

1 FEDERAL COMMUNICATIONS COMMISSION

2

3 DIGITAL CLOSED CAPTIONING AND VIDEO DESCRIPTION

4

TECHNICAL WORKING GROUP COMMITTEE

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Room TW-C305

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Federal Communications Commission

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445 12th Street, SW

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Washington, D.C.

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9:10 a.m.

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Monday, May 18th, 2009

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PARTICIPANTS

- 1
- 2 ERIC BRIDGES, ACB
- 3 CHRIS BOYER, AT&T
- 4 JOHN CARD, ECHOSTAR
- 5 GREG COPPA, CBS
- 6 GREG DePRIEST, NBC
- 7 DAVID DREISPAN, ABC
- 8 BOB FITZGERALD, NORPAK
- 9 GERALD FREDA, CAPTIONMAX
- 10 ROBERT GABRIELLI, DIRECTV
- 11 LARRY GOLDBERG, NCAM
- 12 CHERYL HEPPNER, NVRCDDH
- 13 JIMMY HO, VERIZON
- 14 TONY JAISNOWSKI, PANASONIC
- 15 GRAHAM JONES, NAB
- 16 CHARLIE KENNAMER, COMCAST
- 17 MICHAEL KIRAOUAC, EVERTZ MICROSYSTEMS
- 18 BRIAN MARKWALTER, CEA
- 19 PHIL McLAUGHLIN, EEG
- 20 DANA MULVANY
- 21 JEFF NEWDECK, MOTOROLA
- 22 MARC OKRAND, NCL

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PARTICIPANTS

- STEPHAN SCHEEL, PBS
- ANDY SCOTT, NCTA
- ANDY SETOS, FOX
- GREGORY SCHMIDT, SPEECH CONVERSION

TECHNOLOGIES

- CHRISTOPHER SOUKUP, CSD
- KAREN PELTZ STRAUSS, CSD
- JOHN TAYLOR, LG
- HEATHER YORK, VITAC

1 P-R-O-C-E-E-D-I-N-G-S

2 [9:10 a.m.]

3 Introduction and Welcome

4 MS. SEIDEL: Okay. If everyone would go
5 ahead and take a seat, please, we can go ahead and
6 get started.

7 Okay. If everyone would go ahead and sit
8 down, we can get started. I think we're very
9 fortunate that Chairman Copps was able to be here
10 this morning for this kick-off meeting of the Closed
11 Captioning and Video Description Working Group of the
12 Consumer Advisory Committee, and thanks to each of
13 you for coming from near and far to be here.

14 It's a real pleasure to be working on these
15 issues and I'm pleased to introduce Chairman Copps.

16 Remarks by the Acting Chairman and Commissioners

17 MR. COPPS: Thank you, and good morning.
18 Welcome to the FCC. It's a pleasure to have all of
19 you here. This day has been a long time coming and
20 I'm really delighted to be part of the welcoming
21 ceremony here for this working group.

22 I only wish we had been able to do this

1 back when the Consumer Advisory Committee first
2 proposed its creation back in October, I think, of
3 2007, a long time ago. That's a call that the
4 committee reiterated a number of times and that I
5 have been publicly supporting ever since. So
6 establishing the working group was one of my very
7 first priorities when I became acting chairman of
8 this outfit and to me, it was pretty much of a no-
9 brainer.

10 It was obvious that the new digital world
11 of captioning and video description could bring so
12 much to our populations in the way of news and
13 entertainment and emergency information, but like
14 most new technologies there were and there are some
15 kinks to work out.

16 The challenge is it's often difficult to
17 tell where the breakdown occurs. Is this an
18 equipment issue or an encoding issue or a
19 distribution issue or some other kind of issue? All
20 I know for sure is that we don't want to create a
21 frustrating experience here where consumers have to
22 kind of play detective to try to figure out what's

1 gone wrong and where the breakdown occurs and what to
2 do about it.

3 So that's why we're here today. We want
4 you folks to work through these problems, try to
5 pinpoint their causes and hopefully to resolve them.

6 I'm particularly pleased we have so many
7 technical experts here with us today because what
8 we're looking for is practical solutions to a
9 practical real-world problem and, you know, I often
10 wonder how many problems here at the Commission we
11 could resolve if we just locked a group of engineers
12 and technical folks in a room and told them not to
13 come out until we found an answer.

14 I'd try that here but the fire department
15 said no go, that wasn't a good way to proceed. But
16 it does connote something of the sense of urgency I
17 feel about this. We're late getting this started, so
18 we really have to work with that kind of urgency in
19 mind.

20 I want to thank some folks, particularly
21 Cathy Seidel and Julius Knapp who are going to be
22 here, co-chairs. You can't have two better co-chairs

1 for this. Lots of people here at the FCC worked on
2 putting this together. Thomas Wyatt, Susan Tetro,
3 Amy Brown, Helen Chang, Tracy Randolph, Gregg
4 Bombach, Helen Stillwell, Hugh Van Tuyl, Steve Martin
5 and others, too. I hope I haven't left anybody out.
6 I want to thank them.

7 I want to thank my friend Karen Peltz
8 Strauss for -- sitting right over there, for her
9 persistence in making this recommendation happen and
10 then turning it into reality. She knows how to get
11 things done around this place and I really want to
12 thank you for doing that here.

13 You all want to go to work, I know. You
14 don't want to listen to speeches and I don't want to
15 delay you any longer. I would like to stay but they
16 put on a last-minute meeting over at the White House
17 this morning with Secretary Locke and Secretary Chu
18 to talk about another technical matter and that's the
19 Smart Grid for our electrical broadband future and
20 we're the outfit that's been charged with putting
21 together a national broadband plan and I'm a big
22 believer in interagency cooperation.

1 Everybody's got a little piece of this
2 action and we want to make sure that everybody's
3 talking with everybody else. We're not the energy
4 expert agency but we're the communications expert
5 agency and we want to make sure we're practicing the
6 policymaking of addition here and have the kind of
7 interagency contact that we need to have.

8 So I'm going to turn it over to Cathy and
9 to Julius, but if there's anything this group needs,
10 please don't hesitate to call on us. My door is
11 always open. This is important work you're doing. I
12 appreciate that you're giving up a lot of valuable
13 time when you could be doing other things that are
14 pressing on your priority.

15 I think these advisory committees are just
16 absolutely invaluable. When I was in the Commerce
17 Department several years ago, I ran all of the
18 industry sector advisory committees over there and
19 the industry functional advisory committees. So we
20 could not have made intelligent policy over there
21 without that kind of input from the private sector
22 and that kind of expertise.

1 So we're grateful to you and without
2 further ado, I'll turn it back to our co-chairs, but
3 thanks a lot and good luck.

4 [Applause.]

5 MS. SEIDEL: I think what we'll do is we'll
6 start with just some quick housekeeping remarks by
7 Mike Jacobs and then I will follow on and Julius
8 Knapp will follow.

9 Mike?

10 MR. JACOBS: Good morning, and I thank you
11 all very much for being here. It's a very exciting
12 time that we've convened this group together.

13 I did want to go over some -- a few
14 housekeeping matters before we start.

15 My name is Michael Jacobs. I'm Legal
16 Advisor to Cathy and CGB and I wanted to introduce
17 some of the other FCC staff who will be assisting
18 with this, providing support to the group. You can
19 also ask us for things, such as where do I find the
20 restrooms which I'll actually get to in a moment, but
21 feel free to use us as a resource.

22 First thing. I just wanted to remind

1 everyone on the global level that the function of
2 this group is to identify issues and propose
3 solutions which will be reported as findings and
4 recommendations to the full CAC. Only the full CAC
5 can make recommendations to the Commission.

6 Now, as to more granular logistics, when
7 you want to be recognized, please raise your tent
8 card. Once you do so, rather than continuing to hold
9 it up, just place it on its side so that you're not
10 holding it all this time while someone else is
11 speaking and just place it on its side on the table
12 and then when you're recognized, remember that the
13 meeting is being video-recorded.

14 So first, raise your hand so that our AV
15 folks know who it is who's speaking, identify
16 yourself before speaking, and please speak into the
17 microphone which hopefully I'm doing.

18 Restrooms. I mentioned that you can always
19 ask an FCC staffer where to find those, but let me
20 tell you where to find those. To my right is an exit
21 in the back of the Commission Meeting Room. If you
22 go to your second hallway and take a left, that's

1 where the restrooms are.

2 Similarly, pay phones are located, if you
3 were to exit that door and take a left and go a
4 little bit of the way down the hallway, there's a
5 bank of pay phones there.

6 My understanding as far as coffee breaks
7 and lunch time is that particularly the participants'
8 passes allow them access to our courtyard, cafes and
9 facilities without having to go back through
10 security. So please feel free to take advantage of
11 those. You just go to the -- take a right to go to
12 the elevators and you go one floor down to the CY
13 Level or is it up? I think maybe it's up. Okay.
14 Thank you. One floor up to the CY Level.

15 And then, finally, I thought it'd be nice,
16 since we have so many people here, it might be nice
17 to just go around the table once, introduce
18 yourselves, who you represent, and we'll take it from
19 there. I just wanted to say we, as you know, have a
20 very packed agenda and we're going to be diligent
21 about sticking to it and that's it.

22 Thank you again for your participation.

1 MS. SEIDEL: Thanks. You want to start
2 with Introductions? I think we can go ahead and
3 start with Introductions. We can go this way.

4 MR. VAN TUYL: Hi. I'm Hugh Van Tuyl. I'm
5 with the FCC, Office of Engineering and Technology.

6 MR. HO: Good morning. I'm Jimmy Ho,
7 Verizon Technologies.

8 MR. NEWDECK: Good morning. I'm Jeff
9 Newdeck from Motorola.

10 MR. GABRIELLI: Bob Gabrielli, DirecTv.

11 MR. JAISNOWSKI: Tony Jaisnowski with
12 Panasonic.

13 MR. SCHEEL: Steve Scheel with PBS.

14 MR. JONES: Graham Jones with the National
15 Association of Broadcasters. I chair the ATSC
16 Planning Committee and I chair a subgroup of SMPT
17 Technical Committee of Broadcast Technical Standards.

18 MR. COPPA: Greg Coppa, CBS.

19 MS. HEPPNER: Cheryl Heppner, NVRDCDHH.

20 MS. STRAUSS: Karen Peltz Strauss,
21 Communications Service for the Deaf.

22 MR. BRIDGES: Eric Bridges, the American

1 Council of the Blind.

2 MR. MARKWALTER: Brian Markwalter, Consumer
3 Electronics Association.

4 MR. CARD: John Card, EchoStar.

5 MR. McLAUGHLIN: Phil McLaughlin, EEG.
6 We're a manufacturer of broadcast equipment.

7 MR. SETOS: Andrew Setos, FOX.

8 MR. SCOTT: Andy Scott, National Cable and
9 Telecommunications Association.

10 MR. KENNAMER: Charlie Kennamer, COMCAST.

11 MR. TAYLOR: John Taylor, LG Electronics.

12 MR. OKRAND: Mark Okrand, National
13 Captioning Institute.

14 MR. DREISPAN: David Dreispan, ABC/Disney.

15 MS. YORK: Heather York, VITAC.

16 MR. BOYER: Chris Boyer, AT&T.

17 MR. DePRIEST: Greg DePriest, NBC
18 Universal.

19 MR. SCHMIDT: Greg Schmidt, Speech
20 Conversion Technologies.

21 MR. MARTIN: Steve Martin, FCC Laboratory.

22 MR. STILLWELL: Alan Stillwell, FCC, Office

1 of Engineering and Technology.

2 MR. KNAPP: Almost at the end. Julius
3 Knapp, Office of Engineering and Technology.

4 MR. JACOBS: There's also a couple of folks
5 participating by conference bridge. I wanted to --
6 my understanding is it is working and ask them to
7 please identify themselves for the group.

8 MR. ROBERTS: Doug Roberts, Closed
9 Captioning Services.

10 MR. KIROVAC: Mike Kirovac, Evertz
11 Microsystems.

12 MR. FITZGERALD: Bob Fitzgerald, Norpak
13 Corporation.

14 MR. JACOBS: All right. Thank you very
15 much. We'll now get started with the substantive
16 portion of the meeting. I'll turn the mikes over to
17 our co-chairs, Cathy Seidel, Chief of the Consumer
18 and Governmental Affairs Bureau, and Julius Knapp,
19 Chief of our Office of Engineering and Technology.

20 Roundtable Discussion: Identifying Issues with
21 Digital Closed Captioning

22 MS. SEIDEL: Again, thank you, everyone. I

1 don't need to repeat everything that the Chairman
2 just mentioned, but I think for some time now, many
3 of you know the CAC has been recommending a formation
4 of a group like this to address some of the closed
5 captioning and video description challenges that are
6 out there for consumers and I just wanted to again
7 thank everyone for coming, both on the consumer side
8 and on the industry side and all facets of industry,
9 to really help brainstorm and identify some of the
10 challenges and what perhaps around the table we can
11 do to try to address those issues and solve some of
12 the challenges that consumers today are facing.

13 One of the concepts that has been
14 presented, as you probably know, too, is that perhaps
15 there could be the creation of some sort of
16 clearinghouse for problems with closed captioning and
17 ways to handle some of those problems and that's one
18 of the things hopefully today we can talk a little
19 bit about and, if so, ideas for how that might be
20 implemented and the like.

21 So again, I just wanted to thank each of
22 you, look forward to hearing from all the experts

1 around the table about suggestions you have and again
2 thank each of you for being here.

3 Julius?

4 MR. KNAPP: Good morning. I take as a
5 given that the closed caption system and video
6 description are supposed to work and everybody spends
7 a lot of energy trying to make sure that that happens
8 and it seems simple enough and I think there isn't
9 anybody who would take exception to the fact that we
10 expect these things to function the way they should.

11 I also take that people act in good faith
12 to make that happen and yet I know that there have
13 been problems and it causes a lot of frustration for
14 the users of these systems.

15 So we're here to have people tell us about
16 the problems that they've been encountering, to try
17 to diagnose what's going on and, most importantly,
18 figure out how we can fix the problems and we've got
19 a great group of people here, I think, to tackle
20 those problems, particularly on the technical side,
21 and I do want to underscore while we've got a great
22 group around the table, this is going to be an open

1 process, as well.

2 So we'll be inviting and there will be
3 opportunity for everybody to have their say and at
4 the end of this, I'm absolutely confident that we're
5 going to have a good outcome to wind up getting the
6 problems that we find fixed.

7 MS. SEIDEL: I think I just saw Larry. I
8 think a few more people just arrived. If you want to
9 go ahead and I'll give him two minutes to get over
10 there. I think we're okay. I'm wondering where
11 Larry is. Hopefully Larry will be joining us in a
12 bit. See, I thought I saw him.

13 MS. STRAUSS: Larry's so important to the
14 process.

15 MS. SEIDEL: We just went around the table
16 and introduced ourselves. Real quickly, Larry, if
17 you'd like to go ahead.

18 MR. GOLDBERG: Larry Goldberg. I'm
19 Director of Media Access at WGBH in Boston.

20 MS. SEIDEL: Very good. I think we wanted
21 to start this morning by hearing a little bit
22 directly from people who represent consumers on these

1 issues and just to hear a little bit about their
2 sense of the kinds of things that they hear about,
3 the kinds of challenges that they've been apprised
4 of, and the sorts of things that they're hearing on
5 the issue, and I have to acknowledge that I can't see
6 as well as I should, but I think Chris Soukup was the
7 first person we'd like to hear from.

8 MR. SOUKUP: Good morning. My name is
9 Chris Soukup and I'm from Communications Service for
10 the Deaf. Very appreciative of the opportunity to
11 make just a few remarks this morning.

12 CSD is a national not-for-profit
13 organization that's dedicated to enhancing the
14 quality of life for deaf and hard-of-hearing
15 individuals. We are in 40 locations around the
16 country and we provide a broad spectrum of products
17 and services specific to the deaf and hard-of-hearing
18 population.

19 Better? One of the things that we
20 specialize in is the creation of innovative contact
21 center solutions for individuals that are -- for this
22 segment of the population and in January of this

1 year, we had the privilege of working with the FCC in
2 the creation of a specialized help center for the
3 deaf and hard-of-hearing population.

4 This program really had two components.

5 One component was outreach and marketing services to
6 help get information out to this segment of the
7 population about issues stemming from the DTB
8 transition to digital television. This involved a
9 nationwide awareness campaign which we developed by
10 creating a website with content in American Sign
11 Language, with videos that contained close
12 captioning. We did a multitiered, multidimensional
13 campaign to drive traffic to that website.

14 From the website consumers were able to
15 then access a specialized help center. This help
16 center had the ability to be accessed through voice,
17 through TTY, through the website, through instant
18 messaging, through e-mail and through point-to-point
19 video, as well as being able to be accessed through
20 traditional relay services, text-based relay and
21 video-based relay services, and so over the process,
22 over the course of four months we've learned quite a

1 bit of information and we have had the opportunity to
2 interact with thousands and thousands of deaf and
3 hard-of-hearing consumers.

4 We, towards the end of the program period,
5 issued a National Captioning Survey and the results
6 of that survey are summarized and I believe all of
7 you have a handout from CSD just kind of documenting
8 the spectrum of communication with this population as
9 well as some of the top-level findings of that survey
10 and so I wanted to just maybe briefly touch on a
11 couple of the issues that we identified as being most
12 prevalent within the community.

13 On Page 3 of the document, you'll see just
14 a summary of some of the top issues that were
15 reported and I think you'll find that these findings
16 are consistent with the anticipated issues identified
17 in the Public Notice.

18 Sixty-five percent of the consumers found
19 that captioning often would be out of sync with
20 audio. Sixty-four percent of consumers found that
21 captions would frequently be garbled. Forty percent
22 found that captions would also often be delivered in

1 two lines, one with -- one right on top of the other,
2 making it difficult to distinguish.

3 Thirty-one percent found that captions
4 often would fill up the entire screen, not just one
5 row but two or three rows of text. Thirty-three
6 percent found that captioning would often flash on
7 and off sometimes too briefly to be discernible.
8 Forty-six percent found that captions would be cut
9 off or be placed in mid-screen or would just be in
10 the wrong place and then 40 percent and 30 percent
11 found that captioning was sporadic from channel to
12 channel, meaning that it would work on some channels
13 but not on others.

14 To date, we have had over 1,100 deaf and
15 hard-of-hearing consumers participate in the Caption
16 Survey. Numbers are increasing and this is something
17 that we'll be continuing to monitor and support until
18 the end of the month.

19 If anyone has any questions about the
20 findings or any of the components of the summary, I'd
21 be more than happy to visit with you about those
22 offline at any point during the day.

1 Thank you.

2 MS. SEIDEL: While we're waiting for Dana
3 to come on up to the table, I think that we had one
4 more late arrival. Cheryl, if you'd like to just
5 introduce yourself real briefly? Raise your hand.

6 MR. FREDA: Gerald Freda, CaptionMax.

7 MS. SEIDEL: Very good. And Dana, welcome,
8 and I know you're here to provide us some input from
9 a consumer perspective, and thanks for being here.

10 MS. MULVANY: Thank you. I'm here today as
11 a consumer advocate with severe hearing loss. I want
12 to thank all of you for being here today to work on
13 improving the accessibility of television for people
14 with hearing loss and vision impairment.

15 Let me ask all of you to think about some
16 of the terrific TV programming that you've seen on
17 television that has inspired you or moved you and to
18 remember that your work today is vitally important
19 for bringing those same powerful experiences to
20 millions of other people in America who without
21 captioning would not have those experiences.

22 So without all of us pulling together,

1 many, many people are very much in danger of losing
2 access to a great deal of wonderful programming and
3 many people are already experiencing severe problems.

4 By way of explanation, my comments here
5 will be focused rather exclusively on captioning
6 because that is where my expertise lies.

7 This group is being asked to address
8 problems with the transmission and display of digital
9 closed captioning and to evaluate the closed
10 captioning capabilities of digital television
11 equipment.

12 The two areas are actually related more
13 than most people realize and because of that, I'd
14 like to bring up a very important quote from the
15 Television Decoder Circuitry Act of 1990.

16 "The Congress found that to the furthest
17 extent made possible by technology, deaf and hearing-
18 impaired people should have equal access to the
19 television medium."

20 And I bring that up because I want to
21 emphasize that the limitation is the furthest extent
22 of technology. If not passed, if not a lot of other

1 factors, it's worth technologically possible to
2 provide for equal access to the television medium and
3 today, today for example, because there is no
4 standard for HDMA people to transmit closed-captioned
5 data, the digital televisions do not decode captioned
6 data in HD signals sent from external devices. But
7 if it is technologically possible for digital cable
8 to do that, this language could be used to acquire
9 this capability.

