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

ECHOSTAR SATELLITE )
CORPORATION, et al., )

Plaintiffs, )
vs. ) No. SACV 03-0950-DOC

NDS GROUP PLC, et al., )

Defendants. )
$\qquad$ )

REPORTER'S TRANSCRIPT OF PROCEEDINGS<br>Evidentiary Hearing<br>Santa Ana, California<br>Monday, April 14, 2008

Jane C.S. Rule, CSR 9316
Federal Official Court Reporter
United States District Court
411 West 4th Street, Room 1-053
Santa Ana, California 92701
(714) 558-7755

08-04-14 EchoStarNDS

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I N D E X

EVIDENTIARY HEARING RE: EXPERTS

EXAMINATION

Witness Name Direct Cross Redirect Recross

SHELTON, JAMES

By Mr. Hagan 10

SAGGIORI, JAN

Examination by The Court, page 48

SANTA ANA, CALIFORNIA, MONDAY, APRIL 14, 2008 (3:09 p.m.)

THE COURT: Okay. We are on the record. Mr. Shelton is present in court. All counsel are present today.

It's 3:00, and over the weekend, I've invited counsel to join the Court at 3:00 with Mr. Shelton. We've also decided to have a further deposition of Mr. Shelton this morning, and I assume that's taken place.

MR. SNYDER: Your Honor, thank you.

THE COURT: Thank you very much. And those further issues are?

MR. SNYDER: First, your Honor, we received on Friday night, at the end of the court day, a CD with additional documents that plaintiffs were producing. It contained about -- somewhere between 5,000 to 6,000 pages of documents that we have never seen before. There are two -there are lots of things to talk about in the late --

THE COURT: So you received -- let me get my -I'm sorry -- on Friday evening, about 5,000 to 6,000 pages of documents.

MR. SNYDER: I believe it's about 5,600 pages.

THE COURT: Okay. What are they?

MR. SNYDER: They are -- the majority of them are
financial documents that appear to underlie some of the
schedules that were prepared for Mr. Rock, documents we've been requesting since his deposition, if not before, which was many, many months ago, and we received them for the first time on Friday.

THE COURT: Mr. Rock.

MR. SNYDER: Mr. Rock is their damages expert. Several of them relate to the claimed lost profits damages, but many of them also relate to the alleged cost of the card swap, so --

THE COURT: Obviously you haven't had time to go through those.

MR. SNYDER: We've -- we've made a preliminary review of them, but because they're financial schedules, making a real analysis of them is quite a time-consuming task, and we think inappropriate for production during trial, not even before trial.

THE COURT: Okay. Were these recently discovered, manufactured, what?

MR. HAGAN: No, your Honor. During the course of discovery, we produced some summaries of hundreds and thousands of pages of documents.

THE COURT: Right.

MR. HAGAN: In other words, what did the card swap cost, truck rollouts, all of these types of things, mailing, postage, and we produced those in spreadsheets, because it
was the easiest way to do it. After Mr. Rock's deposition, Mr. Snyder sent me a letter asking for all of the underlying dates --

THE COURT: Deposition on what date?
MR. HAGAN: I don't recall the date of that -THE COURT: Well, it makes a difference. How long ago, approximately?

MR. SNYDER: August, approximately. THE COURT: Okay. August of 2007? MR. SNYDER: Yes. THE COURT: And you received a letter from -MR. HAGAN: It was either a letter or an e-mail from Darin asking for some underlying data, in other words, what documents went into generating these particular spreadsheets. When I received that, I forwarded it on to my client, and I said, "We need, you know, all of the additional data." I think these are summaries under 1 -- 1 of '06, and they are admissible as long as you produce the underlying data for inspection.

THE COURT: Right.

MR. HAGAN: We produced additional documents, what

I thought was the extent of all the rest of the documents.

And I believe about a week ago, Darin sent me another e-mail, and he said, "We want all these other documents. We've reviewed your production and we're" --

THE COURT: Just a moment. "All these others" meaning additional or the same type of --

MR. HAGAN: The same type of documents, but they reviewed the ones that were produced, and I think in their opinion there were some holes in the production.

THE COURT: Okay.

MR. HAGAN: And so they cited to some specific types of documents, some QuickBook entries, and what have you, that underlie the damages spreadsheets, and so I sent that to my client. I just got that information back. We burned it to a CD, and we produced it within, I believe, about 15 hours of receiving it.

THE COURT: So in other words, last week you got in the same letter or type of request you had gotten in August --

MR. HAGAN: This --

THE COURT: And from that same request, you got additional documents that should have been produced in August?

MR. HAGAN: The request that I got last week was a little bit more specific. I believe it was a page and a half of just bullet points, and there were specific documents that they wanted with depo citations. So I forwarded that back out to my client. I said, "Here's what I produced when you sent it to me the first time."

This is Darin's new letter, and he says, "We received some of this material, but it looks like all of this other stuff is missing."

So I sent that to him. They produced everything else they had, which consisted of the stuff I had before, plus more detailed documents, burned those documents to a CD and produced them to Darin.

Now, we only had an obligation to make that stuff available for inspection during trial. We produced the bulk of it long before trial, and the rest of it during our case in chief within 15 hours of them asking for it. So I -- you know --

THE COURT: I heard two things, that you only had the obligation to produce this during trial.

MR. HAGAN: We just have to make it -- and we don't even have to produce it. The rule says we have to make it available for inspection. In other words, we've got a summary that summarizes 10,000 pages of documents. If the opposing party wants to look at the underlying data, then we have an obligation to make that data available for inspection, and we've done that.

MR. SNYDER: We requested the data after Mr. Rock's deposition, your Honor, and I think by Mr. Hagan's own admission and description, all of this information produced on Friday falls within the scope of
what we requested after the deposition.

THE COURT: Well, I'm going to go back and look at the actual rule, because $I$ can't be of any benefit to either side, unless it comes to my attention. In other words, I can't step in after the fact and find fault with either one of you. I'm going to look at the literal meaning of the rule. And if the rule is it's to be made available and doesn't set -- set a time constraint, I'm not quite certain what to do with that, because while you may technically be correct, it impedes the ability to cross-examine or take a deposition.

MR. SNYDER: Like --

THE COURT: So let me see how egregious that is, but right now, Mr. Shelton, take the stand.

MR. SNYDER: May I identify the second issue, your Honor?

THE COURT: Mr. Shelton, take the stand.

THE WITNESS: Yes, your Honor.

JAMES SHELTON, PLAINTIFFS' WITNESS, RECALLED

THE COURT: Thank you very much.

We are going to do one thing at a time, and then
we'll take care of this squabble later on, but we are going to get to the crux of your direct examination today, and then I'll resolve the rest of this while I still have my court reporter's services.

Now, are you also prejudiced in terms of your cross-examination of Mr. Shelton because some of these documents produced by Mr. Rock affect Mr. Shelton?

MR. SNYDER: Very much, your Honor. We are not prepared to cross-examine him today.

THE COURT: Okay. Let's get through the direct examination, then. I want to hear, at least, the direct.

MR. HAGAN: Your Honor, these are the three documents that we previously entered in Mr. Shelton's direct examination.

THE COURT: Thank you. I haven't seen the second document yet, but --

MR. HAGAN: Okay. The -- I've just been informed the second two are -- these are the -- his revised numbers.

THE COURT: Now your questions, Counsel. We are done with all of the peripheral. We are going right back to Mr. Shelton. Your first question today is?

MR. HAGAN: Thank you, your Honor. DIRECT EXAMINATION (Continued.)

BY MR. HAGAN:

Q Mr. Shelton, before we broke, or when we broke at the last hearing, you were requested by the Court to take your piracy calculations, the ones that you testified to during that hearing and to back out just the ROM 3 cards, in other words, to isolate just those number of pirated devices; do
you recall that, sir?

A Yes, sir, I do.

Q And since that time, have you been able to do that?
A Yes, I worked on it over the weekend, and then I met with you on Monday evening, both you and Christine, to finalize the information.

Q And what did you do in order to isolate just the number of pirated ROM 3 cards from the overall piracy calculations that you testified about previously?

A Well, our Smart Card numbers pretty well capped out about half a million, and what I did was I took all the shipment information from the ROM 2, ROM 3, 10 and 11, and then did a way to average as to how many would be ROM 3. THE COURT: Explain that once again. THE WITNESS: Your Honor, what I did was I took the information provided to me as to the total number of manufactured Smart Cards, both ROM 2, ROM 3, 10 and 11, and then $I$ took my half a million pirate Smart Cards -THE COURT: Right. THE WITNESS: -- and assigned a way to average of how many would be ROM 3. THE COURT: I'm okay until we get to the weighted average.

THE WITNESS: Okay. THE COURT: So let's do this again. I'm going to
explain back to you what $I$ just heard.

THE WITNESS: Okay.

THE COURT: "Judge, we have about a half million

Smart Cards out there that could be 2, 3, 10 or 11."

THE WITNESS: Yes.

