 A. It would be the same. It would be |
| 7 | 54: 7 the same answer for the last five years. |
| 8 | Page Range: 080:25-081:7 |
| 9 | 80:25 Q. Who recruited you to come work for |
| 10 | 81: 1 Highly Confidential - Frost |
| 11 | 81: 2 DirecTV? |
| 12 | 81: 3 A. Larry Rissler. |
| 13 | 81: 4 Q. How long after your arrest in May |
| 14 | 81: 5 of 2001 did Mr. Rissler approach you about |
| 15 | 81: 6 working for DirecTV? |
| 16 | 81: 7 A. About nine months. |
| 17 | Page Range: 081:19-82:15 |
| 18 | 81:19 Q. Describe for me the facts and |
| 19 | 81:20 circumstances surrounding Larry Rissler |
| 20 | 81:21 talking with you about coming to work for |
| 21 | 81:22 DirecTV. |
| 22 | 81:23 A. I had been communicating with Larry |
| 23 | 81:24 via e-mail, I don't know, about four, five, |
| 24 | 81:25 six months. I don't know how it started. |
| 25 | 82: 1 Highly Confidential - Frost |


| 1 | 82: 2 It's kind of weird. And I -- I gave him some |
| :---: | :---: |
| 2 | 82: 3 information, helped him out with some things |
| 3 | 82: 4 that he was working on. And then the P3 hack |
| 4 | 82: 5 came out, and before it came out I had heard |
| 5 | 82: 6 something about it, and I asked Larry if he |
| 6 | 82: 7 wanted me to check into it for him, and he |
| 7 | 82: 8 did, and I ended up sending him -- this was |
| 8 | 82: 9 even before it was being sold on the street |
| 9 | 82:10 or, you know, on the websites. And had -- |
| 10 | 82:11 people actually sent me three cards, and I |
| 11 | 82:12 sent a couple of them to DirecTV. This was |
| 12 | 82:13 before it was being sold, period, so -- |
| 13 | 82:14 Q. Who sent you those three cards? |
| 14 | 82:15 A. People out of Detroit. |
| 15 | Page Range: 084:13-86:16 |
| 16 | 84:13 Q. Do you know why you received these |
| 17 | 84:14 three cards in the mail? |
| 18 | 84:15 MR. GORDON: Objection. Calls for |
| 19 | 84:16 speculation. No foundation. |
| 20 | 84:17 A. I had asked some people if they -- |
| 21 | 84:18 I -- see, I knew DirecTV would be interested |
| 22 | 84:19 in these, after that new card, and so I put |
| 23 | 84:20 the word out that I was interested in buying |
| 24 | 84:21 a lot, maybe 500 cards, and I got the call. |
| 25 | 84:22 Of course I -- I -- I don't want to speculate |


| 1 | 84:23 | on -- |
| :---: | :---: | :---: |
| 2 | $84: 24$ | Q. Okay. And they, these people whose |
| 3 | $84: 25$ | names you can't remember -- |
| 4 | 85: 1 | Highly Confidential - Frost |
| 5 | 85: 2 | A. I don't remember. |
| 6 | 85: 3 | Q. -- who you'd never met before -- |
| 7 | 85: 4 | A. I only has his first name. |
| 8 | 85: 5 | Q. That's fine. I just want to make |
| 9 | 85: 6 | sure I understand your testimony. |
| 10 | 85: 7 | These people whose names you can't |
| 11 | 85: 8 | remember -- |
| 12 | 85: 9 | A. Right. |
| 13 | 85:10 | Q. -- who you had never met before -- |
| 14 | $85: 11$ | A. Right. |
| 15 | $85: 12$ | Q. -- sent you three DirecTV access |
| 16 | 85:13 | cards? |
| 17 | 85:14 | A. Yes. |
| 18 | $85: 15$ | Q. Okay. Were they modified or |
| 19 | $85: 16$ | pirated in any way? |
| 20 | 85:17 | A. Yes. |
| 21 | 85:18 | Q. How did you know? |
| 22 | 85:19 | A. I put one in my receiver. |
| 23 | 85:20 | Q. And it worked. |
| 24 | $85: 21$ | A. Yes. |
| 25 | 85:22 | Q. And this was after you were |


| 1 | 85:23 | arrested in May of 2001 for signal theft, |
| :---: | :---: | :---: |
| 2 | 85:24 | correct? |
| 3 | $85: 25$ | A. Yes. |
| 4 | 86: 1 | Highly Confidential - Frost |
| 5 | 86: 2 | Q. And then you sent those three cards |
| 6 | 86: 3 | to DirecTV? |
| 7 | 86: 4 | A. Yeah. |
| 8 | 86: 5 | I just want to say that U.S. |
| 9 | 86: 6 | Customs knew these cards were coming to me, |
| 10 | 86:7 | as I informed them of what was going on, and |
| 11 | 86: 8 | they were up to date on everything that was |
| 12 | 86: 9 | going on with this. |
| 13 | 86:10 | Q. So you were working undercover. |
| 14 | 86:11 | A. (Inaudible). They knew it was |
| 15 | 86:12 | coming. DirecTV knew, U.S. Customs knew, |
| 16 | 86:13 | everyone knew it was coming. |
| 17 | 86:14 | Q. And you sent these cards to |
| 18 | 86:15 | DirecTV. |
| 19 | 86:16 | A. Right. |
| 20 | Page Range: 098:20-99:11 |  |
| 21 | 98:20 | Q. Have you ever provided assistance |
| 22 | 98:21 | to any state or federal government agency? |
| 23 | 98:22 | A. Yes. |
| 24 | 98:23 | Q. Have you ever provided assistance |
| 25 | 98:24 | to any Canadian state or federal government |


| 1 | 98:25 | agency? |
| :---: | :---: | :---: |
| 2 | 99: 1 | Highly Confidential - Frost |
| 3 | 99: 2 | A. Yes. |
| 4 | 99:3 | Q. Can you list those agencies for me. |
| 5 | 99: 4 | A. RCMP. |
| 6 | 99: 5 | Q. What else? |
| 7 | 99: 6 | A. That's the only one I recall. |
| 8 | 99: 7 | Q. With respect to the U.S. Government |
| 9 | 99: 8 | agencies, other than U.S. Customs, have you |
| 10 | 99: 9 | provided any assistance whatsoever to any |
| 11 | 99:10 | other federal or state government agency? |
| 12 | 99:11 | A. Yes. FBI and U.S. Attorney. |
| 13 | Page Range: 231:11-231:18 |  |
| 14 | 231:11 | Q. Who is Ron Ereiser? |
| 15 | 231:12 | MR. HAGAN: Foundation. |
| 16 | 231:13 | A. He's a -- I think he's working for |
| 17 | 231:14 | EchoStar right now. |
| 18 | 231:15 | Q. Are you aware of any involvement by |
| 19 | 231:16 | Ron Ereiser in EchoStar piracy? |
| 20 | 231:17 | MR. HAGAN: Foundation. |
| 21 | 231:18 | A. I have to take the Fifth on that. |
| 22 | Page Range: 231:22-232:13 |  |
| 23 | 231:22 | Q. Are you familiar with an individual |
| 24 | 231:23 | who uses the nickname Wave Guy? |
| 25 | 231:24 | A. I have to take the Fifth on that. |


| 1 | 231:25 Q. Are you aware of any involvement in |
| :---: | :---: |
| 2 | 232: 1 Highly Confidential - Frost |
| 3 | 232: 2 EchoStar piracy by an individual who uses the |
| 4 | 232: 3 name Wave Guy? |
| 5 | 232: 4 A. I have to take the Fifth on that. |
| 6 | 232: 5 Q. Are you familiar with a person or |
| 7 | 232: 6 entity that uses the name El Camino? |
| 8 | 232: 7 A. I have to take the Fifth on that. |
| 9 | 232: 8 Q. Are you familiar with any |
| 10 | 232: 9 involvement in EchoStar piracy by an |
| 11 | 232:10 individual or entity that uses the name El |
| 12 | 232:11 Camino? |
| 13 | 232:12 MR. HAGAN: Foundation. |
| 14 | 232:13 A. I have to take the Fifth. |
| 15 | Page Range: 232:20-233:11 |
| 16 | 232:20 Q. Are you familiar with an individual |
| 17 | 232:21 named Peter Beacock? |
| 18 | 232:22 A. I have to take the Fifth on that. |
| 19 | 232:23 Q. Are you familiar with an individual |
| 20 | 232:24 named Jeff Pelletier? |
| 21 | 232:25 A. I have to take the Fifth on that. |
| 22 | 233: 1 Highly Confidential - Frost |
| 23 | 233: 2 Q. Are you familiar with any |
| 24 | 233: 3 involvement on EchoStar piracy by Jeff |
| 25 | 233: 4 Pelletier? |


| 1 | 233: 5 | MR. HAGAN: Foundation, form. |
| :---: | :---: | :---: |
| 2 | 233: 6 | A. I have to take the Fifth on that. |
| 3 | 233: 7 | Q. Are you familiar with any |
| 4 | 233: 8 | involvement in EchoStar piracy by Peter |
| 5 | 233: 9 | Beacock? |
| 6 | 233:10 | MR. HAGAN: Same objection. |
| 7 | 233:11 | A. I have to take the Fifth on that. |
| 8 | Page Range: 233:13-234:3 |  |
| 9 | 233:13 | Q. Are you familiar with any EchoStar |
| 10 | 233:14 | piracy by Larry Pylon or Peter Beacock? |
| 11 | 233:15 | MR. HAGAN: Form. |
| 12 | 233:16 | A. I have to take the Fifth. |
| 13 | 233:17 | MR. HAGAN: Foundation. |
| 14 | 233:18 | Q. Are you aware of the identities of |
| 15 | 233:19 | any people who have developed pirate |
| 16 | 233:20 | technology for EchoStar? |
| 17 | 233:21 | A. I have to take the Fifth on that. |
| 18 | 233:22 | MR. HAGAN: Same objections. |
| 19 | 233:23 | Q. Are you aware of the identities of |
| 20 | 233:24 | any persons who distributed pirate technology |
| 21 | 233:25 | for EchoStar? |
| 22 | 234: 1 | Highly Confidential - Frost |
| 23 | 234: 2 | MR. HAGAN: Foundation. |
| 24 | 234: 3 | A. I have to take the Fifth on that. |
| 25 |  |  |

Page Range: 223:2-223:6
223: 2
Q. You also testified earlier today

223: 3 that EchoStar sought to recruit you as a
223: 4 witness. Did I understand your testimony
223: 5 correctly?

223: 6
A. Yes.

Page Range: 223:10-223:17

223:10
Q. What did you mean by that?

223:11
A. Well, they had tried to get in

223:12 contact with me prior to -- I think -- hm.
223:13 They contacted me prior to being made a
223:14 defendant in this case. I think they had Ron
223:15 Ereiser call me up.
223:16 Q. When did Mr. Ereiser call you on
223:17 behalf of EchoStar?

Page Range: 223:21-224:24
223:21 Q. Would you repeat your answer?
223:22
A. About a month before the -- the

223:23 second amended complaint came out.

223:24
Q. And what did Mr. Ereiser tell you?

223:25 MR. HAGAN: Form, foundation.
224: 1 Highly Confidential - Frost
224: 2
A. He -- he wanted me to -- to

224: 3 cooperate with EchoStar's attorneys in a
224: 4 lawsuit.

224: 5
224: 6
224: 7
224: 8
224: 9
224:10
224:11
224:12
224:13
224:14
224:15
224:16
224:17
224:18
224:19
224:20
224:21
224:22
224:23 amended complaint. I didn't return his phone 224:24 calls.

Page Range: 235:13-235:22
235:13
Q. You testified that you had an

235:14 agreement with EchoStar that they would not 235:15 sue you, and yet they did name you as a 235:16 defendant?

235:17

235:18

235:19

235:20

235:21
235:22
Page Range: 234:4-234:13
234: 4
234: 5 234: 6 EchoStar?
A. I have to take the Fifth on that.

234: 8
234: 9
234:10
234:11 to EchoStar piracy from any employee of
234:12 EchoStar?
234:13 A. I have to take the Fifth on that.
Total Length - 00:11:20
(End of defense designations.)
MS. WILLETTS: Your Honor, we have one counterclip.

THE COURT: Okay.
PLAINTIFF'S REBUTTAL DESIGNATIONS
(Excerpt of Frost video deposition played. Transcript of video incorporated herein as
provided by plaintiff's counsel as follows:)

Page 11:10-11:18

11:10 Q. Are you paying your legal fees in

11:11 this action?

11:12
A. Same answer.

11:13
Q. There was no objection to that

11:14 question.

11:15
A. I imagine I am.

11:16
Q. Is NDS paying your legal fees in

11:17 this action?

11:18 A. I don't -- wouldn't know.

Total Rebuttal Length - 00:00:21
(End of Plaintiff's rebuttal designations.)

THE COURT: Does that conclude the clips from both
parties' standpoint from EchoStar and NDS?

MR. SNYDER: Yes, Your Honor.

MR. HAGAN: Yes, Your Honor.

THE COURT: All right. Would somebody please
recall Mr. Guggenheim, please.
MR. WELCH: Certainly, Your Honor.

THE COURT: Go get Mr. Guggenheim in the hallway.

Thank you.

Mr. Guggenheim, if you would be seated back in the
witness box.

ALAN GUGGENHEIM, PLAINTIFF'S WITNESS PREVIOUSLY SWORN

## RESUMED THE STAND

THE COURT: This is Mr. Stone's continued cross-examination of Mr. Guggenheim. MR. STONE: Thank you, Your Honor.
CROSS-EXAMINATION (Continued)

BY MR. STONE:
Q. Mr. Guggenheim, I've met a man named Charles Pearlman about two to three times?
A. Yes.
Q. And I think you testified you have meet him in an

EchoStar dealer summit?
A. That's correct.
Q. And you knew Mr. Pearlman had been an informant for EchoStar, correct?
A. Yes.
Q. And did Mr. Pearlman ever provide you any documents?
A. Personally, I don't recall.
Q. And am I correct that you learned that Mr. Pearlman was an administrator with administrator privileges on the dr7 website when Mr. Menard was *injured?

MR. HAGAN: Your Honor, we're going to object to the scope. I believe Mr. Guggenheim's going to be back later in the trial.

THE COURT: Well, he will be. I'll give Mr. Stone that option.
(To the jury:) What I'm really trying to ferret out is how many times you're going to hear evidence. It's prejudicial if you hear the same person saying the same thing redundantly. So counsel are making tactical choices on both sides. If we're going to hear this testimony now, in all likelihood, we won't be hearing that during the presentation of NDS's case when they were going to bring him back. So Mr. Stone has that option.

MR. STONE: Thank you, Your Honor.

THE COURT: Everybody's forewarned about that.

Did somebody come and visit you during the recess and go over those summary documents with you?

THE WITNESS: No.

THE COURT: All right.

Counsel.

BY MR. STONE:
Q. So the question is, did you ever learn that Mr. Menard had an administrator of his website named Mr. Pearlman, who was the same informant to EchoStar?
A. Yes.
Q. Okay. And how did you learn that?
A. I think from J.J. Gee.
Q. And do you recall whether at any point in time Mr. Pearlman gave any documents to Mr. Gee?
A. I would not know.

MR. STONE: Thank you, Your Honor. We'll reserve further questioning of Mr. Guggenheim about other issues in our case in chief.

THE COURT: All right. And I'll expect an offer of proof about that so we don't sort through that same information.

MR. STONE: Correct.

THE COURT: All right. I'll provide that latitude.

When would you like the gentleman back. I'm going to give him a specific date.

MR. STONE: April 24 th, Your Honor, would that work?

THE CLERK: It's a Monday.

THE COURT: I don't know that we'll be in session on that Monday. It's a Monday.

MR. STONE: The 30th, then, because we have the source code here on the $29 t h$.

THE COURT: The 29th, and so 30.

Sir, I'm going to order you back to this Court on April 30th.

THE WITNESS: Okay.

THE COURT: That means you're one of the few witnesses who can plan ahead, which is good. And so I'll expect you here promptly at that time, sir.

THE WITNESS: Thank you.

THE COURT: Thank you very much. You may step down. And I'm going to admonish you not to discuss your testimony with anybody in the meantime. It's been agreed by both parties that you were going to be called partly during the plaintiff's case and partly during the defense case. That's why this oddity is occuring. Okay. Thank you very much, sir.

Counsel, your next witness, please.

MR. HAGAN: We had discussed last night that Mr. Guggenheim was it for the day.

THE COURT: Oh, he was going to be the last witness.

MR. HAGAN: That's correct.

THE COURT: You're absolutely, right.
(To the jury:) Well, I'm going to let you go, then. I'm going to ask you to come back at 8:30 on Tuesday, not 8:00. I'm going to need another half hour in there.

I've got a different calendar that morning. I'll simply order you back at 8:30 that day so I'm certain you're not waiting.

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Now, we'll go off the record.
    (Jury excused at 12:45 p.m.)
    (Outside the presence of the jury.)
        THE COURT: Back on the record.
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If you have a witness like Mr. Guggenheim for either side, and you're going to go through that, I'm not going to preclude you. You can go through all 26,000 documents. You're not preclued, but we're not going through it paragraph-by-paragraph form. I'll let you do a little bit of that to point out that this is super secret stuff for NDS, but we're not walking through that again. So get that witness out in the hallway for both sides. You know, take that witness through privately each of those sections you intend to examine or cross-examination he or she on bring them into court and tell me what you're going to do -- don't surprise me -- and I'll give you the latitued. You can walk through a couple documents, like you did. But $I$ was losing faith, and that's why you got cut off. I didn't know if you were going to continue on.

And then, we're going to take up Mr. Shelton, who's supposed to be here at?

MR. HAGAN: He's here, Your Honor.

THE COURT: He is?

MR. HAGAN: Yes.

THE COURT: Let's stay on the record.
Call Mr. Shelton. Let's get some work done until 2:00 o'clock, then.

MR. SNYDER: Your Honor, before Mr. Shelton is called, the last clip that plaintiff's played of Mr. Frost's

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testimony -- the counter-counter-counter designation, we had
not been given notice of.
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    THE COURT: I didn't know about it. But I only
    looked at the first clip out of the presence of the jury. I
hadn't looked at yours because it wasn't key to me. I
didn't know about the last clip.

MR. SNYDER: We were not told that there was going to be a counter-counter designation, nor have there been for any other witnesses by video.

THE COURT: I assumed that you two agreed upon it.
MS. WILLETTS: That's incorrect.
(To Mr. Snyder:) I provided you with a list of that, and I sent that over in table format that included that counter designation.

MR. SNYDER: It may have included the designation, your Honor, but $I$ don't recall any notice that they were going to be playedmade in that order.

THE COURT: All right. Mr. Shelton, if you would retake the stand, let's use our reporter resources wisely, then we'll take that up later on.

Sir, if you would please be seated.
STANLEY SHELTON, PLAINTIFF'S WITNESS, PREVIOUSLY SWORN RESUMED THE STAND

THE COURT: Now, I'm going to ask EchoStar one more time. Why can you not obtain what I'm going to call
"active subscriber information"?

MR. HAGAN: Your Honor, we don't have that data. What we have is "activations."

THE COURT: You don't have the data, but you have access to that data. I'm firmly convinced that you can find subscriber information.

MR. HAGAN: And we have it, Your Honor. We have subscriber information, but it is by activation. In other words, anytime an EchoStar subscriber signs up, we have that activation and know what tlype of a card it is. So we have been able to figure out how many of those cards of each ROM version are in the field, and then isolate the ROM 33 cards. And Mr. Shelton takes the percentage of whatever those ROM 3 cards is, and multiplies that times the number of pirate households.