10 Another problem. Many TVs are being
11 designed not to decode captions on all our analog
12 video inputs which robs the consumer of equal access
13 to programming in all of those inputs.

14 The FCC will need to keep that in mind as
15 we hear about some of the problems that I'll be
16 covering later.

17 So one of the reasons I believe I was asked
18 to speak here today is because I've been in a
19 position to accumulate a lot of knowledge about how
20 different products handle captioning and how
21 different stations are experiencing a variety of
22 captioning problems.

1 I think I'm going to need some water. What
2 I'd like to do today then is to give you a sample of
3 some of the different captioning problems to
4 illustrate some systemic problems. Thank you.

5 When I first turned my HDTV on and looked
6 at captioning of the HD channels, I was puzzled
7 because I saw a lot of different problems with
8 numerous networks. I didn't know if there was
9 something wrong with my brand-new Sharp HDTV that I
10 purchased in 2006 and whether I should take it back
11 within the 30-day return policy or if whether the
12 captioning problems were originating from the local
13 station.

14 But here's a rundown of the problems which
15 are named by the network. NBC's captions were fine.

16 FOX had very delayed captions for syndicated
17 programs and for prime time prerecorded programs, all
18 of them. ABC prime time programs, like Lost and Ugly
19 Betty, were unwatchable from the D.C. ABC affiliate.

20 The captions were either intermittent or completely
21 absent. CBS was initially fine with its captions for
22 its digital channel but this changed in November of

1 2008.

2 The PBS affiliate, WETA, has numerous
3 problems on its multiple digital channels, including
4 no captioning during the day on the HD channel.
5 Thus, three out of five major networks are having
6 problems with their captioning.

7 So I used the websites of all of these
8 stations to let them know about the captioning
9 problems. Unfortunately, two of them never responded
10 to any of my complaints. The good news is that the
11 local PBS affiliate was very responsive. They even
12 called me up and we spoke for about an hour and they
13 realized that they had no monitoring equipment to let
14 them know that there wasn't any captioning during the
15 day and that they needed to order some additional
16 equipment. They were able to solve the HD captioning
17 relatively quickly but it took about two months to
18 fix the other problems.

19 So systemically, we find that two of the
20 networks received complaints about captioning but
21 they did nothing about them. They never responded to
22 me. So they had written information that required

1 detail for over a year and they never addressed this.

2 So that's a significant problem that's affecting and
3 probably happening with a lot of other affiliates, as
4 well.

5 So now in 2008, I started collecting
6 information about digital-to-analog converter boxes.

7 I was curious about how they would handle captioning
8 and I set up some free online sites on the AVIUS
9 Forum to collect and share information.

10 By doing that, I found a lot of information
11 accidentally. What I did was I had my SHARP HDTV set
12 up to my Insignia Converter box and I could see that I
13 would get captions from one of them but not from the
14 other. Problem A, for example, a \$60 converter box
15 was able to decode seven or eight captions from a
16 D.C. area overseas station whereas my Sharp HDTV
17 could not for all of the ABC prime time prerecorded
18 programs.

19 However, there were no problems with the
20 Baltimore ABC stations. So my TV could get captions
21 from ABC in Baltimore but not from D.C. I found out
22 that Samsung and Sony DTV equipment also have

1 problems with the D.C. ABC affiliate, again only for
2 the prime time prerecorded programs and not from
3 Baltimore.

4 So you see that there's an interaction
5 between the decoder chips used in certain TVs and the
6 D.C. ABC affiliate was sending out captions in a way
7 that was not compatible with certain decoder chips
8 but works fine for other decoder chips.

9 Now, last week after two and a half years,
10 all of a sudden I got captions to show up on my Sharp
11 TV from the D.C. ABC affiliates. So they fixed
12 something and I don't know what it was. They've
13 never communicated with me about what's going on and
14 we need to find out that information. We need to
15 find out what the different problems are with the
16 different TV stations and how they're fixing them and
17 the thing is, I think that there's a lot of problems
18 out there and solutions but we're not communicating.

19 There's no system to coordinate this information.

20 It's a shame because it's taking years,
21 it's taking half a year. There are still problems
22 today with some of these stations. The local CBS

1 station, for example, in November, I came back from
2 California and I found that the captions would
3 disappear and then slid across the screen very
4 quickly. I let them know in November and December
5 and January and February that this was still going on
6 and the engineer tried to find out how to resolve it.

7 He called ERITA, the CBS affiliate, which had had a
8 very similar problem.

9 He called Harris, the MPEG encoder, because
10 he thought that they were involved, but he kind of
11 threw up his hands. He had nowhere to turn to to
12 help him fix the problems.

13 FOX, the local FOX station in D.C., also
14 has had problems for more than two years with delayed
15 captioning for the syndicated programs. They finally
16 fixed the problem with the prime time prerecorded
17 programs, but they've never fixed the syndicated
18 program and they don't know why. They've talked to
19 Evertz, who makes their captioning coder. They've
20 talked with the FCC.

21 So these people need your help. I think,
22 as I've suggested to the networks, help them out, you

1 know. I think the networks, for example, could try
2 to find engineers who are interested in captioning
3 and are good at it and allow them to serve as the
4 resources about captioning for the failures in their
5 own networks.

6 I think we need to be very proactive and
7 creative in thinking about how to use resources to
8 find out what we already know, what people already
9 know. For example, I'd like to suggest that the
10 networks create -- work on an online survey, create a
11 great tool, maybe working together, but if you create
12 an online survey for your station engineers, you can
13 ask them to list all of the equipment that they work
14 with, fill out whether it's a lone problem with
15 captioning, whether it's specific equipment, whether
16 they have unresolved captioning problems now, ask
17 them to look for complaints they get about captioning
18 that were submitted on their websites but which may
19 have never been forwarded to the Engineering Room.

20 All right. So that's an example of how the
21 networks could be proactive. I think the main idea
22 is -- let me also suggest ask the engineers to break

1 the captioning, find out what they can do to create
2 captioning problems so that you know what the
3 parameters are and then you can communicate that.
4 You can find out what kind of captioning problems are
5 created, so that we -- and then we need to share that
6 information among all the different stakeholders.

7 So it looks like I have run out of time,
8 but I want to again thank you very much for being
9 here and let me know if there's anything I can do to
10 help.

11 MR. KNAPP: Dana, thank you for sharing
12 that. A lot of information there and I suspect
13 there's more and there's going to be opportunity, I
14 think, to bring more of this out.

15 We'd like to open the floor for discussion
16 of your experiences, the things that you've seen in
17 the way of problems or things that you discovered
18 were problems and were fixed and so it's just an
19 opportunity now. Just turn your card up and we'll
20 recognize you for any other folks who have things
21 they want to say at this time.

22 MR. FREDA: This is Gerald Freda from

1 CaptionMax.

2 Dana, I have a question for you in
3 relationship to the testing that you did. Can you
4 tell us how you were receiving the signal? Was it
5 through cable? Was it through a dish? Was it
6 through Fios, fiber? What mechanism were you
7 actually using to actually receive your signal?

8 MS. MULVANY: This was all with a rabbit
9 ear antenna.

10 MR. FREDA: Okay. So it was over the air?

11 MS. MULVANY: Yes.

12 MS. SEIDEL: If everyone will just speak
13 into the mike or pull the mike just a little bit
14 closer, that would help.

15 Cheryl?

16 MS. HEPPNER: I won't go into a lot of
17 detail but I want to reinforce what Dana has said
18 already.

19 The problems that we're experiencing are
20 very widespread. It's been about two weeks since the
21 public announcement about this meeting, and I've had
22 many, many e-mails of people saying please make sure

1 they know about this, please talk to them about that,
2 and it's a problem that's concerned me probably for
3 the last two and a half, you know -- Dana has talked
4 to people. There are people who have really tried to
5 advocate themselves and find out what the problems
6 are. Who do we go to?

7 But I think she would probably agree with
8 me that the landscape keeps changing. Every time we
9 think we have found an answer to a problem, a new one
10 takes its place or some new wrinkle comes in. A
11 program that was fine up until last week might
12 suddenly have all kinds of funny things happen to the
13 captioning and I've also found through my experiences
14 in working with people in rural areas, because they
15 don't have as much access to e-mail, I hear from them
16 last, but their problems are really significant and I
17 do fear that they aren't doing well.

18 When the full conversion happens, we are
19 going to see people who will not have captioning or
20 who will have captioning all over the place. I've
21 seen all of the things that Chris and Dana talked
22 about and I also know there are growing problems and

1 we need some better understanding of where they come
2 from.

3 I have people who ask me, also. Let's see
4 if this working group can do something about things
5 that HDMI which does not support captioning.

6 MS. STRAUSS: I just want to make sure --
7 this is Karen Strauss. I just want to make sure that
8 we also don't forget that it's not only the problems
9 with the captions, once you find the captions, but
10 it's also finding the captions.

11 Trying to set up TVs in a way with the
12 cable boxes that allow the captions to be displayed
13 has gotten to be so complicated that I'm sure that
14 anybody in this room, even if you're engineers or
15 not, if you've tried to do this, you see how
16 incredibly difficult it is.

17 I know that when I first got my TV and had
18 the cable company come and install it, I asked the
19 cable company installer to help me out and he had
20 absolutely no idea. I called up the cable company
21 and I said, okay, what do I do? I knew that the
22 captions had to come through the cable box. They had

1 no idea.

2 It was -- I mean, I was just like getting
3 absolutely nowhere. It was only Larry Goldberg that
4 helped me through actually, I believe, a discovery
5 from Ron Bibler, another hard-of-hearing individual
6 who's not here who figured out that I had to turn off
7 -- turn on the TV, turn on the cable box, turn off
8 the cable box, go in through a secret menu in the
9 cable box, pull up a very rudimentary display of
10 caption options and these were the options that were
11 going to let me program really what is so magnificent
12 about 708 captions which was the color of the font,
13 the size, et. cetera.

14 So I did that. I set it up but even that
15 was not easy because you have to set it up without
16 being able to see what they're going to look like.
17 So unlike your computer where you can see what the
18 font is going to look like, you have no idea. You
19 have to basically pick what the color is, what the
20 size is, what the font is going to be, what the
21 outline of the font is going to be, and then go back
22 to your TV and see if it works.

1 Fortunately, I picked a beautiful --
2 somehow I managed to do it and some of you already
3 know this story, and I was so happy with it. It was
4 a pretty blue kind of slanty with a little kind of
5 white edging, really nice, and my teenage son said,
6 "Mom, you're not keeping those. They're too
7 feminine-looking."

8 So I turned -- I canceled them and then I
9 couldn't get them back again. I could never get back
10 into that menu. I had to have Larry come to my house
11 several months later and get me back into that menu.

12 I mean, this is ridiculous.

13 The beauty, as I said, you know, is you all
14 know of HD and digital programming is that it's
15 crisper, it's clearer and for caption users, it's
16 that you get to choose all these different wonderful
17 features. It's impossible to access them unless you
18 have a very technical mind.

19 Once I got the captions, then I had to
20 figure out how to turn them on and off at will. That
21 wasn't easy either. I called back the captioning
22 company because my family, we're all hearing and so

1 not everybody wanted the captions on all the time,
2 and I certainly wasn't going to turn them off again.

3 I mean, I didn't know whether I'd ever get them
4 back.

5 Again, it took many, many phone calls to
6 figure out that I had to press Menu Menu twice. Now
7 that is not instinctive, press Menu Menu twice, and
8 then scroll through several internal menus.

9 Some of you may know that there's a bill
10 that was introduced last year to try to get a
11 captioning button on remotes and that's really our
12 goal because it's just silly. I mean, captioning for
13 people who cannot hear is the same exact thing as
14 volume control for people who can hear. Without
15 captions you can't understand what's going on.

16 So as we move ahead, I want to make sure
17 that this committee not only addresses the problems
18 once you get the captions which are numerous, as you
19 all know, garbled and missing and falling off the
20 screen and too large and too small, jumping around,
21 overlapping, just -- I mean, it's literally a list
22 this long, very long, but also in actually figuring

1 out easier ways to set up the captions, to have
2 easier user interfaces for consumers who need to
3 access the captions.

4 Thanks.

5 MR. GOLDBERG: This is Larry Goldberg. I
6 really enjoy that new career I have which is going
7 around setting up people's caption boxes. That house
8 call, by the way, was from Boston to D.C., so the
9 charge was significant. I think it was breakfast.

10 But I think that Dana pointed to a really
11 interesting part of all this, which is that the DTV
12 transition which so many people have put their time
13 into focusing on the converter box is the converter
14 boxes are actually working quite well and they're
15 simpler to use with a lot less options but obviously
16 that's a small minority of the people who are going
17 to be working through this transition.

18 My organization, like the other caption
19 providers here, happens to be on the point of a lot
20 of these complaints. Our name is on the caption
21 itself when they're not garbled and so is our web
22 address. So we do get to hear an awful lot of what

1 we've heard today and when we try to chase down these
2 problems, it's the same issue. There's really no
3 need to talk about pointing fingers because as many
4 fingers as you have are the number of people who
5 effect the proper delivery of captions and
6 descriptions both.

7 I'm thrilled that this group was pulled
8 together because there are solutions out there that
9 have already been discovered and they need to be
10 disseminated widely. There are issues around
11 encoding. There's certainly issues around consumer
12 operation of the devices.

13 So certainly there's user error, too, but
14 finding the root of the problem and tracing it down
15 has been really quite, quite exhausting and that's
16 why it's really clear that virtually everyone in this
17 room has a hand in trying to come up with the
18 solutions and, of course, better yet, disseminating
19 them because there's just not enough knowledge around
20 about how to properly deliver both streams of
21 captions 608 and 708 and get them to work in all the
22 devices.

1 I said, I think there really are some fixes
2 that have already been implemented in a few different
3 TV stations, but there's so many more stations and
4 systems that need to hear about how these fixes can
5 work.

6 MR. JONES: Graham Jones, NAB. Are we on?

7 I'm pleased that we have this opportunity to hear
8 firsthand some of the issues that consumers are
9 having with using digital television closed captions.

10 It's my conviction that the underlying
11 standards developed over the years, many years ago in
12 fact from the start by CEA on CEA-708 and its
13 subsequent revisions, the work done by ATSC in the A-
14 53 Standard, and the one that tied the two together
15 which was the SMPTE Standards for carriage of closed
16 captioning 334M and the Engineering Guideline, it's
17 my conviction that the standards are basically sound.

18 There have been a number of revisions which
19 have corrected and refined some of the interfaces
20 used, but as I say, I believe that there is no
21 fundamental problems with the standards, and it's
22 interesting to me that the standards organizations,

1 certainly speaking for ATSC and SMPTE and NAB,
2 receive almost no complaints about fundamental
3 technical problems. If we did, then we would be
4 addressing them right away.

5 So the issues that are being addressed
6 largely are because we're being proactive in the
7 technical committees to go out and hunt down issues.

8 One of the documents that I distributed to
9 the group last week was the Revised Engineering
10 Guideline for Implementation of Closed Captioning
11 from CEA, from SMPTE, that's EG-43, and this meeting
12 has come at a very opportune time in that document is
13 currently out for revision right now. It has been
14 revised and will be going through a ballot period
15 over the coming five weeks.

16 So now is the time to get any changes into
17 that guideline, if they are needed, and I will be
18 soliciting input from all members of this committee,
19 some have already seen it, to provide input.

20 Because this is one of the keys to getting
21 implementation done correctly through the broadcast
22 chain to the station, and it is one of the documents

1 that I think perhaps has not been as widely read as
2 it might have been by users, by user stations and
3 other companies, and it would be very helpful if it
4 was.

5 So I'm hoping that this will be one of the
6 topics of discussion as we go forward in our
7 discussion today and later on.

8 Having said that, I see no problem with the
9 standards. I'm not quite so happy with some of the
10 implementation issues and just hearing one of the
11 problems we heard today where prime time captioning
12 works fine from one broadcast station and not from
13 another carrying the same captioning -- the same
14 program material and most likely carrying the same
15 caption data, where the decoder decodes from one
16 station but not from the other, tells me that that
17 problem is probably with the caption service
18 descriptor and that is one of the areas that is
19 perhaps less well defined in terms of how the whole
20 system works in that the captioned data is under the
21 control of the captioners.

22 What goes out in the ATSC bit stream, both

1 in the program map table and in the EIT or PCIP, is
2 very much under the control of the station and may
3 well be related to what goes into the automation
4 system or traffic system and may or may not be
5 automated.

6 And so that's an area where that may well
7 differ from one station to another, even though the
8 caption data is the same. So that's an area and we
9 devote a new section of the guideline to how
10 implementers should be doing caption service
11 descriptor which in some cases, I believe and this is
12 where I would now hope that consumer manufacturers
13 can say what they do and do not rely on, we know the
14 caption service descriptor is essential for
15 announcing and signaling of captions.

16 So if you're going to have announcements in
17 future program guide which needs PCIP data, then if
18 the caption service descriptor is absent from those
19 future EITs, then you get no announcement, so you
20 don't know whether the program coming up in the
21 future will have captions or not.

22 In some cases, the signaling of the

1 captions which are on now which are also signaled in
2 the caption service descriptor will be needed to
3 announce on screen whether the captioning, what the
4 language is, whether it's Easy Reader or whatever the
5 other types of captions are, and if that is absent,
6 then that information may or may not be present.

7 What I don't know is how many caption
8 decoders rely on the caption service descriptor to
9 decode the captions at all and it could be that in
10 some cases they do and some cases they don't need
11 that and that's an area that I think perhaps deserves
12 further investigation.

13 So that's all I have to say at the moment,
14 but certainly I'd like to stress that NAB is fully
15 behind this effort and, of course, many of the
16 stations are not only affiliates of major networks
17 but their members, my organization and we'll be doing
18 everything we can to make sure that these issues are
19 aired and resolved.

20 MR. SETOS: So thanks for those comments,
21 Mr. Jones.

22 I think it's important to keep things --

1 have a little perspective on what we've been through.

2 To be sure, analog captions on NTSC broadcasts were
3 far more straightforward and obviously have been
4 around for quite awhile. I have in fact someone on
5 my team who was at PBS at the time who wrote some of
6 the standards for the original analog captioning
7 system.

8 And obviously FOX is totally committed to
9 100 percent success rate on captioning both in its
10 national broadcast network as well as its stations
11 and its cable properties.

12 However, the transition to digital has been
13 very challenging, but I do want to go back to
14 something that Ms. Heppner did mention, which is the
15 timing of captions with respect to the actual spoken
16 word.

17 So we've had many complaints about that
18 over time and we did look into it and address it and
19 what we found was that we had our technicians always
20 monitoring the captioning streams but they weren't
21 paying attention to what the captions were in time
22 with the sound which is an interesting oversight that

1 one can appreciate until one becomes sensitive to it.

2 So we've made that correction in terms of
3 our ability to do a quality assurance and we did find
4 that -- two cases. First of all, our -- putting
5 aside the random event of a bad stream of captions
6 from a prerecorded content, but most of our live
7 captions are done -- obviously they're done by
8 contractors. They're live. They have to be done in
9 real time and we found that there was a significant
10 number of improvements we could make just from a
11 technological standpoint to get the captionings more
12 in time.

13 We now have a standard within FOX for
14 prerecorded captions of well under a second. So the
15 spoken word and the read word need to be within a
16 second of each other. Live captions, on the other
17 hand, for programs like American Idol or our sports
18 broadcasts, are a different story. Things happen
19 quickly. It's sometimes hard to hear the announcers,
20 what's going on, and we have a much looser tolerance
21 on live captions under those conditions of about a
22 few seconds.

1 So I wanted to provide some reality check
2 that, yes, we have had tremendous challenges with
3 very late captions about two or three years ago and
4 we jumped on the problem and it had nothing to do
5 with technology as much as simply understanding and
6 being more sensitive to how to do quality assurance
7 and also working with the limitations of captioning
8 live events.

9 But turning to the digital transition, we
10 have found it extraordinarily challenging. As Mr.
11 Jones pointed out, I think he held up the standard.
12 It is a very, very long document, 30+ pages, and it
13 is very challenging and very complex.

14 We have put a significant amount of
15 resource into assuring ourselves that we are
16 compliant with the standards for both 608 and 708 and
17 have found -- the good news is we have found that all
18 of our partners in this, our broadcast affiliates,
19 our MPVDs which we have reached agreements with, the
20 manufacturers of the products that all these people
21 are using, are very open to resolving issues and
22 working on them.

1 Of course, the MVPD community has been
2 through its transition already. We just don't -- you
3 know, the consumer hasn't but the MVPD community has,
4 and most of our challenges over the last year have
5 been that sort of shadow transition where the MPVDs
6 were now not -- no longer using analog NTSC broadcast
7 for their analog carriage to consumers but they were
8 using our DTV, our affiliates' DTV transmissions and
9 that posed a significant challenge.