THE COURT: I'm going to back out the three Smart

Cards, but I took a weighted average from the shipment
records. That's what $I$ don't understand. I don't
understand if you actually have the shipment records and you can specify which are ROM 3 compared to 2, or what this weighted average means and how you get a weighted average. THE WITNESS: Yes, your Honor. They gave me the actual production date of each category of Smart card and the volume manufactured, and so what I did was -- and what I mean by weighted average, around 33 percent were ROM 3 cards.

THE COURT: Okay. So what I'm going to say again is this. You don't know if those ROM 3 cards were actually shipped or somewhere in warehouse. The best you can do is say $X$-amount of $R O M$ cards were produced that are 3 ROM cards.

THE WITNESS: That's correct.

THE COURT: And my weighted average, then, is an assumption that those were shipped proportionally to 2 , 10 and 11?

THE WITNESS: Correct.

THE COURT: So we have 33 percent manufactured Smart Cards. Your assumption is that 33 percent were shipped?

THE WITNESS: Based upon the volume that they gave me.

THE COURT: All right. I understand that. So you basically take 33 percent of 500,000 , and that's your best estimate. And that assumes a weighted average, because in theory, you could have 60 percent shipped, you could have 10 percent shipped. I'm being ludicrous about that.

THE WITNESS: Well, you're -- you're absolutely right, your Honor. If -- if $I$ had a reason to monitor on the pirate forums the activity per card and track --

THE COURT: Okay.

THE WITNESS: -- in the very beginning, that would be much more accurate.

THE COURT: Now, in this industry, I don't understand, were ROM 2 cards the first cards shipped?

THE WITNESS: Yes, sir, March of 1996.

THE COURT: Okay. So in March, ROM 2 is shipped in March of 1993.

THE WITNESS: '96.

THE COURT: '92, I'm sorry. Thank you.
THE WITNESS: Of '96.

THE COURT: Of '96.

THE WITNESS: Yes.

THE COURT: Thank you. Okay, 1996.

ROM 3 starts shipping when?

THE WITNESS: Can I reference my notes?

THE COURT: Please.

THE WITNESS: In -- out of that ROM 2, there was 1.4 million manufactured and shipped between March '96 through June of '97.

THE COURT: Okay. Now, just a moment.

THE WITNESS: Okay.

THE COURT: ROM 2 has 1.4 million produced from what dates?

THE WITNESS: From March of '96 through June of ' 97.

THE COURT: Through June of 1997.

THE WITNESS: Correct.

THE COURT: Okay.

THE WITNESS: The ROM 3 cards were manufactured starting in June of '97 through June of 2000, and there were 7.6 million manufactured. THE COURT: 7.6 million of the ROM 3 produced. THE WITNESS: Correct. THE COURT: Or manufactured, all right. ROM 10.

THE WITNESS: That's -- the manufacturing started in March of 2000 through August of 2000 , and there were 9.6 million manufactured.

THE COURT: 9.6 million between March 2000 and August 2000 .

THE WITNESS: Correct, your Honor.

THE COURT: Okay. I keep repeating back so -THE WITNESS: That's okay.

THE COURT: -- you know that I've got that
correct.

ROM 11.

THE WITNESS: ROM 11, manufacturing started in September of 2001 through November 2001. It was a short manufacturing run of only 900,000 cards.

THE COURT: All right. 9 million --

THE WITNESS: 900,000.

THE COURT: Oh, that's .9 million. 900,000 is 9.9.

THE WITNESS: Correct.

THE COURT: All right. So I've got 1.4 million ROM 2, 7.6 million ROM 3, 10 -- or 9.6 million ROM 10; and ROM 11, . 9.

Now, walk me through your numbers again concerning ROM 3; what did you do?

THE WITNESS: Could I show you the spreadsheet,
your Honor? It might be easier.

THE COURT: I can't wait.

THE WITNESS: Okay.

THE COURT: That's perfect. That will help me follow it.

THE WITNESS: Yes.

THE COURT: And do you want to put that up on the ELMO, also? Do you have a copy of this?

MR. HAGAN: I'm not sure which spreadsheet --

THE COURT: Kristee, would you put this up on the ELMO for a second and turn that on.

THE WITNESS: The highlighted "ROM 3" is in blue, and, of course, it has the ROM 2 numbers.

THE COURT: I want to just understand ROM 3 for a moment.

And where they are putting it up, you seem to stabilize at 33 percent in the year 2002 through 2005.

THE WITNESS: Correct, your Honor.

THE COURT: And you're 41 percent in the year 2000, you're 85 percent in the year 1999 and 39 percent in the year 2001, so you slowly start to decrease in 2000 -well, you have a dramatic drop-off in 1999 to 2000, because the ROM 3 are coming in.

THE WITNESS: Correct.

THE COURT: And then you decrease two percentage
points in 2001, and then it looks like you've got what you consider a stable client base in there of about what?

THE WITNESS: About half a million pirate cards in the marketplace, because there was a -- a cap --

THE COURT: Just a moment. About half a million pirate cards --

THE WITNESS: Correct, your Honor.

THE COURT: -- for ROM 3?

THE WITNESS: No. Total.

THE COURT: Total?

THE WITNESS: Correct.

THE COURT: In the marketplace?

THE WITNESS: Correct.

THE COURT: And once again, remind me, how did you get to that half million pirate cards for 2, 3, 10 and 11, and when you say "in the marketplace," what year? First of all, let's start the year. Half a million cards when?

THE WITNESS: It was approximately 2001.
THE COURT: Okay. Just a moment.

In 2001, how many pirate cards do I have before we find out how you reached the figure by 2005?

THE WITNESS: Well, essentially, your Honor, I -what I was tracking was the price of those cards --

THE COURT: Answer my question. How many general pirate cards by 2005?

THE WITNESS: By 2005, still right around half a million total.

THE COURT: Okay. I'll get to your explanation about how you track them in a moment.

THE WITNESS: Okay.

THE COURT: All right. Now, so I bottom line it first before I hear the minutia, how did you determine -- of the 500,000 pirate cards, what would my total be from your perspective -- just give me the conclusion first -- of ROM 3 cards?

THE WITNESS: 33 percent.

THE COURT: Okay. 33 percent of 500,000 is what, 167,000?

THE WITNESS: Correct, and it's -- there is a highlighted line with that number on that spreadsheet in blue.

THE COURT: About 156,000 to 165,000 is your range.

THE WITNESS: Correct, your Honor.

THE COURT: So let me just take in rough figures 160,000.

THE WITNESS: Okay.
THE COURT: Okay. Now, if I have 160,000 pirated ROM 3 cards, your chart seems to indicate that that holds relative steady between 2001 -- strike that -- 2002 and

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2005 --
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    THE WITNESS: Yes, sir.
    THE COURT: -- right?
    THE WITNESS: Yes, sir.
    THE COURT: Is your assumption that the loyal
    clientele for EchoStar have, in a sense, just hung in there
with ROM 3, not needing any upgrade to ROM 2 -- I mean, 10
or 11?
THE WITNESS: That's correct, your Honor. There
was some indication that they tried to change out any
inventory pipeline with the ROM 10, thus, the high volume of
manufactured ROM 10 in a short period to take out as much
piracy as they could without doing a card swap.
THE COURT: Okay. Where did you get the 1.4,
9.6 -- or $7.6,9.6$ and .9 million figures from?
THE WITNESS: From JJ Gee.
THE COURT: JJ Gee?
THE WITNESS: Yes, sir, at NagraStar.
THE COURT: And those were the cards produced?
THE WITNESS: Correct, your Honor.
THE COURT: Now, we don't know from the produced
cards, do we, how many were actually sent out into the
market?
THE WITNESS: Authorized?
THE COURT: No, no, I don't care if it's
authorized. I'm just going to kid you for a moment.
THE WITNESS: Okay.
THE COURT: I produce them, I'm the company, I
send them out.
THE WITNESS: Yes, sir. The assumption is that
they are going out into the marketplace to be inserted into
receivers and then shipped.
THE COURT: All 1.4 ROM 2s?
THE WITNESS: Yes, sir.
THE COURT: All 7.6 million ROM 3s?
THE WITNESS: Yes.
THE COURT: I find that hard to believe. I'm not
quibbling over numbers, maybe just 6 million were shipped
out, but we've always got to have a warehouse inventory.
We've always got to have cards that we produced in an
economical fashion for trading. We are always going to
overproduce in this market, because we don't want our good
customers waiting for a card, and to start up that
production again is not cost-effective.

THE WITNESS: Right.

THE COURT: So we're going to make a run of 7.6 over maybe a year for a million.

THE WITNESS: Ending in --

THE COURT: So I've always got some excess inventory there, and what I'm trying to get my hands around
is how much.

THE WITNESS: That's in the pipeline basically. THE COURT: No, it's not in the pipeline. It's sitting in a warehouse. That's different than the pipeline. Because I already have 5 million customers, I might have 2.6 million cards.

So I'm not going to make the assumption -- let me start with this.