THE COURT: So NDS, or better yet, DirecTV, cannot -- or EchoStar, or NagraStar, any of these symptoms cannot tell me the number of subscribers on August 31st or August 30th, 2007?

I don't believe it.

MR. HAGAN: The problem -- they can tell you the numbers of subscribers. What they can't tell is who had what ROM version. All they can tell is the activations of ROM versions.

THE COURT: But, at least if we had the numbers of
subscribers, we wouldn't have the cumulative affect that NDS is complaining about.

MR. HAGAN: And we've produced that information. It's in the public filings, the $10-\mathrm{K}$ 's, for each year, the number of authorized subscribers, which came in through Mr. Ergen.

So they have the number of authorized subscribers by year, and what they also now have is the number of each ROM that were activated by quarter.

THE COURT: Okay. Now, are you prepared to go forward today?

MR. HAGAN: Mr. Shelton got new numbers. I haven't look at 'em yet. I just got the piece of paper.

I'm happy to have him explain to, Your Honor, what he did.

Why don't you show those to Mr. Snyder.
MS. WILLETTS: Your Honor, the information that's contained in here is based on what was shown to them last night. It just also includes a calculation based on the underlying evidence.

MR. WELCH: And that document was one of the documents Mr. Stone put in evidence today -- that earlier sheet that he put in through Mr. Orban. So, basically, it's just running the numbers through a calculator.

THE COURT: All right. Counsel, if you would like
to proceed.
MR. HAGAN: Thank you, Your Honor. DIRECT EXAMINATION (Continued)

BY MR. HAGAN:
Q. Now, Mr. Shelton, the last time we broke, you were asked by counsel for both sides and by the Court to take the numbers that you originally had and to isolate the number of ROM 3 cards for the relevant time periods.

Have you been able to do that?
A. Yes, I have.
Q. And can you explain to us the method that you used to derive those numbers?

THE COURT: And those would be for the years 2001, 2002, 2003, 2004, 2005, specifically.

THE WITNESS: And -- exactly.

THE COURT: You may have gone further than that,
those but those are the claimed damage years.

THE WITNESS: Correct. I -- like, for example, 2005, I went beyond September because I got yearend activation numbers.

BY MR. HAGAN:
Q. Well, walk us through the process of how you isolated the number of ROM 3 pirated cards, the estimated number.
A. Well, basically, this exercise helped validate what I was confirming taking place in the pirate market.

If you take a look at the volume that was shipped of ROM 2, which was 1.4 million cards, which I previously had, and you take a look at the total activation -THE COURT: Just a minute. THE WITNESS: Okay. THE COURT: Why don't we put this up on the screen somehow.
(Document displayed.)

THE COURT: Okay. Now, let's see if we can blow that up.

Okay. Now, start again.
If we take the activation of the ROM.

THE WITNESS: -- 2 starting now.

THE COURT: And, then, you mentioned 1.4 million?

THE WITNESS: Yes. We knew and had the
information that they had manufactured and shipped
1.4 million. But if you look at the far right corner, you can see the activation periods, and it totals 1.3 million.

THE COURT: Just a moment.

Why don't you use this up here.

Damion, Ryan, if you want to, come over and take a
look. And all counsel can come up also.

Just stand you and point to it so we're not
jumping around.

THE WITNESS: Let me reference my sheet, since
it's not showing the full picture.

THE COURT: Okay.

THE WITNESS: Okay. Previously, I was giving -or I was given -- what $I$ requested was how many Smart Cards of the different versions were manufactured and shipped. And basically, out of the ROM 2, starting with ROM 2, the total number manufactured was 1.4.

THE COURT: Show me.

THE WITNESS: And here's the line. If we could go over to the total, there is the 1.3 that have been activated, and it shows the periods, the time, which is what I would have expected: That early on, when the roll out, there's gonna be more activations. It drops and decreases. But I definitely expected there would be a number unaccounted for through theft, service repair, damage. And I did the same thing for the -THE COURT: So, in other words, you started with 1.4, which was confusing to me because $I$ couldn't find it on your new screen.

You're giving me an explanation of why it's 1.267 now --

THE WITNESS: Exactly.
THE COURT: -- and showing me how credible you were with your first number.

THE WITNESS: Correct. Because, when you do the
same process, through everything that's been shipped --

THE COURT: Quit explaining it to me, and show me the methodology again. Walk me through this.

THE WITNESS: Okay. Can we start back?

THE COURT: Yeah, start back.

MR. HAGAN: Christine, move it back to the beginning.

MS. WILLETTS: (Complies.)
THE WITNESS: Thank you.
The ROM 2 was manufactured starting in March of '96, prior to the satellite -- or the launch of the service.

THE COURT: Right.
THE WITNESS: They started activating in June of '96, with the first subscribers. And you can see the volume that continued year after year.

And, obviously, the highest volume is when the first two years occurred because that's the cards that were going out into the field.

THE COURT: Okay.

THE WITNESS: Now, the issue before us that I understood was, "Okay. Well, how many were still sitting in inventory?"

Well, this gives you a good feel for over time that all these cards eventually got activated to where it ended in 2005.

THE COURT: Now, just a moment.

How do I know that the ROM 2's eventually got activated, when I've got ROM 3 starting to kick in with a huge number in 1998 of 1.351 million?

Why would I assume that all these ROM 3's that were produced were, in fact, activated?

THE WITNESS: Because we knew that they produced 7.7 million.

THE COURT: So what?

THE WITNESS: And manufactured.

THE COURT: That doesn't mean they got activated.

THE WITNESS: This is activations coming from EchoStar. In other words, the first time that card got activated, this was recorded for each year until it totaled -- well, at 2005, the number's much smaller, but it totaled 7.3, which tells me --

THE COURT: No. Those are the ROM 3's totaling 7.4.

THE WITNESS: Exactly. Because here's when the card swap occurred, also. Okay. So there were no longer -there's 300,000 unaccounted for cards, Your Honor, is what it comes down to. 'Cause the card swap ended in September 2005, so they are no longer shipping or activating any more, but there's 300,000 unaccounted for.

All the activity totals down to where there's

1 million cards total unaccounted for that got manufactured, activated, and eventually authorized in a consumer's home. That's the reason my piracy figure is capped at half a million, because out of that 1 million unaccounted for, I
said there can't be more than half a million pirates.

And that's what $I$ was seeing in the marketplace. Such as the November of 2000 , to buy a card on the market for a pirate was $\$ 400$.

And if you look back to 2000, you can see that primarily it was just ROM 2 and ROM 3 in the marketplace.

THE COURT: No. Just a moment.

THE WITNESS: Okay.
THE COURT: Just a moment. Just a moment.

In what year?

THE WITNESS: In 2000 --

THE COURT: Okay.
THE WITNESS: -- was when the market -- the pirate
market -- the card cost $\$ 400$.

THE WITNESS: Well, there's 974,000, almost a million, ROM 10's.

THE WITNESS: Exactly. They just started entering the market in 2000, but the hack hadn't occurred on ROM 10 . It was still primarily ROM 3 and ROM 2.

THE COURT: Okay.

THE WITNESS: Bottom line, in my previous reports
to NagraStar, I said, "If you could give me all this
information and confirm what is unaccounted for, then $I$ know
my ceiling on piracy is proper at half a million."
THE COURT: Okay.
THE WITNESS: Okay. There's service and damage
card. But unaccounted for cards is a good estimate as to
how much could that -- or how high could that ceiling be.
And I said half a million.
THE COURT: Okay.
THE WITNESS: So I capped that out.
Now, going on down, we have the cumulative -- oh,
and one other thing that $I$ did not have before was, I did
not have the -- and it was my fault because I asked for
Smart Cards manufactured and shipped.
EchoStar embedded the security chip in the
receiver. There was no Smart Card. So I -- that number is
now included --
THE COURT: Okay.
THE WITNESS: -- in the total.
BGA is just an engineering term for the way they
socket and solder on the board.
So that's been added in.
I have argued with counsel about adding in 101 and
102, because it's really second generation card developed.
It was backwards compatible with the first, and they said
add it in because, technically, a pirate could pirate it
while that first generation data stream was out there in the
field.
THE COURT: But you have some concerns about that?
THE WITNESS: Well, it's a separate -- you know,
all I'm saying is it makes the number much more
conservative. Because once they shut down the first
generation data stream in 2005, then any piracy occurring on
those cards went down, too.
THE COURT: Thank you.
THE WITNESS: So I, then, start tracking what the
cumulative '03 cards DISH Network '03 card's activations
were. And there was a small number in '96 for a test. But,
then, you can see how it grows with the shipment volumes.
THE COURT: Okay. Now I've been told, just
naively playing with these numbers that there are two and a
half cards, on the average, per household.
THE WITNESS: Correct.
THE COURT: Would you take two and a half in
34,976 in 2005. Tell me what that is.
THE WITNESS: Can we go over to 2005?
THE COURT: Isn't that about roughly 14 million?
THE WITNESS: Well, here --
THE COURT: Yes or no?
THE WITNESS: No.

THE COURT: Okay.

THE WITNESS: Here's what happens, and I tie back to the authorized --

THE COURT: No. I'm not going to let you do that. Now, let's stop for a moment.

THE WITNESS: Okay.

THE COURT: 2005, look at that 34 million number.
If there are two and a half cards -- and this is naive on my part. If there's two and a half cards per household, then I would expect about 14 million subscribers, give or take, maybe 15 million, maybe 16 million actual subscribers; is that correct?

THE WITNESS: Correct.

THE COURT: Well, do we have 16 million actual subscribers in 2005? See, you haven't gotten me the subscriber number yet.

MR. HAGAN: It's in the 10-K.

THE COURT: Show me the $10-\mathrm{K}$.

MR. SNYDER: Your Honor, this is a page from one of their internal financial reports. It's a large document so I just copied this pages and just grabbed this now. This is key performance indicators for the quarter ended December 31st, 2004. It shows the told number of ending describer -- subscribers. It also, I think will help the Court because it shows the number of receivers per
subscribers household, which is, at this point, 1.67 with just about 11 million ending subscribers.

THE COURT: Okay. Now, show me the 2005, 10-K.

MR. SNYDER: Would you like a copy?

THE COURT: I want 2005.

MR. WELCH: We're getting you the electronic
version, Your Honor.

MR. SNYDER: Your Honor, we found it.

THE COURT: Show me the number of subscribers that are claimed on the $10-\mathrm{K}$ in 2005.

Now, "subscriber," I assume, means a household?
MR. WELCH: Yes, sir.

MR. EBERHART: I believe it's page 51, Your Honor.

MR. WELCH: Yes. It's got 12 million, 0-4-0, and
that's going to be a thousand -- so that would be

12 million.

THE COURT: Okay.

MR. WELCH: And that's yearend 2005 .

THE COURT: Now, if I'm told that there are two and a half devices per household, Smart Cards, your figures appear to be inflated to me.

THE WITNESS: It's because these are activation figures and not deactivation figures, Your Honor. It also doesn't reflect the card swap numbers.

THE COURT: Where are my deactivation figures?

THE WITNESS: I only have the activation to

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account for --
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THE COURT: And I do, too.

Why can't I get deactivation figures?

THE WITNESS: Basically --

THE COURT: No. Why can't I get deactivation figures?

I'm being told I can't get actual subscriber figures, which I don't believe, frankly.

THE WITNESS: It's a very dynamic market, Your Honor.

THE COURT: I could care less.

THE WITNESS: Okay.

THE COURT: I could care less about cost. I
couldn't care about time.

Why can't I get actual deactivation figures?

MR. WELCH: Your Honor, may I interject for a second?

THE COURT: No.

Mr. Shelton, have you asked for those?

THE WITNESS: Basically, what I asked for was, by quarter --

THE COURT: Have you asked for those deactivation figures?

THE WITNESS: Yes, sir.

THE COURT: Who did you ask deactivations of?

THE WITNESS: With the Cable Services Group that provides a subscriber management software for EchoStar. THE COURT: And you could not get those now, or forever?

THE WITNESS: It's not forever. It's basically getting the historical archive tapes, retrieving the snapshot at that given period of time -- you have your -THE COURT: And given the last three years, why couldn't we get this?

THE WITNESS: That, I can't answer, Your Honor. MR. HAGAN: Your Honor, the reason -THE COURT: All right. Counsel. MR. HAGAN: The reason that these numbers are high -- it's 34.9 million in 2005 -- that's activations accumulated. What it doesn't take into account is Churn. Mr. Rock takes that into account when he applies these numbers to a damage model.

MR. WELCH: And Churn's supplied in the $10-\mathrm{K}^{\prime} \mathrm{s}$. It's in the same table on 51. That tells you deactivations. THE COURT: And tell me what the churn number is so I can divide it out, eventually, by two and a half. MR. WELCH: Okay. THE COURT: And then multiply that into a yearly Churn so I can subject my $34,976,000$ from the yearly Churn.

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In other words, let just start with how accurate we are just
in terms of *RUSS numbers, before we go through this
methodology again, and the assumption that 33 percent of the
cards are pirated cards.
    Counsel, I just want to check rough numbers before
I get into the minutia. I just want to know that we're in
the basic ballpark.
    I'm not worried about a half million. I get
really concerned about 3 or 4 million.
    MR. WELCH: And another thing, Your Honor --
    THE COURT: No, I'm not interested. I'm
interested in what I asked you to do.
    MR. WELCH: Okay.
    (Pause in the proceedings at 1:19 p.m.)
    (Proceedings resumed at 1:22 p.m.)
    THE COURT: All right. We're back on the record.
    The Court had asked counsel to get the 10-K for
2005.
    MR. WELCH: Do you have it on your computer,
Clint? It's going to be Exhibit 654, page 51.
    (Document displayed.)
    MR. WELCH: You've got yearend sub, and you've
subscriber additions throughout the year.
    THE COURT: Point that out to me.
    MR. WELCH: If we start --
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THE COURT: Walk up to the screen and point. MR. WELCH: At 2001, Your Honor? Or do you want
to do you 2005?
THE COURT: I want to do 2005.
MR. WELCH: You've got yearend subs of 12.04, and
this is what we added. We added 3.3 we added that for the
year. 3.397.
Throughout the year --
THE COURT: Now, just a moment.
Your total for 2005, is 12,040,000.
MR. WELCH: 12,040,000. That is at the end of the
year.
THE COURT: I understand that. You claim on the
10-K, the public document, that you added 3.397 --
MR. WELCH: Minus --
THE COURT: No. Just a moment.
-- subscribers.
MR. WELCH: Yes.
THE COURT: That, you added that number?
MR. WELCH: Yes.
THE COURT: And then on your 10-K, you have --
just a moment. Let me walk through this.
You have, I'm going for call it a "drop rate" of
1.135 million; is that correct? Or is that --
MR. WELCH: No, no. This is the net additions.

So you dropped actually 2.26.

THE WITNESS: The key word is "gross."

MR. WELCH: Gross. This is gross adds.
THE COURT: Okay. Gross.

MR. WELCH: Okay. And then, over here, you've got
what you actually ended up with net.

THE COURT: Just a moment.

MR. WELCH: See, you take the 10.9, add the 1.1,
that gets you this.
THE COURT: That get you the 12,040,000.

MR. WELCH: Yes.

THE COURT: All right. Stop for a moment.

So you're subscriptions increased 1.5 million?
MR. WELCH: 1.135.

THE COURT: 1.135.

THE COURT: Just a moment.

MR. WELCH: That's net.

THE COURT: Just a minute.

Walk me back to 2004 and -- let me walk you
through that for a moment.

I'm actually going to begin with the figure of
9.425 --

MR. WELCH: Yes, sir.

THE COURT: -- with the net -- or strike that --
the net of 1.480 , which will give me my 10.905 gross
subscriber number in 2004. Yes or no?

MR. WELCH: The 10.905 is what you end up with, active subscribers, at the end of year 2004 .

THE COURT: Okay. And, of course, following down in like fashion, I would take 2002, 8.180, take my net for 2003, which would be 1.245, which would give me 9.425 million.

At the end, who are my subscribers in 2003?
MR. WELCH: At the end of 2003, that's 12/31.

THE COURT: Explain to me what the Churn factor is again. No.

I want Mr. Shelton.

THE WITNESS: Basically, when it says, "Gross new authorizations," then they're having to net out what the net effect was from the Churn. And that's why the term "gross new authorizations" because that key. But when it comes to the net effect of the churn, then they got to reflect, "Okay. Here's the percent of churn to come to my net authorized additions."

THE COURT: What's a Churn?

THE WITNESS: Churn is customers deauthorizing. THE COURT: Okay.

Now, instead of the 20 percent estimate that I was
about to hear from you, or the other gentleman, isn't my
churn, then, simply reflected between -- well, can't I
figure out my churn accurately from these documents?

THE WITNESS: Yes, sir.

THE COURT: Show me.
I think I can. In other words, I don't think I need to guess at what the churn factor is. You may have it on your 10-K, in terms of deauthorizations, which is what I've been asking for all along.

THE WITNESS: Well, essentially -- and this is the first time I've looked at these numbers. But they're taking their starting base. They're saying that "We add a gross 2.722 new customers." However, the churn of 1.6 brought it down to a net addition of 1.570 , which then brings us over to the 8.180.

THE COURT: Now, that's 2001, 2002.

I want to stay with 2005. I want you to walk three through that again. Same explanation you just gave me.

THE WITNESS: This is yearend 2005. So they're starting out 2004 with 10.905.

THE COURT: All right.

THE WITNESS: They're adding gross new customers to the tune of 3.441 . But because of the 1.62 percent churn, then they're only getting a net gross of 1.480 to come up with the 12.040 .

THE COURT: All right.

Do it again.

THE WITNESS: Okay.

THE COURT: Same thing.

THE WITNESS: Yeah, this -- the language --

THE COURT: Same thing.

THE WITNESS: 10.905 is the starting point.

They add throughout the year 3.41 -- 3.441 .

THE COURT: Right.

THE WITNESS: But because of the 1.62 percent deauthorizations, they're only netting new authorizations of 1.480.

THE COURT: Once again, if I add together the 10.905 and 1.480 , I'm going to get 12.040 .

THE WITNESS: Correct.

Does it make sense?

THE COURT: No. I'm going to get the 12.040 because I've added here 1.135 and my 10.905. That's how I'm going to get the 12.040 .

THE WITNESS: Correct. Yeah, you're looking at yearend 2005

THE COURT: That's exactly what I'm looking at. Do it again.

THE WITNESS: Okay. For year end 2005 you're adding 3.397.

THE COURT: That's over here. You're not over
here.

THE WITNESS: But -- okay.

THE COURT: Here's where you got turned around.

You started tracing out down the number. No.

You're starting with this figure, but you're adding what I'm going to call your net between your new subscribers and your churn or dropout factor, and that's going to be your 1.135. And you're adding the end figure in 2004 to your net figure in 2005, which gives you yearend subscriptions of $12,040,000$.

THE WITNESS: Correct.

THE COURT: This that you started to relate in 2004 is a calculation that has to go back and take into account 2003.

THE WITNESS: Right.

THE COURT: All right. Now, just a moment.
MR. WELCH: Your Honor, can I explain that?

THE COURT: No.

Now, I don't have this by month, as Mr. Snyder requested. And I don't have this by card yet. But at least I've got this by year. And you've got it sitting right in the $10-\mathrm{K}$.