10 However, I will say that to a fault,
11 everyone worked very hard on resolving that. Of
12 course, the fallout, and again to provide a realty
13 check, so we're not simply saying everyone is
14 imagining this, there have been tremendous upheavals
15 in the reliability of captioning, let's say, going
16 back from the old days of pure analog, let's say five
17 to 10 years ago, to this background transition that's
18 occurred.

19 It's been very challenging because the
20 technology is complex. Any new standard
21 implementation is going to be challenging. However,
22 you know, I think everyone around the table, I know

1 many of these folks and we speak and our staffs speak
2 regularly about this, and we are, I think, becoming
3 successful at a point where captioning can be as
4 reliable and as routine in digital reception as it
5 has been in analog reception.

6 We're not there yet, but I see a steep
7 curve of getting there.

8 MR. KNAPP: Larry?

9 MR. GOLDBERG: This is Larry Goldberg. I
10 have a question for the group. I know this is one
11 that Dana always raises and that is the simultaneous
12 transmission of both 608 and 708 caption data.

13 I think it's fairly well known in the
14 industry that both have to be sent out with all TV
15 signals. Is there anyone who is responsible for
16 distribution of TV that doesn't realize that both 608
17 and 708 has to be in the signal because I know Dana
18 runs into that all the time and we will be continuing
19 to do that for decades.

20 I don't know how long, but we'll be
21 assuring Legacy protection, and I think many know
22 that all 708 today is derived from 608 data, so we'll

1 be creating 608 data for a long, long time to come,
2 but I believe that's some problems that have been
3 discovered because 608 has been missing.

4 MR. KNAPP: Graham?

5 MR. JONES: Please stop me if we don't want
6 to get into the detail, if you're just doing opening
7 statements now, but just to comment further on
8 Larry's point there.

9 Certainly I've been going out of my way
10 since a paper I did in 2004 at the NAB Convention and
11 which I distributed for the group this morning which
12 made that very point because it was confusing five
13 years ago and I've been saying the same thing ever
14 since and it's on the record that stations,
15 broadcasters, cable companies, anyone carrying 708
16 captions must carry the 608 bytes along with those,
17 as well.

18 And as you say, we still get inquiries.
19 The good news is that I think the warning code only
20 put in 608 and also didn't do both is rapidly
21 becoming obsolete. So hopefully that will go away.

22 On the other point that Andy Setos raised

1 about the issues of deriving 608 captions from a DTV
2 bit stream, which MPVDs have to do, and the confusion
3 that there was there, the good news there is that the
4 ATSC also addressed that.

5 So the document I distributed this morning,
6 A-79, which is the Recommended Practice for
7 Conversion of ATSC Signals for Distribution to NTSC
8 Viewers, specifically does address that issue about
9 how you should derive the 608 Line 21 Signal that has
10 been put into the analog distribution on cable
11 companies from the data that is carried in the ATSC
12 bit stream.

13 So hopefully again cable operators will
14 read the documents that are out there and will do the
15 implementation accordingly.

16 MR. KNAPP: One of the challenges in an
17 exercise like this is where do you start and we've
18 heard some of the issues here and I'd like to just
19 toss out for a minute the notion of creating some
20 sort of a database, so that we had a common platform
21 to start to look at these problems and maybe
22 categorize them somehow so that they could be

1 diagnosed.

2 I perhaps have an overly-simplistic view of
3 this and that is, you've got some issues on the
4 source side. In other words, how things are
5 generated or captioned. Then I think there's
6 probably some things on the transmission side. It
7 goes in here and at the other end it doesn't come out
8 the same way, and then there may be some issues, too,
9 on the -- what I'll call the reception side. What
10 happens when it gets to the consumer?

11 And I would agree that technically this is
12 a lot more complicated than it was a few years ago
13 because we've got different delivery methods. We've
14 got -- sometimes it's not just one receiver but we
15 may have different boxes that are ahead of it and so
16 forth.

17 So what do you think about the idea of
18 creating some sort of a database? Does that make
19 sense? I'm interested in other ways to start to try
20 to get our arms around the problem.

21 Karen?

22 MS. STRAUSS: Yeah. This is Karen Strauss.

1 I think that any tool that we have that kind of
2 documents what the problems are and what the
3 potential solutions are is going to be useful.

4 As Dana mentioned, you know, having -- I
5 don't know whether it was Dana or Chris or both, but
6 having some kind of a clearinghouse not only for
7 consumers but really for the industry to go to to
8 have a reference for the resolution of these problems
9 is going to be helpful.

10 MR. KNAPP: Larry?

11 MR. GOLDBERG: In a -- it would be great to
12 collect that information and some way to find
13 reliable solutions. There's a really interesting
14 example that Steven Scheel from PBS and I were
15 watching the other day of a bunch of engineers
16 arguing around 608 versus 708 and only going with 708
17 and down-converting 708 to 608 and it was a great
18 discussion to see.

19 Clearly, that kind of information resource
20 needs to have some sort of expert review so that
21 these conversations don't go on forever and the
22 actual reliable eventual solution is the one that

1 people will implement.

2 Steve, I don't know if that conversation's
3 ended already, but -- no, it hasn't? I haven't
4 checked my e-mail this morning. So there's still a
5 need for someone to be able to say, okay, enough
6 discussion, this is how you fix it.

7 MR. KNAPP: Cheryl?

8 MS. HEPPNER: I think that most of the
9 consumers that I speak with are very interested in
10 having a tool they can use because many times when
11 they encounter a problem, they don't know. Is it my
12 television or is the cable box, is it the TV station,
13 is it the cable station?

14 We do not, many of us anyway, know that the
15 captioning will have a complaint process, but put
16 yourselves in our position. If you were a consumer
17 who had problems with your captioning or your
18 service, you would want to know right now how can I
19 fix it and not have to wait to write up a complaint,
20 to send it off to the right place. You'd want to be
21 able to take action now.

22 So any kind of tool that makes it easy for

1 us to know, if there's something we can do to get the
2 captions working the way they should be would be
3 very, very helpful or at least a tool so that if we
4 experience them, maybe there's a website where we
5 could sort of work our way through and go, well, that
6 was probably it, so we know the next time.

7 MR. JONES: Clearly, an FAQ or with a set
8 of answers to common problems would be extremely
9 useful for all consumers and I think that perhaps
10 should be one of the outcomes of this activity.

11 But I think in answer to your question
12 earlier, I think an analysis of the problems that
13 have been raised or at least bring them all together
14 in one place so we can see what they are is essential
15 before we start to solve problems. You've got to
16 know what the issues are and I for one have seen
17 almost nothing written down to enable one to look in
18 a consistent way, you know. Are the problems
19 particular to a station, to a particular program, to
20 a particular network? What is the commonality?
21 You've really got to have that formally written down
22 with as much data as possible before you can start to

1 analyze, well, where are the problems? Are they in
2 the authoring? Are they in the distribution? Are
3 they in receivers?

4 So even to look at the same programs on
5 different receivers and see, well, are they being
6 handled in the same way, that then very rapidly leads
7 to decisions as to whether the issue is with the
8 receivers or with the bit stream, but until you've
9 got the information, you're working in the dark. So
10 I would strongly support getting that database
11 together.

12 MR. KNAPP: Anybody else? It seems like
13 there's -- well, does anybody think that it's a bad
14 idea to create a database? There's a couple ways you
15 can go at this, I think. I mean, you can be very
16 rigorous and have lots of cases or you can try to
17 develop a list of the problems.

18 What I've found in looking at some of these
19 cases is often there's not enough information there
20 to figure out what was going on because you don't
21 know for sure what went in at the start and/or if it
22 went in correct and it got garbled along the way or

1 it was a problem in the set-up at the other end.

2 A little more about database. I saw a card
3 over here. It disappeared. Brian?

4 MS. SEIDEL: Raise your hand. And if
5 you'll be sure to identify yourself, too, when you
6 start speaking?

7 MR. MARKWALTER: Brian Markwalter with CEA.

8 So I agree with Graham that this is important.

9 I would say we may be a little bit
10 frustrated at how successful we are for exactly the
11 reason you talked about, Julius. When we've looked
12 at this, not this specific problem but similar kinds
13 of things where we're trying to sort out
14 compatibility issues and we've asked manufacturers to
15 turn in like customer service call information, it's
16 been frustratingly difficult to get enough
17 information to actually figure out what really
18 happened. I'd say it's the exception, not rule.

19 So it's going to be pretty hard for us to
20 find vetted problems that are exemplary of what we're
21 facing here, but I think it's certainly worth doing
22 if we can get that kind of detail.

1 So what I don't think will be helpful will
2 be long lists of problems turned in without enough
3 data to figure it out. We've seen lots of that. So
4 we do need to find some sources where people have
5 somehow captured the level of information that Graham
6 was talking about and even in this discussion here, I
7 started to ask Larry, he talked about carrying 608
8 and 708 captions.

9 Well, we have to say a lot of stuff. You
10 know, are we talking about analog or digital? So 608
11 exists in both analog and digital form. Is 608
12 embedded in 708 and so we've got to know all these
13 things to be able to decipher our problems and figure
14 out where we get the most improvement for the least
15 investment.

16 MR. KNAPP: Graham, go ahead.

17 MR. JONES: We had a summit on captions 18
18 months ago and I believe at that time, Larry, you
19 talked about beginning to collect data from then and
20 I wonder what became of that and whether any of that
21 could be shared so we have at least something to
22 start with.

1 MR. GOLDBERG: At that time we had talked
2 about setting up somewhat a geographically-based
3 collector of consumer problems, not engineering
4 problems, not industry problems.

5 Since that time VITAC and Heather's
6 organization actually set up something like that in
7 terms of just reaching out for the inquiry. We have
8 created a specification for such an existing website.
9 We just don't have the funding for it.

10 We have a name for it, too. We're calling
11 it the Media Access Problem Locator or MAPL and it's
12 ready to go with entering of consumer information,
13 drilling deeply down into signal reception,
14 equipment, stations, time, et. cetera, et. cetera,
15 and now it just needs to be able to be launched with
16 and widely announced so that we can collect.

17 It won't be specifically again engineering
18 data. It will be exactly the issues that the
19 consumer's facing, like what Dana mentioned today
20 with exactly what station, what time, what program,
21 prerecorded, et. cetera, et. cetera, and that will
22 help at least focus the question or the solutions.

1 Like you said today, listening to that, you
2 knew it was a caption descriptor problem. Well, by
3 gathering that kind of information, we can find the
4 hot spots in the country. For instance, if some PBS
5 program seems to be getting a lot of problems around
6 only cable reception but all broadcast receivers are
7 getting it, we can really focus better on finding the
8 solution or if it's only coming out of Chicago that
9 people are having problems with video description
10 because we're looking at that, as well, then you know
11 you can focus much better.

12 So we had reached out following that DTV
13 Summit in November of '07 and just never found the
14 resources to be able to launch that. Still looking.

15 MS. SEIDEL: Karen?

16 MS. STRAUSS: Thanks. This is Karen
17 Strauss. I think that Larry had the keyword and
18 that's resources.

19 You know, that meeting that was held 18
20 months ago was supposed to be the start of something
21 big and it didn't happen because the resources
22 weren't there and as you know, this committee is an

1 outgrowth of that initial start. It just took a long
2 time to get here.

3 CSD's project is along kind of the tip of
4 the iceberg of what I think you're talking about. I
5 mean, this survey that they've started and they did
6 it with partial -- well, let me back up.

7 What they did is they got a grant from the
8 FCC actually to educate people about the DTV
9 transition and started getting so many questions
10 about captions that they incorporated in their call
11 center a survey that was designed by the National
12 Center for Accessible Media and so that's what
13 they've done. They've started to get some of that
14 feedback, but it's by no means as comprehensive as it
15 needs to be. It needs to be done on a much wider
16 scale, a wider scale and a more myopic scale at the
17 same time.

18 In other words, what we want to do is we
19 want to really nail down, as we've just talked about,
20 the exact problems that people are facing. So it has
21 to be done on a much more comprehensive scale and, as
22 Larry said, the resources need to be there. This

1 needs to be -- you know, whether the resources come
2 from the government or from the industry, there has
3 to be a very coordinated effort to try to gather this
4 very specific information that we're trying to get
5 from consumers to try to nail down the problems.

6 MS. SEIDEL: Might I ask what sort of
7 collections do the industry folks around the table
8 already have in terms of closed captioning issues and
9 the calls that you may receive from consumers on the
10 problem? Is there already information that you
11 collect?

12 I'm not sure that it's at the level of
13 granularity like Karen and Larry were just talking,
14 but I would suspect it provides some information.
15 Any thoughts?

16 MR. FREDA: This is Gerald Freda from
17 CaptionMax.

18 The relationship to how we collect data is
19 we ask people to send us their inquiries if they have
20 problems via our website and in regards to CaptionMax
21 contact us.

22 One of the biggest issues that we also see

1 is the fragmentation in relationship to the reporting
2 of the information. If I can touch upon a few
3 things, the consistency of the reporting of the
4 information is critical for us to try to at least
5 find where the root of the problem is and the
6 commonality of the reporting of that information is
7 critical and where then is it going to reside locally
8 or nationally for other people to be able to find it
9 and so Larry touched upon some of the things.

10 Being able to report the program that
11 you're watching, the time of day, the channel that
12 you're watching it on, is it SD, is it HD, all of
13 these important pieces of information will lead us to
14 where the root of the problem is.

15 For the most part, I can honestly say in my
16 experiences is that it's not really been with the
17 network per se. It's more in a secondary or tertiary
18 problem in regards to the distribution chain of the
19 actual signal itself.

20 So I think that if we can start and having
21 a process in coming up with some questions or
22 information that a consumer can fill out in

1 relationship to where we start and that would lead us
2 down that path, it would be extremely helpful for
3 everybody.

4 MS. STRAUSS: Can I respond just real
5 quickly? I just want to point your attention -- this
6 is Karen Strauss again -- to the DTC Transition
7 Survey because it's a start. It starts to ask
8 exactly those kinds of questions. It's not specific,
9 though. It doesn't go into the specific program, the
10 specific time.

11 The FCC also has a survey that could be
12 used and combined with this.

13 The other thing that it has to ask, as we
14 just learned from Dana, is the exact kind of TV
15 equipment you have and the exact cable box. I mean,
16 it's almost bizarre that it depends on the kind of
17 equipment that you have whether or not you'll get the
18 captions but apparently it does.

19 MR. FREDA: Again, one of the things that
20 we find out is that we get reports, but it lacks the
21 information of how the signal is actually being
22 received. Is it over the air? Is it through a dish?

1 Is it through a cable company? Because all of this
2 information then can point us to a direction in
3 relationship to at least starting to try to find out
4 where the problem may lie.

5 If we don't have that information, now
6 you're trying to deal with a consumer and then it
7 goes back and forth and I understand the frustration
8 from a consumer's point of view because they get the
9 ping-pong effect that, okay, now they call the local
10 company or they may call the cable company or they
11 may call the Fios, whoever delivers their system, and
12 they're going to say, oh, it's not my issue and then
13 they're pointing to another direction.

14 So if you have that information going into
15 the process, then you can already determine where at
16 least you can start and try to rectify the issue.

17 MR. CARD: John Card with EchoStar. So I
18 can broadly say that when Dish Network customers have
19 problems with programs they find on the service, we
20 do try and collect information about time, date,
21 showing, particular version of the channel. We have
22 many HD and SD channels together.

1 It's complicated a little bit by the
2 distribution of DVR recorders on our system. So that
3 oftentimes our customers are not watching a program
4 live but we do find a lot of repeatability. If
5 there's a problem, it generally persists through the
6 recording, as well.

7 I would be interested, actually, if, Larry,
8 in this meeting or in a future meeting, the
9 specification for what you guys put together for a
10 website could be released and maybe looked at. Maybe
11 there is some commonality a lot of us could start in
12 collecting this kind of data.

13 Maybe there's some things that we don't ask
14 our customers that we ought to or vice versa. We may
15 have hit upon a solution that others have not thought
16 of.

17 MR. GOLDBERG: That's easily sharable and
18 it's common sense, as I think we've all said. What
19 equipment have you received, what's your box, time of
20 day, geography, zip code.

21 What we like about the design is those
22 consumers who are willing to sign in and create an

1 account. Every time they see a problem, all they
2 have to do is get online. I think Rosaline says she
3 sits with her laptop in her lap while she watches TV
4 and will be punching in errors as she goes, but it's
5 fast, and it's all just the basic things you need to
6 know if you can hunt down a problem.

7 I can send it to you, but it will be as
8 common sensely as you can imagine. There's nothing
9 special there. I think the toughest one is getting
10 the consumers to know what kind of set top box they
11 have. No one looks at that and which Motorola, which
12 Cisco, you know, what brand, what year did you get
13 it. Everything else is relatively straightforward.

14 MR. DePRIEST: This is Greg DePriest with
15 NBC Universal.

16 I did do some investigation before, sort of
17 homework before the meeting, and we have anecdotal
18 information about some problems. I can go back and
19 check again to see if it's more specific, but I don't
20 think it's going to be at the level of detail that
21 you'd like.

22 I will say that what I found out is we put

1 a lot of energy into sending out captions correctly.

2 I reviewed a couple of e-mail threads that were
3 quite long in terms of the problems that were being
4 experienced.

5 But it occurs to me that we're a lot
6 smarter, at least I think we are, than we're giving
7 ourselves credit for and I would ask Graham and
8 Brian, I mean aren't we really talking about a set of
9 best practices here in order to put the captions --
10 to insert them correctly, to distribute them
11 correctly and to decode them correctly?

12 I see, Brian, you have tools, right? You
13 have closed captioning streams to -- so manufacturers
14 can use them to test the property coding ability, is
15 that correct? We have some -- we have a number of
16 tools today, don't we?

17 MR. MARKWALTER: My turn. Okay. Sure.
18 There are, and I think maybe the reason people
19 hesitated -- in some sense you're blatantly correct,
20 but there's a lot of different problems in a lot of
21 different places.

22 So, you know, I think there's pretty good

1 feeling that for receivers, maybe as evidenced by the
2 little converter boxes, that for receivers that get
3 properly-coded signals, they do pretty well because
4 they've been doing it a long time. So the decoding,
5 once it's delivered to the receiver that's actually
6 doing the demodulation, there's not a box in front of
7 it.

8 So, I mean, that's the tools that we have
9 to help with, but I kind of feel like the receiver
10 manufacturers have been doing that a long time, but I
11 think you're right fundamentally and I believe that
12 was Graham's point, is that the key documentation's
13 there. A lot of this is execution.

14 While so many things are changing and have
15 been changing in the distribution of signals, while
16 creation and distribution as we've made this
17 transition, as Andy pointed out, using different time
18 scales and, you know, among the different MPVDs.

19 MR. GABRIELLI: Bob Gabrielli, DirecTv. I
20 personally have been doing this issue for the FCC
21 complaints and now in a more informal process for 10
22 years. So I do have a backlog of information, but

1 it's probably not very useful because every time we
2 get one, it's like, well, last month as I was
3 watching American Idol first show, you know, it was
4 garbled. So we go to FOX and we go did you have any
5 complaints? No. Well, we have two. What can we do
6 to fix it?

7 So we say we'll monitor it. You know, it
8 seems to have cleared itself up. So in trying to fix
9 these in as close to real time as possible is a
10 difficult situation because the people that are
11 supposed to be working on it are probably doing
12 something else or unless they're just sitting there
13 ready for it, we get this stuff, you know, days or
14 weeks or sometimes even months later and it's really
15 too late to figure out what happened on a single
16 program.

17 Occasionally, you get the one where it's a
18 consistent problem of, you know, one program every
19 night, you know, for a month has been garbled and
20 those we can kind of figure out, but by far the
21 majority is a single instance where something went
22 wrong for a short period of time and by the time we

1 got to look at it, it's no longer there, so we can't
2 fix it.

3 So in this database, I'd say there needs to
4 be something that's very timely of almost the next
5 day because we all maybe can look one or two of these
6 back but, you know, a month later, nobody's got
7 records of that.

8 MR. KNAPP: Karen and then Graham.

9 MS. STRAUSS: This is Karen Strauss. The
10 FCC has some new rules that have gone into effect
11 that require every station and network to have people
12 available to take consumer concerns and problems on
13 basically live.

14 Recognizing that not all the time are the
15 technicians available, but there's supposed to be
16 somebody that's supposed to receive them. So when
17 that goes -- when you start doing that, you're going
18 to start having people right on the spot getting this
19 information and they should be handing it off to the
20 right people.