THE WITNESS: Okay.
THE COURT: I won't make the assumption, but I don't know how much to discount. Let's say of the ROM 3 7.6 million cards, $I$ don't believe the 7.6 went out to clients. I believe 7.6 was produced, and you can supply the underlying figures to the defendant, but I need -- you know, I'd need a warehouse inventory. I need to know is there a 50 percent holdback, a 5 percent holdback. It may be a de minimis holdback, but $I$ know -THE WITNESS: Correct. THE COURT: -- that they're not all going to the market.

THE WITNESS: The only information I had to go on, your Honor, for that was that I -- I know that 8.7 million cards were swapped out in consumer homes. THE COURT: So in -- is that the ROM 10? THE WITNESS: No. They use the ROM 103 for that
card swap.

THE COURT: Just a moment. The ROM 103 was our card -- was our card swap, and once again, was that 2005?

THE WITNESS: That was 2005, completed September at 8.7 million.

THE COURT: And they had 8.7 million. Now, I'm going to play with this, and you are going to show me I'm wrong.

THE WITNESS: That's okay.
THE COURT: It's hard for me, then, to believe if I have a universal card swap -- which it would never be universal, by the way. Some of us just don't trade in our beloved card. By the way, I don't -- I don't take DirecTV, and I don't take this service, so I don't have a beloved card. I'm just kidding you.

THE WITNESS: You're correct.

THE COURT: And after this case, I don't know that I ever will. I'm just joking with you.
(Laughter.)

THE COURT: I want you to add this up for a moment. I mean, the argument could be made that you've got 1.4, 7.6, 9.6 and .9. If you really wanted to stretch the envelope, you could argue that there were that many cards out there. And without telling me how many cards kicked back in, you could have a foolish judge like me add that up
and say, "Oh, that's about 19 million cards," but that's really not what happened. We have a -- a much smaller universe. We have about 8.7 million swap out, but that might not be a fair number to you, because there might be people holding onto the beloved old card.

THE WITNESS: Correct.

THE COURT: They just don't want to be inconvenienced and send it in, but it has to be a small number.

So my best number is about 8.7 million, and if that's 8.7 million and I'm just dealing with ROM 3, that's only 7.6 million. So I've got to assume I've got some ROM 2s out there, I've got some ROM $10 s$ out there, and I've got ROM 11s out there. And if my memory is correct, your ROM 10 is the highest at 9.6 million, so why couldn't have all these cards been -- I mean, in theory, just having fun with this, why couldn't have all of these cards been ROM 10s?

THE WITNESS: What I was informed, your Honor, the reason they did a fast and, you know, large production room of the ROM 10 at 9.6 was to try to eliminate what was in inventory and replace it with what was secure at that point in time, being the ROM 10.

THE COURT: Oh, no. Let me come back to it. THE WITNESS: Okay.

THE COURT: I've confused you.

The argument could be made. It's a foolish argument, because $I$ know that this is not a purist -THE WITNESS: Right.

THE COURT: -- hypothetical. But the argument
could be made, "You know, Judge, all these people, hypothetically, got rid of $R O M 2 s$ and $3 s$, never liked them, never got them, and there's enough ROM 10 cards, which are not the subject of our damages, 9.6 , that this entire swap out in 2005 of the 103, the 8.7 million fits nicely into that, and therefore, there's no damages for ROM 3."

Now, you and $I$ know that that can't be. There has to be some ROM 3s. The question, though, from the defense side is how many, and you can't tell me.

THE WITNESS: No. All I could do was that percent that hit the market.

THE COURT: Yeah.

THE WITNESS: The only other way to be more

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exact --
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THE COURT: Now I need to know what was the advertising for the ROM 10. In other words, what I'm in the dark about is I -- I'm a consumer, I'm a client, and I got a ROM 2, or I've got a ROM 3. I know my universe out there is about 8.7, hypothetically, users.

THE WITNESS: Correct.

THE COURT: So most of us have to be trading in our ROM 2 s or 3 s to generate the 9.6 to be produced. In other words, the company must have produced 9.6 million cards of the ROM 10, figuring that the combination of ROM 2 at 1.4 and ROM 3 at 7.6 came out to about 9 million cards. So what they did with ROM 10 is they produced 9.4 million just to cover the base, because it was cheap to produce.

THE WITNESS: Your Honor, but they didn't use the ROM 10 to do the consumer swap out in -- in the homes. They used the ROM 103 --

THE COURT: No. Time out.

THE WITNESS: Okay.

THE COURT: But they produced those ROM 10s for some reason.

THE WITNESS: Yes, to --

THE COURT: Weren't they afraid that they -weren't they trying to tell the consumer that "There's a problem out there with our patch, and you've got this ROM 10 available"? They didn't produce this ROM 10 just for jolly good fun.

THE WITNESS: No, sir. They -- the reason they produced such a high volume, it was explained to me, was to try to get as much out of the inventory that were ROM 3 and 2 to take away the ability to economically get your hand on a card.

THE COURT: That's my exact point, because they wanted to get rid of the ROM 2 or 3 to stop the piracy, because it hurt, so they had to advertise some way. Someplace in this period of time, if you're going to produce that many cards, you've got to say, "We have a potential problem, and if you want a card, we've got it right here."

THE WITNESS: A new, secure --

THE COURT: Because why -- why else produce it, right?

THE WITNESS: That's exactly right.
THE COURT: Okay. So if that's true, it makes sense that they produce a little over 9 million, because they hoped that ROM 2 and 3 would be swept up. And now my question is what did EchoStar do to tell the client how pervasive or widespread was the notice, "We might have a problem, and we've got these new cards waiting for you with this patch on it"?

THE WITNESS: I do not know, your Honor, the answer to that question. I do know what I saw as far as the price of any ROM 2 or 3 cards going up to $\$ 400$ each, because --

THE COURT: Say that again.
THE WITNESS: They went up to \$400.
THE COURT: The ROM 103?

THE WITNESS: The ROM 103.

THE COURT: Went up to $\$ 400$, but that was for a complete -- in other words, all my channels.

THE WITNESS: Well, they became more scarce is what happened.

THE COURT: ROM -- ROM 10?

THE WITNESS: ROM 2 and 3, because they were using the ROM 10 to get it out of inventory.

THE COURT: But why would ROM 2 and 3 become more expensive? Those are old cards. They don't even have a patch on them.

THE WITNESS: But they could be hacked. Thus, the pirates were looking for those cards to purchase in order to steal the content.

THE COURT: More purchase on the black market.

THE WITNESS: Exactly.
THE COURT: But not more -- not more expensive for me as the client.

THE WITNESS: No, sir. No, only on the black market.

THE COURT: Well, that doesn't mean I have lost profits from a company's standpoint, you're just telling me how much I have to purchase the ROM 2 or 3 so I might be able to hack. From the client or the -- and the company's perspective, the price is the same.

THE WITNESS: Yes. 10, 12 bucks.

THE COURT: So there's no relevance to me, quite frankly, what it costs on the black market. Those are hackers buying them out there, because the hackers aren't looking for legitimate cards. I'm more concerned about what it cost the consumer.

THE WITNESS: The -- I did not track what it cost the consumer, because basically what they were -- the consumer was purchasing the complete system, which -- the objective of Nagra was to make sure those systems had a ROM 10 and not a pirated -- or a card that could be pirated, being the ROM 2 or 3 .

THE COURT: Okay. Now, I'm not so naive to believe that there aren't ROM cards existing out there, and I don't know that I'm so naive to believe I'm going to preclude the plaintiff from presenting some kind of evidence in that regard. But I'm very, very concerned about this -this assumption, you know, that there really are -- well, you believe 500,000 ROM 3s?

THE WITNESS: No, that's a total pirate card --

THE COURT: So you believe 160 pirated ROM 3s?
THE WITNESS: Correct.

THE COURT: 160,000, approximately. You go from 156- to 165,000.

THE WITNESS: Correct.

THE COURT: Okay. I've asked enough questions right now. I've displayed my naiveness to both -- all counsel.

All right, Counsel. Continue with your questions. BY MR. HAGAN:

Q Mr. Shelton, were you able to isolate the number of ROM 3 cards in the field to be a percentage of the total pirated cards in the field for EchoStar's DNASP-II system?

THE COURT: He said, "Yes, 160,000"?

THE WITNESS: Yes.

BY MR. HAGAN:

Q And that was for one particular year, correct?

THE COURT: No. They're consistent throughout the years. They have a range from 156,000 to 165,000 over a four-year period from 2002 to 2005.

THE WITNESS: Correct.

BY MR. HAGAN:

Q Now --

THE COURT: Was that your answer?

THE WITNESS: Yes.

BY MR. HAGAN :

Q The numbers -- the numbers that you provided earlier for the Court, and that is the number of cards in the field, that number came from NagraStar, correct?

A That's correct.

Q And you understood that to be the number of cards that were activated, not the number of total cards manufactured, correct?