All right. Now, walk me through your calculation.
THE WITNESS: Okay.
THE COURT: I'm simply going to assume a "drop
rate." That's all it means. Big fancy word "drop."
THE WITNESS: Okay.
THE COURT: Okay. Walk me through your
calculation.
THE WITNESS: Okay. So all we did was total up in
a grand total by the types of cards that are out in the
field being activated per year, and, then, we took the
cumulative ROM 3 activations in order to come up with the
percent of ROM 3 cards to the grand total of activations.
THE COURT: All right. Okay. Do I have my papers
over there besides you?
LAW CLERK: We have them.
THE COURT: Thank. Counsel, give me another one
of these updated slips for just a moment.
MS. WILLETTS: (Complies.)
THE COURT: Thank you very much much.
Now show me again how you calculate out the ROM 3
or the ROM 2.
THE WITNESS: Well, we know which year the ROM 2,
ROM 3, and all the different versions of Smart Cards got
turned on for the first time. And we know the cumulative
number, and we also know the cumulative number that got
shipped.
THE COURT: Okay.
THE WITNESS: So we know what's unaccounted for.
It's not sitting in inventory.
THE COURT: 'Cause they were activated.
THE WITNESS: They were activated --
THE COURT: Okay.
THE WITNESS: -- in a consumer's home at one point
in time. You're correct, we don't have the deactivation
data, netting or anything. However, by adding in all the
other types of cards that are in the field up through 2005,
we know the percent of the ROM 3, which is near the bottom.
It starts out high because it only ROM 2 and ROM 3 in the
field.
THE COURT: So in 2001, which is the beginning of
the damages calculation, you've got a 53.2 percent.
THE WITNESS: And, then, it starts dropping.
THE COURT: TO ROM 3.
THE WITNESS: Correct.
THE COURT: In 2001, the calculation would be 53.2
percent.
THE WITNESS: Correct.
THE COURT: In 2002, the ROM 2/ROM 3 percentage,
the ROM 3's dropped to 38.2 percent; in 2003, the figure for
ROM 3 compared to ROM 2 or other ROMs -- let's say ROM 10
et cetera --
THE WITNESS: Correct.
THE COURT: -- obviously, drops to 28.8 percent.

In 2004 it drops to 23.5 percent ROM 3. Of course, the ROM 10's have kicked in by this time.

THE WITNESS: And the 101's.

THE COURT: And 2005 to 21.2 percent. If I took those years, you previously -- well, strike that.

Now, your universe is going to be, what? 500,000?

THE WITNESS: Right around -- capped at 500,000.

THE COURT: So if it's 500,000, you wanted to apply before a figure of a 33 percent piracy rate.

THE WITNESS: Correct, on the previous.

THE COURT: How did you come up with that
33 percent piracy rate?
THE WITNESS: That was a percent of the half a million households using the pirate card that had to have been using a ROM 3.

THE COURT: No, I know that. How did you come up with that 33 percent? Was this an informal survey amongst 18 people?

THE WITNESS: No. No, sir.

THE COURT: How did you come up with that?

THE WITNESS: That was based upon the cards that were shipped in the field.

THE COURT: How do I know that there's two and a half devices per household?

THE WITNESS: That would go back to the $10-\mathrm{K}$ and
basically what they're saying is, "We know a customer is a household, and a customer has, on average, two and a half receivers in his house."

THE COURT: How do we know that?

THE WITNESS: By authorization data is how they would know. There were promotions --

THE COURT: Where's that data?

THE WITNESS: That's Cable Service Group.
THE COURT: And where is that underlying data?
How would NDS, for instance, be able to examine that data?

THE WITNESS: It should be -- I'm not sure if it's in the $10-\mathrm{K} . \quad$ I have not looked at that, Your Honor.

THE COURT: Take a look.

THE WITNESS: It's not on this page.

THE COURT: So, then, calculate out your actual numbers, your universe for me. Take 2001, how many ROM 3 pirated devices, in your opinion, exist?

THE WITNESS: Out of the 400,000 pirate households?

THE COURT: You're telling me.

THE WITNESS: There would be 53 percent, based upon what was shipped and in the field, in order to pirate the ROM 3, which came to $212,957$.

THE COURT: And, then I'll just trace the figures across: 38 percent in 2002 yields the 187,231 .

THE WITNESS: And it starts dropping.

THE COURT: Why wouldn't I believe that that's partially cumulative? Why isn't the argument able to be made that, "We really can also calculate that as a
cumulative effect or at least some percentage thereof"? In other words, that the 187--

THE WITNESS: It starts dropping because you have new cards entering the field that actually start getting hacked.

THE COURT: Okay.
All right. Counsel, questions.
BY MR. HAGAN:
Q. Now, Mr. Shelton, based on your methodology of calculating or estimating the number off, first, ROM 3 cards in the field, and then the percentage of those ROM 3 cards that were in pirate households, do you believe that the numbers reflected in what I've marked as trial demonstrative No. 10, the chart that you have in front of you, do you believe that those numbers are aggressive or conservative?
A. I believe they're consevative, because of, the pirate activity that occurred on the ROM 101 and 102 was very -very, very little because because they knew -- the pirates knew it was gonna be a new data stream.

And we added those numbers in.

THE COURT: Are these figures solely for the

United States of America market or did they include Canada? THE WITNESS: By law, they're solely for the United States of America market. In reality, shipments can go into Canada.

THE COURT: Now, watch. I want to assume that pirating is legal in Canada. THE WITNESS: I understand that. I've seen that. I know all about it.

THE COURT: Royal Canadian Mounted Police are purchasing these cards.

THE WITNESS: Sure.

THE COURT: Counsel, can you stipulate when this became illegal?

MR. SNYDER: We have the date of the Canadian Supreme Court decision, and it was in 2002. I don't recall what part of the year --

THE COURT: Okay.

MR. SNYDER: -- oh, approximately June.

THE COURT: I would expect -- let me say this a
different way. I assume that all people are moral, and

Canadians are every bit as moral as Americans.

Having made that statement: If this is legal in

Canada, I would expect a higher percentage of Canadians believing that this illegal hacking in the United States was acceptable.

THE WITNESS: It wasn't -- the Supreme Court ruling was May 8th of 2002.

THE COURT: Of 2002.

So if that's the case, why wouldn't I have a higher number of pirating households in Canada, where the common citizen believed that this was legal, and a lesser number of pirated households in the United States, where people feared the law? Why wouldn't I have a disproportionate percentage of, let's say, 60 percent in Canada and 10 percent in the United States?

THE WITNESS: Well --

THE COURT: We're dealing with the United States market here.

THE WITNESS: Correct.

THE COURT: Okay. How do I deal with that when
this figure's thrown at the jury?

THE WITNESS: What we've dealt with in the past was that Canada was 10 percent the size of the households in the United States.

THE COURT: Okay. 10 percent size. What would you estimate, from our perspective, the theft rate to be up there? 60 percent? 50 percent? 80 percent? This is free after all.

THE WITNESS: Well, a lot of the subscribers in Canada are subscribing to cable. There's entities that were
tracking in Canada the illegal subscriptions and they were estimating around 700,000.

THE COURT: I want to take the world's worst figure for a moment, so I'm as conservative as possible. THE WITNESS: Okay.

THE COURT: I want to assume that the Canadians believing under their law that this this is legal -- every one of them from our perspective pirating -- what would deduct from your figure?

THE WITNESS: When I said 700,000, that was DirecTV and DISH Network.

So I believe I had some reports on the DISH Network, breaking that out separate. I did not bring 'em with me. But from what $I$ can recall, it was on average of 10,000 to 50,000 households with DISH Network. THE COURT: Okay. So what would that do to my figures? I mean, if I took that ludicrous, outside example, because Canadians believe under their law that this was legal -- in fact, the pirating community moved to Canada. THE WITNESS: Exactly. They always have -THE COURT: That's why they're in Thunder Bay. THE WITNESS: They always have been there. THE COURT: Okay. Give me the worse scenario, then, from EchoStar's viewpoint, if I deduct all the Canadians, what does that do to my 212,000 number in 2001?

Does it bring it right back down in your range of 154- to 165- we started with?

THE WITNESS: Pretty close.

THE COURT: Pretty close.
Now, you didn't make that assumption?

THE WITNESS: No.

THE COURT: But I still get in that ballpark figure, don't I?

THE WITNESS: (Nods.)

THE COURT: All right. Counsel, any further questions.

MR. HAGAN: Just for purposes of making sure we have a complete record, Your Honor.

BY MR. HAGAN:
Q. Mr. Shelton, looking down at Trial Demonstrative No. 10, what is the estimate that you calculated of total households using pirate ROM 3 cards for the year 1999?
A. In 1999 it was 38,000.
Q. And for pirated ROM 3 cards or ROM 3 households in the year 2000, how much did you calculate?
A. Right around 113,000.
Q. And for the number of pirated ROM 3 cards in the year 2001, what was your estimate?
A. 213,000 .
Q. For 2002?
A. Starts dropping down to 187,000.
Q. 2003?
A. It drops further to 143,000.
Q. 2004 ?
A. Down to 110,000.
Q. And 2005?
A. Down to 104,000 .
Q. And based on your experience and your analysis of the pirate market during the 2000/2001 time frame, in your opinion, what is the reason that the number of pirated ROM 3 cards doubled from the year 2000 to 2001?
A. That was the bulk of the cards that were in the marketplace -- was ROM 3.

THE COURT: Well, just a moment.

Because you have 7,363,000 compared to the ROM 10
starting to kick in at 4,129,000? THE WITNESS: Correct. THE COURT: All right. Okay. Now, once again, I want you to deduct the entire Canadian market from your figure and tell me what your bottom line figures are. THE WITNESS: I'm sorry? THE COURT: I want you to deduct the entire Canadian market from your figures and tell me what your bottom line figures is. Because I'm going to assume the

Canadians are doing lawful things, and one of the lawful things are that they can do what we think is illegal, and that, is pirate DirecTV or EchoStar. In fact, the Royal Canadian Mounted Police, you've heard, were lining up to buy them.

THE WITNESS: Correct.

THE COURT: Okay. And that's going to change your 212 significantly.

THE WITNESS: Yes.

THE COURT: And I want the entire market
deducted -- the entire Canadian market.

THE WITNESS: It would basically bring --

THE COURT: Just take a moment with your calculator. Bring each one of these down for me: 2001, 2002, 2003, 2004, and 2005. Use your percentages, your 53.2, your 38, the 28, the 23 and the 21 after you're deducted the Canadian market.

By the way, does EchoStar --

Counsel, I'm dealing with United States. I'm dealing with Canada.

What else am I dealing with? Mexico?
MR. HAGAN: We don't have authorized subscribers
in Mexico.

THE COURT: Okay. So I'll ask again: We're dealing with Canada and the United States with these
figures?

MR. HAGAN: It's my understanding, Your Honor, that the Canadian piracy was already backed out of of these numbers.

THE COURT: That's not my understanding.

BY MR. HAGAN:
Q. Mr. Shelton, did you take into consideration Canadian DBS piracy when calculating the numbers in Trial

Demonstrative No. 10? In other words --

THE COURT: He's already told me he didn't, Counsel.

THE WITNESS: Well, I need to refer to my April 2007 report. Because we did separate the U.S. market versus the Canadian market.

MR. SNYDER: Your Honor, the April 2007 report is a Carmel Group report, and I thought it was clear that we're not relying on Carmel Group reports.

THE WITNESS: Those numbers in that report came
from me. We were asked to break out the U.S. versus

Canadian in that report.
MR. SNYDER: That was not Mr. Schaeffler's
testimony, Your Honor.
THE WITNESS: I know who produced the numbers, and I --

THE COURT: Well, are you going to carry out my
calculation or not?
THE WITNESS: And that's starting in 2001?
THE COURT: 2001.
Now, the difficulty we're having, frankly -- and
I'll say this to EchoStar.
You placed yourself in this position: You haven't
even attempted to back out -- and I'm critical of you about
this -- the ROM 3 cards until I asked you to do that. And
we've been playing with this for three years. So we're
going to a lot of work with a lot of information that was
sitting right in that $10-\mathrm{K}$ form -- maybe not by month as
Mr. Snyder asked, but we're getting closer anyway.
Counsel, I'm not going to allow, if $I$ allow any of
this -- and this is subject to Mr. Snyder's
cross-examination and some ability to prepare concerning
these changing numbers -- until after Tarnovsky testifies.
I state again: I don't know how Tarnovsky came up
with this hundred thousand number. I'm waiting to hear -- I
know, from the e-mail where he got it.
MR. WELCH: Your Honor, we have something better.
Exhibit 1270 that Mr. Stone was talking about with
Mr. Guggenheim, that is the basis of their counterclaim.
MR. HAGAN: On page 9 of 10.
THE COURT: Show it to me.
Let see how Tarnovsky comes up with a hundred
thousand.

MR. WELCH: Well, what they did is they put it in -- Your Honor asked yesterday if he did that -- they relied it it for some business reason. Exhibit 1270, Your Honor, is one of their marketing documents they put together so they could go out and get business. And they incorporate it in there and they tell their salespeople with Mr. Rubin's, Vice President, worldwide marketing -- or United States marketing -- and they talk in here, as this is dated May 2001, and it talks about the Black Sunday, and it says it had over a hundred thousand EchoStar pirate cards out there.

So this is something they used in their business.

THE COURT: Okay. Thank you.

What are your figures, sir, concerning 2001,
backing out the Canadian market in its entirety?

THE WITNESS: In 2001, it would be 210,000 net of the Canadian market.

In 2002, it would be 168,300 net of the Canadian market.

THE COURT: 2002. 168,300?
THE WITNESS: Correct.

THE COURT: 2003?

THE WITNESS: Would be 129,588.

THE COURT: 2004?

THE WITNESS: Would be 99,623.

THE COURT: And 2005?

THE WITNESS: 93,511.

THE COURT: Reading from the NDS "Highly

Confidential" memo: "Nagra is not capable of successfully launching an electronic countermeasure to fight a hack. In the United States, pirates have found Nagra's electronic countermeasures, ECMs, easy to overcome. Hackers are always aware of Nagra's attempts a day prior to a Nagra counterattack due to the length of time it takes them to actually broadcast the attack. This gives the hackers the chance to defend their illegal viewers. In some cases such as Via Digital in Spain, the installed Nagra CA system doesn't even support ECM functionality at all.
"NDS has years of proven experience in successfully recovering from hacks via ECM's. Our customers use our unique electronic countermeasures to knock out illegal viewers right before their key events.
"As of the end of January 2001, both EchoStar, Nagra and DirecTV, NDS, in the United States were hacked. NDS successfully countered a DirecTV pirate attempt in the US on what is being called "Black Sunday" by the hacker community."

And I assume that once again is the Super Bowl on Sunday.

MR. HAGAN: Yes.

THE COURT: "NDS's countermeasures were sent right before the Super Bowl. According to external literature, over 200,000 pirate devices were disabled. NDS fieldfeel contacts confirm that Nagra did not start sending an ECM until after the game was over. Anyone with a pirated Nagra card saw the game for free.
"Our estimate is that this commercial loss to EchoStar probably accounted for over 100,000 nonpaying subscriber."

Now, this was not quote/unquote advertised, as you stated, counsel, by NDS. This is an internal Highly Confidential document, and it's obvious that this information in all likelihood came from Tarnovsky subject to that e-mail.

Not that it may make a difference, but it's not advertised.

MR. WELCH: Your Honor, may I direct your
attention to one part of this document?
THE COURT: Okay.

MR. WELCH: If you go to the very first page on the exhibits, it's marked ESC0135955.

THE COURT: Why don't you start putting this up on the board and blowing this up for me.
(Document displayed.)

THE COURT: Okay. What are you trying to show me?

MR. WELCH: It says in here -- it says, "We
encourage -- "While we encourage readers to utilize this information, as required during the course of business" -so what they're doing is they're going out when they're marketing to people their NDS services.

THE COURT: Well, are they marketing that there's a hundred thousand hacks on the ROM 3 system of EchoStar?

MR. WELCH: It depends on if they're trying to --
THE COURT: Show me such an advertisement.

MR. SNYDER: Actually, Your Honor, could you read the rest of that sentence?

THE COURT: Sure.

MR. SNYDER: It says, "While we encourage readers to utilize this information as required during the course of business, copies of this document are not intented for distribution outside of NDS."

THE COURT: Thank you very much, Counsel.

You can take that back. I've concluded already
that this was it intented to be an internal document.

Unless someone can show me advertizing in the outside market, where EchoStar (sic) is it attempting to take advantage by number of the hack, then this is an internal document.

Mr. Snyder, if you have any questions, so be it.

If you want to reserve, that would be fine.

MR. SNYDER: If the Court is inclined to allow EchoStar to go Gordon --

THE COURT: They're much closer.
MR. SNYDER: -- with Mr. Shelton's opinion, I
would like to reserve.

May I make three points, Your Honor?
THE COURT: Uh-huh.

MR. SNYDER: First, if you'll recall -- let me sign-post better.

First, I do not think that it is credible for them to say that they cannot give the Court information about the number of active cards. And let me tell you why.

Exhibit 1510 is the document ultimately provided
with the customer information about -- that came from the back-door password in the nipper posting of December 24 th. That back-door password was then sent to Kudelski, as we were told. They came up with a card ID, and then EchoStar created that one-page table that is Exhibit 1510 that shows the status of that account.

There is no reason, as the Court has indicated previously, that that cannot be done for all subscribers. It is certainly known by them whether a card ID number -what type of card that is: Is a certain card ID number a ROM 2, a ROM 3 or a ROM 10 card.

It should be possible to identify how many active cards of each type were in the field. And that would be a much more accurate surrogate -- and still we're talking about surrogates -- than what we have to far.

THE COURT: What would your estimate be, if that was carried out?

MR. SNYDER: Based on the very large number of ROM 10 cards that were shipped in 2000, I believe that, by the time we get to 2001, the number of active ROM 3 cards in the field would have dramatically reduced and the predominance of cards would likely be ROM 10 cards.

THE COURT: Why would they want to disturb a customer -- an old customer with a swap out of the ROM 10 in 2001? Because they were doing a soft swap then.

MR. SNYDER: Correct. And what Mr. Shelton told the Court is precisely that: That they were doing a soft swap, and the documents -- a document that he produced to us identified two different categories. One category was what is sometimes been referred to as a "service swap." So if the receiver comes back, it's broken, it's defective, there's something wrong, while there in the process of doing their maintenance or replacing that receiver, they give the customer a new card. The customer is none the wiser.

The second category that was identified in this document -- it was provided to us by EchoStar as part of

Mr. Shelton's previous analysis, going back two or three generations -- was an inventory swap where they went to retailers, distributors, basically the sales channel, and replaced ROM 3 -- ROM 2 and 3 cards with ROM 10 cards.

The two of those together accounted for millions of cards, according to the document from Mr. Shelton.

THE COURT: You've told me in the past that $I$ should be concerned about activated cards, and I should be careful not to allow a calculation based upon what I'm going to call "warehouse cards" or "distributor cards." How do I know at any given time that eventually those ROM 3 cards weren't distributed?

MR. SNYDER: Because, if they were distributed and activated, they would each show up, by definition, in the list of cards that are active at any given moment. So that's my first point, Your Honor. They ought to be able to come up with this information.

Second point, Your Honor. There is an obvious problem with the opinion that Mr. Shelton is now rendering. Essentially -- let me take one step back.

Last night, the Court indicated that EchoStar needed to go back to the drawing board, because just looking at each -- the number of cards activated in each year, was inadequate. What they have done since is come back to the Court and accumulate all of the activations over a given
period of time.
So if you look at Mr. Shelton's chart, he is
saying that there is just as much likelihood in 2005 of a
card being pirated, that was issued in 2005, as a card that
was issued in 1996. Because, what he does is he takes every
single card that is issued and activated from 1996, every
year, and adds them all up, and then allocates that
percentage, even though that total vastly exceeds the number
of cards that were active in the field at any one time.
Third point, Your Honor. We still -- we are still
dealing only with a surrogate. And Mr. Shelton has already
indicated that his numbers include Canadians -- and the
Court asked him to back Canadians out. And I have no idea
how he did that. Looking at the numbers just now, it
appears he assumes for reasons that none of us know, that it
was 10 percent. But if he has a new opinion, before $I$
attempt to cross-examination him or make a fuller record, I
certainly need to know what that opinion is. And it appears
to have changed in just the last hour and a half.