21 The other thing is the FCC's rules do
22 require any way monitoring of captioning. So you

1 really shouldn't be only relying on consumers
2 reporting the problem. There is a monitoring
3 requirement built into the rules that has been there
4 since the rules went into effect.

5 I guess in 1998? So you're supposed --
6 somebody in your -- basically, there's supposed to be
7 a monitoring stream from the point where the program
8 leaves your entity and reaches the end user, whatever
9 tracks -- you know, whatever transmission it has to
10 go through. Somebody's supposed to be monitoring it
11 and making sure that the captions are there.

12 The problem, as Rosaline Crawford -- we
13 have two other people here from the consumer
14 community. If I could just introduce for a second
15 Rosaline Crawford from the National Association of
16 the Deaf and Lise Hamlin from Hearing Loss
17 Association of America, and they've both been very
18 active in this area, as well, and are kind of feeding
19 us some information.

20 One of the things that Rosaline was just
21 saying to me is that when you're sitting back and
22 watching TV, about the last thing you want to do is

1 stop watching and go over and file a complaint. So
2 that's the reason you're not getting many complaints,
3 is because what she was saying, if she turns on a
4 television station and there's no captions, she just
5 turns on another station. She just changes the
6 channel.

7 I know that even I who, you know, am
8 involved in this area, you know, when I was having
9 that trouble with the captioning, I just didn't want
10 to take the time to file a complaint. At that point
11 I didn't know who to file it with because there's so
12 many different entities you could file it with.
13 That's also going to change where you can now -- soon
14 you're going to be able to go directly to the FCC.

15 But I wasn't even sure whether I had to
16 first file it with the cable company. I thought, oh,
17 it's not even worth it. Instead, I'll just work on
18 getting this committee started.

19 But people, you know, the average person is
20 just not going to file a complaint. So it's really
21 incumbent upon the stations, the networks, the
22 channels to (a) monitor and (b) have somebody

1 available to receive the concerns as they come in.

2 Understanding that you might not be able to
3 still address each and every one on the spot, but
4 that would be one of the purposes of this database,
5 because if you start seeing patterns, you're going to
6 know it's not really an isolated incident, it's
7 really one of many incidents that are occurring for
8 the same exact reason and there's more an endemic
9 problem that has to be resolved.

10 MS. SEIDEL: Just one second before we go
11 to Graham. I did want to mention, back to the Order
12 that the Commission had adopted in November that
13 Karen referenced that requires contact information
14 for the different stations in terms of closed
15 captioning problems for consumers.

16 The rules aren't yet in effect. They
17 should be in effect in two or three weeks or so, but
18 those rules will be going into effect, and one
19 thought I had is whether or not, just along the veins
20 of a best practice if folks around the table can
21 suggest the types of information that the people
22 receiving those calls should try to get from

1 consumers in order to truly diagnose what the problem
2 is, that would seem to be something then that you
3 would at least have the universe of information you
4 might need to actually figure out whether there is
5 indeed a problem and if it's -- you know, where it is
6 and the different source points.

7 Graham?

8 MR. JONES: Graham Jones, NAB. To answer
9 Greg's question, is it just a question of best
10 practices, I guess it is to a large extent, but I
11 think it's quite clear that there are a whole variety
12 of different categories of problems. Some of them
13 are obviously design problems with equipment.

14 I mean, if a remote control doesn't have a
15 closed caption button on it and you've got to dig
16 down three levels in the menu before you see anything
17 related to closed captioning, then that's a design
18 problem, but that's a consumer -- that's a decision
19 taken by the designer of the equipment. There's
20 probably nothing much in the standards you can do for
21 that and that is, the manufacturers going to have to
22 resolve that, but the more it's documented as to

1 which equipment has that and which doesn't, the
2 better, I think, and so that's one issue.

3 Then there are the problems that come and
4 go. I mean, it's garbled captions just for one part
5 of the program. Well, that may be just it was badly
6 entered or whatever, if it's live captioning. So
7 that's a different issue.

8 And then there are perhaps the more system
9 architecture ones of what I referred to earlier,
10 maybe the caption service descriptor doesn't get put
11 in correctly because there's no mechanism for doing
12 so and those are system architecture ones, and then
13 there are other issues that come and go but which can
14 be resolved by reading and following guidelines and
15 so the more information we can get on the types of
16 problems that are out there I think the more we can
17 relate them to the solutions that are needed.

18 MR. SETOS: Andy Setos from FOX. Well, the
19 thing is is that we've been monitoring, to your
20 questions so that you understand the challenges that
21 we face, we've been monitoring captions, at least at
22 the broadcast network and at the stations in real

1 time since captions. So we can do only so much.

2 We know that we're broadcasting them. We
3 know we're sending them out nationally. Indeed,
4 because we're at the national level, we're in the
5 local city, Los Angeles in our case as opposed to New
6 York where some of my colleagues are, we watch our
7 local affiliate and, indeed, we can even watch our
8 local affiliate on a couple of MPVDs, but we can't
9 watch all the local affiliates. That's impractical.

10 We can't watch all the MPVDs even within a market.
11 That's impractical.

12 The point is, this is about
13 interoperability which is a term of art that complex
14 standards requires because, as I said, in the analog
15 days things were way, way, way simpler and it was
16 very, very easy, even back then, to ensure that if
17 the captions were part of the transmission, even at a
18 national distribution point, it was most likely going
19 to get received no matter what at the end.

20 In fact, that was what the design was, but,
21 you know, digital signaling is a completely different
22 story and that's why you see these draft standards.

1 So real-time monitoring is done. It's not a panacea,
2 only for one step of the process.

3 The fact every product, every MPVD head-in
4 -- every product in the chain, whether it's an MPVD
5 head-in, whether it's a set top box, whether it's a
6 television set, whether it's a converter box, acts
7 differently.

8 To the point about tests or, you know,
9 methods of making -- of testing products, these are
10 very, very complex. Digital standards have
11 interactions. We have documented interactions with
12 parts of the standards unrelated to captioning which
13 affect captioning. Those are implementation
14 problems, meaning the designers failed to recognize
15 that those things could collide.

16 Those are things that don't get fixed in an
17 hour. They don't get fixed in a week. They get
18 fixed with new product designs. So it's very
19 challenging. I think a database is good, not in
20 terms of a real-time context but in terms of, you
21 know, figuring this out because ultimately the real
22 answer or the real solution to all this is to have

1 things so well interoperating that there are no
2 problems, other than for no one was captioning it or
3 the caption person was not doing a good job at the
4 beginning, you know, bad-in/bad-out.

5 But the point is, is that, these challenges
6 are so complex that it's not practical to try to deal
7 with them in other than for a remediation method and
8 I think a database of all complaints and going back -
9 - in terms of -- I think, right, we handle -- we get
10 complaints on our e-mail, on our website, all the
11 time every day. Quite frankly, every day there's --
12 a day doesn't go back that we don't get some sort of
13 complaint about some digital problem, whether it was
14 the EFD wasn't right, the captioning wasn't right,
15 something wasn't right with our transmission.
16 They're technical complaints.

17 We try to categorize them ourselves and
18 that's why we outreach, but, you know, that's just
19 FOX and its relationships with its partners, so to
20 speak. If there was a national database of well-
21 documented issues, then that would be the fastest way
22 to get these things corrected because ultimately it

1 is about -- these -- you think of these -- you think
2 it's surprising that, well, why did American Idol on
3 this night not work on this station in this market?

4 Well, that happens in digital because there
5 are so many subtle interactions that the data rate
6 that we had on that night may have been higher and an
7 MPVD head-in product that didn't react well and that
8 caused something to trip up and the descriptor was
9 mangled. I mean, these are the sort of problems that
10 we face every day. These are not trivial problems.

11 The good news is most people are willing to
12 work on them. The bad news is that they can't be
13 corrected in an hour or a day or a week. They do
14 take a long amount of time to get baked into the
15 system so that things are extraordinarily reliable
16 which we all admit are not adequately reliable today.

17 All right?

18 So I think the most constructive thing that
19 could happen is a structured national database where
20 we can place information in it and so all -- with
21 specificity. A database has to be, of course, secure
22 that only authorized entries are made, documented

1 entries are made, so there's no noise and it's not
2 used as a platform for complaint as much as a
3 platform for correction, and then we can -- then
4 everyone can focus in on if it was -- you know, for
5 instance, a product could be perfectly fine 99
6 percent of the time and then have one kind of
7 broadcast or one kind of situation not function well.

8 Well, that's a design issue and that takes
9 a long time to bake out. So a database would be
10 extraordinarily helpful, I think, for everyone
11 because we get talked into -- every -- I don't mean
12 to, you know, preach about this, but every complaint
13 that we get, we try to burn it down to the end and we
14 do this by e-mail and it is frustrating for the
15 consumer because we're asking them all sorts of
16 arcane questions.

17 What TV set brand? What cable company are
18 you hooked up to? Were you watching over the air or
19 not? Even these are simple questions that I'm
20 pointing out. Even those frustrate people. We get
21 angry responses to some of those inquiries and we
22 understand that. We get how hard this is, but unless

1 we get those answers, we have no idea and usually
2 we're getting -- these are unusual ad hoc complaints.
3 They're not routine.

4 Like when -- let's say an episode of a
5 popular show on FOX is not captioned because
6 something horrible happened at the national center.
7 We know about it very quickly. We know exactly what
8 the problem was, but 99.99 percent of these
9 complaints are investigations into what particular
10 conditions occurred in this market with these
11 subscribers to that MPVD or that set of TV sets with
12 this sort of thing and it's very challenging for us
13 because all we can do is call our cable or our
14 satellite company, manufacturers of a TV set which we
15 do, but it's very challenging for them, as well,
16 because it's so broad that they don't know where to
17 start.

18 So a database would be extraordinarily
19 helpful, I think, for everybody.

20 MR. KNAPP: Cheryl?

21 MS. HEPPNER: For the first time I'm not
22 having to identify myself.

1 I really appreciate the comment from all of
2 you. You're trying very hard to find solutions to
3 these problems. I'd just like to ask that you have a
4 better understanding. At this point we've had
5 captioning for many, many, many years and there's
6 always been problems with it. We've never been able
7 to get them fixed and I ask that you please do not
8 underestimate the consumer that's being adversely
9 affected because we can't get things resolved.

10 The complaint process that is in place for
11 us right now is simply not working. Even if you had
12 an ideal process, if we could identify where we need
13 to go to. Right now, the best we can do is say I'm
14 watching my local TV station and I'm using a cable
15 provider, I have to call my cable provider or I can
16 choose to buy a part, but we've never ever known
17 who's the contact person, who's the person we can
18 call and in the evening hours, if you've got to call
19 somebody, you're most likely to get an automated
20 system saying there's nobody available, call back.

21 So many consumers have this. I'm the
22 Director for the Center for Deaf and Hard-of-Hearing.

1 That is the Number 1 problem people complain to me
2 about. It's the Number 1 problem they reference.
3 Don't underestimate how important the information we
4 get is, whether it's news or entertainment. People
5 are willing to have it.

6 MR. KNAPP: I'm going to do something
7 really dangerous and call on two of my colleagues
8 from the Engineering Office. Alan.

9 MR. STILLWELL: This is Alan Stillwell. He
10 knows us well.

11 One of the concerns and issues that we hear
12 a lot about is the difference in 608 and 708
13 captions; that is, 608 translates pretty well into
14 708 but it's difficult to go the other way backwards
15 and, you know, we don't know whether stations are
16 encoding native -- in other words, you only want to
17 make the captions one way. You don't want to make
18 captions twice and so, I mean, to what extent are
19 stations preparing captions in 708 and then there are
20 difficulties transcoding them into 608 or perhaps
21 there are problems in going from the 608 model or
22 format to 708.

1 I mean, to what extent are there just
2 problems in getting the captions in the two formats?

3 Can anybody speak to that?

4 MR. McLAUGHLIN: This is Phil McLaughlin
5 from EEG. A couple of comments about that.

6 First of all, going from 708 to 608 is
7 actually extremely easy. It's very rare to see a
8 piece of equipment break that, primarily because the
9 608 compatibility data is carried along with the 708
10 payload.

11 A piece of down converting equipment merely
12 needs to pull out those data bytes, reinsert them
13 into Line 21. That tends to work very well. There
14 actually is no translation that occurs there. It's
15 really just a transcode from one format to the other.

16 608 to 708 can be very problematic because
17 there is no one direct translation from a 608 data
18 source into 708. 608 is a line- and character-based
19 protocol. 708 is a window-based protocol where,
20 instead of describing individual rows, windows are
21 created and text is poured into them.

22 This really requires equipment to have a

1 priori knowledge of which way the caption is going to
2 form as it comes in without creating a delay. There
3 are many different techniques that have been used by
4 broadcast technology to do this. They're all a
5 little different. Some of them work a little bit
6 better than others.

7 So you will tend to see a lot of variation
8 in that conversion from that translation from 608 to
9 708 and usually you should not see any variation at
10 all from 708 to 608, unless there is something that
11 is just plain broken.

12 One other comment I could make about
13 looking at consumer issues in the field, that at the
14 end of the day it's usually not possible to determine
15 what's happening at a local station level without
16 having access to basically an MPEG transport, where
17 you can actually look at this data that's been pulled
18 off, whether it's from satellite, whether it's from
19 Terrestrial, and be able to have an expert look at
20 that data and say, hey, this is what we see, this is,
21 you know, what we started with, this is what we ended
22 up with.

1 Generally, all of this data, to answer
2 another of your questions, this data is all being
3 authored in 608. The caption authoring systems, the
4 real-time captioning systems are all sending 608
5 codes. The industry standard for this thing is
6 basically what's called Smart Encoder Protocol or
7 Control-A Protocol. This was developed in the early
8 1980s b y EEG and is universally used by everyone in
9 this industry.

10 That data describes data in a 608 format.
11 In other words, this stream. So at that point, any
12 equipment, when it's generating 708, is actually
13 translating that up to 708 live. Sometimes that
14 happens in multiple places through the broadcast
15 chain. Sometimes that equipment goes back down to 608
16 and back up to 708 several times.

17 Generally, if it is done correctly, this
18 works very, very well. You know, given access to
19 actual data streams at a local level, you can look at
20 this and say, hey, here's the 608 data that's
21 present. Here's the 708 data that resulted from this.

22 Is it right or is it wrong? And this is something

1 that can be done in a very concrete manner, but it
2 does require the capturer of this data -- very often
3 the local broadcasters do not have equipment or
4 resources in place to provide these types of
5 capturers which makes the job a lot more difficult
6 and this is something that we do, you know, day to
7 day.

8 We're constantly, you know, working with
9 broadcasters that way and it can be difficult.

10 Thanks.

11 MR. KNAPP: Thank you. Steve?

12 MR. MARTIN: Steve Martin from the FCC Lab.

13 I agree that a database with detailed consumer
14 information would be of use. I think then there has
15 to be two steps beyond that.

16 One, as you mentioned, very often someone
17 has to look at transport stream data and analyze it
18 and figure out what's going on and then once the
19 engineering problem is defined and solved, there
20 needs to be a way of disseminating that to
21 broadcasters, network providers and so forth to solve
22 problems.

1 If I can give one example of a problem that
2 I believe was raised by Dana regarding a local
3 Washington area broadcaster that was produced garbled
4 captions with a specific converter box.

5 When we -- I was responsible for the DTV
6 Converter Box Test Program and when I did some
7 checking on this, we found that, indeed, when we
8 looked at that broadcast from that station, the
9 captions were -- very often whole lines of captions
10 were missing. At other times some captions would
11 appear for a very small fraction of a second, not
12 long enough to read and disappear again.

13 However, in analyzing the transport stream,
14 I found that the text of these missing captions was
15 all there, but the converter box was terminating
16 captions extremely early. We did find one converter
17 box that actually seemed to handle the captions in a
18 readable fashion. I later concluded that was because
19 that converter box didn't follow the 708 standard.

20 This particular problem ended up being
21 diagnosed as the caption data packets have a two-bit
22 sequence number in them and there were out-of-

1 sequence packets coming from in the transport stream
2 and the standard says that when you get an out-of-
3 sequence packet number, you should clear the caption
4 buffer, basically erase the caption that's on the
5 screen and sometimes that happened, you know, a tenth
6 of a second after the caption was written.

7 So we -- oh, and by the way, if you switch
8 to using Line 21 captions and have the TV decoded, it
9 worked fine. So we concluded it was probably the
10 caption encoder at the broadcaster. They told me it
11 was an Evertz brand caption encoder. I called up
12 Evertz and we got into a little discussion of, oh, I
13 need to find out the exact equipment hook-up and so
14 forth and I never did follow up on that further.

15 But I have also noticed the same type of
16 symptoms on a cable broadcast that I've watched of an
17 old TV show and it's regularly consistently this way.
18 Captions don't appear or they appear too briefly to
19 read, but if you switch to using the Line 21 captions
20 instead of having the cable box decode the captions,
21 have the TV decode the captions, it works fine, and
22 it could very well be the same problem in this case.

1 But I think we do need Evertz to go in and
2 actually look in detail, engineering detail at
3 individual problems to solve these and then have a
4 way of disseminating the solutions to the broadcast
5 industry.

6 MR. KIROVAC: Can I speak on that? This is
7 Mike Kirovac from Evertz.

8 MS. SEIDEL: Can you speak louder on the
9 phone?

10 MR. KIROVAC: Sorry. I'll try. I recall
11 our Customer Service Department contacting me. I'm
12 in charge of the Engineering Design of our closed
13 captioning coders. Our Customer Service Department
14 actually contacted me to inquire about the
15 possibility of there being out-of-service -- I mean
16 out-of-order packet IDs and all of our captioning
17 coders don't like -- they work fine.

18 So there had to be something else in the
19 chain in the broadcast path that was regenerating the
20 captions that was doing that because I'm confident
21 that it wasn't any of our gear.

22 MR. MARTIN: And we never did get around to

1 following up on that further to work with the station
2 and the equipment companies to try to figure out what
3 was going on and I don't even know whether the
4 problem ultimately was solved or not.

5 MR. KIROVAC: Okay. But I'm confident that
6 it was not our caption encoders that were the source
7 of that problem.

8 MR. STILLWELL: Yeah. This is Alan
9 Stilwell. I think that these kind of links in these
10 chains are the kind of things that we need to nail
11 down so that we can ensure that the problems don't
12 happen.

13 I mean, you know, one piece of gear is
14 working fine but we still have a problem on the end,
15 that's the systematic difficulty I think that's
16 making this so hard to manage.

17 MR. KNAPP: We had a couple cards up here
18 first. So Graham, go ahead.

19 MR. JONES: Thank you. I'd just like to
20 confirm what Phil McLaughlin said in answer to Alan's
21 question about 608/708.

22 As far as I know, all 708 captions that are

1 received on air at the moment are originated as 608
2 authored because there is no 708 native authoring at
3 the moment.

4 So every single 708 caption you see on the
5 screen has been translated from 608. Correct me if
6 I'm wrong.

7 MR. GOLDBERG: For now.

8 MR. JONES: For now.

9 MR. GOLDBERG: Very soon, you'll see 8.

10 MR. JONES: Right. That was the point I
11 was going to make. So I don't believe there is any
12 fundamental problem with the translation process.

13 Now, it may be implemented differently
14 because, as Phil said, that is actually one of the
15 aspects of the chain that's not actually defined by
16 standard and certainly the same goes on trying to get
17 back to 608 from 708 which nobody is trying to do, I
18 believe.

19 So there may be different implementations,
20 but I think they all work.

21 Now, it raises an interesting question.
22 When you actually revisit the report and Order on

1 captioning from 2000 where the FCC allows 708
2 captions to be derived by translation from 608 for
3 the DTV transition. So that raises the question what
4 happens after June 12th?

5 But perhaps we shouldn't go into that
6 because that's a different question itself and I
7 think we assume that we can continue with 608-
8 translated captions for the foreseeable future, but
9 maybe we have to revisit it at some point.

10 The other thing I just wanted to go back to
11 while it's still in my mind is this question of
12 monitoring which, as I think Dana said or was it you,
13 Karen said, is required certainly by broadcast
14 stations. I'm not quite sure what the MPVD
15 requirements are, but on broadcast we are required to
16 monitor the captions.

17 But it raises this whole question of
18 monitoring of programs in a multichannel environment.
19 The reality -- in the old days, you had a master
20 control and an operator looked at one program out and
21 you saw what was going out and he was monitoring
22 quality, video and audio and captions.