A I don't understand that question. The numbers we've been reviewing for manufactured --

THE COURT: That's exactly -- excuse me. That's exactly what I didn't hear. I didn't hear that they were activated. I heard that he's taking this on a production basis.

THE WITNESS: And shipped.

THE COURT: He doesn't know if they were shipped
out.

BY MR. HAGAN:
Q Are your numbers from a production basis or a shipment basis? Because I understood them to be from a shipment standpoint.

A Well, they gave me the production dates, and then the total number they shipped from this date to the next year's date.

Q Okay.

THE COURT: And shipped not to the consumer.

THE WITNESS: That's correct.

THE COURT: Inside the manufacturer to EchoStar.

THE WITNESS: Correct.

THE COURT: Okay. So this has nothing to do with
what went out on the marketplace. Don't try to confuse me with that. This is from the manufacturer into a warehouse someplace for distribution, potentially. You don't have those numbers that went out to the client.

MR. HAGAN: So we need the number shipped to the consumers to back out from the number shipped to EchoStar? THE COURT: That's what you are missing. You are missing those shipment records or some good faith, you know, basis for what was shipped out to that consumer. And if I have that number, then I'm pretty certain that -- and it's tentative subject to cross-examination -- I've got a pretty good feel for what that market is, then. Because what -what's really happening here is you've got to -- it's not fair to you, Mr. Shelton.

THE WITNESS: It's the dynamic.

THE COURT: Yeah, you've got a number -- Kudelski or somebody manufactures them. They ship them over to EchoStar. And where you -- you get left, and all you can do is take a weighted number from that point. They've got the records out there. They can show us -- EchoStar can show us what was shipped out.

THE WITNESS: It's -- I believe their terminology was "archive data."

THE COURT: That's nice, nice terminology. Go find me the records of what was shipped out.

MR. HAGAN: Okay.

THE COURT: It's as simple as that. And what was shipped out is going to show me on a yearly basis. You've got those records someplace. It's a computer run, for goodness sakes. Where Mr. Gee stopped was, you know, here is the manufacturer, here is where it went to EchoStar, and we stopped. That's not fair to you.

THE WITNESS: And he got that information that day at lunchtime --

THE COURT: Yeah.

THE WITNESS: -- and then I spent the weekend --

THE COURT: Yeah. He can get back on his computer, and he can run the cards shipped, and he probably knows what the ROM 3 cards are. Computers can do that.

MR. HAGAN: I -- I believe the confusion was on my part, your Honor. I understood the number of ROM 3 cards in the field to be in the field of consumers, not in the field of cards manufactured.

THE COURT: Yeah.

MR. HAGAN: So if those numbers are incorrect, which apparently they are, we can try to determine the number of ROM 3 cards that were shipped and back that out from the number of $R O M$ cards that were manufactured.

THE COURT: Why don't you go get on the phone right now for just a moment and see how long that would
take. Now, if he can't produce that, then $I$ think, you know, let's start the cross-examination and find out. But if he can produce that, we are kind of wasting time until we get those figures in here and get some foundation from Mr. Gee or whoever, and $I$ think we're wasting time right now until we get that, because it's a real misunderstanding, apparently, on EchoStar's part or just a number.

Now, I'm going to recess for a moment, give you a chance to get on the phone. Let's find out the information.

MR. SNYDER: Your Honor, before we do that, can I raise an issue that's very much related to Mr. Shelton's calculations?

THE COURT: Very quickly, though. I want him on the phone; I want these numbers.

MR. SNYDER: We learned for the first time on Friday what Mr. Shelton has eluded to today. There was some kind of card swap in 2000 where ROM 10 cards were being swapped for ROM 2 and ROM 3 cards.

THE COURT: Uh-huh.

MR. SNYDER: And the -- there are larger
consequences to that that $I$ won't talk about right now in favor of your admonition, but for Mr. Shelton's analysis, because there was a card swap going on merely identifying the number of cards that were shipped to consumers or shipped out to -- shipped out would not be accurate, because
some of those cards were brought back. So for example --

THE COURT: Oh, I know that. I know that this is not going to be an absolute number. I know some cards are brought back, returned; I understand that.

MR. SNYDER: But we are talking about millions of cards is my point, your Honor, because they made the card swap.

THE COURT: Maybe, and I'll wait till the cross-examination. I'm just suggesting unless we make the phone call, we start off with minutia again on the defense side. You've got no way of cross-examining this, and I've got no way of telling this number right now.

MR. SNYDER: Thank you, your Honor.
THE COURT: So I suggest you make the phone call, and we'll just wait.

So, Mr. Shelton, why don't you step down for just a moment. Let them make the phone call.

THE WITNESS: Thank you.

THE COURT: Thank you.
(Recess.)

THE COURT: Okay. Let's go back on the record. All counsel are present, and Mr. Hagan's returned from making his phone call.

MR. HAGAN: This is where we are. From EchoStar's standpoint, each of the ROM cards that were received from

NagraStar, in other words, the numbers that we gave to Shelton and the numbers that were given to the other side and to the Court, all of those, unless they slipped through the crack, a card or two fell off in a crack somewhere, left EchoStar's possession and went to one of three places, retailers, distributors or direct to consumers. So all of the numbers that we have from NagraStar for ROM 2, 3, 10 and 11 left EchoStar's possession.

THE COURT: Now, here is the problem. For those that went to clients, direct clients, I understand the lost profits. For those who went to distributors, I don't know what that means. I don't know how many are retained in the warehouse. You are asking for money. You are asking for an expert. Do the work.

MR. HAGAN: This is the -- the only option I'm going to propose, because this is what they can do -THE COURT: I am going to tell you what to do. MR. HAGAN: We can do it by number of cards activated, and it's going to be lower than the numbers that we have. But in other words, they think they can construct a spreadsheet --

THE COURT: Okay.
MR. HAGAN: -- which shows of these 1.2 million
that went out into the field, how many were actually activated for subscription.

THE COURT: How do they do that, because that's an immensely helpful number. It gives the Court something to look at and then make an intelligent decision one way or the other. Because the argument can be, "Judge, they were activated by all the warehouse people." I'm just kidding you, but there is also the real argument, and that is, from your standpoint, they were activated because people were actually consuming this product. How long does that take?

MR. HAGAN: The gentleman I spoke to said it should be able to be done within 48 hours. I told him I needed it within 12. You know, I don't know how long it's going to take. They're going to have to look at their records and tell me what was activated.

THE COURT: Wise advice. They can work overnight.

MR. SNYDER: Can we get their information, your Honor, by month or by year, because it's going to vary over time.

THE COURT: Yeah. Yeah, you are absolutely right. We need it by, I would think, at the worst case scenario, for NDS by year. I'm not too certain that I need it by month, but it would be helpful, because you have partial years. For instance, you start in June of 2000 -- you start in June 1997 through June of 2000. There is no reason that your expert has to wait that out. You ought to be able to get specific figures easily for the year 1998 and 1999,
which are complete years. And instead of just taking a yearly figure for 1997 and cutting it in half, which you are not really doing, it's five months, right, and seven months.

So you've got a seven-month run in '97 and a six-month run here, don't you? So if we do that, I think I would be satisfied with the complete year for -- of '99 -strike that -- '98, '99, and then will run by month or from June forward in 1997, and then your expert isn't waiting. He is not having to wait, he's got activations.

MR. SNYDER: To be clear, your Honor, I think we need to know the number of active cards, not just the number of -- we need to know the number of active cards, not just the number of activations. And let me explain why that's important.

THE COURT: What's the difference?

MR. SNYDER: Here is the difference. One of the things that apparently happened in 2000 -- and we started to see this for the first time in the documents produced Friday night, and Mr. Shelton has alluded to it today -- is they were doing a -- they were doing a soft swap of ROM 10 cards. So as a ROM 2 or ROM 3 card would come in from the field, let's say somebody -- their machine breaks or they need a repair, they need a new something, the service techs take the card out, the ROM 2 or ROM 3 card out. They put a ROM 10 card in. And this is all happening in 2000, in
middle of 2000 before the NipperClause posting, before any of this, because the ROM 10 card, among other things, does not have the buffer overflow vulnerability. And the reason this is important is that the ROM -- let's say there was a ROM 2 card activated in 1988, but in 2000 --

THE COURT: Well, let's say it occurred in 1997. MR. SNYDER: Okay, 1997. THE COURT: Let's say May of '97. MR. SNYDER: May of '97. In mid-2000, that consumer brings their machine and says, "Ah, the darn thing isn't working." And the service techs, as part of their checklist say, "Ah, we're in the middle of a soft swap, so I'm going to" -- "the card wasn't bad, but I'm going to take that ROM 2 card out. I am going to put a ROM 10 card in." If you just go by activations -THE COURT: No. You wouldn't have a ROM -- in the middle of 2000 --

MR. SNYDER: In the middle of 2000 -THE COURT: You have a ROM 3 card -MR. SNYDER: No, I don't believe so, your Honor. THE COURT: Strike that. You are absolutely
right. You'd have a ROM 10 as of March 2000. Thank you. MR. SNYDER: So they were doing this soft swap. So in activation in '97 of ROM 2, that card disappeared. It was no longer active if it was swapped for a ROM 10. So we
need to know how many cards are active in each of these periods, not just how many were activated.