THE COURT: When you backed the Canadian
population out, how many subscribers in total did you assume
that there were in Canada?

THE WITNESS: We always assume that 10 percent of the active -- activity is in Canada.

THE COURT: Okay. How many subscribers would that
be?

THE WITNESS: I can add that up, Your Honor. THE COURT: Just give me the year 2005 for a moment.

THE WITNESS: Okay. In the year 2005. That would be 10,390. THE COURT: All the subscribers in Canada are 10,390?

THE WITNESS: As far as the ROM 3. THE COURT: No. I want all the subscribers. Now I understand what -THE WITNESS: Oh. THE COURT: I want a hundred percent swept, not the 10 percent. I want a hundred percent of that population swept off the board. Because, there, Canadians believe it's a legal activity.

I want to assume that every Canadian is illegally using this card from our perspective, and legally using it from theirs.

THE WITNESS: Then, I would back it out the total households --

THE COURT: That's right.

THE WITNESS: -- instead of the ROM 3.

THE COURT: That's right.

Now tell me those figures.

Counsel, where he's probably getting the 10 percent is just a population basis between Canada and the United States, frankly. About 300 million roughly to about 30 million.

MR. SNYDER: And therein lies the problem, Your Honor.

THE COURT: No, but the benefit may be, if I deduct out 100 percent of Canadian population, because they belief that they're doing something legal in this
timeframe --

MR. SNYDER: Well, to be clear, Your Honor. Are you asking him to deduct the total number of Canadian users or his estimated number of Canadian pirates?

THE COURT: Users.

MR. SNYDER: I'm not sure he has the total number of users on this sheet anywhere. So I'm not sure what Mr. Shelton is doing.

THE COURT: Well, we'll find out.

THE WITNESS: I'm basically backing out the 490,000 pirate households in 2005 , 10 percent of 'em being in Canada, and then I'll apply the same percentage, the 21 percent, having ROM 3.

THE COURT: Another way to do it, Mr. Snyder, is this; and that is, to take approximately 12 million households in the $10-K$ in 2005, subscribers, for a moment.

Give me the entire subscriber population in

Canadian. The entire subscriber population would be what?

THE WITNESS: I'm sorry. What was the question?
THE WITNESS: In 2005, what would be the entire subscriber population be in Canada?

THE WITNESS: Both cable, satellite, everybody?

It would be -- and I'm operating from recall -- right around 11 million.

THE COURT: Households?

THE WITNESS: Households.

Bulk of those being cable households. A very small percentage being satellite, Bell ExpressVu. THE COURT: Well, we're dealing with satellite piracy here. So less take satellites.

THE WITNESS: That would be Bell ExpressVu. THE COURT: Which would be how much?

THE WITNESS: Right around a million.

THE COURT: A million. So if I took subscribers, and I assumed all Canadians using satellites were, what we would call 'hacking', and I backed out a million people, I drop to about 11 million.

THE WITNESS: That wouldn't be correct. Because all 11 milltion of Bell ExpressVu subscribers are not pirates. There's only a smaller percent that are actually pirates.

MR. SNYDER: And you would have to reduce that -if you assumed, Your Honor, that that million people were pirates, you would have to deduct it from the pirate number, not from the EchoStar subscriber number.

THE WITNESS: Yeah, they're two separate entities, but the same technology.

THE COURT: Okay. Do you have any questions you want to ask him right now, Mr. Snyder?

MR. SNYDER: Those were the issues I wanted to raise, Your Honor.

THE COURT: Okay. Why don't we take a recess. Why to don't I go take the plea and give the court reporter a rest for a moment.

And if was you, depending on when you want to go home this evening, I would start getting out the jury instructions. Okay.

Your ordered to remain, Mr. Shelton. We'll come back to this in about an hour or so. But you can use the table over here, and I'd like to see the instructions you have done, which we laid out before, the common packet.

And by this evening, I would expect that I minimally had the elements of the DCMA-1, 2, the California Penal Code Sections where I saw the controversy between the two of you involving each of those. So we'll come back and join you probably within an hour.

Mr. Shelton, thank you. If you would remain, sir. (Recess held at 2:15 p.m.)
(Proceedings resumed at 3:34 p.m.)
(Outside the presence of the jury.)

THE COURT: All right. We're on the record. All
counsel are present. Mr. Shelton's present.

The Court has two questions. The first: What happens to a Smart Card after a user drops the service or the card's swapped? Does it get returned to EchoStar or does the user keep the card?

Another way of phrasing that is, is there an incentive system for an EchoStar user to return that card so it's simply not discarded and abandoned.

Let me repeat that to you. What happens to a card after a user drops the service or the card is swapped? Does it get returned to EchoStar or does the user keep the card?

And I've heard a lot of concern on NDS's part that "Judge, uh, you could have a multitude of cards out there." What I'm trying to find out is if there's an incentivized system for the return of a card on a soft swap, hard swap, you know, what gets that card back?

Second, in order, Mr. Shelton to pirate an EchoStar service, do you need to activate the card that you would reprogram or can you activate any card and then get a pirated card for somewhere else? For example, could I sign
up and activate a ROM 10 card, lets say in 2001, and then use a pirated ROM 3 card in my set-top box? And if so, would this be recorded as an active ROM 3 card or an active ROM 10 card?

Let me say that again. In other words, can $I$ go to a store, buy a receiver, buy a ROM 10 card, activate me ROM 10 card, and then go get a ROM 3 card that's hacked, put that in my receiver and make it work? Because if a user who pirates a ROM 3 card must be associated with the ROM 3 card, then I'm really not going to know if I've got that interchangeability. Person bought a ROM 10, but might never show a ROM 3.

So let me say it again. So counsel here's it.
In order to pirate EchoStar's service, do I need to activate the card that you reprogram or can you active sate any card and they get a pirated card from somewhere else? So, for example, could I sign up and activate my ROM 10 card, and then use a pirated ROM 3 card on my set-top box? And if so, would this be recorded as an active ROM 3 card or a ROM 10 card?

Now, I want to take a recess for a moment, give you all the time you want in answering that question.

Okay. Do you understand the question, Mr. Shelton?

THE WITNESS: Yes, I do.

THE COURT: You sure?

THE WITNESS: Yes. Let me repeat it.

THE COURT: Sure.

THE WITNESS: Basically, a user purchases a
satellite receiver with a ROM 10 card. He activates the

ROM 10.

THE COURT: Right.

THE WITNESS: Then, he wants to use a ROM 3 card in that same satellite receiver.

THE COURT: Exactly.

THE WITNESS: And then does it show up as an
active ROM 3?

THE COURT: Or an active ROM 10.

THE WITNESS: Or active ROM 10.

THE COURT: Yeah. Yeah, you've got it.

Okay. I'll wait.
(Pause in the proceedings 3:37 p.m.)
(Proceedings resumed at 6:02 p.m.)

THE COURT: All right. We're on the record. All
counsel are present. The parties are present. The jury, of course, has been excused.

And in answer to the Court's first question, "What happens to a card after a user drops the service or the card is swapped? In other words, does it get returned to

EchoStar or does the user keep the card?"

MR. WELCH: We have an answer.

Okay. Question one, that's what we're on, has four parts to the answer.
(Reading:) "For subscribers that lease a box and deactivate, EchoStar has a return rate to its service organization for those IRD's and Smart Cards of approximately 85 percent."
'Cause you people that lease and you have people that purchase.

THE COURT: Repeat that for me.

MR. WELCH: "For subscribers that lease a box and deactivate, EchoStar has a return rate" --

THE COURT: Of 85 percent.

Is that because there's some type of incentive fee that they lose by not returning the box?

MR. WELCH: That's the next section, Your Honor.

THE COURT: Okay. Two.

MR. WELCH: Okay. "Of the 15 percent of
subscribers with leased boxes who deactivate and fail to
return their EchoStar IRD and Smart Card, 92 percent of
those individuals pay EchoStar the price of the IRD and

Smart Card through automatic charges on their credit card on file with EchoStar."

Do you want me to continue to read?

THE COURT: Yes.

MR. WELCH: That deals with deactivations. THE COURT: Okay.

MR. WELCH: Now, "For a service swap, EchoStar
removes the Smart Card and replaces it with a new or refurbished Smart Card before sending the IRD back out into the field."

THE COURT: Okay.
MR. WELCH: Okay. Ready for the next section?

THE COURT: Yes.

MR. WELCH: "For the mass card swap" -- where we send it out, mail it out. "For the mass card swap, EchoStar did not require subscribers to return the old card because the DNASP-II" -- that's Digital Nagra Advanced -- whatever it was.

THE COURT: System Protection.

MR. WELCH: Is it System Protection?
THE COURT: Or Security Protection.

MR. WELCH: Whatever.
"-- DNASP-II stream was shut down" --

THE COURT: If Quarter 3.

MR. WELCH: -- in Q3 of 2005." That actually
should be "the end of Q3, 2005" -- "when the mass swap was completed; therefore, those cards could no longer be used for piracy."

THE COURT: Okay.

Question two was, "If it is" --

MR. WELCH: The Question two had some flaws in the way it was worded, with all due respect, Your Honor.

THE COURT: Okay. Please tell me.

MR. WELCH: We like this example, though, so we answered based on your example because we figured your example gave clarity to the question.

THE COURT: Okay.
MR. WELCH: "If a subscriber activated with a ROM 10 card, it was possible for that subscriber to then use a pirated ROM 3 card which was paired with the subscriber's original IRD" -- IRD being the set-top box -- "This required extracting that IRD's box keys and reprogramming the ROM 3 card to include those box keys. That subscriber could:
(a) continue to pay the minimum subscription price to EchoStar but steal all EchoStar programming using the pirated ROM 3 card; or (b), deactivate and stop paying monthly fees altogether and continue to steal all EchoStar programming using the pirated ROM 3 card. In either case, that subscriber showed up as a ROM 10 subscriber in

EchoStar's database."

THE COURT: Okay. Now, just a moment.
MR. WELCH: We didn't just wipe out lost profits, did we?

THE COURT: But in either case, that shows up as
an activated ROM.

MR. LENOIR: Yes.

THE COURT: Okay. What about the purchase instead
of the least of a box? How many of these boxes are
purchased versus leased? I don't know the area that well.

MR. WELCH: Don't have an answer for that one right now.

MR. LENOIR: It's mostly leased.
MS. WILLETTS: It's mostly leased.
THE COURT: You've come into court and informally represented that you had made tremendous progress with subscriber information.

MR. WELCH: The subscribers information can be found in the 10-Q's.

THE COURT: She's going to state what that is. Pull the microphone closer.

MS. WILLETTS: Your Honor, previously, you had had concerns that the numbers that were driving the ROM 3 -total number of ROM 3 cards were based on activations and didn't account for deactivated cards.

We requested that our client provide the total number of active cards as well as a breakdown of active cards by ROM version.

They didn't have that data readily available, however, they were able to create a query of some sort to
run those numbers and give us back number of active Smart

Cards by ROM version by quarter.

THE COURT: Excellent. By quarter.

MS. WILLETTS: By quarter.

And those numbers actually line up directly with the published subscriber count that comes from the 10 -MR. WELCH: The 10-Q's, which you can pull off of SEC.gov.

THE COURT: When would you feel comfortable submitting that to the Court and counsel?

MS. WILLETTS: On active Smart Card count by ROM version, we can produce in a spreadsheet right now. Mr. Shelton will need to plug these numbers into his analysis, and we can do that by tomorrow.

THE COURT: But there's no reason, then, to have Mr. Shelton back tomorrow, because I don't have reporter resources Saturday. I'll work with counsel informally on instructions and other matters. So I think it has to be Monday, let's say, at 3:00 o'clock, so I can get through the afternoon calendar -- or try to.

And could I have a copy of those overnight to look at?

MS. WILLETTS: Certainly.
THE COURT: And could counsel, Mr. Snyder, have a copy overnight to look at.

MS. WILLETTS: Certainly. We can print them out right now for you.

THE COURT: Okay.

Now, if it turns out, Mr. Hagan, that this is correct, it may be the information that the Court was trying to sort through. I'm not making a ruling yet on this. But I was prepared to state the following, and had informally stated the following to Christine, and to Darin, to Mr. Snyder, and that was I was prepared to rule that,
"Exhibit 1510 demonstrates that EchoStar has a database listing subscriber data by card ID. This subscriber data shows when a card was activated, how long it was activated, and when it was deactivated. It also shows how many people were issue and activated the same card.

Presumably, card ID's can be sorted by ROM version; therefore, it should be fairly simple to sort the subscriber data according to ROM version, as well. Once the data is sorted in this fashion, EchoStar should be able to calculate the number of each ROM version that was active in any given month. Although --"

And this was a tentative ruling it's about to hand down to you.
"Although defendant is correct in pointing out that this is a surrogate for actual piracy, it may be difficult or impossible to get any closer to the actual
number, at least, if the calculations are based on the proportion of active ROM 3 cards in each given month. The surrogate is as accurate as possible in that it will exclude cards that were disabled, remain in warehouse or retail inventory, or were replaced before entering the market.
"Although it may seem harsh to make EchoStar produce these figures with limited notice, EchoStar has had three and a half years to calculate their damages. They have also been on notice that they would have to isolate ROM 3 piracy since early January, when they stipulated to do so. It does not appear that they made any effort to do so until the Court threatened to exclude their lost profits evidence altogether, despite having every opportunity. Therefore, it's not unfair to preclude them from presenting any expert testimony on lost profits until they can provide accurate calculations."

Therefore, I wasn't closing the door on you, but...

Now, since you're getting these figures to us, you need to have them, you know, FedEx'd overnight. They'll be wanting some of the underlying data so that NDS has access, and I'm not going to require cross-examination.

Now, our evaluation, quite frankly, in chambers was that you could create a program; that it was simply uncomfortable and inconvenient. And I've stated from the
beginning, frankly, that $I$ didn't believe that that couldn't be done.

So I don't think that there's anything further until tonight. We ought to look at this information. I'll discuss it with informally tomorrow. I won't hand down a final decision.

Mr. Shelton, you've got to plug these numbers in. Of course, in a perfect world, this would be by month. We're getting closer. I don't know if quarters suffice or not, but we're getting closer, so I'm not going to say anything further. If it can be run month by month, it's better. Everybody's at risk. But you know your lost profits were almost not presented to the jury.

So is there anything further this evening?
MR. SNYDER: No, Your Honor.
MR. WELCH: So do we need to provide Your Honor with anything else other than Mr. Shelton on the stand?

THE COURT: I don't know yet. I'm going to go back and look at these figures, also. It's totally your responsibility to get these to me. And, quite frankly, I find no fault with Mr. Shelton. I find fault with the information provided to him.

And we were prepared to publish quite an expanded article on why we found, not the methodology necessarily, but the foundation for this to be inadequate.

MR. SNYDER: And, Your Honor, you will advise us over the weekend what you expect us to be prepared to do Monday at 3:00?

THE COURT: No. I'm not going to press you, Darin. You do whatever you want to Monday at 3:00. I'm not requiring you to go forward. By the same token, if I think that this is good enough, that it passes the Kuhmo/Daubert methodology test, and now you finally have the foundation, then, tentatively, I'll tell you when to get Mr. Shelton in and be ready.

MR. WELCH: Will that be tomorrow?

THE COURT: No. That will probably be on Monday. I need to hear from Mr. Shelton.

MR. WELCH: Is there anything else that we need to provide to them?

THE COURT: If it was me, I was be jumping through hoops at this late date. I would be trying to break this down by month. You've done it by quarter. No reason you can't break it down by month.

MS. WILLETTS: Mr. Shelton's actual pirate calculations are by -- his number of pirates are by year, so I'm not certain how that affects this breakdown.

THE COURT: I'm not certain either, but this is the breakdown I'm looking for. Mr. Shelton needs to adjust to this. This doesn't adjust to Mr. Shelton.

MS. WILLETTS: Okay.

THE COURT: And I think when you're dealing with lost profits, which is on top of the swap, as accurate as you can be -- you control this information. Nobody else does. This isn't a situation where you've got a sliding pirate, or the other side's got it and you couldn't get it. This is all within your request for money.

MR. WELCH: So you want us to bring it down by month, if possible?

THE COURT: I certainly would. I'm not saying that this is not adequate, but $I$ am saying that it may not be. And if I was you, I'd be going back right now and requesting it by month.

You've got the time. You've got the program. You're asking for millions if not hundreds of millions of dollars. So that's you to you. You go at your own risk, and you see where your risk was. You were going to be out of the court for lost profits, frankly.

Okay. Thank you. Good night.
(At 6:16 p.m., proceedings were adjourned.)