1 Today, increasingly with multiple channels,
2 monitoring is done automatically. There's a lot of
3 automated monitoring and monitoring by exception. So
4 there is equipment that can monitor the presence of
5 caption streams, whether they're there or not, and
6 certainly they can be displayed for an operator if
7 there's an operator watching with eyeballs, but with
8 multiple program channels and this gets even more so
9 in the case of cable companies and satellite
10 companies where you have hundreds of simultaneous
11 channels, probably unrealistic to expect to have one
12 set of eyeballs looking at every set of captions all
13 the time.

14 So that is a question of how realistic it
15 is to have real-time monitoring of every caption in
16 accordance if that's what the rules require, but I
17 think automated monitoring of captions, the equipment
18 is getting better all the time and certainly some
19 manufacturers will be recommending that you have
20 particular items of equipment that will tell you
21 pretty rapidly if things are not as they should be.

22 But whether they spell the words right and

1 so on, that's probably never going to be checked out
2 and that's going to require operators to look at
3 them.

4 MR. KNAPP: Karen and Larry and then we're
5 going to just have a quick wrap-up remarks and take a
6 break. Otherwise, the penalty will be that we don't
7 get lunch.

8 MS. STRAUSS: Okay. I'll make mine real
9 quick. This is Karen Strauss.

10 Yeah. I'm learning a lot just being here
11 and learning about the problems of monitoring
12 multiple channels and if that's the case, then if
13 automatic means have to be used they have to be used
14 and they would have to be set up in a fashion that
15 they would be able to catch the problems coming
16 through.

17 I wanted to just take a step back. My
18 colleague from CSD Chris Soukup reminded me that if
19 there is a database that's created for the receipt of
20 concerns and inquiries, we have to make sure that
21 that database is accessible to people who use
22 American Sign Language, that there's barriers for

1 people who do not know English and I'm not only
2 talking about people that don't know English as a
3 language, as a written language, I'm talking about
4 people who really do not use English at all and
5 rather use American Sign Language which is completely
6 different.

7 So we have to -- if we do have such a
8 mechanism where we're gathering very specific
9 information in a comprehensive fashion, we have to
10 make sure there's a way for people to provide that
11 information in sign language, as well.

12 MR. GOLDBERG: Larry Goldberg. Just a
13 quick response to a few of those things.

14 Robert from DirecTV mentioned the need for
15 real-time data. We imagine that this database would
16 be built that had the ability to subscribe and even
17 limited to the subscribing to the complaints and
18 reports that are aggregated about your system. So if
19 you don't want to see problems with local air, then
20 you would only get the data immediately about
21 satellite reception and/or you could see everything.

22 So it would be a subscription system.

1 When Phil said going from 708 to 608 is
2 easy, of course, that's only if the 608 compatibility
3 bytes are there and we keep saying over and over
4 again, well, that's how they're always made, except
5 that the authoring tools for making captions are just
6 now coming out to natively author in 708 and when you
7 don't have 608 going from 708 to 608, it will be
8 extremely difficult. So we have to be very careful
9 about that. We need to be able to author once for
10 both streams.

11 Also, finally, tracking transport streams.

12 If you really want to find out what's going on with
13 a problem, you want to be sampling all the time so
14 that if geographically you find a hot spot in an area
15 that you seem to be finding a lot of caption
16 problems, somebody there would need to be recording
17 that and being able to get that to you or any expert
18 that says here's where the problem is, you can look
19 at it.

20 So the database, having the ability to
21 track transport streams would be fantastic, as well.

22 Maybe Andy needs a shot here.

1 MR. KNAPP: Yeah. Cathy reminded me had
2 his card up, too.

3 MR. SCOTT: Andy Scott with NCTA. Just a
4 comment on two things. One, on the monitoring
5 multiple channels, I agree with my colleague Graham
6 Jones. I think it's extremely difficult to monitor
7 in real time hundreds and hundreds of digital
8 channels, both HD and SD.

9 I think I speak for most cable systems. We
10 have equipment that can capture streams when we know
11 problems that are potentially occurring and we can do
12 that, look at those streams, but to put in equipment
13 to capture in real time captioning data is going to
14 be a very difficult undertaking, I think.

15 The other comment I want to make on the
16 database is that we are definitely supportive of a
17 database that would help, I think, triage some of
18 these issues so we can raise to the surface some of
19 these things that we think are systemic. I think
20 that's going to be a problem. If we can get rid of
21 these systemic problems, what we feel are systemic
22 problems, I think that's going to go a long way

1 towards solving some of these issues.

2 However, I think the database has to be a
3 managed database. I don't think we can have a
4 database where hundreds, tens of hundreds and
5 thousands of people are pouring in information, some
6 not as good as others and we just have anecdotal
7 information at best. That's not going to serve
8 anybody well at all.

9 I think the purpose of the database is to
10 again help and I think it's only going to be as good,
11 by the way, as the people that are looking at it. So
12 I think we have to have a database where we've got a
13 group of subject matter experts looking at this
14 database and are able to triage this information
15 effectively so that we can troubleshoot the problems.

16 I think we're here as an example, the
17 service providers are here. This is an example that
18 we want to get to the root causes of some of these
19 problems, but if we're just looking at anecdotal
20 evidence in a database and trying to troubleshoot --
21 trying to use that database to troubleshoot problems
22 in real time, I don't think that's going to be

1 possible.

2 MR. KNAPP: On the phone, this is an
3 opportunity before we break, any last comments?

4 [No response.]

5 MR. KNAPP: All right. Thank you. It's
6 been a great discussion. We've got obviously a lot
7 of work to do. I heard a lot of ideas in there and a
8 lot of things that we can follow up on perhaps later
9 in the day on the discussion.

10 We'll break for half an hour, till 20 of
11 12, and then we'll come back, I guess, for another
12 hour. Okay? 15? 15-minute break?

13 MS. SEIDEL: Yeah. 15.

14 MR. KNAPP: 15? Okay. Excuse me.

15 [Recess.]

16 Roundtable Discussion: Identifying Issues wit
17 Digital Closed Captioning

18 MS. SEIDEL: Okay. If people will go ahead
19 and take their seats?

20 Julius and I were just talking and I think
21 what we'll do is we'll go ahead now and shift into
22 the discussion on video description but after the

1 lunch break, we'll come back and we'll have attempted
2 at least to synthesize what we think came out of the
3 discussion we just had on closed captioning. So
4 we'll start with that after the lunch break.

5 But at this point, I don't know if maybe,
6 Eric, you or Larry, would like to give some thoughts
7 about the video description and some of the things
8 that consumers are experiencing there, some of your
9 thoughts? Either one like to start?

10 MR. GOLDBERG: I guess in some ways the
11 problems of video description are a lot easier in
12 that they're either there or they're not. We don't
13 hear problems about them being garbled or too hot or
14 missing every other line. There's no translation
15 going from 608 to 708.

16 But the real problem is in, I think,
17 broadcasters understanding some background
18 information on how to assure that when they come out
19 of a few networks and luckily they're all here, PBS,
20 CBS and FOX are the main distributors of description,
21 that the right tags and data is embedded in that file
22 so that when it is distributed down to the local

1 station and then from the station to the cable nets,
2 we're finding that people don't quite understand what
3 they need to do with that ancillary audio in the
4 world of digital television.

5 And, of course, when they're broadcasting
6 both analog and digital, to put it on the HD feed, as
7 well, I believe CBS has just recently put that in
8 there, is that right, Mark? You're now feeding
9 description in both HD and -- well, we'll let the
10 guy, Greg, to that.

11 Let me just finish this. And then, of
12 course, the user interface issue, that is really such
13 a bear. We know that there really isn't equipment
14 for digital television cable boxes that will help a
15 blind person who has no sighted assistance actually
16 turn on that description and once it's turned on,
17 it'd be great to have it stay on.

18 A lot of the users, if we talk about the
19 universe of cable, to get and find the options in a
20 set top box, if it exists and if it's labeled, French
21 or Spanish or Audio 2, never are quite sure.

22 Amazingly, we're thrilled that the

1 converter boxes, a significant number of them support
2 video description, even though it wasn't required and
3 that was great. It might even recommend that many
4 blind people revert to converter boxes, even if
5 they're on cable. Sorry, cable guys. But at least
6 over the air, it seems to work frequently. It does
7 work well. Again, the boxes themselves are not
8 accessible.

9 But I think -- and we don't have,
10 unfortunately, audio encoding companies here the way
11 we have caption encoding where they're the folks
12 whose equipment is enabling us to tag that audio file
13 properly.

14 It can work. It does work. It hasn't been
15 found and the user interfaces are just not really
16 working for blind folks, if I can speak for them, but
17 let me let Eric speak for himself.

18 MR. BRIDGES: Well, good morning. I am one
19 of those blind guys that Larry's talking about, and
20 as a member of the Consumer Advisory Committee, I
21 very much appreciate the fact that the video
22 description is getting some attention at the FCC and

1 specifically here today as it isn't required by law.

2 However, -- well, yet, yes, Larry. The
3 challenges that the blind and visually-impaired
4 community face, and I'll be very brief, are very
5 simple, as Larry said. Either the folks are finding
6 described programming or they are finding programming
7 that's supposed to be described and it for whatever
8 reason isn't and there are, I'm sure, lots of
9 different reasons behind that and as Larry talked
10 about, the accessibility of finding the description
11 function is a huge challenge as well as we've even
12 had some anecdotal reports from folks that use
13 DirecTv that the keys on their remote have changed,
14 that apparently some software or something had
15 changed and so the function keys that they were
16 ordinarily using in order to try and access video
17 description were no longer doing the same functions
18 that they had been before.

19 So there are challenges of that nature that
20 we hear about. My organization represents about
21 25,000 blind or visually-impaired Americans. My
22 organization has been a strong advocate for video

1 description and, you know, with that, I don't have a
2 ton of technical expertise, but I am blind and I do
3 like to listen to described programming when
4 available and when possible, and certainly
5 appreciative of FOX, CBS and PBS for voluntarily
6 describing shows, such as CSI, The Simpsons, and a
7 whole slew of programs on PBS.

8 Thanks.

9 MR. COPPA: Greg Coppa, CBS. I believe CBS
10 is actually doing four prime time shows with video
11 descriptor at this point.

12 MR. BRIDGES: On HDTV?

13 MR. COPPA: Yes, on the HDTV.

14 MR. GOLDBERG: Larry again. Just like in
15 captioning and even more so, the knowledge and
16 information about whether it's there and how to get
17 it is not really well disseminated among local
18 broadcasters, cable operators, and satellite folks.

19 So the runaround that the deaf community
20 gets about how is it, where is it, you'll hear
21 reports, well, I called the local station and they
22 say they don't do description, even though they're

1 getting the programs with it, or satellite might say,
2 well, the local broadcaster isn't sending it to us
3 and we're only repeating what the local broadcaster
4 sends us.

5 So I think the knowledge about video
6 description is even more limited and then the
7 technology that enables it to work, as I said, it
8 does work, it's been proven to work, but there's
9 fewer technical glitches, the user interface and the
10 proper tag of those shows.

11 We know also from Fios and AT&T Universe,
12 they have their issues, and I don't know if they'd be
13 willing to talk a bit about what they know about the
14 ability of the set top boxes to detect where the
15 ancillary audio is and what needs to be done.

16 I believe there's even a problem between
17 programs received maybe by the Telco cable companies
18 or the others where, if it's from a cable provider,
19 it's going to be a different solution than if it's
20 from a broadcaster and the way the meta data is
21 marking up that ancillary audio, but it does come
22 down to then what does the cable box do with that

1 information to reveal a choice to the user and is
2 that marked properly?

3 At best, it says English 1, English 2. At
4 worst, it'll say English, Spanish, French, select
5 Spanish, you'll get your description. That tends to
6 be how it works today.

7 MR. MARTIN: We have run across a station
8 or two that provides an alternate video -- excuse me
9 -- an alternate audio channel in which video
10 description was on the left track and the Spanish was
11 on the right track or vice versa.

12 Is that the way it's typically done?

13 MR. GOLDBERG: Only when it's incorrectly
14 done. But typically it might be true. No, it should
15 not be that way. When the tape master, tape or file
16 is delivered to the station, it should have -- I mean
17 because you can handle a lot more than just two audio
18 tracks.

19 I have heard of stations actually
20 improperly broadcasting it where a program -- and
21 this is a rare collection of programs that have both
22 Spanish and description, in addition to English. No,

1 those should be routed to separate channels entirely.

2 So that error can happen because they're all -- they
3 all should be on the master tape, all the language
4 options, and then they're routed separately.

5 MR. KNAPP: Graham?

6 MR. JONES: Graham Jones, NAB. Video
7 description is one of the services in the digital
8 television standard that wasn't particularly well
9 specified.

10 The AC-3 System for multichannel sound,
11 which is Dolby Digital, which is what is implemented
12 for audio in the U.S., has a lot of very
13 sophisticated capabilities, most of which in fact are
14 not used in over-the-air broadcasting for the reason
15 that most receivers only have one decoder.

16 Standard was originally envisaged that you
17 could have separate tracks for additional languages
18 without having to do a complete mix. You could have
19 separate tracks for video description without having
20 to do a complete mix and you would reassemble a
21 complete program in a receiver.

22 That has never been implemented, as I say,

1 because the consumer industry chose to go with only
2 one decoder which obviously is a cheaper
3 implementation and which meets the requirements for
4 most users, but it does impose these restrictions.

5 So the result of that is that video
6 description has to be assembled as a complete main, a
7 complete service with everything in one set of
8 channels which means it normally will be two channels
9 for a stereo service but it could be for surround, I
10 guess.

11 But there was no full definition as to how
12 those services will be identified. So it will be
13 available on the master tape, as Larry said, at the
14 network head end and typically will be distributed as
15 a separate program service, just like it would be if
16 it was a Spanish or French alternative or another
17 language, and then the affiliate station in the
18 broadcast chain has to handle those two services
19 separately and where again there's really no single
20 standard defined as to how it will be identified in
21 the emission bit stream.

22 So the second audio program will be there.

1 It will have a separate bit program identified for
2 it and then it's up to the receiver and the remote
3 control for it to decide how it's going to handle
4 that and make it available to the user.

5 I think I would be the first to acknowledge
6 that it's an area that could do with some more at
7 least recommended practice, if not standardization,
8 to make it more user-friendly.

9 MR. GOLDBERG: I think -- and I'm not --
10 Steve, you have enough experience on how PBS is
11 handling it, but I know Mike Foti, Chief Engineer at
12 WGBH, has his own best practice that works. We know
13 it works in our market and whether it's the
14 standardization or not, whether it's the right way to
15 go, it works, and that kind of information should be
16 well disseminated and what equipment we're using to
17 make it work which we need to take a good hard look
18 at.

19 Steve, you have anything about how PBS is
20 handling this?

21 MR. SCHEEL: This is Steve Scheel with PBS.
22 The only complaints we've had is from our stations

1 who want to do DVI. The problem is they've had to
2 turn it off because of the consumer complaints
3 because they don't know how they got DVI. They don't
4 want it. The ones that do want DVI can't find it.

5 As far as I know, there's no TV set I've
6 ever come across that has DVI as a selection for
7 audio. So it's really a gamble if you put DVI out
8 there that anybody's going to receive it. That's the
9 problem we're having.

10 We've got DVI on almost 100 percent of our
11 children's programs and most of our prime time
12 programs that are not live or interviews. So we're
13 fully committed to DVI and we'd like it to work much
14 better and we'd like to viewers to be able to hear
15 it.

16 MR. GOLDBERG: By the way, DVI is PBS's use
17 of the term for video description which is what the
18 FCC calls it or DVS which is what we call it or
19 narrative description or audio description. They all
20 work.

21 But you'll never see that label on a TV
22 set, that's for sure.

1 MS. SEIDEL: Jimmy, raise your hand.

2 MR. HO: Hi. This is Jimmy Ho from
3 Verizon, and I have to agree with Larry. I think
4 there's -- and Graham. I think there's going to be
5 some more standardization that's going to be
6 necessary.

7 What we've found on the video description
8 is that some channels, and this is the entire
9 universe of channels, not just broadcasters but some
10 of the satellite-provided channels, some of the
11 channels are currently labeling DVS as Spanish. The
12 way we have our set tops organized is that the user
13 can actually select a language, whether it be
14 English, Spanish, French, whatever, and if someone
15 selects Spanish, if the video description program
16 comes in and it's marked as Spanish, even though it's
17 not Spanish, our set tops will pass that audio.

18 However, if it's properly labeled as video
19 description and the user set it to Spanish,
20 unfortunately he doesn't receive it because the set
21 top says I'm supposed to look for Spanish audio.

22 I agree, we're going to have to come up

1 with some way of standardizing how those programs are
2 labeled.

3 MR. KNAPP: Is there any work going on
4 right now that might address this in the standards
5 arena?

6 MR. CARD: Funny you should ask that. John
7 Card with EchoStar.

8 I actually chair a working group within the
9 CEA and at 1 o'clock this afternoon is supposed to be
10 a working group call for DTV Audio Normalization. We
11 are in particular looking at receiver-recommended
12 practice for understanding the fields in the AC-3
13 descriptor which is exactly what Graham was talking
14 about.

15 We have been operating for about six months
16 and expect that we're a month and a half to two
17 months away from describing, at least on a receiver
18 best practices standpoint, how to interpret the meta
19 data in the stream.

20 I don't think we will get so far as to
21 suggest how user interfaces should be designed.
22 That's not typically what CEA bulletins do, but

1 hopefully there will be some strong indication for
2 the rest of the industry how receivers, at least in a
3 broadcast sense, will be able to understand these
4 fields.

5 Let me finish. We also -- the NAB has
6 joined in that group. We've had some representation
7 from the NCTA. It's been a cross-industry working
8 group within the CEA, as many of the CEA efforts are.

9 So I think as a kernel of work, we're in
10 pretty good shape.

11 MR. KNAPP: Comments from others? Does
12 this look like a venue for solving at least part of
13 the problem and, if so, I guess the next questions
14 are how much of it is addressing and what do we do
15 with what's left?

16 Anybody want to address that?

17 MR. GABRIELLI: So I forget how many years
18 ago there was an interim ruling that we had to do
19 video descriptive and I was the guy at DirecTv
20 working on that.

21 So let me explain, I guess, at DirecTv when
22 we set up a secondary audio channel which we can

1 carry many programs, I am actually e-mailing to see
2 if I can change the label from German to video
3 description, but when we allocate it, we have to keep
4 it on. We turn on a secondary audio channel and in
5 the box, we can actually say, you know, if you see
6 this label, always go to it first.

7 So let's just say I can create one that's
8 called video descriptive. So if there's one on the
9 channel which we would leave open, it's going to jump
10 to that first. If there isn't, like you go turn to a
11 channel that doesn't have a video descriptive audio
12 track, it will go back to the primary which is
13 English.

14 The problem we had with both the
15 broadcasters and a lot of the satellite-delivered
16 product was there would be a show that'd be video
17 descriptive and then the next show would have
18 nothing. It'd be blank air. I don't know. Eric
19 would tune to a channel and we would carry a bit rate
20 that says it's supposed to have video descriptive and
21 there's nothing coming. He wouldn't know if the TV
22 went off or something broke or that kind of stuff.

1 So as a general information in this, we're
2 willing to carry these kind of channels. I'd just
3 request from any programmer, both the networks and
4 otherwise, that there's always something there. I
5 think Turner, he had something where, when they
6 didn't have a video descriptive program, they would
7 actually have a piece of information that says this
8 channel is meant for carrying video descriptive,
9 please look at the program guide for the next time
10 one will show up.

11 Others, what they'll do is they'll just
12 replay that English back into the secondary audio
13 channel, but what we found when we started carrying
14 these, which is why we don't carry a lot of secondary
15 audios, is when it's on and off again because ours
16 does stay on once it's selected, that if there's
17 nothing there, you know, the visually-impaired person
18 can't figure out why. You know, there's programming
19 on the screen but they can't see, but it's just, you
20 know, dead air, so to speak.

21 So that's usually our request for carrying
22 anybody's secondary audio, whether it's Spanish or

1 anything else, is there always has to be something
2 there so that, you know, once it's tuned to it
3 because our box will go to find it, that that person
4 knows it's there or not there..

5 MR. GOLDBERG: Did you say originally that
6 when there was no secondary audio, it reverts back to
7 the name?

8 MR. GABRIELLI: If you -- channel by
9 channel. So the FOX channel has a primary English
10 audio channel and a secondary channel in Spanish and
11 then if you see a Spanish audio channel tuned to it
12 as the first choice, then you turn to USA Network,
13 not to pick on them and there would be no secondary
14 audio channel, it knows to go find something. It'll
15 go back to the primary. So it'll never leave you
16 with nothing, but if you select the secondary audio
17 being a Spanish or if I can change the label to video
18 descriptive, it'll always go to that first and all we
19 require is that there's something there. There's
20 some audio, whether you replicate English when
21 there's nothing else, or you do a loop that just says
22 this channel's, you know, intended for video

1 descriptive and this program doesn't have it. So
2 that when the box automatically tunes to it, there's
3 something there that tells the visually-impaired
4 person, you know, you're on the right channel,
5 there's just -- this program doesn't have it.