THE COURT: That makes sense to me. And of course, the number is going to be smaller than the 160,000 when we are done when we'll be dealing with reality.

We are going back in the back and just talk about our discussion for a moment. Let us start drafting some -some of our thoughts. And tell me why that information couldn't be obtained.

MR. HAGAN: I don't know. I -- I know that the number -- what they can obtain is the number of each particular card that was activated by a consumer, because the number of cards that came in, the number that we used for Mr. Shelton, the number that he used for his calculations is the same number that EchoStar sent out. I don't know how many of those cards were activated by a retailer, by a consumer individually, by a distributor through other retailers; that, I don't know.

So the only -- the best number that I think
EchoStar can get is the number of each ROM version cards that was actually activated by consumer. In other words, someone actually set up a description, plugged their box into a phone line and accessed EchoStar's computer system to activate that card.

THE COURT: Okay.

MR. SNYDER: The difficulty, your Honor, is that the way they are treating this, it assumes that that card, then, was active forever, or at least throughout the damages period, and we know -- logically, we know that's not true. But aside from just knowing that that is not going to happen, from time to time the cards are going to be taken offline, we know that in 2000 they specifically undertook a program to get ROM 2 and ROM 3 cards out of the field and were, of course, concerned with ROM 3 cards.

THE COURT: So why wouldn't it be -- and this is naive on my part, why wouldn't the assumption be -- you see, the overlap between ROM 3 and ROM 10, it's a three-month period of time. Let me -- I may be wrong about that. Is this naive?

There is a three-month period from the ROM 10 coming into production, or whatever, March of 2000. The ROM 3s are extending to June of 2000. So there is a four-month overlap in that period of time. Wouldn't the assumption be, although it brings your number down, that any card prior to March 2000 has to be a ROM activated -- a ROM 3 activated card? And what we don't know what to do, and the problem is that four-month -- one of the problems is that four-month period of time. Now, I may not be making sense, but --

MR. SNYDER: If I could try and help, your Honor?

THE COURT: Yeah.

MR. SNYDER: There is an obvious difficulty in understanding which cards were being used by consumers during that overlapping four months, but I think the problem is actually much larger than that, because we now know, and this came as a complete surprise, but we now know that there was actually an intentional program to take ROM 2 and 3 cards out of the field. So knowing that a card was issued in 1998 and was a ROM 3 card, if someone brought that in for service in 2000, in mid-2000, they had a program to replace that ROM 3 card with a ROM 10 card.

Now, from the subscriber information that they've provided to us -- this is Exhibit 1510, because we asked them to track the backdoor password in the Nipperclause posting and find the card ID and to produce the subscriber information for that card -- from the limited subscriber information that they produced for that card, we believe that they track when a card is disabled, and this is the example that -- that Mr. Stone has pulled out for you. So it should be possible to know how many active cards of each type there are in the field, which is what we would need. Because presumably the soft swap of intentionally taking ROM 2 and ROM 3 cards out of the field and replacing them with ROM 10 cards would affect a very large number of cards, and, in fact, there is something in Mr. Shelton's documents
that suggest it affected millions of cards.

THE COURT: And that's why your number could be astronomically high and unfair to NDS?

MR. SNYDER: Correct.

THE COURT: All right. Let's go back and think about that for just a moment. We'll be right back.

And I'll return this to you.
MR. STONE: Sure. Thank you, your Honor.
(Recess.)
THE COURT: All right. We are back on the record. All parties are present, Mr. Shelton is present.

Mr. Shelton has identified on direct examination the total number of pirated EchoStar Smart Cards in the field as approximately 500,000 cards. At the previous evidentiary hearing, the Court asked Mr. Shelton to isolate the number of pirated ROM 3 cards. He was given information by EchoStar concerning the total number of each type of card produced and shipped and developed a weighted average according to the proportion of cards produced and shipped by EchoStar. The weighted average attributed to the ROM 3 card was approximately 33 percent throughout the relevant period, and the Court's heard that figure, of course, today, Mr. Shelton.

Using this weighted average, you've determined that the pirated ROM 3 cards varied in quantity, I think,
from 150 to 165. I think the actual number was 154,000 to 164 or 165,000 .

However, determining the number of cards produced and shipped by EchoStar takes into account both those shipped directly to consumers and those sent to retailers or distributors. Accordingly, the weighted average based on total number produced and shipped may take too many total cards into account in that it is partially based on cards that never actually reached consumers.

Additionally, in light of newly discovered evidence, some of the ROM 3 cards may have been swapped for ROM 10 cards as early as March 2000. There is an overlap period, in fact, from March 2000 to June 2000 suggesting that the proportion of produced and shipped ROM 3 cards may overstate the proportion pirated cards.

Mr. Shelton indicated that the price of pirated ROM 3 cards increased towards the end of the period suggesting a decrease in supply. Plaintiff might have sufficiently accurate information to show lost profits in 1998 and 1999 on the basis of the present evidence, but as soon as the card swap started in 2000, the information may no longer be safely relied upon.

In order to approximately discount the 500,000 total piracy figure to isolate ROM 3 cards only, EchoStar must determine the proportion of ROM 3 cards in use versus

ROM 2, ROM 10 and ROM 11 cards. One way of determining the proportion of active ROM 3 cards at any given time would be to compare the subscriber information for ROM 3 cards versus ROM 2, ROM 10 and ROM 11 cards.

Subscriber information is available in EchoStar's database dating back several years. This Court finds it difficult to believe that it's not. This information would give a more accurate estimate of the proportion of active ROM 3 card users, and the total number of piracy could be discounted to reflect this proportion.

Now, it's just as simple as that. Unless you produce that information, you can guess what my ruling is going to be. Mr. Kudelski, et al., can run this. They can run it very quickly. They can run it overnight, and they can pay overtime. And $I$ won't make a final ruling now, but if you can't guess that final ruling, something is wrong. In addition, you have the ability to do this. You control this information.

Finally, it protects this jury from excessive damages, if, in fact, they are awarded. It makes a huge difference if we get to punitives and how those are compounded. And you're asking for money, you have that responsibility. I won't countenance or hear that this is an impossibility or it takes time or it's inconvenient or it costs money.

So I leave that to you, and I don't see any further reason to continue on with Mr. Shelton today.

I think, Mr. Shelton, you've been very clear. I want to thank you. I find no fault. I think that these plaintiffs can provide you with accurate information and can reduce it, and they've chosen not to, frankly, either through inadvertence, negligence, laziness or inability to produce this. So let me be kind across the board.

And I don't think, sir, you should be up on the stand having to guess, and my jury is not going to be guessing either. And this isn't going to come back to me from the Circuit because there's a guess in terms of a weighted case load, so I find no fault with your methodology. We are given these numbers. That's the best you can work with.

So, Counsel, we are simply going to wait, and the longer it takes, if it comes to me later, I can hear Mr. Snyder, who's about to have a seat for a moment, and who is going to say I didn't have enough time to examine these figures. So it's up to you to get these done very quickly, and if they are thinking 48 hours, something is wrong.

Okay. Now, Mr. Snyder.
MR. SNYDER: My only question, your Honor, is it understood that if EchoStar produces this information and Mr. Shelton provides revised numbers, it is still subject to
our ability to cross-examine him about his methodology in determining whether or not it's admissible?

THE COURT: Absolutely.
MR. SNYDER: Thank you.
THE COURT: In all likelihood, what I'll do is allow Mr. Shelton to testify, because then methodology is going to make tremendous sense to the Court. And -- and if that occurs and it occurs in a timely fashion, and I can't emphasize that enough, Mr. Kudelski, et al., are not staying in Switzerland claiming that they don't have the ability, means to do this. But $I$ don't think it's irreparable, because if those numbers are produced as I've directed you to do so, then although NDS will -- will obviously claim prejudice, there is direct examination, and then there is a ways to go in this case.

And, of course, Mr. Shelton, you'll, in all
likelihood, be back. I'll let the testimony be split, in all likelihood.

That relieves the problem with Mr. Rock. I don't know how this is going to turn out, but I would suggest that at some point you get started with those boxes, so --

All right. Now, is there anything further that we need to do on the record tonight before we start, you know, off the record with some of these exhibits so that the Court goes over every exhibit this evening prior to the testimony
of the witnesses tomorrow?

MR. HAGAN: There was one other issue that your Honor wanted to address this evening, and that is the testimony of Jan Saggiori. We did get him to come here live from Switzerland. He is going to testify about his knowledge of Chris Tarnovsky and certain information that Chris Tarnovsky e-mailed to him. We have him with us tonight. I don't know how you best want to address that issue.

THE COURT: Counsel?

MR. SNYDER: The reason we wanted Mr. Saggiori present, your Honor, is there is a question about the authenticity of an e-mail about which Mr. Saggiori himself has provided contradictory testimony.