| A | 68:25 80:19 | agreed 6:16 25:4 | 24:12,21 60:12 | 35:2 38:3 45:19 |
| :---: | :---: | :---: | :---: | :---: |
| abandoned 74:13 | active 28:1 45:3 | $7 \cdot 10$ | 60:15 87:12 | 59:22 |
| abbreviated 7:5 | 66:13 67:1,9 | agreement 9:20 | archive 41: | automatic 77:22 |
| ability 6:9 61:15 | 68:15 69:9,24 | 19:23 | area 80:5 | available 80:24 |
| able 28:11 30:9 | 75:3,3,15,19 | ahead 24:24 | argued 36:23 | Avenue 2:18 |
| 52:10 53:3 | 76:12,13,14 | al 1:5,8 2:2,9 | argument 53:3 | average 37:17 |
| 68:16 80:25 | 80:22,22 81:1 | Alan 3:10 21:25 | arrest 11:13 | 52:2 56:14 |
| 82:18 | 81:11 82:19 | alias 6:23 7:4,11 | arrested 14:1 | aware 15:18 16:1 |
| above-entitled | 83:2 | 7:18,25 8:4 | article 84:24 | 17:14,19 63:9 |
| 87:8 | activity 34:25 | alleged 7:11 | asked 12:5,20 | B |
| absolutely 25:15 | 53:21 69:24 | Allen 4:18,24 | 30:6 36:13 |  |
| acceptable 54:25 | 70:16 | 5:11 7:17 | 40:20,21,23 | b 79:17 |
| access 5:6,12,20 | actual 38:11,14 | allocates 69:7 | 42:12,17 60:19 | back 21:23 22:22 |
| 6:1,10,18 7:13 | 40:8,16 52:15 | allow 61:13,13 | 61:8,12 62:3 | 23:8 24:10,20 |
| 7:20 13:15 28:5 | 82:24,25 85:20 | 66:2 68:9 | 69:13 | 25:17,20,25 |
| 83:21 | add 37:1 44:8 | altogether 79:18 | asking 46:7 71:12 | 33:4,5,6 35:9 |
| account 40:2 | 46:10 47:7,12 | 83:13 | 86:15 | 38:2 42:16 |
| 41:16,17 48:14 | 70:2 | amended 18:19 | assistance 14:21 | 44:19 48:13 |
| 66:20 80:20 | added 36:22 43:6 | 19:19 | 14:24 15:10 | 51:25 57:1 61:7 |
| accounted 64:9 | 43:6,6,14,19 | America 11:2 | associated 75:9 | 65:19 67:20 |
| 68:5 | 47:17 53:24 | 54:1,3 | ASSOCIATES | 68:1,20,22,24 |
| accumulate 68:25 | adding 36:23 | Americans 54:21 | 2:3 | 69:13 70:20 |
| accumulated | 46:21 47:24 | Ana 1:16,23 4:1 | assume 34:5 | 73:18,24 74:21 |
| 41:16 | 48:6,8 50:7 | analysis 58:8 68:1 | 39:11 48:25 | 78:5 81:1,16 |
| accurate 42:1 | addition 46:12 | 81:14 | 54:6,20 56:6 | 84:19 86:12 |
| 67:3 83:3,16 | additional 8:17 | Angeles 2:19 | 58:25 63:24 | backed 60:3 |
| 86:3 | additions 42:23 | answer 11:7 | 69:21,23 70:17 | 69:20 72:20 |
| accurately 46:1 | 43:25 45:19 | 18:17 21:5 | assumed 27:10 | backing 62:16 |
| action 21:4,10 | adds 44:3 69:7 | 41:11 76:22 | 72:19 73:2 | 71:19 |
| activate 74:23,24 | adequate 86:11 | 77:1,3 80:6 | assumes 69:15 | backwards 36:25 |
| 75:1,6,15,17 | adjourned 86:20 | answered 79:6 | assumption 42:3 | back-door 66:16 |
| activated 29:9 | adjust 85:24,25 | answering 75:2 | 57:5 | 66:17 |
| 32:11 33:24 | administrator | Anthony 9:8 | attack 63:11 | ballpark 42:7 |
| 34:3,6,11,14 | 22:19,19 23:18 | anybody 25:4 | attempt 63:21 | 57:7 |
| 35:2 49:7 50:2,3 | admonish 25:3 | anytime 28:9 | 69:17 | base 46:10 |
| 68:8,14,23 69:6 | Advanced 78:13 | anyway $61: 12$ | attempted 61:7 | based 29:18,19 |
| 79:9 80:1 82:12 | advantage 65:23 | apart 10:25 | attempting 65:22 | 51:21 52:21 53.13 58:867.7 |
| 82:13,14 | advertised 64:11 | $\underset{83: 11}{\text { appear }} 39: 21$ | attempts 63:9 attention 64:19 | $\begin{aligned} & \text { 53:13 58:8 67:7 } \\ & \text { 68:9 79:6 80:19 } \end{aligned}$ |
| activates 76:5 | 64:17 advertisement | 83:11 APPEARANCES | attention 64:19 attorney 9:5 | 68:9 79:6 80:19 |
| activating 33:13 $34: 23$ | advertisement 65:10 | APPEARANCES | attorney $9: 5$ 15:12 | basic 42:7 |
| activation 28:8,10 | advertizing 65:21 | appearing 9:4 | attorneys 2:6,12 | basically 29:23 |
| 30:20 31:3,12 | advise 85:1 | appears 69:15,18 | 2:17 18:24 | 30:24 32:6 40:5 |
| 31:18 39:22 | affect 29:1 | applies 41:17 | attorney's 9:7 | 40:21 41:6 |
| 40:1 | afternoon 81:20 | apply 51:9 71:21 | August 28:18,19 | 45:13 52:1 |
| activations 28:3 | agencies 15:4,9 | approach 11:14 | authorization | 59:12 68:3 |
| 28:23 32:13 | agency 14:22 15:1 | approximately | 52:5 | 71:19 76: |
| 34:12 37:12 | 15:11 | 54:18 71:24 | authorizations | basis 61:22 71:2 |
| 41:15 49:8,9 | aggressive 53:19 | 77:7 | 45:14,16 47:10 | Bay 56:21 |
|  | ago 19:9 | April 1:17 4:1 | authorized 29:5,7 | Beacock 16:17 |


| 17:5,10 | broken 67:20 | 54:9,14 58:20 | 57:17,19,22 | chief 24:3 |
| :---: | :---: | :---: | :---: | :---: |
| beginning 33:7 | brought 46:11 | 58:24 59:4,11 | 58:11,12 61:8 | chip 36:15 |
| 50:12 84:1 | bulk 58:12 72:11 | 59:17 60:3,7,14 | 62:11 66:13 | choices 23:4 |
| behalf 10:10 | business 62:4,6 | 60:20 62:16,18 | 67:2,8,9,11,11 | Christine 2:4 33:6 |
| 18:15 19:2 | 62:13 65:4,16 | 62:19 69:20 | 68:4,4,6,8,10,10 | 82:8 |
| belief 71:9 | buy 35:7 59:4 | 70:17 71:8,12 | 68:12,15,23 | Christopher 5:4 |
| believe 20:5 22:22 | 75:6,6 | 71:13 72:2 | 69:9 74:18 77:6 | 5:18,24 6:8,13 |
| 28:20 39:13 | buying 12:23 | Canadians 54:21 | 78:23 80:19,20 | 6:23 7:3,10,17 |
| 40:9 53:2,16,19 |  | 54:23 56:6,18 | 80:22,23 81:2 | 7:24 8:3,9 |
| 53:20 56:12,18 | C | 56:25 59:1 | 83:2,4 | churn $41: 16,21,25$ |
| 67:8 70:15 84:1 | CA 63:13 | 69:12,13 70:15 | card's 37:12 74:9 | 41:25 45:10,15 |
| believed 55:6 | cable 41:2 52:8 | 72:19 | care 40:12,14,15 | 45:17,18,20,21 |
| believing 54:24 | 55:25 72:6,11 | capable 63:5 | careful 68:9 | 45:25 46:1,5,11 |
| 56:7 | calculate 49:17 | capital 4:19 | Carmel 60:16,17 | 46:23 48:7 |
| Bell 72:12,15,23 | 52:15 53:4 | capped 35:3 | carried 67:6 | Churn's 41:19 |
| benefit 71:7 | 57:20 82:19 | 36:10 51:7 | carry 60:25 | circumstances |
| better 28:16 | 83:8 | card 12:22 28:10 | CARTER 1:3 | 11:19 |
| 61:20 66:10 | calculated 57:16 | 34:13,20,22 | case 18:12 19:15 | circumvent 6:9 |
| 84:12 | calculating 53:14 | 35:7,18 36:6,16 | 20:6 23:7 24:3 | citizen 55:6 |
| beyond 30:19 | 60:8 | 36:24 39:24 | 25:6,6 55:4 | claim 43:13 |
| BG 7:5 | calculation 29:19 | 48:20 51:14 | 79:19,25 | claimed 30:17 |
| BGA 36:20 | 48:13,23 49:4 | 64:7 66:18,23 | cases 63:12 | 39:10 |
| Big 7:4 49:1 | 50:13,17 61:1 | 66:24,24,25 | categories 67:18 | clarity 79:7 |
| bit 26:6 54:21 | 68:9 | 67:23 69:4,4,6 | category 67:18,24 | Clauze 8:4 |
| Black 62:10 63:22 | calculations 83:1 | 70:18 74:8,10 | Cause 34:22 50:2 | clear 60:16 71:11 |
| blow 31:9 | 83:16 85:21 | 74:12,14,15,16 | 77:8 | CLERK 24:14 |
| blowing 64:24 | calculator 29:24 | 74:20,21,23,24 | ceiling 36:3,7 | 49:12 |
| board 36:21 | 59:14 | 74:25 75:1,2,3,4 | Center 2:12 | client 80:21 |
| 64:24 68:22 | calendar 25:19 | 75:6,7,7,9,9,15 | CENTRAL 1:2 | clients 10:25 11:4 |
| 70:15 | 81:20 | 75:16,16,18,18 | certain 25:20 | Clint 42:20 |
| bottom 35:25 | California 1:2,16 | 75:20,20 76:5,8 | 66:24 85:22,23 | clip 26:25 27:4,6 |
| 50:9 58:21,25 | 1:23 2:13,19 4:1 | 76:23,23,25 | certainly 21:20 | clips 21:14 |
| bought 75:11 | 73:22 | 77:20,22,22 | 66:23 69:18 | close 57:3,4 |
| Bowl 63:24 64:3 | call 12:24 18:13 | 78:4,5,10,11,12 | 81:23 82:1 | closer 61:12 66:4 |
| box 21:24 75:2,19 | 18:14 26:22 | 79:10,11,14,17 | 86:10 | 80:16 82:25 |
| 77:4,11,15 | 27:25 43:23 | 79:19 81:11 | certificate 4:24 | 84:9,10 |
| 79:12,13,14 | 48:6 68:10 | 82:11,12,14,15 | 87:3 | closing 83:17 |
| 80:4 | 72:20 | cards 6:1,18 | certify $87: 5$ | code 24:18 73:23 |
| boxes 77:19 80:4 | called 25:5 26:25 | 12:10,13,17,24 | cetera 50:23 | 87:6 |
| break 60:19 85:17 | 63:22 | 13:16 14:5,9,17 | CHAD 2:4 | come 11:9 23:11 |
| 85:19 | calls 9:17 12:18 | 28:11,12,14 | chambers 83:23 | 25:17 31:21,22 |
| breakdown 80:22 | 19:20 20:3 | 30:8,23 31:2 | chance 63:12 | 45:18 46:24 |
| 85:22,24 | Camino 16:7,12 | 32:4 33:17,24 | change 59:7 | 49:8 51:11,16 |
| breaking 56:13 | Canada 54:1,4,6 | 34:21 35:1 36:6 | changed 69:19 | 51:20 68:17,24 |
| bring 23:7 26:10 | 54:23 55:5,10 | 36:14 37:9,12 | changing 61:16 | 73:17,24 80:10 |
| 56:13 57:1 | 55:18,25 56:1 | 37:17 38:8,9 | channel 68:3 | comes 34:22 |
| 59:12,14 86:8 | 56:19 59:20,25 | 39:20 42:4,4 | charges 77:22 | 45:16 61:25 |
| brings 46:12 | 69:22,24 70:7 | 49:6,9,20 50:8 | Charles 22:7 | 67:20 81:6 |
| broadcast 63:11 | 71:2,21 72:5 | 51:21 53:8,14 | chart 53:18 69:2 | comfortable 81:9 |
| broke 30:5 | Canadian 14:25 | 53:15 54:10 | check 12:6 42:5 | coming 11:20 |


| 14:9,15,16 | conservative 37:7 | 9:2 21:1 23:4,15 | 37:10,15,19,22 | 79:22,25 80:3 |
| :---: | :---: | :---: | :---: | :---: |
| 34:12 | 53:19 56:4 | 25:9 29:25 30:6 | 37:24 38:1,4,7 | 80:10,10,15 |
| commercial 64:8 | consevative 53:20 | 31:22 36:23 | 38:14,18,25 | 81:3,9,10,15,24 |
| common 55:6 | consideration | 41:13 42:5,17 | 39:3,5,9,17,19 | 82:3,5 83:12 |
| 73:20 | 60:7 | 49:13 53:11 | 39:25 40:3,6,12 | 84:18 85:4,12 |
| communicated | consultant 10:4 | 54:12 57:10 | 40:14,19,23 | 85:16,23 86:2 |
| 6:22 | consumer's 35:2 | 59:19 60:11 | 41:1,4,9,13,21 | 86:10,18 87:15 |
| communicating | 50:5 | 61:13 64:12 | 41:24 42:11,16 | courtesy 4:6 |
| 11:22 | contact 18:10 | 65:18 71:1 74:6 | 42:17,24 43:1,4 | Court's 76:22 |
| communications | 19:17 | 75:13 76:20 | 43:9,13,16,19 | create 80:25 |
| 7:3,24 8:3 | contacted 18:11 | 81:10,17,24 | 43:21 44:4,7,10 | 83:24 |
| community 56:19 | contacts 10:20 | count 81:6,11 | 44:12,15,16,18 | created 66:19 |
| 63:23 | 64:5 | counter 27:14 | 44:24 45:4,10 | credible 32:23 |
| compared 50:22 | contained 29:18 | counterattack | 45:20,22 46:3 | 66:11 |
| 58:15 | continue 4:7 | 63:10 | 46:14,20,25 | credit 77:22 |
| compatible 36:25 | 26:15 77:24 | counterclaim | 47:3,5,8,12,16 | critical 61:7 |
| complaining 29:2 | 79:15,18 | 61:22 | 47:21,25 48:3 | CROSS 3:9 |
| complaint 18:19 | continued 22:2,5 | counterclip 20:21 | 48:12,16,18,25 | cross-examinati... |
| 19:19 | 30:3 33:15 | countered 63:21 | 49:3,10,13,16 | 22:3,5 26:10 |
| complete 57:13 | control 86:4 | countermeasure | 49:24 50:2,4,12 | 61:15 69:17 |
| completed 78:23 | controversy | 63:6 | 50:15,17,20,25 | 83:22 |
| Complies 33:8 | 73:23 | countermeasures | 51:4,8,11,16,20 | CSR 1:21 87:16 |
| 49:15 | conversation 5:23 | 63:8,17 64:2 | 51:23 52:4,7,9 | cumulative 29:1 |
| computer 42:19 | 7:9,15 | counter-counter | 52:13,15,20,24 | 36:11 37:12 |
| concern 74:17 | conversations 5:3 | 27:8 | 53:2,10,25 54:5 | 49:8,21,22 53:3 |
| concerned 42:9 | 5:9,17 6:7 8:8 | counter-counte... | 54:9,12,15,17 | 53:5 |
| 68:8 | convinced 28:5 | 27:1 | 54:19 55:1,3,12 | customer 52:1,2 |
| concerning 61:15 | cooperate 18:24 | couple 12:11 | 55:15,20 56:3,6 | 66:15 67:13,13 |
| 62:15 | copied 38:21 | 26:13 | 56:16,21,23 | 67:23,23 |
| concerns 37:4 | copies 65:16 | course 12:25 45:4 | 57:4,7,10 58:14 | customers 45:21 |
| 80:18 | copy $39: 481: 21$ | 51:1 65:4,15 | 58:18,23 59:7 | 46:11,21 63:16 |
| conclude 8:15 | 81:25 | 76:21 84:8 | 59:10,13,24 | Customs 14:9,15 |
| 21:14 | corner 31:17 | court 1:1,21,22 | 60:5,10,25 61:3 | 15:9 |
| concluded 65:19 | CORPORATI... | 4:5 8:15,18 | 61:24 62:14,21 | cut 26:14 |
| conditional 5:5,12 | 1:5 2:2 | 20:22 21:14,18 | 62:23,25 63:2,4 | C-l-a-u-z-e 8:5 |
| 5:20 6:9 7:13,20 | correct 9:5,6 14:2 | 21:21 22:2,24 | 64:2,20,23 65:1 |  |
| Conference 87:10 | 22:12,14,18 | 23:10,14 24:4,8 | 65:7,10,13,18 | D |
| Confidential 5:10 | 24:7 25:14 | 24:15,19,20,23 | 66:2,4,8,12,21 | D 2:4,17 3:1 |
| 7:6,16 10:1,21 | 30:18 32:25 | 25:2,12,15,25 | 67:5,12,16 68:7 | damage 30:17 |
| 11:1,10,25 13:4 | 37:18 38:12,13 | 26:11,19,21 | 68:21,25 69:13 | $32: 15$ 41.18 |
| $14: 415: 2 ~ 16: 2$ $16: 22$ 17.22 | 43:24 47:14,19 | 27:3,10,18,24 | 69:20,25 70:3,7 | 41:18 |
| 16:22 17:22 | 48:11 50:6,16 | 28:4,16,25 | 70:10,13,22,24 | damages 50:13 |
| 18:22 63:5 | 50:19,24 51:10 | 29:10,25 30:6 | 71:7,14,18,23 | 83:8 |
| 64:13 | 55:14 58:17 | 30:13,16 31:4,6 | 72:9,13,16,18 | Damion 31:21 |
| confirm 36:2 64:5 | 59:6 62:22 | 31:9,14,19 32:2 | 73:7,11,12 74:5 | Darin 2:11 82:8 |
| confirming 30:25 | 67:15 72:22 | 32:8,17,23 33:2 | 74:7 76:1,3,7,10 | 85:5 |
| conformance | 82:5,23 87:7 | 33:5,12,19 34:1 | 76:13,15,19 | data 28:2,4,5 37:2 |
| 87:9 | correctly 18:5 | 34:9,11,17 | 77:10,13,17,25 | 37:8 50:7 52:5,7 |
| confusing 32:18 | cost 35:18 40:14 | 35:11,13,16,24 | 78:2,7,9,15,17 | 52:9,10 53:23 |
| connection 9:21 | counsel 2:1 4:6,14 | 36:4,9,18 37:4 | 78:20,25 79:4,8 | 80:24 82:11,12 |


| 82:17,18 83:21 | 82:23 | 59:3 63:20,21 | 50:21 | effect 45:15,17 |
| :---: | :---: | :---: | :---: | :---: |
| database 79:21 | defend | disabled 64:4 | dropping 50:14 | 53:5 |
| 82:11 | 8:17 | 83:4 | 53:1,7 58:1 | effort 83:11 |
| date 14:11 24:11 | defense 3:5 8:24 | discarded 74:13 | drops 32:13 50:25 | either 26:2 79:19 |
| 54:14 85:17 | 9:2 20:19 25:6 | discuss 25:3 84:5 | 51:1 58:3 74:8 | 79:25 85:23 |
| 87:12 | definitely 32:14 | discussed 25:10 | 74:15 76:23 | El 16:7,11 |
| dated 62:10 | definition 68:14 | DISH 37:12 56:11 | dr7 22:19 | electronic 39:6 |
| David 1:3 2:5,11 | demonstrates | 56:12,15 | due 63:10 79:3 | 63:6,7,17 |
| 2:22 | 82:10 | displayed 31:8 | dynamic 40:10 | elements 73:22 |
| day 1:8 4:2 25:11 | demonstrative | 42:21 64:25 | D7V2 1:25 | em 29:13 56:13 |
| 25:20 63:9 | 53:17 57:15 | disproportionate |  | 71:20 |
| DBS 60:8 | 60:9 | 55:9 | E | Embarcadero |
| DCMA-1 73:22 | depending 73:14 | distributed 17:20 | E 3:1 | 2:12 |
| deactivate 77:5 | depends 65:9 | 68:12,13 | earlier 18:2 29:22 | embedded 36:15 |
| 77:12,19 79:17 | deposition 3:3 | distribution 6:17 | early 32:12 83:10 | employed 9:25 |
| deactivated 80:20 | 4:10,12 8:25 | 65:17 | easy 63:8 | employee 20:9,15 |
| 82:13 | 20:24 | distributor 68:10 | EBERHART | encourage 65:3,3 |
| deactivation | derive 30:12 | distributors 68:3 | 2:11 39:13 | 65:14 |
| 39:23,25 40:4,6 | Describe 11:18 | District 1:1,2,22 | EchoStar 1:5,25 | ended 12:7 33:25 |
| 40:16,23 50:6 | describer 38:24 | disturb 67:12 | 2:2 5:20 6:1,17 | 34:22 38:22 |
| deactivations | designated 8:19 | divide 41:22 | 8:11 15:17,19 | 44:6 |
| 41:1,20 78:1 | 8:21 | DNASP-II 78:13 | 16:3,10,24 17:4 | engineering 5:5 |
| deal 55:15 | designation 27:1 | 78:19 | 17:9,16,21 18:3 | 5:12 36:20 |
| dealer 22:11 | 27:8,14,15 | DOC 1:7 | 18:15 19:2,6,14 | entering 35:21 |
| dealing 5:24 | designations 3:4,5 | document 29:21 | 19:23 20:9,10 | 53:8 83:5 |
| 55:12 59:19,20 | 3:6 4:11 8:14,24 | 31:8 38:20 | 20:14,15,16 | entire 58:20,23 |
| 59:21,25 69:11 | 20:19,23 21:13 | 42:21 43:14 | 21:15 22:11,14 | 59:10,11 72:1,2 |
| 72:13 86:2 | despite 83:13 | 64:13,19,25 | 23:19 27:24 | 72:4 |
| deals 78:1 | Detroit 12:14 | 65:16,20,24 | 28:9,17 34:13 | entirety $62: 16$ |
| dealt 55:17 | developed 17:15 | 66:14 67:17,25 | $36: 15$ 41:3 59:3 $59.1861: 5$ | entities 55:25 |
| deauthorizations | 36:24 | 68:6 | 59:18 61:5 | 73:5 |
| 46:6 47:10 | devices 39:20 | documents 22:16 | 62:11 63:19 | entity 16:7,11 |
| deauthorizing | 51:24 52:17 | 23:12,24 26:4 | 64:9 65:8,22 | Ereiser 15:14,19 |
| 45:21 | 64:4 | 26:13 29:22 | 66:3,18 67:25 | 18:13,14,20 |
| Debbie 1:21 87:15 | difference 64:16 | 46:1 62:5 67:17 | 68:21 73:4 74:9 | 19:1 |
| December 38:23 | different 25:19 | doing 59:1 65:5 | 74:12,16,23 | Ergen 29:6 |
| 66:16 | 32:5 49:20 | 67:14,16,21 | 76:25 77:5,12 | ESC0135955 |
| decision 54:15 | 54:20 67:18 | 71:9,17 | 77:20,21,23 | 64:22 |
| 84:6 | difficult 82:25 | dollars 86:16 | 78:3,11 79:16 | essentially 46:8 |
| decreases 32:13 | difficulty 61:4 | door 83:17 | 79:16,18 82:10 | 68:20 |
| deduct 56:9,24 | Digital 63:13 | doubled 58:11 | 82:18 83:6,7 | estimate 36:6 |
| 58:19,23 71:8 | 78:13 | Dov 2:22 | EchoStar's 5:5,12 | 45:23 55:21 |
| 71:12 73:3 | direct 3:9 30:3 | dramatically | 6:9 7:12,19 | 57:16,23 64:8 |
| deducted 59:11 | 64:18 | 67:10 | 18:24 56:24 | 67:5 |
| 59:17 | directly 81:5 | drawing 68:22 | 75:14 79:21 | estimated 30:23 |
| defective 67:20 | DirecTV 10:13 | driving 80:18 | EchoStar-NDS | 71:13 |
| defend 63:12 | 11:2,11,15,21 | drop 43:23 48:25 | 9:22 | estimating 53:14 |
| defendant 2:9 | 12:11,21 13:15 | 49:1 72:21 | ECM 63:14 64:5 | 56:2 |
| 8:22 9:15,18 | 14:6,15,18 | dropout 48:7 | ECMs 63:8 | et 1:5,8 2:2,9 |
| 18:12 19:12,25 | 28:16 56:11 | dropped 44:1 | ECM's 63:16 | 50:23 |