6 MR. GOLDBERG: I'm sure that would work if
7 we had a barker in there when there was no
8 descriptive.

9 MR. GABRIELLI: Yeah. A barker. A
10 barker's more explanatory because at least you really
11 know you're on the right channel. Typically what
12 they do is they just map up -- we say map, you know,
13 point to the English primary language and then you
14 don't really know if it's got -- you're on the
15 secondary or the primary, but at least you know
16 you're on the right channel because you can hear the
17 program.

18 MR. GOLDBERG: Yeah.

19 MR. JONES: Graham Jones, NAG. With my
20 ATSC Planning Committee hat on now, because I'm
21 responsible for bringing new work items to the
22 Technology and Standards Group, as I indicated

1 earlier, the way the audio standard for ATSC was
2 originally designed did not take account of a
3 complete separate channel for video description and
4 so we now have what is really a bit cobbled together.

5 I mean, it's a hangover from the analog
6 days where you had a second audio program which could
7 be used for a different language or it could be used
8 for video description, one or the other, but not both
9 typically.

10 And we sort of got that situation in
11 digital now, as well, but I think if you were
12 designing this from scratch and I'm just talking
13 hypothetically, I'm not saying this is the way you
14 want to do it, you would separate out video
15 description as a separate service from language. You
16 wouldn't try and mix the two up.

17 And there's nothing theoretically to stop
18 you doing that. You can carry as many audio channels
19 as you like in the video bit stream -- sorry -- in
20 the emission bit stream. So you could carry English,
21 Spanish and video description.

22 Now, whether the infrastructure exists once

1 you get down to the cable operators and the satellite
2 system, that's a different matter. So it has big
3 infrastructure implications, but there is nothing
4 theoretically to stop you doing both and so when you
5 ask do we need to address this in standards, I think
6 I would want to reserve judgment and say, well, maybe
7 to do this properly we'd want to sort of step back a
8 little bit and say, well, what's the best way to do
9 it and what's the way to introduce it with the least
10 amount of disruption into the existing infrastructure
11 that we have.

12 But, certainly, I think there is some
13 confusion because of this -- the way it evolved. I
14 think we can get to solutions, but whether you would
15 be able to do Spanish or second language and video
16 description is one of the issues, I think.

17 MR. GOLDBERG: Well, of course, that's the
18 wonders of digital television. You have so many
19 different choices. So we were trapped for so many
20 years on one or another, English with description or
21 Spanish, and we certainly hope and expect that we'll
22 have that and other languages, as well.

1 I'm very happy to hear that this CEA
2 Working Group has started on the audio minute data.
3 This will be very helpful and so we'd love to get
4 involved in that, too.

5 In terms of this dream of having a
6 description-only audio track that got mixed in the
7 receiver, we knew that would take an additional not
8 only encoder in the receiver but also some probable
9 ability to do some ducting so that we could do the
10 mix on the fly in the receiver and knowing that not
11 every receiver would have that would mean we'd have
12 to do a mix anyway for those receivers that didn't
13 have automatic mixing.

14 So as much as we would love to save maybe
15 half the cost of doing description by not doing a
16 mix, I think we'll be stuck with that for awhile.
17 It's unfortunate. Maybe it'll have to be via
18 alternate delivery, like IPTV or the new TV sets that
19 have Internet capacity, so we can do a very
20 innovative way of delivering description.

21 I think for now, we'll be mixing for quite
22 awhile.

1 MR. KNAPP: I guess I'm just trying to
2 figure out where we go from here on this. Is it
3 feasible for the other interested parties to
4 participate in the working group on the standards?

5 MR. MARKWALTER: This is Brian. Yes, our
6 standards are open to any participant. Everybody but
7 press normally. So we're an entirely open standards
8 process.

9 In fact, Larry's probably gotten
10 notification among many e-mails you get from CEA, but
11 somewhere in there you probably got some notice about
12 this group being formed because this actually has
13 been going six months or longer. Yeah.

14 So, anyway, whoever's interested is welcome
15 to participate.

16 MR. KNAPP: Andy?

17 MR. SCOTT: Andy Scott with NCTA. I think
18 John mentioned it but in case he didn't, I'll just
19 repeat it. NCTA is participating in this group and
20 plans to continue to do so.

21 MR. GOLDBERG: And I would hope that the
22 other providers and distributors of description would

1 get involved in that, too. CBS, FOX, PBS, for now.
2 There could be a lot more later, but they have a hand
3 in assuring that what they're paying for gets to the
4 end user and just so you know, for FOX 13 seasons of
5 The Simpsons have been described and you'll pry that
6 out of blind people's cold dead hands to not have
7 that described forever and ever. It's a great
8 collection and it's a much better show to watch with
9 descriptions. Try it some time.

10 MR. KNAPP: Let me propose that we take as
11 an action item, if we can get -- first of all, it
12 would be helpful if we had some sort of written
13 description of what the CEA group is working on and
14 maybe get an update for a future meeting of how
15 that's progressing and I think for NAB, as well,
16 which it sounds like you're participating but maybe a
17 little more feedback on how we solve this problem on
18 the standard side, not that it necessarily would be a
19 change to the standard but if there are other ways to
20 address this, I think, as a second action item, just
21 to hear what those are.

22 It sounds like it's not quite ripe now but

1 maybe in a couple of months.

2 Any other questions or --

3 [No response.]

4 MR. KNAPP: Well, now that we've got that
5 one solved.

6 MS. SEIDEL: Want to take a break now?

7 MR. KNAPP: Yeah. Why don't we go ahead?
8 We'll take a break for lunch early. Maybe you can
9 chat among yourselves and think a little bit more
10 about the discussion this morning and Cathy and I
11 will huddle, too, about ways forward on the
12 captioning. Okay?

13 MS. SEIDEL: Come back at 1.

14 MR. KNAPP: Yeah. Come back at 1 o'clock.

15 [Whereupon, at 12:05 p.m., the meeting
16 recessed for lunch, to reconvene this same day at 1
17 o'clock p.m.]

18 AFTERNOON SESSION

19 [1:15 p.m.]

20 Open Forum: Questions from Consumers

21 MR. KNAPP: Good afternoon to everybody.

22 Hope you had a good lunch, and we still have some

1 work ahead of us for this afternoon and we'll try to
2 be as expeditious as we can and make sure we get it
3 all covered.

4 We had provided a period here for public
5 participation for folks who may not be at the table
6 to step up to the microphone and share any thoughts
7 or questions that they may have and with that,
8 anybody who'd like to come on up, please do so.

9 MS. CRAWFORD: Hi. I'm Rosaline Crawford.
10 I'm the Director of the Law and Advocacy Center of
11 the National Association of the Deaf.

12 I have for years received complaints about
13 closed captioning for television and the suggestion
14 made earlier that with all of the wonderful years of
15 experience with analog captions, we've pretty much
16 resolved those issues.

17 I'm here to disagree. We have not resolved
18 even all of the issues with the analog captions and
19 we are already experiencing lots of problems with
20 digital. So I'm really glad that we're here today to
21 discuss all of this, but I will confess in my house,
22 I have six televisions. They're all analog.

1 I have heard so many problems about digital
2 closed captions through my work with consumers that I
3 have not yet broken down and purchased a digital
4 television. I'm scared to death that it won't work
5 and I really don't want the hassle. So what I've got
6 on all of my televisions that are all currently
7 hooked up to cable is 608 captions and what I really
8 would like to do, since I have digital cable
9 programming with a set top box, is I'd really like to
10 be able to have access to captions through my set top
11 box so that I could have 708 caption flexibility.

12 But my set top box doesn't decode my
13 captions. My set top box only passes them through.
14 So I don't -- I pay for digital programming through
15 my cable company and the only way I could get access
16 to captions decoded in my box is if I upgrade to an
17 HD set top box which may or may not work with my
18 analog television and for which I'd actually have to
19 pay more for every month in order just to get the 708
20 captions, and I'd like to know whether or not this is
21 going to be addressed as part of this working group
22 to enable consumers who have set top boxes to access

1 the 708 captions that are available with digital
2 programming.

3 MR. KNAPP: Thank you, Rosaline. Anybody
4 care to comment?

5 MR. SCOTT: Andy Scott with National Cable
6 and Telecommunications Association.

7 I share your frustration with captions in
8 digital. I think that's what we're here to talk
9 about, is to try to address some of these perceived
10 issues and particularly some of the implementation
11 issues.

12 I think in the case of standard definition
13 digital video, that is indeed the case, that
14 oftentimes the captions will go through the set top
15 box and it's expected that the consumer's television
16 receiver will decode the captioning.

17 Set top boxes that are receiving standard
18 definition as well as high definition and the
19 particular boxes that are passing video and sometimes
20 audio out particular interfaces, say HDMI, DVI, or in
21 some cases component analog, then the caption decoder
22 has to be in the set top box in that case to, quote

1 unquote, pass the captioning through.

2 That's the obligation for the MPVDs to pass
3 captioning through. We do that in the case of
4 standard definition boxes literally out the interface
5 to a television display. In the case of a set top
6 box that is passing that program material out the box
7 over an interface that can't support captioning data
8 as well as other meta data, then, of course, the
9 caption decoder is in the box, so it can accomplish
10 the, quote unquote, passing the caption through. The
11 box literally takes on the responsibility of decoding
12 the captions in the box and it's rendered across the
13 interface along with the video.

14 So that's how it's addressed in at least
15 cable and I'm sure I speak for some other MPVDs when
16 I say that that's typically how it's done.

17 MR. CARD: So, actually, no. In the case
18 of Dish Network and the channels on Dish Network,
19 we've been working for quite awhile with the various
20 set top box chip manufacturers and set top box models
21 that EchoStar produces and we've come to a compromise
22 which is probably not a great compromise yet, as most

1 compromises are.

2 We would like to see 708 captions present
3 on all digital channels that we carry through our
4 system and for its history, Dish Network has been a
5 digital system. Not all cable-provided, we'll call
6 them, cable channels -- the USA Networks, TNTs, et.
7 cetera, although I'm not picking on them specifically
8 or individually, not all of them carry digital
9 captions yet.

10 Most of the broadcast channels that we
11 carry do. In fact, I would venture that all of them
12 do. So we have customers who may turn on captions in
13 their set top box and expect to see captions then on
14 the TV, simple choice. That means the set top box
15 needs to be able to decode both 708 and 608 captions
16 internally and put them out to various interfaces.

17 It also means that in order to comply with
18 FCC rules, we need to also pass the 608 captions on
19 the appropriate interfaces, as well. So we have some
20 instances where customers will have caption decoding
21 enabled in the TV and the set top box simultaneously
22 which is not a great thing. We have other cases

1 where, for whatever reason, when a channel is first
2 tuned to, there are no captions present for a
3 particular program. So the set top box will fall back
4 and start to decode 608 captions instead of 708
5 captions but sometimes what's actually happened is a
6 30-second commercial break that happens to be not
7 captioned.

8 So oftentimes a set top box will -- could
9 have decoded the 708 captions in the programming
10 material, didn't find captions for some time window.

11 So rather than showing no captions at all for the
12 program, the set top will begin to decode the 608
13 captions.

14 Frankly, this is the state of our, I'll
15 call it, compromise. We'd like to see 708 everywhere
16 and not have to fall back. We're trying to figure
17 out effective ways to communicate with customers how
18 this works and we're also trying to figure out ways
19 to enable customers to set the features that they
20 want without making things extremely complex, having
21 to go in channel by channel and set up one of the 500
22 channels on the system to work one way or the other.

1 So, unfortunately, everything is in a state
2 of flux right now. We'd like to see a consistent way
3 of captioning all channels but it's going to be
4 awhile, we expect, before that's going to happen
5 across the whole industry.

6 MR. GOLDBERG: This is Larry Goldberg.
7 Since we're in the satellite world for a moment,
8 could you clarify whether you're carrying video
9 description or not in either SD or HD, also for
10 DirecTv, because we keep getting inquiries and we're
11 not sure how to answer?

12 MR. CARD: Sure. So at the moment, much of
13 what Bob said, we would be looking for consistent
14 output. So at the moment, we are not carrying video
15 description.

16 I was involved in the analysis under the
17 interim rules before. We have the exact same
18 concerns that Bob do, the same kind of system
19 architecture that any audio stream would need to be
20 consistent and always present.

21 Let me dive down one layer deeper in the
22 technical side. We carry local channels in over a

1 170 markets and HD locals in over a 130 markets.
2 That system of roughly 4,000 broadcast channels, any
3 time you make a change to any part of that system,
4 you bear the risk of disturbing some other part of
5 the system.

6 So seeing an audio stream come and go and
7 having to reconfigure the broadcast system as an
8 audio stream come and go has the possibility of a
9 side effect of taking down some unrelated channels in
10 an adjacent market or in a similar broadcast space.

11 So we try very hard to control risks in the
12 broadcast. We have a 99.975 percent up time. That's
13 about two hours a year, if you do the math, of no
14 signal. So all of the risks inherent in seeing audio
15 streams come and go that a single channel or even a
16 four-or-five-channel individual broadcaster might be
17 able to bear become magnified extremely -- you know,
18 several orders of magnitude greater in going into a
19 satellite broadcast system.

20 So if we saw consistent audio, that would
21 be a much less risky way for that audio to pass
22 through our system.

1 SPEAKER: Spanish, as well?

2 MR. CARD: So in the case of Spanish, we do
3 have many stations that carry simultaneously Spanish
4 and English or English in a second audio channel. We
5 have, I think, 40 languages and many international
6 channels.

7 So, you know, all of those cases, those
8 channels are always present. There's always a second
9 or sometimes a third audio stream that is always --
10 there's always something in it and those kinds of
11 consistent audio channels are easy to manage and bear
12 little risk in the broadcast side.

13 MR. GOLDBERG: Graham Jones, NAB. Just
14 going back to the set top box decoding 708 captions,
15 I think just for completeness it may be worth saying
16 what, of course, is known to many here, that the
17 coupon-eligible set top boxes for receiving over the
18 air digital television, although not required to do
19 so, many of them will decode 708 captions for both HD
20 and SD.

21 So the cheap box, for which you can still
22 get coupons, with a simple antenna, you can receive

1 all the up air channels and have 708 captioning
2 features, all the SD and HD channels on your analog
3 set tops, all six of them, if you get six boxes.

4 MR. MARTIN: Steve Martin from the FCC. On
5 this question of 708 captions being displayable on an
6 analog TV, we have, with the respect to the set top
7 boxes, seen at least one complaint of somebody saying
8 that certain colors or fonts didn't look good on
9 their TV when they tried using them.

10 We should point out that the 708 standard
11 provides a lot of capability that was oriented toward
12 higher resolution displays and an analog TV can't
13 really render high resolution, particularly in terms
14 of color, and so a lot of the options that are
15 provided in 708 just don't work out well on an analog
16 TV anyway and so perhaps that's why there hasn't been
17 so much effort to translate that and make it
18 available on analog TVs. It works better on digital
19 displays.

20 MR. KNAPP: Want to see if there's others
21 who would like to come to the microphone.

22 MR. GALVEZ: Yes. Hi. My name is Giovanni

1 Galvez. I'm from CPC Closed Captioning. We're a
2 closed captioning software authorizing post-
3 production and we have recently released a 608 and
4 708 authoring tool.

5 But what I wanted to talk to you today is
6 that we get about 20 or so phone calls per month from
7 affiliate television stations, both FOX, NBC, ABC,
8 PBS, and what they say is we need a tool that can
9 verify if my MPEG-2 transport stream or any transport
10 stream has both 608 and 708. We'd like to verify it
11 before we air it because once we air it, it's too
12 late at that point.

13 So we have developed a free tool that
14 anyone can download and we tell them to download this
15 tool to check for 608 and 708 on the transport stream
16 level and they can tell right away if the data isn't
17 there or if it's out of sync or if it's garbled and
18 then our professional tool enables them to fix it if
19 there's something wrong.

20 A perfect example is recently we have a
21 tapeless workflow with digital rapids from one of our
22 clients in California and what they did is they just

1 took, you know, a Quick Time file, they compressed it
2 into a transport stream and this Quick Time file had
3 608 data only.

4 When they tried to do the conversion to
5 708, they got a lot of errors because they just
6 simply didn't do it correctly. As a result, our tool
7 enabled them to see that certain captions were only
8 about two frames long. They exhibited the same
9 problems that some of the people here said. They
10 were garbled and our software was able to spell
11 check, retime and repackage the transport stream, and
12 then air it without any problems at all.

13 This is something that would be very
14 difficult to do if you had to go back into the chain
15 to where the problem occurred. Maybe it happened
16 with the encoder, maybe it happened with the service
17 company, maybe it happened with the dub room. It
18 doesn't matter because here you are, here's a
19 transport stream and it should be fixed at that level
20 before it goes out. It's almost like a fail-safe.

21 So my question to all of you, since this is
22 a question-type of platform, is why not verify the

1 transport stream? This is exactly what you're
2 seeing. What you're seeing when you go home and you
3 watch your HD channel, your post shows, I'm talking
4 about shows like Seinfeld, shows like Lost, you're
5 not seeing the HD tape. You're not seeing the beta
6 master. You're seeing the transport stream.

7 So if the errors are in the transport
8 stream, this could be fixed and eliminate about, I
9 would say, 90 percent of the problems that the
10 viewers are experiencing. Rather than trying to do
11 investigation work and find out where it happened,
12 fix it right there at that level.

13 Thank you.

14 MR. KNAPP: Comments? Anybody want to
15 respond?

16 MR. COPPA: It's Greg Coppa at CBS. I'd
17 just like to say that at CBS we've instituted a
18 project just recently whereby we are going to be
19 recording our transport streams for network
20 distribution of our East and West Coast main and
21 back-up feeds. So that information will be available
22 to us to help us go back and verify caption issues,

1 if we need to, among other things video and audio.
2 That will allow us to do a quality check on that. So
3 that's a good idea.

4 But with regard to actually verifying
5 captions at the station, there are other tools that
6 are available to most any broadcast plants. Wave
7 form monitors decode both 708 and 608 captions.
8 These are tools that are readily available at a
9 typical plant.

10 So those are -- there are tools available
11 to do that that are part of the broadcast plant.
12 Special tools aren't necessarily required to see to
13 it that you are making good 608 and 708 captions.

14 MR. KNAPP: Anyone else? Dana?

15 MS. MULVANY: Hi. This is Dana Mulvany
16 again. One thing I'd like to bring up is some of the
17 new tools evaluate captioning problems with
18 customers' premises equipment and there's a
19 particularly urgent problem that I want to bring up
20 and then some other problems, as well.

21 One problem, the urgent problem is that
22 many TVs are being manufactured without the ability

1 to decode caption coming in through the analog video
2 inputs and this means that the unsuspecting customer
3 loses the ability to decode caption from DVRs and DVD
4 players and VCRs and that is a very serious problem.

5 Many people nowadays are watching
6 television primarily through their DVRs. So we need
7 to have frequent access to that and we need also to
8 remember that it's very important to have closed
9 captioning capabilities for recording purposes.

10 The TVs are also losing access to closed
11 captioning in that the digital video input isn't
12 providing closed captioning data either. So it's a
13 serious problem and we need to ask the CAC and then
14 the FCC to require that all analog video inputs
15 continue to have the ability to decode NTSC 608
16 captions.

17 We do also need to look at why HDMI is not
18 transmitting closed caption data. The HDMI
19 correlation mistakenly thought they didn't need to do
20 that because they thought video source devices would
21 be able to decode captions but that isn't the case.

22 Technologically, it's possible for HDMI

1 cables to transmit closed caption data but we don't
2 have a standard for that and nobody had asked the FCC
3 to require that, as far as I know. So that's an
4 oversight.

5 What we're seeing in the marketplace are
6 recording devices that are using HDMI to send out to
7 the TV and, of course, we won't be able to get any
8 closed caption data from TV programs recorded on
9 those devices. I think our WD digital makes a
10 product like that.

11 Many consumers have no idea they can't get
12 closed caption data using HDMI. So that's one
13 problem about the loss or the potential loss to have
14 closed captioning.

15 Let me say that some TVs, for example, and
16 several other TVs are not -- they are purposefully
17 not decoding captioning and the component inputs and
18 many people don't realize it is possible to decode
19 captions on the component video inputs. We have to
20 turn off the progressive scanning and the up
21 conversion to a higher resolution, but the other
22 problem is that the cable companies of the set top

1 boxes are also not transmitting captioned data on the
2 component video output from the set top box.