THE COURT: Ask Mr. Saggiori to come in. Let's put him on the stand quickly and find out the merits of this.

Let me get --
Kristee, would you swear the gentleman in just a
moment? I left my notebook back on the floor, and I'm going to get it.
(Interruption in the proceedings.)

THE COURT: Okay. Thank you, Mr. Saggiori.
Has the gentleman been sworn in?

THE CLERK: Not yet.

THE COURT: Will you raise your right hand, please.

JAN SAGGIORI, PLAINTIFFS' WITNESS, SWORN THE WITNESS: Yes.

THE COURT: Thank you, sir. Would you please be seated in the witness box. And Mr. Saggiori, would you state your full name, sir.

THE WITNESS: Jan Saggiori.
THE COURT: Would you spell your last name.

THE WITNESS: My last name is my family name?
THE COURT: Yes, please.
THE WITNESS: Yes. "S" like Sierra, "a" like angel, "g" like golf, "g" like golf, "i" like Italy, "o" like Oscar, "r" like Romeo and "i" like Italy.

THE COURT: Thank you very much.

This is going to be a limited discussion this
evening, and then you are going to be testifying tomorrow.

THE WITNESS: Uh-huh.

THE COURT: And I think we can represent to you we should hope to finish with you tomorrow.

THE WITNESS: Thank you.
THE COURT: Thank you very much.
Counsel --

MR. NOLL: Your Honor, we -- David Noll for the
plaintiffs. We don't have any questions for Mr. Saggiori.
We have Mr. Saggiori here in court with a PGP key that
contains the e-mail in issue, which is a March 31st, 1999
e-mail that he received from Christopher Tarnovsky. And
Mr. Saggiori is prepared to open that e-mail in front of the
Court and to show the other side that he has it
electronically and to provide them a copy of it on this
memory key drive.
THE COURT: Excellent. Well, thank you. Would
you like to do that for us, sir?
THE WITNESS: Yes, sir.
THE COURT: Thank you.
THE WITNESS: Would you like --
THE COURT: If you'd come up, bring the
computer --
THE WITNESS: I have to --
THE COURT: Plug that in.
Counsel, if you'd like to look over his shoulder?
MR. SNYDER: We'd like -- we'd also like to have a
copy of the e-mail and the --
THE COURT: Counsel, let's look over his shoulder
and see it opened up first.
MR. NOLL: Okay. I've got a couple work product
documents I'm going to close.
THE COURT: Well, yeah, why don't we go down to

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that desk. It would be easier.
    THE WITNESS: Okay.
    THE COURT: Why don't we provide -- that way all
counsel for NDS can gather, also.
    MR. NOLL: Okay. You have your -- you have your
key; is that correct, Jan?
    THE WITNESS: It is ready.
    MR. NOLL: What he did is we went back in the
back, and these are -- this is all the files that he has on
his memory key, and he put them on my laptop --
    THE WITNESS: Yes.
    MR. NOLL: -- when we went back in the attorney
room.
    THE COURT: Thank you.
    Now, Mr. Saggiori, speak into the microphone.
    THE WITNESS: Okay. Too short.
    Okay.
    THE COURT: Okay.
    THE WITNESS: So the first e-mail of 36FFOFBE.plx
is the --
    MR. NOLL: Talk slow, talk slow.
    THE WITNESS: Yeah.
    MR. NOLL: She's typing everything.
    THE WITNESS: Oh, sorry.
    So the first file here, the 36FFOFBE.plx is the
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file from the CompuServe database software, and that's the e-mail. And that's -- that's the e-mail that $I$ received from Chris from the CompuServe software.

THE COURT: And that's Chris Tarnovsky?

THE WITNESS: Yes, absolutely.

THE COURT: Is that the e-mail in question?

THE WITNESS: That's the e-mail, this one.

THE COURT: Well, why don't we open it?

THE WITNESS: Exactly. So that's what I'm doing now.

So this is a scramble, so $I$ can try to open it with the software so you will see the text from it. Let's see -- so that's the e-mail --

THE COURT: Thank you.

THE WITNESS: -- with the header. And that's
the -- yeah, that's the encrypted part of the e-mail.

THE COURT: Okay. Now, let's wait. Let's stop. THE WITNESS: Okay.

THE COURT: Do you have any further questions,

Mr. --

MR. SNYDER: Not so far, your Honor.

THE COURT: Any questions?

MR. SNYDER: Not so far.

THE COURT: I think they are done with the direct
examination.

MR. SNYDER: Well, we -- what we've seen so far is a bunch of nonsense characters. THE COURT: And what would you like? MR. SNYDER: We need it decrypted. THE WITNESS: Exactly. THE COURT: Decrypted. THE WITNESS: I'm going to do that. THE COURT: Can you decrypt that for us? THE WITNESS: Absolutely. THE COURT: Would you do that? THE WITNESS: Yes. So I will use PGP software. The name of the file is 36FFOFB.plx.

THE COURT: Just a moment.

Dot, period? One more time.

THE WITNESS: I'm entering the command, that is PGP, like pretty good privacy, 36FFOFBE.plx, that is the name of the file.

THE COURT: Okay.

THE WITNESS: So now it requests me, so it's Jan Saggiori, my key, it recognized it, and it asked me to enter my secret phrase.

Okay. So the phrase is good, and it descrambled the file that is here. It's 8 kilobyte files, which is the same name of the file, $36 F F 0 F B E$ of 8 kilobytes.

THE COURT: Just a moment. 36 --

THE WITNESS: 36FF0FBE.

THE COURT: She's taking a transcript.

THE WITNESS: Okay. And that's the 8,000 bytes, 8
kilobytes that we discussed. That is the scrambled file that is on my testimony.

THE COURT: Okay.
THE WITNESS: So we -- I think that's the file that we need to see so they are sure that what we thought is true.

THE COURT: Okay.

MR. SNYDER: Your Honor, I'm not -- I'm not sure if we've actually decrypted the right thing. The --

THE WITNESS: Look here. This is the file you see before, 36FF --

MR. SNYDER: Could you move it up to the top, please?

THE WITNESS: Yes, sure.

From (inaudible) Newman (inaudible) .net, and you have the "to Saggiori, Jan, 28 March '99, 18:32," and they sent it. "Good news from up north here. Enjoy, keep for you please. Extremely top secret."

THE COURT: Just a moment. Put it back.

THE WITNESS: Okay.
THE COURT: "Good news from up north here. Enjoy, keep for you please. Extremely top secret."

THE WITNESS: And the name of the file, 16CF54.asc.

THE COURT: 16CF54.asc, and I'm just repeating what you are saying so the court reporter -- because you have a slight accent.

THE WITNESS: Absolutely, I'm sure.
(Laughter.)

MR. SNYDER: Is the file that you decrypted -THE WITNESS: Yeah. MR. SNYDER: -- 16CF54.asc? THE WITNESS: That's the PGP software to the PGP data from it that you can see starting here, begin PGP usage --

THE COURT: Slower, slower.

THE WITNESS: -- and went up to the end of the file here of this e-mail, and PGP message, and open that data and descramble it with my key and created the file. It has exactly the same name here, 36FF0FBE from the 36FFOB -0FBE.plx file.

THE COURT: From the 36FF0FBE.plx. MR. SNYDER: And what is the date of the .plx file? THE WITNESS: The date of the .plx file, I will show you. .Plx, it's the 28th March, '99 at 9:29 p.m. MR. NOLL: For the record, I misspoke. I said the
31st, but obviously it's the 28 th of 1999.
THE WITNESS: This is exactly the file as it was
received, and it's exactly the date when I downloaded the
file.
THE COURT: Believe it or not, we are almost done
with this hearing this evening, but $I$ want to provide any
additional questions that Mr. Snyder may want to ask.
MR. SNYDER: I have no further questions, your
Honor, other than a request. We've been asking for this
file literally for over a year. We would like the -- an
electronic version of the file produced along with the PGP
key and the pass phrase so that our expert can analyze it to
determine the authenticity of the e-mail and the translated
version.
THE COURT: How hard would that be to do?
THE WITNESS: It's -- I think it's difficult,
because for two reasons. First, the PGP key is opening all
my files and all my privacy --
THE COURT: Which --
THE WITNESS: -- after 2004.
THE COURT: That --
THE WITNESS: So all my e-mails. And I'm happy to
open it in front of them, but I am not happy to give my
private key. That will open my private life for 10 years.
THE COURT: Just a moment. How do we reach a
compromise so his privacy is not compromised, but we either get you the information or bring your expert here, you know, to examine it? In other words, I'm going to open that for you, but I'm not going to allow this to go beyond this document.

MR. SNYDER: If I understood Mr. Saggiori's testimony correctly, the PGP key and password that we are interested in, he has not used, now, for at least three and probably four years.

THE COURT: Is that true?

THE WITNESS: Yes, but it's --

MR. SNYDER: Just a second.

THE COURT: No, no. He said "but."

THE WITNESS: It's probably up to 2004, all my
life.