evaluation 83:23
evening 73:15,21
84:14
events 63:18
eventually $33: 24$
34:2 35:2 41:22
68:11
everybody 72:6
Everybody's
23:10 84:12
evidence $23: 2$
29:20,22 83:13
exactly $30: 15$
32:22 34:19
35:21 47:21
56:20 76:10
EXAMINATION 30:3
examine 26:10 52:10
example $30: 18$
56:17 74:25
75:17 79:5,6,7
exceeds 69:8
Excellent 81:3
Excerpt 4:12 8:25 20:24
exclude 83:3,12
excused 25:23 76:21
exercise 30:24
Exhibit 42:20
61:21 62:4
66:14,19 82:10
exhibits 64:22
exist 52:17
expanded 84:23
expect $24: 4,25$
38:10 54:19,23
73:21 85:2
expected 32:12,14
experience 58:8 63:15
expert 83:15
explain 29:14
30:11 45:10
48:17
explaining 33:2
explanation $32: 20$ 46:16

ExpressVu 72:12
72:15,23
extent 19:10
external 64:3
extracting 79:13
e-mail 11:23
61:19 64:15
F
fact $34: 656: 19$ 59:3
factor 45:10 46:5 48:7
facts 11:18
fail 77:19
fairly $82: 16$
faith $26: 14$
familiar 15:23
$16: 6,9,16,19,23$
17:3,9
fancy $49: 1$
far 31:17 67:4 70:9
fashion 45:5
82:18
fault $36: 1384: 21$
84:21
FBI 15:12
feared 55:8
federal 1:21 14:22 14:25 15:11
FedEx'd 83:20
fee 77:14
feel 33:23 81:9
fees $9: 2121: 3,9$ 79:18
ferret $23: 1$
field $28: 1233: 18$
37:3 49:7 50:8
50:11 51:22
52:22 53:8,15
67:2,10 69:9
78:6
fieldfeel 64:4
Fifth 4:16,22 5:7
5:14,21 6:4,11
6:20,24 7:7,14
7:21 8:1,6,12
15:21,25 16:5,8
16:14,18,21
$17: 2,7,12,17,24$ 20:11,17
fight 63:6
figure 28:11 35:3
44:21 46:1 48:5
48:8,9 50:21
51:9 56:4,9 57:8 58:20
figured 79:6
figures 39:20,23
39:23,25 40:4,7
40:9,16,24
52:24 53:25
56:17 58:21,24
58:25 60:1
62:15 70:25
83:7,19 84:19
figure's 55:16
file 77:23
filings 29:4
final 84:6
finally $85: 8$
financial 38:20
find 28:5 32:18
71:18 74:19 84:21,21
fine 13:8 66:1
firmly $28: 5$
first 13:7 19:13 27:4 32:24 33:14,17 34:13 36:25 37:2,7 46:9 49:21 53:14 64:21 66:9,11 68:16 74:7 76:22
five 11:7,23
flaws 79:2
following 45:4 82:7,8
follows 4:14 9:2 21:1
foregoing 87:6
forever 41:5,6
forewarned 23:10
form 7:5 17:1,11 18:21 19:3,16 20:3,13 26:5 61:11
format 27:13 87:9
forms 10:17,19
forward 29:11
85:6
found 39:8 63:7
80:14 84:24
foundation 12:19
15:15,20 16:13
17:1,13,23
18:21 19:3,16
20:3, 13 84:25 85:8
Fountainview 2:6
four 11:23 77:3
frame 58:9
Francisco 2:13
frankly 40:9 61:4
71:3 83:23 84:1
84:20 86:18
free 55:22 64:7
Friday 1:17 4:1
front 53:18
Frost 3:3 4:9, 12
5:10 7:6,16 8:25
10:1,21 11:1,10 11:25 13:4 14:4 15:2 16:2,22 17:22 18:22 20:24
Frost's 4:7 26:25
full $32: 1$
fuller 69:17
functionality 63:14
further $24: 2$ 30:16 57:10 58:3 84:3,11,14

## G

Galaxy 11:2
Gale 1:21 87:15
game 64:6,7
Gee 19:17 23:22 23:24
generation 36:24 37:2,8
generations 68:2
gentleman 24:10 45:24
getting 39:6 41:7 46:23 53:8

61:12 71:1
73:15 83:19
84:9,10
gift 4:23
give 22:24 $24: 11$
26:12 36:1
38:11 44:25
45:6 49:13
56:23 66:12
67:22 70:3 72:1
73:12 75:21
81:1
given 27:2 32:4
41:8,9 68:11,15
68:25 82:20
83:2
gives 33:23 48:9 63:11
giving $32: 3,20$
go $21: 2123: 12$
25:16,22 26:2,3
29:10 32:9
37:21 42:2
48:13 51:25
54:4 62:6 64:21
66:3 68:22
73:12,14 75:5,7
84:18 85:6
86:16
going 10:16 14:10
14:12 19:11
22:21,22 23:2,5
23:7 24:10,20
25:3,5,12,16,17
25:18 26:2,3,4
26:11,15,16
27:7,17,24,25
33:18 36:11
38:4 39:15
42:20 43:23
44:21 47:13,16
47:18 48:6,8,25
51:6 58:25 59:7
60:25 61:10,13
65:5 68:1,9
75:10 80:15
83:22 84:10,18
85:4 86:12,17
gonna $32: 13$
53:23

| good 24:24 33:23 | 59:22 60:2,6 | 38:19 39:7,8,13 | 63:18 | instructions 8:10 |
| :---: | :---: | :---: | :---: | :---: |
| 36:6 85:7 86:19 | 61:23 64:1 82:4 | 39:23 40:11,17 | illegally 70:17 | 73:16,19 81:18 |
| Gordon 9:8,10 | half 25:18 35:3,5 | 41:11,12 42:10 | imagine 21:8 | intend 26:10 |
| 12:18 66:3 | 36:3,8 37:17,19 | 43:2 48:17 | impossible 82:25 | intented 65:16,20 |
| gotten 38:15 | 38:8,9 39:20 | 52:12 57:13 | inadequate 68:24 | interchangeabil... |
| government | 41:22 42:8 | 60:2,15,22 | 84:25 | 75:11 |
| 14:22,25 15:8 | 51:13,24 52:2 | 61:20 62:3,5 | Inaudible 14:14 | interested 12:21 |
| 15:11 | 69:19 83:8 | 64:18 65:11 | incentive 74:12 | 12:23 42:11,12 |
| grabbed 38:21 | hallway 21:21 | 66:7 68:16,18 | 77:14 | interject 40:17 |
| grand 49:6,9 | 26:8 | 69:10 70:2 71:6 | incentivized | internal 38:20 |
| gross 44:2,3,3,4 | hand 82:21 84:5 | 71:11 73:2,10 | 74:19 | 64:12 65:20,24 |
| 44:25 45:13,15 | happens 38:2 | 77:16 79:3 | inclined 66:2 | Internet 10:17,18 |
| 46:10,21,23 | 74:8,14 76:23 | 80:17 84:15,16 | include 54:1 | inventory 33:22 |
| Group 1:8 2:9 | happy 29:14 | 85:1 | 69:12 79:14 | 50:1 68:2 83:5 |
| 41:2 52:8 60:16 | hard 74:20 | HONORABLE | included 27:13,15 | investigations |
| 60:17 | harsh 83:6 | 1:3 | 36:17 | 6:16 |
| grows 37:14 | HARTSON 2:16 | hoops 85:17 | includes 29:19 | involvement 5:19 |
| guess 46:5 | hear 23:2,3,5 | hour 25:18 69:19 | inconvenient | 5:25 6:2 15:18 |
| Guggenheim 3:10 | 45:24 61:18 | 73:18,25 | 83:25 | 16:1,10,24 17:4 |
| 21:19,21,23,25 | 85:13 | house 52:3 | incorporate 62:7 | involving 73:24 |
| 22:3,7 24:2 | heard 12:4 59:4 | household 37:17 | incorporated | IRD 77:20,21 |
| 25:11 26:1 | 74:17 | 38:10 39:1,11 | 4:13 9:1 20:25 | 78:5 79:12,12 |
| 61:22 | hearing 23:6 | 39:20 51:24 | incorrect 27:11 | IRD's 77:6 79:13 |
| Guggenheim's | held 74:2 87:8 | 52:2 | increased 44:13 | isolate 28:12 30:7 |
| 22:22 | help 19:11 20:6 | households 28:15 | indicate 6:14 | 83:9 |
| Gun 7:4 | 38:24 | 51:14 52:19 | indicated 66:21 | isolated 30:22 |
| Guy 15:24 16:4 | helped 12:2 30:24 | 53:16 55:5,7,18 | 68:21 69:12 | issue 33:20 82:14 |
| H | high 36:7 41:15 | 56:15 57:17,19 | indicators 38:22 | issued 69:4,5,6 |
| H | 50:10 | 70:21 71:20,25 | individual 15:23 | issues 5:25 8:10 |
| $\begin{gathered} \text { hack } 12: 335: 22 \\ 63: 665: 23 \end{gathered}$ | higher 54:23 55:5 | 72:9,10,11 | 16:3,11,16,19 | 24:2 73:9 |
| \% $\begin{array}{r}\text { 63:6 65:23 } \\ \text { hacked 53:9 }\end{array}$ | highest 33:16 | Houston 2:7 | individuals 77:21 | J |
| 63:20 75:7 | 7:16 10:1,21 | hundred 61:18,25 | informal 51:17 | January 63:19 |
| hacker 63:22 | 11:1,10,25 13:4 | 62:11 65:8 | informally $80: 10$ | 83:10 |
| hackers 63:8,11 | 14:4 15:2 16:2 | 70:13,14 | 81:17 82:7 84:5 | Jeff 16:20,24 |
| hacking 54:24 | 16:22 17:22 | hundreds 86:15 | informant 22:13 | JJ 19:17 |
| 72:20 | 18:22 63:4 |  | 23:19 | join 73:25 |
| hacks 63:16 65:8 | 64:12 | I | information 4:19 | Judge 1:3 74:18 |
| Hagan 2:4 3:13 | historical 41:7 | ID 66: 18,23,24 | 7:12,19 12:2 | Judicial 87:10 |
| 8:16 15:15,20 | hm 18:10 20:1 | 82:11 | 24:6 28:1,6,8 | jumping 31:24 |
| 16:13 17:1,6,11 | HOGAN 2:16 | idea 69:13 | 29:3,17 31:16 | 85:16 |
| 17:13,18,23 | home 35:2 50:5 | identified 67:18 | 36:2 61:10 | June 33:13 54:18 |
| 18:21 19:3,7,16 | 73:15 | 67:24 | 64:14 65:4,15 | jury 1:15 3:12 4:4 |
| 20:3,13 21:17 | Honor 20:20 | identify 67:1 | 66:12,15 68:17 | 23:1 25:16,23 |
| 22:21 25:10,14 | 21:16,17,20 | identities 17:14 | 80:12,13 82:5 | 25:24 27:4 |
| 26:18,20 28:2,7 | 22:4,21 23:9 | 17:19 | 84:4,22 86:4 | 55:16 73:15 |
| 28:21 29:3,12 | 24:1,12 26:18 | ID's 82:15 | informed 14:10 | 74:4 76:20 |
| 30:2,4,21 33:6 | 26:24 27:16 | II 1:8 4:2 | injured 22:20 | 84:13 |
| 38:17 41:12,14 | 28:2,7 29:14,17 | illegal 54:13,24 | installed 63:13 | jury's 4:5 |
| 53:12 57:12,14 | 30:2 34:21 | 56:1 59:2 63:12 | instance 52:10 | J.J 23:22 |


| K | latitued 26:12 | looking 47:19,21 | memo 63:5 | monies 20:12 |
| :---: | :---: | :---: | :---: | :---: |
| keep 74:10,16 | launch 33: | 57:15 68:22 | Menard 4:18,24 | monitor 10:15 |
| 76:25 | launching 63:6 | 69:14 85:24 | 5:11 7:17 22:20 | month 9:12 18:18 |
| KENNETH 2:17 | law 2:6,12,17 | Los 2:19 | 23:17 | 19:18 48:19 |
| key 27:5 38:22 | 49:12 54:2 55:8 | lose 77:15 | mentioned 31:14 | 61:11 82:20 |
| 44:2 45:16 | 56:7,18 | losing 26:13 | met 13:6,13 22:7 | 83:2 84:8,11,11 |
| 63:18 | lawful 59:1,1 | loss 64:8 | method 30:11 | 85:18,19 86:9 |
| keys 79:13,14 | lawsuit 18:25 | lost 79:23 83:12 | methodology 33:3 | 86:13 |
| kick 34:3 58:16 | learn 23:17,21 | 83:15 84:12 | 42:3 53:13 | monthly 79:18 |
| kicked 51:2 | learned 22:18 | 86:3,18 | 84:24 85:8 | months 11:16,24 |
| kind 12:1 | lease 77:4,8,11 | lot 12:24 55:24 | Mexico 59:21,23 | moral 54:20,21 |
| KLEIN 2:17 | leased 77:19 80:5 | 61:10,10 74:17 | microphone | morning 25:19 |
| knew 12:21 14:9 | 80:8,9 | ludicrous 56:17 | 80:16 | Moskowitz 2:22 |
| 14:14,15,15,16 | legal 9:21 21:3,9 | M | million 31:2,14,17 | Mounted 54:9 |
| 22:13 31:15 | 54:6,22 55:6 | M | 31:18 34:4,8 | 59:4 |
| 34:7 53:22,23 | 56:7,19 70:16 | M 2:4 | 35:1,4,4,5,20 | move 33:6 |
| knock 63:17 | 71:9 | mail 12:17 78:1 | 36:3,8 37:22 | moved 56:19 |
| know 10:20 11:23 | legally 70:18 | maintenance | 38:7,10,11,11 | multiplies 28:14 |
| 11:24 12:9,16 | length 8:13 20:18 | 67:22 | 38:14 39:2,14 | multiply 41:24 |
| 13:21 19:8,10 | 21:12 63:10 | making 23:4 | 39:16 41:15 | multitude $74: 18$ |
| 20:2 21:11 | LENOIR 80:2,8 | 57:12 82:6 | 42:8,9 43:24 | MYERS 2:10 |
| 23:25 24:15 | lesser 55:6 | man | 44:13 45:7 | N |
| 26:8,14 27:3,6 | letters 4:19 | management 41:3 | 51:14 71:3,4,24 |  |
| 28:10 34:2 36:2 | let's 26:21,22 | manufactured | 72:8,17,18,20 | N 3:1 <br> Nagra 63.5.9.13 |
| 37:5 42:6 49:19 | 27:19 31:9 38:5 | $31: 16 ~ 32: 5,7$ $33 \cdot 1034 \cdot 10$ | 72:21 73:2 | Nagra 63:5,9,13 <br> 63:20 64:5,6 |
| 49:21,22,25 | 50:22 55:9 | 33:10 34:10 35:1 36:14 | millions 68:5 | $\begin{aligned} & \text { 63:20 64:5,6 } \\ & 78: 13 \end{aligned}$ |
| 50:9 51:16,23 | $81: 19$ lies 71.5 | $\begin{gathered} 35: 136: 14 \\ \text { March 33:10 } \end{gathered}$ | 86:15,15 milltion 72.23 | NagraStar 28:17 |
| 52:1,4,6 54:8 $60: 23$ 61:17,19 | lies 71:5 likelihood 23:6 | March 33:10 <br> marked 53:17 | milltion 72:23 <br> minimally 73:22 | NagraStar 28:17 36:1 |
| 60:23 61:17,19 68:11 69:15,18 | likelihood 23:6 | 64:22 | minimally $73: 22$ minimum 79:15 | Nagra's 63:7,9 |
| 74:21 75:10 | limited 83:7 | market 30:25 | Minus 43:15 | naive 38:9 |
| 80:5 83:20 84:9 | line 32:9 35:25 | 35:7,17,18,22 | minute 31:4 44:18 | naively 37:16 |
| 84:12,18 | 58:21,25 81:5 | 40:10 54:1,3 | minutia 42:6 | name 9:7 13:7 |
| knowledge 5:19 | lining 59:4 | 55:13 58:9,20 | model 41:18 | 16:4,7,11 19:24 |
| 6:2 | list 15:4 27:12 | 58:24 59:10,11 | modified 13:18 | named 16:17,20 |
| known 66:23 | 68:15 | 59:17 60:13,14 | moment 31:19 | 22:7 23:18 |
| Kudelski 66:17 | listing 82:11 | 62:16,18,20 | 34:1 35:11,13 | names 13:3,10 |
| Kuhmo/Daubert | literature 64:3 | 65:22 83:5 | 35:13 38:5 43:9 | NCRYPT 4:19 |
| 85:7 | litigation 9:14,22 | marketing 62:5,8 | 43:16,22 44:7 | NDS 1:8 2:9 5:4 |
|  | little 26:5 53:22 | 62:9 65:6,7 | 44:12,16,20 | 5:11 6:14 9:20 |
| L | long 11:13 82:12 | marketplace 35:6 | 48:16 49:14 | 10:2,5,7,10 21:9 |
| L 2:16 | longer 34:20,23 | 35:10 58:13 | 56:4 58:14 | 21:15 26:7 |
| laid 73:20 | 78:23 | mass 78:10,11,22 | 59:13 68:15 | 28:16 29:1 |
| language 47:4 | look 29:13 31:1,3 | matter 87:8 | 70:4 71:25 | 52:10 63:4,15 |
| large 38:20 67:7 | 31:17,22 35:9 | matters 81:18 | 73:13 75:21 | 63:20,21 64:4 |
| Larry 11:12,19,22 | 38:7 52:13 69:2 | mean 18:8 34:11 | 79:22 | 64:12 65:6,17 |
| 12:5 17:10 | 81:21,25 84:4 | 56:17 | Monday 24:14,16 | 83:21 |
| late 85:17 | 84:19 | means 24:23 | 24:16 81:19 | NDS's 5:18 6:1 |
| Latin 11:2 | looked 27:4,5 | 39:11 49:1 | 85:3,5,12 | 8:9 23:7 64:2 |
| latitude 24:9 | 46:9 52:12 | meet 22:10 | money 86:7 | 74:17 |