3 So that needs to be corrected, as well, so
4 that people can enjoy television at the highest
5 resolution possible and have access to the
6 captioning.

7 So that's just one part of a problem with consumer
8 premises equipment.

9 Another is that, for example, we have
10 differences in how TVs handle decoding of captions
11 from the 708 captions. Unfortunately, there are
12 stations that are not sending out 708 captions and I
13 bought a Samsung HDTV in December and that will not
14 show any captions at all from the station because
15 Samsung thought every digital channel was sending out
16 708 captions, but WHUT is not doing that and the FCC
17 recently said that we can't expect to see 608
18 captions only from exempt digital channels that are
19 not required to up convert captions to 708.

20 So we are going to need TVs to
21 automatically decode 608 captions to 708 captions of
22 every broadcast. So there are a lot of other problems

1 with how different customer premises' equipment deal
2 with captioning. The Samsung DTV tuner does not
3 transmit closed caption data from its recording of a
4 digital signal out to a VCR. It just simply didn't
5 convert the digital 608 channels into NTSC-captioned
6 data.

7 So there's -- I'm concerned that the group
8 seems to be looking only at transmitting captions.
9 We do need a separate group perhaps to be looking at
10 the urgent problems with TV equipment because
11 otherwise we're going to see more new TVs being
12 developed that aren't accessible, that aren't
13 permanently cut off for consumers from access to
14 closed captioned programs.

15 Thank you.

16 MR. KNAPP: Thank you, Dana. Yes, go
17 ahead, Andy.

18 MR. SETOS: Well, I can't speak to the
19 regulations, actually, because I'm a little blurry on
20 this, only because at FOX, we presume that it's the
21 best course of action is 608, 708, always on our
22 digital transmissions which is what we're doing

1 today.

2 So it sounds to me like in a context where
3 there are at least a couple hundred million analog
4 TVs extant in the country and they're not going away
5 tomorrow, that 608 still needs to be supported as
6 well as transmitting 708 for the new products.

7 So it's not a particular burden. It's just
8 another piece of equipment and we just bridge 608
9 over to 708 and we send out both. I can't speak for
10 my other broadcast colleagues, but that's the
11 approach we're taking and it's pretty
12 straightforward. I can't speak to the component
13 devices. I'll defer to the CEA or NTC on that.

14 MS. MULVANY: And if -- excuse me. May I
15 clarify something? This is Dana Mulvany again.

16 One thing I -- back to my understanding,
17 there is a difference between NTSC 608 captions and
18 ATSC 608 captions. So you can have a TV with a
19 decoder chip that would decode 608 captions
20 transmitted digitally but it may not be able to
21 decode the analog captions from analog equipment and
22 the FCC has not required TVs to be able to do that on

1 the analog video input.

2 So we haven't seen that terminology very
3 much, except for Graham's language. I think he makes
4 a distinction between ATSC and NTSC 608 captions.
5 But the FCC doesn't talk about that in its own Order.

6 So I think a lot of people are confused.

7 They think our 608 captions are the same
8 and they're not and so just because 608 captions are
9 required for digital programming kind of has nothing
10 to do with what the TVs are required to do. The TVs
11 don't have to be able to decode the NTSC 608 captions
12 to decode programming over the air. But if the
13 digital TV would no longer be able to work with some
14 set top boxes that are designed for analog TVs, I
15 mean I think the information is not clear.

16 Consumers don't know what they're getting
17 into when they buy this equipment. I think even the
18 TV manufacturers don't really understand all of the
19 ramifications of what they're doing, that they're
20 cutting off access to closed captioning to external
21 devices, all the Legacy equipment that people have
22 that are still good.

1 MR. KNAPP: Any other -- Graham?

2 MR. JONES: Yeah. I think the consumer
3 experts here should comment on the availability of
4 decoders in association with composite video inputs
5 which I think was the issue there.

6 I also was wanting clarification from our
7 FCC colleagues on the statement that was made that
8 allowed some digital stations who were exempt from
9 some captioning requirements.

10 I understand the exemption to be exempt
11 from transmitting 708 captions. Now, my reading of
12 the rules absolutely is that a digital station is a
13 digital station and that HD and SD is irrelevant and
14 that anyone on air who is required to do captioning
15 in a digital domain has to provide 708 and the 608
16 captioning in the bit stream, is that right? Right.

17 So if a station was transmitting only 608
18 in a digital bit stream, even if they're only doing
19 SD, I believe that is not in conformance with the
20 rules.

21 MR. KNAPP: Rather than give you an off-
22 the-cuff answer because I think that's right, but I

1 want to take that back and confer with some of the
2 people in our Media Bureau, as well.

3 MR. JONES: Yeah. I think it's important.

4 MR. KNAPP: We will give an answer to the
5 group. I think it's right.

6 MR. JONES: I thought I've heard this
7 misunderstanding before and the fact that it was said
8 again today means people out there are still not
9 understanding the rules.

10 MS. HAMLIN: I think I'm too short for this
11 mike here. That's been a perpetual problem, can't do
12 anything about that one.

13 My name is Lise Hamlin. I'm from Hearing
14 Loss Association of America. I'm the Director of
15 Public Policy there, and I have to add my thanks to
16 all of you who took your time to be here. This is
17 really, really important to consumers and the fact
18 that you recognize that really means something to us.

19 I have to tell you that I have heard
20 captioning complaints for many years. Like Rosaline,
21 this is not the first -- just because we have digital
22 does not mean it's the first time we've heard

1 captioning complaints and some of them have been
2 technical, as well.

3 But now I am finding more and more people
4 complaining to me. They come to me at the Hearing
5 Loss Association of America, people say what's
6 happening, what's going on, I don't understand what's
7 going on, everything from the 90-year-old woman, and
8 this still bugs me, who was told that she had to buy
9 a brand-new TV, a digital TV or she wouldn't get any
10 captions at all, so she did and tossed her old one,
11 to people who are complaining about technical
12 problems all the time.

13 So one of the things that I would like to
14 emphasize from our perspective is that there are some
15 36 million sets of eyes out there who are willing to
16 give you information if it's in a way that they can
17 do it.

18 For example, right now before the new rules
19 come in place and I appreciate the new rules coming
20 in, right now I have myself gone many times to
21 complain to my cable company and there's no way to do
22 it easily. If I go to the website, there is no

1 dropdown box that says put your captioning complaints
2 here, and I had hoped when the new rules had been
3 posted back in, what, November, I think, that
4 everybody would start to get up to speed and say,
5 yes, let's put this on our dropdown box so that even
6 before the rules take effect, consumers can know how
7 to get their complaints to you.

8 One of my questions to you is will you have
9 that in place soon? Will we be able to see soon a
10 way for people through the cables or the broadcasters
11 directly for somebody to say this is the phone
12 number, this is the person, and this is the way I can
13 get my captioning complaints, not necessarily
14 resolved instantly?

15 I heard -- I forget who it was who spoke
16 who said that some of these problems will take
17 awhile. I myself had a question recently about
18 captioning where the letters dropped out. Captions
19 were there but there were enough letters that dropped
20 out that it made it unreadable to me.

21 I went to my cable company. I worked with
22 them and they did a terrific job working with me and,

1 no, it wasn't solved overnight, but because they were
2 working with me and getting back to me and talking to
3 me, I understood it was going to take some time and
4 they solved the problem.

5 But the problem is that it's now three or
6 four weeks later the problem has come back, same
7 problem, same station, same issue, and so I've gone
8 back to my cable company. I haven't heard back from
9 them yet. They may not be happy to see this same
10 problem come up again.

11 But that's -- we need to know, first of
12 all, how to solve our problems. You need to be able
13 to continue to get from consumers the kind of
14 complaints they're going to see because I suspect
15 that even if you have automatic -- in other words, a
16 way to monitor automatically because you're telling
17 me that with all the digital channels out there,
18 you're not going to have enough eyes on staff to do
19 that.

20 I would hope that you would still have a
21 way for consumers to say, hey, this is still
22 happening out there. We need you to look at these

1 trends and I would -- again, that's one of my
2 questions.

3 And my other question had to do with HD
4 Live but it seems to be that Dana covers that really
5 well and its technical aspects because that's another
6 thing that I'm getting from consumers. People are
7 saying they're buying equipment and they're saying
8 what do I have to choose? I have to choose either a
9 really good picture and not understanding what
10 they're saying or I choose a lesser picture and
11 getting the captions -- and not being able to read
12 the captions with the HDMI cable component.

13 So again, my question to you, I hope you
14 can answer this one, is are you planning soon to come
15 up with a way for consumers to directly complain, to
16 send in their complaints and their problems to both
17 the cable companies, satellite companies, and to
18 broadcasters?

19 MR. GABRIELLI: Bob Gabrielli, DirecTv. We
20 implemented all those changes about two months ago.
21 So we're already there.

22 MR. KNAPP: Does the silence mean others

1 aren't already there?

2 MR. GABRIELLI: I'll repeat that. This is
3 Bob Gabrielli with DirecTv. Those rules that are not
4 quite official, we've already implemented two months
5 ago. So there's a full-time guy whose name is
6 published everywhere gets all the complaints and
7 works on them.

8 MS. SEIDEL: Captions aren't working.

9 MR. KNAPP: Test to see if the closed
10 captioning is working. I don't see any captioning.

11 MR. GABRIELLI: Try this again. Test,
12 test. One more test.

13 MR. KNAPP: Let's try something else
14 besides test.

15 MR. GABRIELLI: Okay. We'll do this again.

16 It's Bob Gabrielli from DirecTv, and I said two
17 months ago we've implemented all those changes and
18 have the person assigned to this, is on the website.

19 It's in our directories. He's been getting direct
20 complaints for the two months now. So it's working
21 for us.

22 MR. KNAPP: Anyone else want to speak to

1 this? Yeah.

2 MR. CARD: John Card, EchoStar. So much
3 like DirecTv, EchoStar has got a process in place. I
4 don't know that it's posted yet to the website. I am
5 certain that, as the rule comes into effect, that
6 information will be available, but we -- I believe
7 we've been making some improvements over time. Like
8 every other company, we strive to do right by our
9 customers.

10 MR. KENNAMER: Charlie Kennamer with
11 COMCAST. I think we're the same as EchoStar. We're
12 putting the process in place. I don't think it is
13 fully yet, but we're definitely going to be there
14 soon.

15 I'm a little confused, and I'll just make a
16 stab at this, this may be complicated. We're talking
17 about several different kinds of inputs to TVs here
18 today, composite inputs, component inputs, and HDMI
19 inputs, and when captioning passes across those
20 different interfaces.

21 First, I'd have a question, and I guess for
22 Dana. Were you saying that there are TVs that don't

1 display, won't decode and render captioning, 608
2 captioning on a composite video input or were you
3 only talking about component video inputs?

4 MS. MULVANY: What I was saying is that
5 many TVs have the activated decoding and the
6 component video input which is the highest quality
7 video input capable and that may be because there is
8 a lot of misunderstanding about captioning on
9 component video.

10 Many people thought you couldn't have captioned data
11 decoded if you're using components.

12 MR. KENNAMER: Okay. If I may, I
13 understand. I wanted to be sure you weren't talking
14 about standard composite single-R video inputs and
15 you are not, right?

16 MS. MULVANY: Right. It took me awhile to
17 learn the difference, but I got it straightened out.

18 MR. KENNAMER: Okay. I have seen
19 television sets that don't do captioning over
20 component inputs, as well. So I do know that those
21 exist and I would have to turn to my brother in the
22 consumer electronics industry to address that.

1 At least from a cable industry perspective
2 and from a COMCAST perspective, moving to the HDMI
3 input, while it's true that today the HDMI
4 specification doesn't allow for the passing of
5 captioning data and maybe we'll talk about that some
6 more today or at a future meeting, I don't know, we
7 don't provide any set top boxes that have HDMI
8 outputs that will not decode captioning inside the
9 set top box.

10 So while from a cable set top box
11 perspective it's true that you can't turn on
12 captioning in your TV if you're connected via HDMI,
13 you can get captioning because all of our HDMI-
14 equipped set top boxes will do internal captioning
15 decode and overlay.

16 So I don't -- at least from a cable
17 perspective, I don't believe the customer is being
18 disadvantaged in that respect, and I suspect the same
19 is true of my satellite friends and you guys can
20 speak to that.

21 MR. CARD: Yes, that's correct.

22 MR. NEWDECK: Jeff Newdeck, Motorola.

1 Charlie covered my comments there pretty well. So it
2 is correct that HDMI will not support the pass-
3 through of 608 captioned data. However, all set tops
4 that Motorola deploys today that support HDMI support
5 the rendering of 608 or 708 caption data. So if only
6 608 data is available, for example, it will render
7 that data the same way it would if it was 708 data,
8 including the user configurable options that are
9 available through 708.

10 I believe, and this is outside my area of
11 expertise somewhat, but over the component outputs, I
12 know that you can pass through the 608 data when
13 outputting in 480I or standard def mode but when you
14 do get to the higher video resolutions, I think that
15 capability is then gone in which case the 708
16 rendering again would come into play.

17 MR. SCOTT: Andy Scott with NCTA. I just
18 wanted to echo what Jeff said. That's my
19 understanding, as well, that if it's lower -- if it's
20 standard def resolution for ADI, it will pass across
21 the encoded analog output and therefore in that case,
22 the decoder and the television receiver could decode

1 it.

2 What typically is the case, though, is like
3 HDMI, the decoding will be done in the box and
4 rendered across either HDMI or a component. So
5 either one of those high bandwidth, you know, video
6 interfaces will facilitate the decoding being done in
7 the box and that's how it gets rendered. It's just
8 simply rendered across with the video across those
9 interfaces.

10 So it's not just exclusive to HDMI. It
11 also works for component analog, as well. So you're
12 not disadvantaged in that case either.

13 MR. MARKWALTER: Brian Markwalter with CEA.

14 I'm not sure I have much more to add because I think
15 between you two guys we've picked it up, but the
16 little FAQ that I sent around prior to this meeting
17 kind of was based on these issues of consumers not
18 understanding where the decoding goes.

19 We are in a time where we're moving to HD
20 interfaces and generally the decoding of the video,
21 including captions, to the extent they're required
22 for whatever that video source is, is upstream of the

1 display. So it is true that on a component carrying
2 for ADI, the captions will pass over. That's one
3 standard.

4 There's not a standard for captions over
5 component HD and HDMI is explicitly a display
6 interface, uncompressed, very high speed, and
7 generally encrypted. Now that can be turned on and
8 off, but the HDMI standard itself does require
9 support of HDCP content protections.

10 So it is made and intended that the source
11 on one side of the interface is completely rendering
12 the video for the display to make. I mean, it's
13 sending pixels over and some audio to go with it and
14 we can -- I don't want to cut off the discussion, but
15 we need kind of a base level of understanding.

16 So it does cause some confusion where, in
17 some cases, consumers want this to happen at the TV
18 and to look and behave like captions as they know and
19 love them. In some cases, they want it upstream,
20 like Rosaline, you said you wanted your SD decoding
21 upstream in the box.

22 So we have a mishmash of requests and

1 expectations. So it is a little tough right now. So
2 we ought to at least understand kind of the basics of
3 what the interfaces are capable of.

4 MR. GOLDBERG: Just the added question that
5 I think a number of people have come to us about is
6 with the DVRs built into these boxes.

7 Do they record only closed captioned data?

8 Do they record open captioned data? Are they
9 decoding after their rendering? In other words, can
10 you send -- can you record in closed caption signal
11 and watch it later over your HDMI?

12 MR. NEWDECK: I think I can address that
13 one. This is Jeff Newdeck at Motorola again.

14 Yes, our DVR boxes, obviously I can only
15 speak to the Motorola implementation, but they do
16 record the closed caption data embedded digitally on
17 the DVR. So the rendering decision basically happens
18 on the output, on playback. So at that point both
19 pass-through and rendering are possible on playback.

20 MR. KNAPP: I think, Larry, you had yours
21 up first.

22 MR. GOLDBERG: No, I'm done.

1 MR. KNAPP: Oh, you're done. John?

2 MR. CARD: So to answer the DVR question,
3 the EchoStar DVR boxes that are produced do also
4 record the caption data along with the video and
5 audio. So the decision can be made at time of
6 playback whether to enable captions or not.

7 I suspect that is true of all of the
8 digital DVRs that are recording digital bit streams.

9 If you are using a DVR that has an analog encoder or
10 -- sorry -- an analog-to-digital encoder built in,
11 such as some of the earlier DVRs that worked with
12 NTSC broadcasts, those very well might record the
13 captions in the broadcast stream and as part of the
14 video, but I believe that the current generations of
15 digital DVRs are keeping those captions closed until
16 the time of playback.

17 MR. KNAPP: I want to make sure we keep the
18 time ticked for everybody in the group here. Does
19 anybody else have comments at the microphone? Oh,
20 I'm sorry. Go ahead.

21 MR. LIVINGSTON: Hi. My name is Jason
22 Livingston. I work for CPC Computer Prompting and

1 Captioning.

2 I wanted to expand on something we talked
3 about before with my colleague. I think the
4 gentleman from CBS mentioned that they have analyzers
5 and legalizers and various kind of wave form
6 monitors, tools for checking the 708 and 608
7 captions.

8 Usually this happens on the base band side
9 before the video is encoded into MPEG-2, multiplexed
10 and modulated for broadcast, and, of course, as you
11 can imagine, there are a lot of subtle interactions
12 where perhaps one base band stream with perfectly
13 valid 708 data is sent into an encoder and it comes
14 out okay, but another stream with perfectly valid 708
15 data sent into the same encoder can produce invalid
16 708 data packets in the multiplexed transport stream.

17 So I think it's important to, I don't want
18 to say enforce, but to have some kind of verification
19 not only before the multiplexing and broadcasting but
20 also after.

21 I know a couple of you mentioned the
22 difficulties of, you know, receiving a complaint and

1 having to go back weeks or months to find out maybe
2 what had happened to the captions in that broadcast.

3 I think if the transport stream, the multiplex
4 stream, were to be saved and archived, it is then
5 extremely easy to go back to a specific date,
6 specific time, specific show, look at the encoded
7 data just as it went out to air and possibly find any
8 kind of problems that might have happened and, you
9 know, a lot of networks, cable networks, not
10 necessarily the top broadcast networks, are moving to
11 tapeless workflows where they will receive an MPEG-2
12 transport stream that has already been compressed and
13 they are going to directly air that right as it is.

14 So they're bypassing all of their base band
15 verification systems. They're bypassing their
16 multiplexer, their modulator -- I'm sorry -- not the
17 modulator, but, you know, doing it this way, it's
18 really important to have tools for verifying these
19 transport streams are correct because most of the
20 tools out there now for verification happen at the
21 stage before and there can be problems that crop out
22 in the intermediate stages.

1 Thank you. Oh, sorry. If I have to ask a
2 question, I guess my question would be --

3 MR. KNAPP: You don't have to ask a
4 question.

5 MR. LIVINGSTON: No? Okay. Thank you.

6 MR. KNAPP: Anybody else? Last call.

7 Roundtable Discussion: Identifying Solutions

8 MR. SOUKUP: Chris Soukup, CSD. Just
9 wanted to throw in a couple of thoughts here before
10 we close this segment of the agenda.

11 First, I have a question for the room.
12 We've talked a little bit about creating a central
13 point for consumers to go to to make a complaint or
14 address a concern.

15 I guess I'd like to know collectively, you
16 know, how is that being publicized. I mean, how are
17 we making consumers aware of the resource? How are
18 we educating them so that they know where to go if
19 they have a concern?

20 You know, it's one thing, I think, to
21 actually create a point for consumers to access.
22 It's completely another thing for consumers to

1 actually be aware of it and to know where to go.

2 So I guess that's just kind of an open-
3 ended question for the room.

4 MR. KNAPP: Larry?

5 MR. GOLDBERG: I think the intention,
6 Chris, it doesn't exist yet. The intention, it would
7 have to be married directly with a fairly large
8 outreach campaign, not only to get consumers to use
9 it but to make sure that all the data can be
10 aggregated in the same place, no matter where it
11 comes from, so it's all matching and usable to
12 aggregate it once.

13 So a lot of outreach would be needed and
14 the same is true for the industry itself would need
15 to know that that resource exists so they could
16 receive the reports from it. So it doesn't exist yet
17 but it would absolutely need your help.

18 MR. SOUKUP: Well, and I've heard the term
19 "triage" used today at some point. I guess I'm
20 wondering, you know, we know that the combination of
21 TVs, set top boxes, cable boxes, networks. It can be
22 extrapolated in a number of different ways and we've

1 got literally thousands and thousands of
2 configurations.