THE COURT: Up --

THE WITNESS: Up to 2004, all my life.

THE COURT: Okay.

MR. SNYDER: Second, we are not asking him to produce all his e-mails or any other encrypted material. We are only asking him to produce the encrypted e-mail, which, of course, the e-mail, the password and the key can be produced under the protective order, and we would be bound as officers of the Court to protect that information just as we would any of the other confidential information exchanged
in the case.

THE COURT: We have -- we have Judge Smith here tomorrow anyway. Can we use Judge Smith for this purpose?

MR. SNYDER: I don't know. I have not yet spoken
to our expert, Mr. Litchfield. I don't know what his
availability is.

THE COURT: Well, go call him.
He's going to call him. We'll go off the record. We'll call him.

THE WITNESS: And I would like to add just one thing --

THE COURT: No, no, no.
(Discussion held off the record.)

THE COURT: All right. We are on the record. All counsel are present.

Mr. Saggiori, I believe, has concluded his

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testimony. Mr. Snyder has a proposal.
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MR. SNYDER: First, your Honor, we object to the untimely production of the encrypted message. We've been asking for the message for quite some time, and it was not produced, and we believe unduly prejudicial for it to be introduced literally the night before Mr. Saggiori testifies.

THE COURT: Okay.

MR. SNYDER: Without waiving that objection and in
the interest of moving the trial forward, we have agreed with plaintiffs' counsel that they will produce to us the encrypted version of the message which we will provide to our expert. Mr. Saggiori will testify tomorrow and be cross-examined tomorrow. Our expert will review that and provide his testimony at the appropriate time in case -before that, identify other -- any other information that he believes is required to complete his analysis.

THE COURT: Acceptable?
MR. NOLL: That's acceptable, your Honor.

MR. HAGAN: That's acceptable, your Honor, with two points that $I$ need to make.

First of all, this entire dispute is over whether
or not the e-mail that Chris Tarnovsky sent to Mr. Saggiori is true and authentic or if it's been altered in any way. We produced that e-mail in hard copy. They requested an electronic copy. We sent that copy over. Now, it seems they want this encrypted copy, which Mr. Saggiori brought with him to the United States pursuant to a request that I made conveying the request of Mr. Snyder.

Their expert testified based on the evidence that he had that he couldn't determine one way or another whether this e-mail was authentic or altered. I think that Mr. Saggiori opened that e-mail in front of the court and the defendants' counsel under oath. He explained that
process, articulated each step of that process. Mr. Snyder had no further questions. Now, we will produce the electronic copy, the encrypted copy that they want, and if Mr. Litchfield, their expert, has any new opinions or conclusions, just like they did with Mr. Shelton, we would like the opportunity to depose him on that limited issue before he testifies at trial.

MR. NOLL: Can I add one thing, your Honor? To the extent -- sorry, your Honor. To the extent that Mr. Litchfield feels he needs the PGP key, I spoke to Mr. Snyder about this off the record. He doesn't -- the -the defense, as I understand it, has no problem with handling that should we get there through the special master, Judge Smith, although our hope is that we don't go there.

THE COURT: Okay. You were saying --

MR. SNYDER: In addition to the encrypted file, your Honor, we would like the decrypted file that Mr. Saggiori created in court today so we can compare the encrypted and decrypted files.

MR. HAGAN: That's fine.

THE COURT: Mr. Saggiori, my thoughts are this, and that is we should pay the same courtesy to you that we do all of the other witnesses. I would expect that your testimony will conclude tomorrow, then you would be back on
the plane, but is the flight next day?

MR. HAGAN: I believe so, your Honor.

THE COURT: Okay. But you are subject to
returning to court as all of the witnesses are. If we have this agreement that's been stated on the record, then Mr. Litchfield can testify to whatever his findings are, and it becomes Mr. Hagan's choice about whether you are recalled or you return. So I think we've reached an accommodation in this regard.

Also, if Mr. Litchfield is concerned, I would think he'd be here tomorrow. And I know that there is a question of, quote-unquote, availability or non-availability, but with the fees that are being paid by the respective sides to report for this case, I don't believe Mr. Litchfield can't be here because of another client.

Now, if he's on vacation, et cetera, so be it, but a lot of people have been scrambling to get to court on short notice, and if Mr. Litchfield can't, it's of great concern.

MR. DILGER: I've spoken to Mr. Litchfield just now, and my understanding --
(Interruption in the proceedings.)

THE COURT: He's sworn in as a U.S. citizen tomorrow.

MR. DILGER: Yeah, he is being sworn in as a U.S. citizen tomorrow.

THE COURT: What time?

MR. DILGER: I am not sure about the time; I can find out.

THE COURT: Amazingly, we'll wait for him tomorrow night. It's a two-hour and 45-minute flight. I can name the schedule back and forth from Portland, Oregon. I grew up there.

MR. DILGER: Okay. I'll speak with --

THE COURT: He can get here easily. He can get here by 8:00 or 9:00. I conduct those ceremonies. They're usually in the morning. There's no reason he can't be on the afternoon flight.

Then, is there anything further to do this
evening? I am satisfied concerning Mr. Saggiori.

MR. SNYDER: Nothing further regarding

Mr. Saggiori. I do have a couple of other issues that I believe is appropriate for the record, your Honor.

THE COURT: Sure.

MR. SNYDER: First, the Court indicated -- the Court has provided us with written rulings regarding in-limine motions, indicated at the time that those rulings were tentative. If the Court has since determined that those rulings are final, that information would be
important, particularly to the objections that we do or do
not make during the trial.

THE COURT: There's a lot of motions. For instance, Frost is still out there. I want to look at the video of Frost this evening, the actual video that's going to be shown. I want to see the assertion of the Fifth, how he asserts the Fifth, if he continues to assert the Fifth, whether I think the continued assertion is prejudicial, if one is enough. So I'm not certain it's too broad a question. I won't respond to that.

Now, what's the next issue?

MR. SNYDER: Next, your Honor, the Court had indicated in its ruling on the motions in limine regarding DirecTV and Canal Plus that defendants could seek a limiting instruction regarding those cases. We've now already had several witnesses testify about those litigations. I think it would be appropriate for the Court to give a limiting instruction indicating that those cases -- that the allegations in those cases were, in fact, allegations, and that people such as Mr. Williams, Ms. Williams or Mr. Lebson repeating those allegations, and we've had several live witnesses, in fact, repeat those allegations, that it is not evidence, and that repeating the allegations does not mean that the allegations were true.

THE COURT: You draft that first for my
consideration.

MR. SNYDER: We've drafted something, your Honor.

THE COURT: And then show that to counsel, and
we'll discuss that later this evening.

MR. SNYDER: Thank you, your Honor.

Next, your Honor, I mentioned at the outset of the hearing that we received a substantial number of documents last Friday, Friday night. Some of -- some of those documents, as well as Mr. Shelton's testimony this morning, indicated that there was a soft card swap, at least, of the -- of ROM 10 cards for ROM 2 and 3 cards in mid-2000 before the NipperClause posting. This is the first we've heard of that card swap, and the extent or circumstances of that card swap could have enormous implications for plaintiffs' other theories.

If, for example, that card swap was effective in substantially reducing, if not nearly eliminating, the ROM 2 and 3 cards in the field, the jury could easily find that the later 2004 card swap was not necessitated by ROM 3 piracy.

Similarly, if that card swap was the result of EchoStar or NagraStar or NagraCard's recognition that the ROM 3 card was vulnerable, that could have enormous impact on the jury's decision of whether the plaintiffs had adequately mitigated damage or whether there was any
causation caused by the subsequent NipperClause posting for either lost profits or the card swap. So we would request that the plaintiffs be ordered to produce all documents regarding the ROM 10 card swap in 2000.

THE COURT: Be more specific.

MR. SNYDER: Documents indicating the reasons for the card swap, indicating whether it was in response to the 1999 demand from EchoStar to Kudelski for the -- to replace cards under the warranty, purchase orders indicating the number and --

THE COURT: Draft it for me.

MR. SNYDER: Okay. We'll do that.

THE COURT: I'll see it in written form this
evening. In other words, I don't want a simple record as you go along. I want to pay you the courtesy of taking a moment of putting down a specific request so $I$ can see them in chambers.

All right. What else?
MR. HAGAN: Just a response.

THE COURT: Mr. Snyder.

MR. SNYDER: An issue regarding the proposed
testimony for Mr. Dov Rubin.

THE COURT: Okay.

MR. SNYDER: On Saturday, plaintiffs indicated
that they intend to call defendants' general manager, the
person in charge of North America, Dov Rubin, to testify about NDS's revenues from the DirecTV contract. And the rationale for this proposed testimony was under a newly articulated theory that defendants could be required to disgorge the profits associated with those contracts.

I think it would be premature to elicit
Mr. Rubin's -- actually, Dr. Rubin's testimony about the revenues from the DirecTV contract before the Court has had an opportunity to rule on whether or not plaintiffs will be able to present to the jury this new disgorgement theory.