| near 50:9 | 67:7,9 68:23 | 37:15 38:1,6 | 81:19 | 13:2,10 17:15 |
| :---: | :---: | :---: | :---: | :---: |
| necessarily 84:24 | 69:8 71:12,13 | 39:3,17 40:13 | O'MELVENY | 51:18 54:20 |
| need 25:18 46:5 | 71:15 73:3,4 | 41:23 42:13 | 2:10 | 55:8 65:6 72:20 |
| 60:12 69:18 | 80:19,22 81:1 | 44:4,5 45:4,18 |  | 73:2 77:8,8 |
| 74:23 75:14 | 82:19 83:1 | 45:22 47:2,23 | P | 82:14 |
| 81:13 83:20 | 85:21 | 48:2,24 49:2,3,5 | packages 4:17 | percent 42:3 |
| 84:16 85:13,14 | numbers 28:22,25 | 49:10,24 50:4 | packet 73:20 | 45:18,23 46:22 |
| needed 68:22 | 29:12,24 30:7 | 53:10 54:17 | page 4:15,21,25 | 47:9 49:9 50:9 |
| needs 85:24 | 30:12,20 37:16 | 55:15,20 56:5 | 5:2,16,22 6:6,12 | 50:13,18,21,25 |
| net 43:25 44:6,17 | 39:24 41:14,18 | 56:16,23 58:19 | 6:19,21 7:1,8,22 | 51:1,4,9,12,13 |
| 44:24,25 45:5 | 42:2,5 46:9 | 59:7,24 62:14 | 8:7 9:3,9,19,24 | 51:17 52:21,25 |
| 45:14,14,17,18 | 52:16 53:17,19 | 64:20 65:1 | 10:12,23 11:8 | 55:9,10,18,20 |
| 46:12,23 48:6,9 | 53:24 60:4,8,18 | 69:25 70:5 73:7 | 11:17 12:15 | 55:22,22,22 |
| 62:17,19 | 60:23 61:16 | 73:11,16 75:23 | 14:20 15:13,22 | 69:16,23 70:13 |
| netting 47:10 50:7 | 69:12,14 80:18 | 76:16 77:2,17 | 16:15 17:8 18:1 | 70:14,14 71:2,8 |
| Network 37:12 | 81:1,5,13 84:7 | 77:18 78:2,7,8 | 18:7,16 19:21 | 71:20,22 72:24 |
| 56:11,13,15 | number's 34:15 | 78:25 79:4,8,22 | 20:7 21:2 38:19 | 77:7,13,18,20 |
| never 13:6,13 | N-C-R-Y-P-T | 80:3 82:3 86:1 | 39:13 42:20 | percentage 28:13 |
| 75:11 | 4:20 | 86:19 | 52:14 61:23 | 50:20 53:5,15 |
| new 12:22 29:12 |  | old 67:13 78:12 | 64:21 87:9 | 54:23 55:9 69:8 |
| 32:19 45:13,16 | 0 | once 37:7 47:12 | pages 38:21 | 71:21 72:12 |
| 46:11,21 47:10 | O 1:3 | 58:19 63:24 | paid 10:7,9 | percentages |
| 48:6 53:8,23 | object 22:21 | 82:17 | paired 79:11 | 59:15 |
| 67:23 69:16 | objection 12:18 | one-page 66:19 | paper 29:13 | perfect 84:8 |
| 78:4 | 17:6 19:7 21:6 | oOo 86:21 87:1 | papers 49:10 | performance |
| nickname 15:24 | objections 17:18 | operating 72:7 | paragraph-by-... | 38:22 |
| night 25:10 29:19 | obtain 27:25 | opinion 52:17 | 26:5 | period 12:12 41:8 |
| 68:21 86:19 | obvious 64:13 | 58:10 66:5 | part 38:9 54:16 | 69:1 |
| nine 11:16 | 68:18 | 68:19 69:16,18 | 64:19 67:25 | periods 30:8 |
| nipper 7:11,18,25 | obviously 33:16 | opportunity | 74:17 | 31:18 32:11 |
| 8:4 66:16 | 50:25 | 83:13 | partially 53:3 | person 16:6 23:3 |
| Nods 57:9 | occuring 25:7 | option 22:25 23:8 | participate 6:16 | 75:11 |
| NOLL 2:5 | occurred 33:17 | Orban 29:23 | parties 21:15 25:5 | Personally 22:17 |
| nonpaying 64:9 | 34:20 35:22 | order 24:20 25:20 | 76:20 | persons 17:20 |
| notice 27:2,16 | 53:21 | 27:17 49:8 | partly 25:5,6 | perspective 55:21 |
| 83:7,9 | occurring 37:8 | 52:22 74:22 | parts 77:3 | 56:8 70:18 |
| November 35:7 | oddity 25:7 offer 24:4 | 75:14 | passes 85:7 | Peter 16:17 17:4 |
| number 28:14,18 | offer 24:4 | ordered 73:17 | password 66:16 | 17:10 |
| 29:5,7,8 30:7,23 | offering 8:17 | organization 77:6 | 66:17 | phone 9:17 10:22 |
| 30:23 32:7,14 | Official 1:21 | original 79:12 | Pause 42:14 76:17 | 19:19 |
| 32:24 34:4 | oh 25:12 36:11 | originally $9: 15$ | pay 77:21 79:15 | phrasing 74:11 |
| 36:16 37:6,13 | 54:18 70:12 | 30:7 | paying 21:3,9 | picture 32:1 |
| 38:7,16,23,25 | okay 9:25 13:2,18 | ought 68:16 84:4 | 79:17 | piece 29:13 |
| 39:9 41:21 | 20:22 23:21 | outside 3:12 | Pearlman 22:7,13 | piracy 5:20 8:11 |
| 43:19 45:1 48:4 | 24:22 25:7 | 25:24 56:17 | 22:16,18 23:18 | 10:15 15:19 |
| 49:22,22 53:14 | 29:10 31:5,9,11 | 65:17,22 74:4 | 23:24 | 16:3,10,24 17:4 |
| 55:5,7 56:25 | 32:2,3 33:4,19 | overcome 63:8 | Pelletier 16:20,25 | 17:10 20:9,15 |
| 57:22 58:10 | 33:21 34:20 | overnight 81:21 | Penal 73:23 | 35:3 36:3 37:8 |
| 61:18 65:23 | 35:12,16,24 | 81:25 83:20 | people 10:20 | 51:9,12 60:3,8 |
| 66:13,23,24 | 36:4,5,9,18 | o'clock 26:23 | 12:10,14,20 | 72:14 78:24 |



REDIRECT 3:9
reduce 73:1
reduced 67:10
redundantly 23:4
refer 60:12
reference 31:25
referred 67:19
reflect 39:24 45:17
reflected 45:25 53:17
refurbished 78:5
regarding 5:4,11 6:87:10,17 8:9 9:21
regulations $87: 10$
relate 48:12
related 20:14,14
relating 5:25 7:12
7:19 8:10
relationship 19:6
relevant 30:8
relied 62:4
relying 60:17
remain 73:17
74:1 83:4
remember 13:3,5 13:11
removes 78:4
rendering 68:19
repair $32: 15$
repeat $18: 17$ 74:14 76:2 77:10
replaced 68:4 83:5
replaces 78:4
replacing 67:22
report $60: 13,15$ 60:16,18,20
reported $87: 7$
reporter 1:21 27:19 73:12 81:16 87:15
REPORTER'S 1:14
reports $35: 25$ 38:20 56:12 60:17
represent 9:11
represented
80:11
reprogram 74:24 75:15
reprogrammed 6:1,17
reprogramming 79:13
request $86: 7$ requested 32:4 48:20 80:21
requesting $86: 13$
require 78:12 83:22
required $65: 4,15$ 79:12
requiring 85:6
reserve 24:1 66:1 66:6
resources 27:19 81:17
respect 15:8 79:3
responsibility 84:20
rest 65:12 73:13
resumed $22: 1$ 27:23 42:15 74:3 76:18
retail 83:4
retailers 68:3
retain 9:10
retake $27: 19$
retrieving 41:7
return 19:19
74:12,20 77:5 77:12,20 78:12
returned 9:17 74:9,16 76:24
returning 77:15
reverse 5:5,11
RICHARD 2:16
right 4:5 13:12,14
14:19 15:17
21:18 23:14
24:4,8 25:15
27:18 29:25
31:17 33:12
41:13 42:16 44:12 46:20,25 47:8 48:15,16

48:21,23 49:10
51:7 53:11 57:1
57:10,21 58:18
61:11 63:18
64:2 70:22,24
72:7,17 73:8
74:5 76:7,19
80:7 81:12 82:2
86:12
risk 84:12 86:16
86:17
Rissler 11:12,14 11:19
Rock 41:17
roll 32:12
ROM 28:11, 12, 13
28:23,24 29:9
30:8,23 31:2,12
32:6,6 33:10
34:2,3,5,17
35:10,10,20,22
35:23,23 49:8,9
49:17,18,19,20
50:9,10,10,15
50:20,21,22,22
50:22 51:1,2,15
52:16,23 53:14
53:15,21 57:17
57:19,19,22
58:10,13,15
61:8 65:8 66:25
66:25,25 67:8,9
67:11,13 68:4,4
68:4,12 70:9,23
71:22 75:1,2,3,4
75:6,7,7,9,9,11
75:12,18,18,19
75:20 76:5,6,8
76:12,13,14
79:10,11,13,17
79:19,20 80:1
80:18,19,23
81:2,11 82:15
82:17,19 83:2
83:10
ROMs 50:22
Ron 15:14,19 18:12
Room 1:22
rough 42:5
roughly $37: 22$
71:3
Royal 54:9 59:3
RPR 1:21 87:16
Rubin 2:22
Rubin's 62:8
rule 82:9
ruling 55:2 82:6 82:21
run $81: 184: 11$
running 29:24
RUSS 42:2
Ryan 31:21
S
SACV 1:7
sales 68:3
salespeople 62:7
San 2:13
Santa 1:16,23 4:1
sate 75:16
satellite 1:5 2:2
5:19 10:15
33:11 72:6,12
72:13 76:5,9
satellites $72: 14,19$
Saturday 81:17
saw 64:7 73:23
saying 23:3 37:6
46:10 52:1 69:3
86:10,11
says $45: 1362: 11$
65:2,2,14
scenario 56:23
Schaeffler's 60:21
scope 22:22
screen 31:6 32:19
43:1
seated 21:23 27:21
second 18:19
19:18 36:24
40:18 67:24
68:18 74:22
secret 26:6
section 77:16 78:8
87:5
sections 26:9
73:23
security $36: 15$

78:17
SEC.gov 81:8
see $12: 2131: 9,18$
33:14 35:9
37:14 38:15
44:8 61:25
73:19 86:17
seeing 35:6
seen 54:7
send 78:11
sender 4:18
sending 12:7 64:5 78:5
sense 47:15
sent $12: 10,11,13$
13:15 14:5,17
27:13 64:2
66:17
sentence 65:12
separate 10:25 37:5 56:13 60:13 73:5
September 30:19 34:23
service $32: 15$ 33:11 36:5 52:8 67:19 74:8,15 74:23 75:14 76:23 77:5 78:3
serviced 11:5
services 10:24 41:2 65:6
session 24:15
set-top 75:2,18 79:12
sheet 29:23 31:25 71:16
Shelton 3:12
26:16,22,24
27:18,22 28:13
29:12 30:5
40:20 45:12
53:13 57:15
60:7 67:15 68:6
68:19 69:11
71:17 73:17
74:1,22 75:24
81:13,16 84:7
84:17,21 85:9
85:13,24,25

Shelton's 66:5
68:1 69:2 74:6 85:20
shipment 37:14
shipments 54:3
shipped 31:1,16
32:5 33:1 36:14
49:23 51:22
52:22 67:8
shipping 34:23
show 29:16 32:8
33:2 38:18 39:3
39:9 46:3 49:17
61:24 65:1,10
65:21 68:14
75:12 76:11
showed 79:20
showing 32:1,23
shown 29:18
shows 32:11
38:23,25 66:19
79:25 82:12,13
shut $37: 7$ 78:19
sic 65:22
side 26:2
sides 23:5 26:8 30:6
side's 86:6
sign 74:25 75:17
signal 14:1
significantly 59:8
signs 28:9
sign-post 66:10
simple 82:16
simply 25:20
45:25 48:25 74:13 83:24
single 69:6
sir 24:20,25 25:8 27:21 39:12 40:25 44:23 46:2 51:19 62:15 74:1
sitting 33:21 48:21 50:1 61:11
situation 86:5
six 11:24
size 55:18,20
sliding 86:5
slips 49:14
small 37:13 72:12
smaller 34:15 72:24
Smart 32:4 36:14 36:16 39:20 49:20 74:8 77:6 77:20,22 78:4,5 81:1,11
snapshot 41:8
Snyder 2:11
21:16 26:24
27:7,12,15
29:16 38:19
39:4,8 48:19
54:14,18 60:15
60:21 61:12
65:11,14,25
66:2,5,9 67:7,15
68:13 71:5,11
71:15,23 73:1,8 73:9 81:24 82:9 84:15 85:1
Snyder's 61:14
socket 36:21
soft $67: 14,16$ 74:20
software 41:3
sold 12:8,12
solder 36:21
solely 53:25 54:2
somebody 21:18 23:11
sorry 58:22 72:3
sort $24: 5$ 80:25
82:6,16
sorted 82:15,18
sought 18:3 19:14
source $24: 18$
Spain 63:13
specific 24:11
specifically 30:14
speculate 12:25
speculation 12:19 20:4
spreadsheet 81:12
stand 22:1 27:19 27:23 31:23 84:17
standpoint 21:15
Stanley 3:3,12 4:9 27:22
Stars 2:18
start 31:11 33:4,5 37:11 42:1,25 53:8 64:5,23 73:15
started 11:24 32:17 33:13 35:21 48:4,12 57:2
starting 31:13 32:6 33:10 34:3 46:10,19 47:6 48:5 58:16 61:2
starts 50:10,14 53:1,7 58:1
state 14:22,25 15:11 61:17 80:15 82:7
stated 64:12 82:8 83:25
statement 54:22
States 1:1,22 54:1 54:3,24 55:7,10 55:12,19 59:19 59:25 62:9 63:7 63:20 71:3 87:6 87:10
status 66:20
stay 26:21 46:15
steal 79:16,18
stenographically 87:7
step 25:2 68:20
stipulate 54:12
stipulated 83:10
Stone 2:16 3:10 22:4,6,24 23:8,9 23:16 24:1,7,12 24:17 29:22 61:21
Stone's 22:2
stop 38:5 44:12 79:17
store 75:6
stream 37:2,8 53:23 78:19
street 1:22 12:8
strike 44:24 51:5
stuff 26:6
sub 42:22
subject 41:25
61:14 64:14
submitting 81:10
subpoena 9:13,14
subs 43:5
subscriber 28:1,6 28:8,9 38:16 39:11 40:8 41:3 42:23 45:1 64:10 72:1,2,5 73:4 79:9,10,14 79:20,20 80:12 81:6 82:11,12 82:17
subscribers 28:18
28:22 29:1,5,7
33:14 38:10,12
38:15,24 39:1,2
39:9 43:17 45:3
45:8 48:7 55:24
59:22 66:22
69:21,25 70:7
70:10 71:25
72:18,23 77:4
77:11,19 78:12 80:13
subscriber's 79:11
subscribing 55:25
subscription 79:15
subscriptions 44:13 48:10 56:1
successfully 63:5
63:16,21
sue 19:24
suffice $84: 9$
Suite 2:7,13,18
summary 23:12
summit 22:11
Sunday 62:10 63:22,25
super 26:6 63:24 64:3
supplied 41:19
support 63:14
supposed 26:17
Supreme 54:15 55:1
sure 13:9 52:11 54:11 57:12
65:13 71:15,16
76:1,3
surprise 26:12
surrogate 67:3
69:11 82:24 83:3
surrogates 67:4
surrounding 11:19
survey 51:17
swap 34:20,22
39:24 67:13,14
67:17,19 68:2
74:20,20 78:3
78:10,11,22
86:3
swapped 74:9,15 76:24
swept 70:13,15
SWORN 21:25 27:22
symptoms 28:17
system 5:6,13,20
6:10 7:13,20
63:13 65:8
74:12,20 78:15 78:16