THE COURT: Anything else?
MR. SNYDER: There is one other thing, your Honor. You had invited me to make a record regarding the e-mails that were allegedly exchanged between Mr. Dawson and Mr. Menard. As we identified or articulated in our Motion in Limine Number 6, the only evidence regarding the authenticity of the e-mails supposedly exchanged between Mr. Menard and Mr. Dawson and subsequently produced by Mr. Ereiser is the testimony of Mr. Menard, who testified that those e-mails are all forgeries.

As described further in our briefs and at the oral argument on the motions in limine, defendants, therefore, object to any testimony regarding those e-mails and believe that they should be excluded, because they lack foundation. The only evidence regarding their authenticity is that they
are forgeries, and that the admissions of those e-mails,
even if testimony about their authenticity is allowed, would
be unduly prejudicial under 403.

THE COURT: And once again, remind me about the availability and non-unavailability of Mr. Dawson.

MR. SNYDER: We don't have any communications with Mr. Dawson. He is a well-known pirate that we have chased for quite some time, your Honor.

MR. HAGAN: We have -- we have no -- absolutely no connection with Mr. Dawson. The only connection that we are aware of is his connection with Mr. Menard and Mr. Tarnovsky. We have attempted to serve him on several occasions. He has evaded service to the extent that we -we haven't been able to serve him. We don't even -- we aren't even able to locate him.

THE COURT: Okay. Mr. Snyder, anything else?

MR. SNYDER: That I believe Mr. Eberhart has an issue, your Honor.

MR. EBERHART: Your Honor, we -- we raised initially on Saturday with the Court our objection to the use of Exhibits 390 and 610-A with Mr. John Norris. Plaintiffs are proposing to use those exhibits with Mr. Norris, and it's our position that those exhibits were specifically excluded by the Court's ruling on Motion in Limine Number 3. That was the motion in limine dealing with
the NDS, DirecTV litigations.

THE COURT: Tentatively, I believe you are correct, and you will be precluded tentatively. I'll look at that again this evening after all parties have left, but 390 and 610 will not be before this jury. It would violate the Court's order and the spirit of the Court's order.

Now, anything else?
All right. Now, let me turn to Mr. Hagan. Do you want to respond, or do you want new areas of concern?

MR. HAGAN: Let me start with -- with a response, your Honor.

First of all, we believe that Mr. Snyder has misrepresented the record with respect to the documents that were produced. I believe he said several times today that over 5,000 documents were produced to him on Friday. That is incorrect. Our records show that it was less than 700 documents that were produced on Friday. There were over 4,500 documents that were produced Monday or Tuesday earlier during the week and before the trial started, and those documents were documents that they had not requested before but were demanding at the last minute. It's my understanding that those were monthly financial summaries.

THE COURT: I see.

MR. HAGAN: And we produced end of fiscal year
financial summaries. They wanted us to go back and get each
particular month for the '98 to '05 time frame. So that
deals --
THE COURT: The problem is -- this is curable.
We've got time.
MR. HAGAN: Correct.
THE COURT: I am not as concerned because the
summaries can be validated or not, and we have a significant
way to go in the defense case.
MR. HAGAN: Secondly, with respect to what
Mr. Snyder has characterized as a ROM 10 swap, the only
evidence that I'm aware of about this ROM 10 swap apparently
comes from Mr. Shelton, and when I questioned him about
that, his only basis was a conversation that he had with
JJ Gee. I need to find out whether or not this ROM 10 swap
ever happened.
THE COURT: That's true.
MR. HAGAN: And if it did, the number of ROM 3
cards that were swapped out with ROM 10 cards, so that he
can back that number out of his piracy calculations as well.
I hope to have that information within the next day or two.
THE COURT: It would be appropriate if you found
that out.
MR. HAGAN: Third, your Honor, with respect to
Dov Rubin's testimony, we are only -- as the Court knows, we
are only offering him for a limited purpose, and that is to
authenticate a document that he produced, which we questioned him about in his deposition that shows the defendants' revenues from DirecTV. This is not a newly minted theory of damages. Disgorgement is expressly allowed under the statutes that we pled.

THE COURT: I required briefing by, I believe, Friday or Saturday morning. I allow you to brief that document subject to a motion to strike. I am not going to cast an opinion at this time. Whether you get there between disgorgement or not, subject to argument, it's easily cured.

MR. HAGAN: Number four, the e-mails between Mr. Menard and Mr. Dawson have indicia of authenticity separate and apart from Mr. Menard's testimony. We will be bringing, as the Court knows, live to testify, Ron Ereiser. That is the source of those particular e-mails, and that will cure any problems that the defendants may have. THE COURT: I am going to delay that ruling, except is Menard's tape going to be played prior to Ron Ereiser's testimony?

MR. SNYDER: Yes, that's the current schedule. THE COURT: That -- that's the difficulty. I anticipate this is going to be easily cured with Ron Ereiser. In other words, it's going to be a question for the jury. It's not going to go to admissibility. It's going to go to weight. But the way we have it arranged, we
have Menard prior to Ereiser. So I'd take that subject to a motion to strike, but the problem is the cat is out of the bag, and it's not easy to unring that bell. So I'm kind of curious why Mr. Ereiser can't be here before Mr. Menard's testimony. I don't see how that harms your case.

MR. HAGAN: It's my understanding that Mr. Ereiser is getting his passport on the 21st and is flying from Canada here on the 21st.

THE COURT: Because you asked for it late in the game.

MR. HAGAN: Just so the record is clear, I've always requested Mr. Ereiser to be here. It was my client who put additional pressure on him after speaking with the Court.

THE COURT: Oh, I didn't mean it personally, put pressure on him. He suddenly saw the light.

MR. STONE: The green.

MR. HAGAN: With respect to Exhibits 390 and 6 --

THE COURT: Frankly, I'm going to take that offer of proof. You are going to be able to play Menard's tape subject to the motion to strike. The harm is not that great, and $I$ can cure it with quite a pointed instruction if Mr. Ereiser does not come, and, in fact, the curative instruction might be worse than -- well, let me just leave it there. It's easy to cure.

MR. HAGAN: With respect to Exhibits 390 and 610-A, we understood the Court's ruling on Motion in Limine Number 3 to exclude any pre-litigation exchanges of -- of letters, communications, obviously because the parties at that point have a vested interest in spinning their side of the story.

The two documents at issue, and specifically, Exhibit 390, is a DirecTV memorandum. It is not a communication that goes to NDS, and it is a memorandum that details what they characterize as flawed strategies engaged in by the defendants. Those strategies include hiring hackers, giving them access to sensitive information and hoping that they pirate NDS's competitors' technology and not their own. That is precisely one of the arguments that we have made in opening statement and intend to pound on in closing arguments, that the defendants either knew this was going on or turned a blind eye. It's not that --

THE COURT: I'll come back to both of those this evening. I'll put out something written for you.

MR. HAGAN: And I think that is all of the issues that we have. Let me check with counsel.

That's everything that we have for this evening, your Honor.

THE COURT: Just a moment.

Mr. Saggiori has a key.

THE WITNESS: I copied the two files, the .plx file and the result that we had before of the descrambling of the file, the 8 kilobyte file I've shown you, on the stick for them.

THE COURT: The key is now being handed to the defense.

THE WITNESS: So they have -- they have the original file, and they have the reserved descrambled file.

THE COURT: That should resolve it.

MR. SNYDER: Your Honor, two issues related to Mr. Menard very quickly.

First, the Court indicated it was going to determine whether or not it was going to give an adverse inference instruction to the jury at the playing of Mr. Menard's tape, and I don't know if the Court has made -yet made that decision or not. We certainly would be interested when the Court is ready to deliver it.

THE COURT: I am not inclined to do so with Menard.

MR. SNYDER: Okay.
THE COURT: I think he's outside both of your control, and I think his testimony is subject to argument by all of the parties.

MR. SNYDER: One, regarding the -- one last point regarding the exhibits, the e-mails between Mr. Menard and

Mr. Dawson. Because Mr. Menard's testimony is taped, one possibility would be to segregate his testimony about those e-mails from the remainder of the portions being played and to play that portion after the -- if the court finds that an adequate foundation has been laid.

THE COURT: I'm fairly confident. A
representation's been made to me. I can easily cure that, and I don't think I'm going to chop that up. I've taken each of your representation about different people appearing at different times, and I'm -- I'm satisfied that Mr. Ereiser is going to be here. You can play the tape. MR. SNYDER: That was all, your Honor. Thank you. THE COURT: Jane -MR. EBERHART: Your Honor, briefly on the DirecTV Motion in Limine 3, $I$ would just direct the court to pages 202 and 203 of Mr. Kahn's deposition where he specifically testifies about Exhibit 390 being pre-litigation talking points.

THE COURT: Thank you very much. (Recess.)
-OOO-

CERTIFICATE

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

Date: April 15, 2008

JANE C.S. RULE, U.S. COURT REPORTER CSR NO. 9316

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