## T

T 2:3
table 27:13 41:20 66:19 73:19
tactical 23:4
take 4:16,22 5:7
5:14,21 6:4,11
6:20,24 7:7,14
7:21 8:1,6,12
15:21,25 16:5,8
16:14,18,21
17:2,7,12,17,24
20:11,17 26:8
26:16 27:20
30:6 31:1,3,12
31:21 37:19
38:11 41:16

| 44:8 45:5,5 | 86:19 | tomorrow 81:14 | type 66:24 67:2 | V |
| :---: | :---: | :---: | :---: | :---: |
| 48:13 52:13,16 | theft $14: 132: 15$ | 81:16 84:5 | 77:14 | validate 30:24 |
| 56:3 59:13 60:7 | 55:21 | 85:11 | types 49:6 50:8 | vastly 69:8 |
| 65:19,23 68:20 | theirs 70:19 | tonight 84:4 | U | version 28:12,23 |
| 71:24 72:14 | thereof 53:5 | top 86:3 |  | 39:7 80:23 81:2 |
| 73:11,12 75:21 | thing 23:4 32:16 | total 8:13 20:18 | uh 74:18 | 81:12 82:16,17 |
| takes 28:13 41:17 | 36:12 42:10 | 21:12 31:3 32:7 | Uh-huh 66:8 | 82:19 |
| 63:10 69:5 | 47:3,5 | 32:10 35:1 | ultimately | versions 28:24 |
| talk 62:9 | things 12:2 59:1,2 | 36:19 43:10 | unaccounted | 32:5 49:20 |
| talking 11:20 | think 15:16 18:10 | 49:5,6,9 57:16 | 32:15 34:21,24 | versus 60:13,19 |
| 61:21 67:3 | 18:12 22:10 | 69:8,21 70:20 | 35:1,4 36:2,6 | 80:5 |
| talks 62:10 | 23:22 38:24 | 71:12,15 80:19 | 49:25 | Vice 62:8 |
| tape 8:15 | 46:4,4 59:2 | 80:21 | uncomfortable | video 3:2,3 4:10 |
| tapes 41:7 | 66:11 81:18 | totaled 34:15,16 | 83:25 | 4:12,13 8:25 9:1 |
| Tarnovsky 5:4,1 | 84:3 85:6 86:2 | totaling 34:17 | undercover 14:13 | 20:24,25 27:9 |
| 5:24 6:8,13,23 | Third 69:10 | totally 84:19 | underlying 29:20 | viewers $63: 12,18$ |
| 7:3,10,24 8:3,9 | thought 60:16 | totals 31:18 34:25 | 52:9 83:21 | viewpoint 56:24 |
| 61:16,17,25 | thousand 39:15 | Toys-R-Us 4:24 | understand 13:9 | visit 23:11 |
| 64:14 | 61:18 62:1,11 | trace 52:24 | 18:4 43:13 54:7 | volume 1:84:2 |
| Tarnovsky's 7:18 | 65:8 | tracing 48:4 | 70:11 75:23 | 31:1 33:14,16 |
| technically $37: 1$ | threatened 83:12 | tracking 37:11 | understanding | volumes 37:14 |
| technology 17:16 | three 12:10,13,17 | 56:1 | 60:2,5 | Von 6:23 |
| 17:20 20:8 73:6 | 13:15 14:5 22:8 | transcript 1:14 | understood 33 | vs 1:7 |
| tell 18:20 19:1 | 41:9 46:16 61:9 | 4:13 9:1 20:25 | unfair 83:1 |  |
| 26:11 28:18,21 | 66:7 68:1 83:8 | 87:7,9 | unique 63:17 | W |
| 28:22,23 37:20 | thrown 55:16 | tremendous | United 1:1,22 | W 2:11 |
| 41:21 58:20,24 | Thunder 56:21 | 80:11 | 54:1,3,24 55:7 | WADE 2:3,5 |
| 62:7 66:13 | tie 38:2 | trial 1:15 22:2 | 55:10,12,19 | wait 76:16 |
| 70:25 79:4 85:9 | time 19:13 23 | 53:17 57:15 | 59:19,25 62:9 | waiting 25:21 |
| telling 52:20 | 24:25 27:25 | 60:8 | 63:7,20 71:3 | 61:18 |
| tells 34:16 41:20 | 30:5,8 32:11 | tried 18:9 | 87:6,10 | walk 26:12 30:22 |
| tentative 82:21 | 33:23 34:13 | true 87:6 | universe 51:6 | 33:3 43:1,22 |
| tentatively $85: 9$ | 40:15 41:8 46:9 | try 81:20 | 52:16 | 44:19,19 46:15 |
| term 36:20 45:15 | 49:21 50:6 51:2 | trying 23:1 65:1,9 | updated 49:14 | 48:23 49:3 |
| terms 42:2 46:6 | 58:9 63:10 67:9 | 74:19 82:5 | use 7:10,11,18 | walking 26:7 |
| test 37:13 85:8 | 68:11 69:1,9 | 85:17 | 27:19 31:20 | want 12:25 13:8 |
| testified 18:2 | 75:22 86:14 | Tuesday 25 | 59:15 63:17 | 14:8 31:21 39:5 |
| 19:22 22:10 | timeframe 71:10 | tune 46:22 | 73:18 75:2,18 | 42:5,6 43:2,4 |
| testifies 61:16 | times 22:8 23:2 | turned 9:18 48:3 | 76:8 79:10 | 45:12 46:15,15 |
| testimony $4: 8$ | 28:14 | 49:21 | user $74: 8,10,12$ | 54:6 56:3,6 |
| 13:9 18:4 23:5 | Title 87:6 | turns 82:4 | 74:15,16 75:8 | 58:19,23 59:10 |
| 25:4 27:1 60:22 | tlype 28:10 | two 19:8 22:8 | 76:4,23,25 | 66:1 67:12 |
| 83:15 | today 9:4 18:2 | 27:10 33:17 | users 71:12,14,16 | 70:10,13,14,17 |
| Texas 2:7 | 29:11,22 | 37:16,19 38:8,9 | uses 15:24 16:3,7 | 73:8,14 75:21 |
| thank 4:6 21:22 | token 85:6 | 39:19 41:22 | 16:11 | 75:22 77:24 |
| 22:4 23:9 24:1 | told 27:7 37:15 | 51:23 52:2 | utilize 65:3,15 | 85:5 86:8 |
| 25:1,2,7 30:2 | 38:23 39:19 | 67:18 68:1,5 | U.S 14:8,15 15:8,9 | wanted 12:6 |
| 33:9 37:10 | 40:8 60:10 | 73:5,24 74:7 | 15:12 60:13,19 | 18:23 51:873:9 |
| 49:13,16 62:14 | 66:18 67:15 | 77:17 79:1,2 | 87:15 | wanting $83: 21$ |
| 65:18 74:1 | 68:7 | twofold 6:3 |  | wants 76:8 |


| warehouse 68:10 | whatsoever 15:10 | 72:10,15,17,22 | 43:5 46:18 | 1.331:18 32:10 |
| :---: | :---: | :---: | :---: | :---: |
| 83:4 | WILLETTS 2:4 | 73:5 75:25 76:2 | 47:20 48:9 | 1.351 34:4 |
| wasn't 27:5 55:1 | 20:20 27:11 | 76:4,8,11,14 | yearly 41:24,25 | 1.431:2,14,17 |
| 83:17 | 29:17 33:8 | witnesses 3:9 | years 11:7 19:8 | 32:7,18 |
| watch 54:5 | 49:15 80:9,17 | 24:24 27:9 | 30:13,17 33:17 | 1.480 44:25 46:23 |
| Wave 15:24 16:4 | 81:4,11,23 82:1 | word 12:23 44:2 | 41:9 51:5 61:9 | 47:11,13 |
| way 13:19 36:20 | 85:20 86:1 | 49:1 | 63:15 83:8 | 1.544:13 |
| 54:20 59:18 | wipe 79:23 | worded 79:3 | yesterday 62:3 | 1.570 46:12 |
| 71:23 74:11 | wisely $27: 19$ | words 28:9 32:17 | yields 52:25 | 1.646:11 |
| 79:3 | wiser 67:23 | 34:13 42:1 46:4 |  | $\mathbf{1 . 6 2 ~ 4 6 : 2 2 ~ 4 7 : 9 ~}$ |
| website 22:20 | witness 3:2 4:9 | 53:6 60:9 75:5 | \$ | 1.67 39:1 |
| 23:18 | 9:16 18:4 19:11 | 76:24 | \$400 35:8,18 | 1:19 42:14 |
| websites 12:9 | 19:15 21:24,25 | work 10:13 11:9 | 0 | 1:22 42:15 |
| weekend 85:2 | 23:13 24:22 | 11:20 24:13 | 0 | $1035: 22$ 50:22 |
| weird 12:1 | 25:1,9,13 26:1,8 | 26:22 61:10 | \|0-4-0 39:14 | 53:18 55:10,18 |
| WELCH 2:3,5 | 26:9 27:22 | 75:8 81:17 | 00:00:21 21:12 | 55:20 57:16 |
| 21:20 29:21 | 30:15,18 31:5 | worked 13:23 | 00:11:20 20:1 | 58:15 60:9 |
| 39:6,12,14,18 | 31:13,15,25 | working 11:15 | 00:22:49 8:13 | 61:23 66:25 |
| 40:17 41:19,23 | 32:3,9,22,25 | 12:314:13 | 9:2-009:6 | 67:8,11,13 68:4 |
| 42:10,13,19,22 | 33:4,9,13,20 | 15:16 19:2 | $0337: 12,12$ | 69:16,23 70:14 |
| 42:25 43:2,5,11 | 34:7,10,12,19 | world 84:8 | 03-950 1:7 | 71:2,20 75:1,4,6 |
| 43:15,18,20,25 | 35:12,15,17,19 | worldwide 62:8 | 039:25-40:11 9:24 | 75:7,11,18,20 |
| 44:3,5,8,11,14 | 35:21,25 36:5 | world's 56:3 | 053:24-054:7 | 76:5,6,13,14 |
| 44:17,23 45:2,9 | 36:10,19 37:5 | worried 42:8 | 0:23 | 79:10,20 81:6 |
| 48:17 61:20 | 37:11,18,21,23 | worse 56:23 | 059:18-060:2 | 10's 35:20 51:2 |
| 62:2 64:18,21 | 37:25 38:2,6,13 | worst 56:3 | 10:12 | 10,000 56:15 |
| 65:2,9 77:1,11 | 39:22 40:1,5,10 | wouldn't 21:11 | 062:2-62:10 9:9 | 10,390 70:6,8 |
| 77:16,18 78:1,3 | 40:13,21,25 | 29:1 53:2 55:4,8 | 063:18-63:21 9:19 | 10-K 38:17,18 |
| 78:8,10,16,18 | 41:2,6,11 44:2 | 72:22 | 080:25-081:7 11:8 | 39:3,10 42:17 |
| 78:21 79:2,5,9 | 45:13,21 46:2,8 | wrong 67:21 | 081:19-82:15 | 43:14,21 46:6 |
| 79:23 80:6,13 | 46:18,21 47:2,4 |  | 11:17 | 48:22 51:25 |
| 81:7 84:16 | 47:6,9,14,19,23 | X | 084:13-86:16 | 52:12 61:11 |
| 85:11,14 86:8 | 48:2,11,15,24 | X 3:1 | 12:15 | 71:25 |
| went 30:19 37:9 | 49:2,5,19,25 |  | 098:20-99:11 $14: 20$ | 10-K's 29:4 41:19 |
| $68: 2$ weren't 68.12 | 50:3,5,14,16,19 | $\frac{\text { Y }}{\text { Yeah 10:18 14:7 }}$ | 14:20 | 10-Q's 80:14 81:7 |
| weren't $68: 12$ West 1:22 2:12 | 50:24 51:3,7,10 | $\begin{gathered} \text { Yeah 10:18 14:7 } \\ 32.547 \cdot 010 \end{gathered}$ | 1 | 10.944 :8 |
| West 1:22 2:12 we'll $24: 1,15$ | 51:13,19,21,25 |  | 15:10 7:6,16 10:1 | $\mathbf{1 0 . 9 0 5} 44: 25$ 45:2 |
| we'll $24: 1,15$ $25: 22$ 27:20 | 52:5,8,11,14,18 | $73: 576: 15,15$ year $29: 4,833: 15$ | $10: 21 \quad 11: 1,10$ | 46:19 47:6,13 |
| 25:22 27:20 $71: 1873: 17,24$ | 52:21 53:1,7 | year 29:4,8 33:15 $33: 1534: 14$ | $11: 25 \quad 13: 414: 4$ | 47:17 |
| $71: 18$ we're $22: 21: 17,24$ 23:5 | 54:2,7,11 55:1 | $33: 15$ 34:14 35:14 42:23 | 15:2 16:2,22 | $10071: 8$ |
| we're 22:21 $23: 5$ 26:4,7,16 $31: 23$ | 55:11,14,17,24 | 35:14 42:23 43:7,8,12 45:3 | $\begin{aligned} & 15: 2 \quad 16: 2,22 \\ & 17: 22 \quad 18: 22 \end{aligned}$ | 100,000 64:9 |
| 26:4,7,16 31:23 39:6 42:6,16 | 56:5,10,20,22 | 43:7,8,12 45:3 $47: 7,23$ 48:21 | $\begin{aligned} & 17: 221 \\ & 35: 1,4 \end{aligned}$ | $10136: 23$ 53:21 |
| 39:6 42:6,16 55:12 59:24 | 57:3,6,9 58:17 | 47:7,23 48:21 | $\begin{gathered} 35: 1,4 \\ \mathbf{1 - 0 5 3} 1: 22 \end{gathered}$ | 101's 51:3 |
| 55:12 59:24 60:16 61:4,9,12 | 58:22 59:6,9,12 | 49:7,19 54:16 57:17,20,22 | $\begin{aligned} & \mathbf{1 - 0 5 3} 1: 22 \\ & \mathbf{1 . 1} 44: 8 \end{aligned}$ | 102 36:24 53:21 |
| 60:16 61:4,9,12 67:3 72:13 74:5 | 60:12,18,23 | 57:17,20,22 58:11 68:23 | 1.144:8 $\mathbf{1 . 1 3 5}$ | 104,000 58:7 |
| 67:3 72:13 74:5 $76: 19$ 77:2 84:9 | 61:2 62:17,22 | 58:11 68:23 69:7 70:3,5 | $1.13543: 2444: 14$ $44: 154717$ | 11 39:2 72:8,21,23 |
| 76:19 77:2 84:9 84:10 | 62:24 63:1,3 | $\begin{aligned} & 69: 770: 3,5 \\ & 85: 21 \end{aligned}$ | $\begin{aligned} & 44: 15 \\ & 48: 8 \end{aligned}$ | 11:10 21:3 |
| 84:10 we've 29:3 55:17 | 69:23 70:2,5,9 | yearend $30: 19$ | $\begin{gathered} \text { 48:8 } \\ \mathbf{1 . 2 4 5} 45: 6 \end{gathered}$ | 11:10-11:18 21:2 |
| we've 29:3 55:17 61:9 | $70: 12,20,23$ $71: 1972 \cdot 3,46$ | $\begin{gathered} \text { yearend 30:19 } \\ 39: 18 \text { 42:22 } \end{gathered}$ | $1.26732: 20$ | $\begin{aligned} & \text { 11:11 } 21: 4 \\ & 11: 1221: 5 \end{aligned}$ |


| 11:13 21:6 | 140:23 7:13 | 154 57:2 | 35:7,9,15,22 | 212,000 56:25 |
| :---: | :---: | :---: | :---: | :---: |
| 11:14 21:7 | 140:24 7:14 | 1638:11,14 | 57:20 58:11 | 212,957 52:23 |
| 11:15 21:8 | 140:25 7:15 | 165 57:2 | 67:8 | 213,000 57:24 |
| 11:16 21:9 | 1400 2:18 | 168,300 62:19,21 | 2000/2001 58:9 | 22 3:10 |
| 11:17 21:10 | 1417:16,17,18,19 | 178:13 4:16 | 2001 11:14 14:1 | 223 18:2,3,4,5,6 |
| 11:18 21:11 | 7:20,21 | 178:13-178:17 | 30:13 43:2 | 223:10 18:8 |
| 110,000 58:5 | 141:13 6:22 | 4:15 | 46:14 50:12,17 | 223:10-223:17 |
| 113,000 57:21 | 141:13-141:15 | 178:14 4:17 | 52:16 56:25 | 18:7 |
| 12 39:14,16 71:24 | 6:21 | 178:15 4:18 | 57:23 58:11 | 223:11 18:9 |
| 12,040,000 43:10 | 141:14 6:23 | 178:16 4:19 | 59:14 61:2,3 | 223:12 18:10 |
| 43:11 44:10 | 141:15 6:24 | 178:17 4:20 | 62:10,15,17 | 223:13 18:11 |
| 48:10 | 142:22 7:2 | 178:19 4:22 | 63:19 67:9,14 | 223:14 18:12 |
| 12.04 43:5 | 142:22-143:2 7:1 | 178:19-178:21 | 75:1 | 223:15 18:13 |
| $\mathbf{1 2 . 0 4 0 ~ 4 6 : 2 4 ~}$ | 142:23 7:3 | 4:21 | 2002 30:14 45:5 | 223:16 18:14 |
| 47:13,16,18 | 142:24 7:4 | 178:20 4:23 | 46:14 50:20 | 223:17 18:15 |
| 12/31 45:9 | 142:25 7:5 | 178:21 4:24 | 52:25 54:15 | 223:2-223:6 18:1 |
| 12:22 4:3 | 143 7:6,7,23,24 | 178:23 5:1 | 55:2,3 57:25 | 223:21 18:17 |
| 12:45 25:23 | 143,000 58:3 | 178:23-178:23 | 59:15 62:19,21 | 223:21-224:24 |
| 1270 61:21 62:4 | 143:10 7:25 | 4:25 | 2003 30:14 45:6,8 | 18:16 |
| 129,588 62:24 | 143:11 8:1 | 18 1:17 4:1 51:18 | 45:9 48:14 | 223:22 18:18 |
| 134:16 5:23 | 143:12 8:2 | 187 53:6 | 50:21 58:2 | 223:23 18:19 |
| 134:16-134:23 | 143:13 8:3 | 187,000 58:1 | 59:15 62:23 | 223:24 18:20 |
| 5:22 | 143:14 8:4 | 187,231 52:25 | 2004 30:14 38:23 | 223:25 18:21 |
| 134:17 5:24 | 143:15 8:5 | 19 87:12 | 44:19 45:1,3 | 224 18:22,23,24 |
| 134:18 5:25 | 143:16 8:6 | 1996 69:5,6 | 46:19 48:9,13 | 18:25 19:1,2,3,4 |
| 134:19 6:1 | 143:8-143:16 7:22 | 1998 34:4 | 51:1 58:4 59:15 | 19:5 |
| 134:20 6:2 | 145 6:7 | 1999 2:18 57:17 | 62:25 | 224:10 19:6 |
| 134:21 6:3 | 145:10 6:8 | 57:18 | 2005 30:14,19 | 224:11 19:7 |
| 134:22 6:4 | 145:11 6:9 | 2 | 33:25 34:15,23 | 224:12 19:8 |
| 134:23 6:5 | 145:12 6:10 | 2 | 37:8,20,21 38:7 | 224:13 19:9 |
| 135 5:17, 18,19 | 145:13 6:11 | 2 5:11 7:7,17 9:4 | 38:15 39:3,5,10 | 224:14 19:10 |
| 135:10 5:20 | 145:14 8:8 | 9:10 10:2,22 | 39:18 41:15 | 224:15 19:11 |
| 135:11 5:21 | 145:14-145:18 8:7 | 11:2,11 12:1 | 42:18 43:3,4,10 | 224:16 19:12 |
| 135:7-135:11 5:16 | 145:15 8:9 | 13:5 14:5 15:3 | 46:15,18 47:20 | 224:17 19:13 |
| 136:19 5:3 | 145:16 8:10 | 16:3,23 17:23 | 47:23 48:9 50:8 | 224:18 19:14 |
| 136:19-137:6 5:2 | 145:17 8:11 | 18:2,23 31:2,13 | 51:4 58:6 59:15 | 224:19 19:15 |
| 136:20 5:4 | 145:18 8:12 | 32:6,6 33:10 | 63:2 69:3,4 70:3 | 224:20 19:16 |
| 136:21 5:5 | 145:9-145:13 6:6 | 35:10,23 49:18 | 70:5 71:20,25 | 224:21 19:17 |
| 136:22 5:6 | 1538:11 77:18 | 49:19 50:10,22 | 72:4 78:21,22 | 224:22 19:18 |
| 136:23 5:7 | 151:17 6:13 | 66:25 68:4 | 2006 11:5 | 224:23 19:19 |
| 136:24 5:8 | 151:17-151:22 | 73:22 | 2007 10:14,25 | 224:24 19:20 |
| 136:25 5:9 | 6:12 | 2's 34:2 | 28:19 60:13,15 | 23 59:16 |
| $1375: 10,11,12,13$ | 151:18 6:14 | 2.26 44:1 | 2008 1:17 4:1 | 23.5 51:1 |
| 5:14,15 | 151:19 6:15 | $\mathbf{2 . 7 2 2}$ 46:11 | 87:12 | 231:11 15:14 |
| 1437:22 38:10 | 151:20 6:16 | 2/ROM 50:20 | 2008-04-18 1:25 | 231:11-231:18 |
| 140:19 7:9 | 151:21 6:17 | 2:00 26:23 | 21 3:6 59:16 | 15:13 |
| 140:19-141:6 7:8 | 151:22 6:18 | 2:1574:2 | 71:22 | 231:12 15:15 |
| 140:20 7:10 | 151:24 6:19,19,20 | $2045: 23$ | $21.251: 4$ | 231:13 15:16 |
| 140:21 7:11 | 1510 66:14,19 | 200,000 64:4 | 210,000 62:17 | 231:14 15:17 |
| 140:22 7:12 | 82:10 | 2000 7:11,18,25 | 212 59:8 | 231:15 15:18 |