3 So a centralized database would be a
4 massive undertaking in terms of a centralized
5 solutions database. I'm wondering if maybe we want
6 to consider taking a different approach and coming at
7 it from the other way where we do a national study to
8 identify the top issues that are -- you know, that
9 consumers are dealing with and try to identify maybe
10 the top 10 or top 15, the top 50 issues, what
11 solutions we can put in front of consumers to resolve
12 some of the bigger issues out there, get those out of
13 the way and then come back and then, you know, deal
14 with some of the smaller, less prevalent issues after
15 that.

16 I mean, is that something that we can
17 consider?

18 MR. GOLDBERG: One thing on the National
19 Survey-type plan, I think actually I would recommend
20 you keep it more geographically-based, because I
21 think as we've heard here, each issue doesn't
22 necessarily happen nationally. It would be useful to

1 see if there particular trends to a particular region
2 and then in a cumulative way we could see if there's
3 something that's more impacting nationally.

4 MR. SOUKUP: It's really kind of -- it was
5 kind of an afterthought for us, you know, as we began
6 working with the FCC on the DTV transition, we saw
7 the number of captioning issues that were coming our
8 way. It was like this is something that we need to
9 do, but I think it's really just the tip of the
10 iceberg and the information that we have as of this
11 morning, we've got 1,300 surveys that have been
12 filled out and submitted, but we know that there are
13 millions of consumers out there that rely on
14 captioning.

15 I do think that there would be an
16 opportunity to do a study at the national level and
17 then we, as a part of that process, could identify,
18 according to region, you know, where these complaints
19 are coming from and maybe try to partition them off,
20 so if we see that consumers in this part of the
21 country have a recurrent issue, then we can kind of,
22 you know, come down to, you know, maybe on a regional

1 level, if it's a broadcast issue, if it's something
2 specific to that region that we can address and then
3 go back to consumers in that area.

4 This is a solution that we've identified,
5 here's how you fix it, get, you know, 30-40-50
6 percent of the issues out of the way and then come
7 back around and deal with what's left.

8 MR. JONES: Graham Jones, NAB again. I did
9 a search online for caption problem reporting and
10 maybe those of you here already are aware of this and
11 I'm sure the lady from VITAC can speak to this.
12 There's a website called captionson.com which
13 actually has been soliciting feedback from users on
14 captioning problems for some time, I believe. The
15 Viewer Awareness Bureau, is that right, which already
16 has a form you can fill in and what the captions
17 problems are and where they occurred and so on.

18 I wonder if there's any experience from
19 that since that seemed to be in existence already.

20 MS. YORK: So we launched that site last
21 March. So we launched captionson last year and part
22 of it is a viewer form similar to what we've been

1 talking about. It's much more basic. It has five
2 pages. It asks the five basic questions. Who's your
3 cable provider, you know, how do you get your TV
4 signal, what's your zip code, what's your problem,
5 and what channel is it on?

6 Two things I've learned from that. One, it
7 either doesn't have enough questions for it, that we
8 need to have a consumer that knows their problem and
9 wants to describe in detail everything, or, two, the
10 viewer doesn't know enough to fill it in. We have
11 viewers that contact us through NBC that know that
12 they have a problem on Channel 3 but not that Channel
13 3 is NBC, for example.

14 So those are the two problems we've had
15 with our database. Aside from that, we've had about,
16 similar to you, about 1,300 respondents and our goal
17 was to tell the viewer who to contact. Once they've
18 registered their problem, it would say contact your
19 affiliate, contact your cable company.

20 It's been successful to some point, but I
21 think again a lot of the viewers get to the
22 beginning, they don't know what to fill in and they

1 get stuck and they write to me directly and then I
2 help them. It's been a learning experience. I'd
3 certainly like to use the information to help build a
4 better database and I think it has to coincide with a
5 lot of consumer education if we do that.

6 MS. STRAUSS: This is Karen Strauss. I
7 want to follow up on what Chris suggested. I do
8 think that we eventually need some kind of survey
9 tool or study. I am concerned about the timing,
10 though, and I'm wondering, I mean I think that
11 there's going to have to be an ongoing effort, but we
12 all know it's going to take awhile. It's going to
13 take awhile to put together what we want to ask for.

14 It's going to take awhile to educate the public
15 about -- you know, to get them to respond and then
16 it's going to take awhile to compile the results.

17 And it seems to me that between the
18 captionson information, the CSD information, the
19 information that Larry Goldberg has just from working
20 in this area and that Dana has gathered, that we
21 might be able to at least piece together, as you say,
22 maybe the top 10 problems that are occurring.

1 I'm not only talking about, you know, this
2 is garbled, that's falling off. I'm talking about
3 the technical terms for what's going on, you know.
4 The fact that there are various transmission issues,
5 connector problems, et. cetera.

6 This is obviously way over my knowledge. I
7 don't have the technical expertise, but the people
8 around the table do and I'm wondering whether we
9 could spend some time this afternoon trying to
10 identify those top 10 or as many as we can get and
11 then begin to form working groups on resolving them
12 and maybe one working group would be on focusing on
13 the study, you know, on a more long-term basis.

14 MR. KNAPP: Thanks. Cathy and I and
15 several of the other Commission staff huddled at
16 lunch time and hearing some of the points that were
17 raised, and we thought it might be useful to set up
18 subgroups. We came up with five topics, and let me
19 tell you what they were and then we can discuss this
20 as a potential way forward.

21 The first one is it seemed like we needed a
22 group just to develop a forum, so to speak, of what

1 is the information that you would need to be able to
2 diagnose a problem. I know we've got people
3 collecting information and some of you've had
4 experience doing this.

5 It would be useful for this group just to
6 put together the list of what is it we need to know
7 to be able to figure out what's going on, so that was
8 one, and we'll come back and talk about each of
9 these.

10 Second group would focus on what I'd call
11 lessons learned. I mean, it does seem to me that in
12 the room there's folks who've been working on this
13 for awhile. We're not starting from scratch. There
14 are people who already know what some of the issues
15 have been, but I'm not sure that all that information
16 gets shared all that well.

17 So part of the work of this group would be
18 just to collect what is it that people have learned
19 so far. I'm not sure what the outcome of that is,
20 whether it's best practices, whether it feeds into
21 other work that's going on, but it did seem that it
22 would be useful to draw on the things we already

1 know.

2 Third group. We talked about calling it
3 the unsolved mysteries, but I think the thing -- that
4 name's already been taken.

5 Our thought was you've got to start some
6 place and if we could get five or 10 cases, maybe
7 these come from the consumer groups, and it would be
8 very helpful if they were going on right now, so that
9 this would be a group of experts to dive into it to
10 try to figure out what's going on with the objective
11 of learning out of that process because we have -- I
12 think in a lot of these instances everybody's acting
13 in good faith. Everybody thinks they've got --
14 they've designed their stuff to the standard.
15 They're doing the right thing and yet at the consumer
16 end it comes out wrong.

17 So this group would take maybe five or 10
18 cases and just dive into them to try to figure out
19 what's going on.

20 The fourth group was something we called
21 the consumer focus group and it'd have a few
22 different facets. First of all, to take a look at

1 the information that's out there for consumers. How
2 can we improve on it? We're dealing with a very
3 complicated technical problem.

4 I think sometimes what happens, I know from
5 our end, in trying to be accurate these things come
6 out so complex that nobody can understand them. So
7 what is it that we, both collectively and I think for
8 the FCC, can do better in terms of getting
9 information out to consumers?

10 I think in that same group what are the
11 things from the consumer perspective that they'd like
12 to see? I can't say at the end of the day that
13 everything, you know, on the wish list will be
14 granted but unless we have some place to start and
15 get that feedback into the system, you know, for both
16 the manufacturers, for the programmers, et. cetera,
17 unless that's laid out in a way, it's never going to
18 happen.

19 And then, lastly, was a group that we
20 described as looking at HDMI. We've heard a lot of
21 frustration about the HDMI connector and I think just
22 from the discussion we've had here this afternoon,

1 for people to understand it, what its limitations
2 are. I don't know if there's any prospects for any
3 of these things possibly being changed. That may not
4 be realistic, whether it's educating people, but it
5 did seem that it's a big enough problem to have a
6 group of folks to dive into it and just explain
7 what's going on and come back to this group with
8 here's what the situation is and here's what might be
9 done.

10 And what we'd be looking for is a volunteer
11 to lead each one of these groups, report back to us
12 in about six weeks to the entire group, and we've put
13 sign-up sheets here for people to participate in each
14 of the groups and that'd be a way to get the work
15 started.

16 So I've said a lot, and did you have
17 anything you wanted to add?

18 MS. SEIDEL: Well, I will in one sec, but I
19 think John has a question.

20 MR. CARD: Listening to your description of
21 the groups, I think that your second group, lessons
22 learned, and your third group, unsolved mysteries,

1 will likely have a 100 percent same membership. In
2 other words, the guys -- the engineers that you want
3 to have describe what they know are the same people
4 you want to work on what's broken now.

5 So my question is --

6 MR. KNAPP: Combine those?

7 MR. CARD: -- to combine that second and
8 third group, maybe even the first group but the first
9 group might be enough diverse to warrant a separate
10 group.

11 MR. KNAPP: You probably all need a couple
12 minutes to digest this.

13 MR. GOLDBERG: I wonder -- this is Larry
14 Goldberg -- whether HDMI as a somewhat difficult
15 problem to solve could be added to Blu-ray which I
16 know is maybe out of your purview, but it causes as
17 much agony to the community as HDMI.

18 MR. MARTIN: Steve Martin, FCC. Larry,
19 could you actually clarify what you mean by the Blu-
20 ray problem?

21 MR. GOLDBERG: Blu-ray was developed
22 without any ability to include closed caption data in

1 708 on the -- it contains 608 within it but not 708
2 closed caption data. So if you want to watch
3 captions in Blu-ray you have to watch subtitles which
4 are different.

5 MS. SEIDEL: Is there any feedback on the
6 category -- other than this, in terms of the
7 categories? Does it seem to make sense to the people
8 around the table? Are there things that we missed
9 that you think are more pressing concerns about
10 representation in multiple groups that you think
11 might be difficult? Just anything at all. I think
12 it was just kind of a starting point to see if it
13 made sense going forward.

14 MR. JAISNOWSKI: Yes. This is Tony
15 Jaisnowski, Panasonic. I agree with John's comments
16 that my view of lessons learned and three of the five
17 of 10 cases from the consumer groups, I think, would
18 be very similar and overlap. So I suggest combining
19 those two groups together, as well.

20 MR. KNAPP: Grant?

21 MS. SEIDEL: Eric?

22 MR. KNAPP: Oh, I'm sorry.

1 MS. SEIDEL: Go ahead, Eric.

2 MR. BRIDGES: My question really deals more
3 from a video description standpoint, obviously.

4 The discussion this morning sort of maybe
5 met with a bit of a thud outside of the folks from
6 NAB and CEA.

7 I'm assuming that there would either be
8 pieces of video description tucked in with each of
9 those groups or should there not be a separate
10 working group to deal with video description issues?

11 MR. KNAPP: Brian? At this point, let's
12 just open it up to discussion. Just trying to get as
13 much feedback as we can.

14 MR. MARKWALTER: Brian Markwalter with CEA.

15 I guess my reaction is separate because I think the
16 issues are so different. Maturity level of the
17 technology implementation. I think we have so much
18 to do on captioning and have sort of an understanding
19 of at least how to break out the work and it seems to
20 me the video description is -- if we try to mix it in
21 as a piece of all these, it's not going to get
22 treated completely.

1 MS. SEIDEL: But I think, Eric, to your
2 point, though, I think we didn't assume that the
3 discussion we had earlier today was all that would be
4 said on video description.

5 I think, just like the discussion we're
6 having now about closed captioning, there would be
7 follow-up actions on the video description, as well,
8 and I think it would be good to hear from others
9 around the table, you know, if they concur that
10 having separate working groups, whether -- rather
11 than melded into the ones we just talked about for
12 closed captioning, whether you agree that that makes
13 sense.

14 MR. JONES: Certainly you're dividing the
15 problem up is a good thing. We really need to see
16 what the issues are before we can decide how they're
17 going to be solved. So I think getting together a
18 group that's going to look at the problems that have
19 already been identified is important. That can
20 perhaps be tied in with how do we get more data to
21 base our analysis on.

22 Once you get into solutions space, then I

1 think we're going to find there are several different
2 categories. There's going to be the consumer product
3 problems. There may be caption origination, in other
4 words the captioning services and the equipment they
5 use, and then there's the bit in between which is the
6 distribution and the mission which is the -- and they
7 all have associated standards with them, as well.

8 But until we get a real handle for what are
9 the problems that we're really trying to solve, then
10 it's difficult to say exactly who's going to solve
11 them, and I think, as I say, we may end up sort of
12 dividing it a bit more between consumer and
13 professional, but obviously it's an end-to-end
14 problem.

15 Some of the problems definitely can be
16 categorized, but until we know what they are, it's
17 difficult to say how we address them.

18 MS. SEIDEL: I think when we were talking
19 at lunch, that's -- it was kind of like you want to
20 keep the process moving and moving fairly quickly, so
21 that we actually hopefully can effectuate some
22 resolutions here, but we were talking, too, about the

1 first group, the consumer group, being the one not
2 only to identify the types of information that you
3 really need from consumers to figure out what the
4 problem is and then to diagnose it but also that that
5 group, with the consumer focus, might be able to
6 identify kind of what they see just from what they
7 already know.

8 I think Karen was saying with the expertise
9 around the table already, I think there probably are
10 a fair number of problems that we really don't need,
11 you know, a 100,000 consumer surveys to tell us it's
12 a problem. I think some of the folks in the room,
13 you know, Dana, Rosaline, Cheryl, Karen, you know,
14 others, Chris, could probably tell us the five or 10
15 things they hear most frequently.

16 Now, they won't be able to give us the
17 specific program, the specific time necessarily right
18 now, but they could say these are the areas where
19 there is a problem and then the question about how do
20 we get some real time examples of those so that the
21 engineers and the other technical people around the
22 table could actually diagnose them real time and

1 determine, okay, where in the -- you know, where in
2 the chain was there really a problem, was it a
3 technical problem, was it the consumer -- the way the
4 consumer had their equipment set up, the menu,
5 whatever, and I think we kind of see that first group
6 as kind of playing, I think, a couple different roles
7 in that regard.

8 MR. KNAPP: Cheryl and then John.

9 MS. HEPPNER: Thank you. Cheryl Heppner
10 from the Northern Virginia Resource Center for Deaf
11 and Hard-of-Hearing Persons.

12 I think it would be helpful if we could
13 also include some consumers who might have specific
14 expertise, such as Dana and others in the room, they
15 would be some of the good people, but there are
16 probably four or five individuals who are deaf or
17 hard of hearing not in this room who would also be
18 possibly very good because they have the technology
19 expertise as well as the experience in captioning,
20 and I think we could get names to you.

21 MS. SEIDEL: I think one -- and we can
22 circle back on this issue, but I think we did talk

1 about the input to the various working groups or
2 subgroups would not be limited to just input from the
3 people that are around this table.

4 To the extent you know there are people out
5 there that either from the consumer side can lend
6 expertise and value to this process or on, you know,
7 the equipment side or whatever, certainly you should
8 feel free to get whatever data collection and
9 whatever input you think would be most useful.

10 MR. KNAPP: John?

11 MR. TAYLOR: I think Cathy teed up the
12 consumer group pretty much the way I was going to. I
13 think it's actually two different groups kind of
14 working in parallel. One is identifying the consumer
15 issues and the other that's digesting those and
16 looking at consumer interface, looking at longer term
17 what sort of outreach and communications we're going
18 to have to consumers.

19 MS. SEIDEL: Just one other point that we
20 talked about. Julius had said before, you know, we
21 weren't sure exactly what the output of any of these
22 working groups or this entire working group might be,

1 whether it be best practices, whether it be
2 recommendations that the FCC needs to refine some of
3 its, you know, consumer publications, whether maybe
4 there are procedures that, you know, folks around the
5 table might employ in their different member
6 companies to make, you know, it easier for consumers
7 to actually, you know, ask questions or raise
8 complaints about the different challenges that they
9 see.

10 But I think that's a little further down
11 the road, what the output will be or what the
12 mechanism will be, but I think there's a fair amount
13 here to get started in terms of each of the working
14 groups.

15 MR. KNAPP: Karen?

16 MS. STRAUSS: I do want to follow up on
17 what Cheryl suggested. I'm just a little concerned.

18 I think it sounds like the second and third one are
19 -- I like the ideas, I mean generally. The second
20 and third ones seem to be technical.

21 So I know that several of us will shy away
22 from that from the consumers, but as Cheryl

1 mentioned, we have some highly-technical people out
2 there. Again, this person that figured out that you
3 turn off the cable box is a hard-of-hearing
4 individual but he doesn't live in this area and
5 neither do the other two people that Cheryl had in
6 mind and I don't know what kind of resources you
7 have.

8 It's much harder for consumers to make it -
9 - to be part of these working groups, unless there's
10 at least travel costs to cover them, and I know, you
11 know, it's a small issue but, you know, within the
12 greater issues, but it is a concern of ours.

13 MR. STILLWELL: This is Alan Stilwell. I
14 think it's going to be important to have some of the
15 people in these groups to help them identify the
16 cases to examine. Okay. So we need that kind of
17 help there.

18 Okay. You know we're going to look at five
19 to 10 cases that need -- so we need -- we're going to
20 need help from people who can bring these cases to us
21 and who understand the problems that they're having.

22 So I think it's important that those people be

1 involved in that process.

2 MS. STRAUSS: Right. That's probably not
3 very difficult. I mean, we can do that today.

4 MR. STILLWELL: Well, we're going to have
5 the need.

6 MS. STRAUSS: I mean, if you brought a TV
7 into this room and you started channel surfing, you'd
8 have your five-six examples. It's almost every
9 single time you turn on the TV that there's going to
10 be something wrong somewhere. That's how prevalent
11 it is.

12 So I'm not that worried about it, but in
13 terms of just making sure that there's consumer input
14 at every level I think is going to be important, even
15 the technical ones.

16 MR. KNAPP: So what I'm hearing from folks
17 is combine the second and third groups, is that
18 right? That sounds fine. Make that part easier.

19 John?

20 MR. CARD: I certainly believe that face-
21 to-face meetings are going to be important. I'm
22 also, however, a Colorado resident and hopeful that

1 at least some of the work in some of these groups
2 might be able to be done over conference bridge or
3 remotely, at least sometimes.

4 MR. KNAPP: Absolutely. That's exactly
5 what we had in mind.

6 MR. CARD: Great. And so that may make it
7 much easier for some of the consumers to participate
8 in those groups, as well.

9 MS. STRAUSS: Yes and no. Unfortunately,
10 conference calling is not that easy for this
11 particular community, although you can do it with
12 captioning over -- you know, if you have captioning
13 over the phone and there is a way to do that, to have
14 meetings with captioning. You just have to be
15 patient because it takes awhile to have people give
16 responses. So there has to be an understanding. We
17 can educate you about it.

18 MR. MARTIN: Steve Martin from the FCC.
19 One way perhaps to get inputs from the consumers
20 you're talking about might be by e-mail. If we could
21 provide a point of contact that they could say on a
22 particular broadcast station on a particular show, we

1 consistently see this particular problem, we could
2 then very likely get the local broadcaster to record
3 the transport stream that one of us could analyze and
4 try to understand the problem that way and a lot of
5 the contact could be handled by e-mail.

6 MS. SEIDEL: I think Eric had a comment.

7 MR. BRIDGES: After thinking about it for a
8 few minutes, I personally, from a video description
9 standpoint, would prefer that there be a separate
10 group to examine the challenges and the potential
11 solutions within description.

12 MS. SEIDEL: Okay. I think that makes
13 sense.

14 MR. KNAPP: Larry?

15 MR. GOLDBERG: I suppose we'll get around
16 to logistics eventually, but I'm sure you guys will
17 set up a listserv of some sort to make it easy to
18 communicate, so we're all trapped in the same e-mail,
19 whether we like it or not.

20 MS. SEIDEL: Yes.

21 MR. GOLDBERG: And if we need to trade
22 documents, as well, probably.

1 MR. KNAPP: I think what we'll do, we'll
2 take a 15-minute break, and then when we come back,
3 we'll try to get this all set up.

4 What I think I hear is we're still at five
5 groups. We've got a couple to still nail down. One
6 is if there's support for -- I think this is the
7 easier task -- developing the form for the
8 information that needs to be collected. What I heard
9 was to combine the lessons learned and the mysteries
10 group. Really, it's a technical group to report out
11 the things that we know and the things that we need
12 to investigate.

13 Then I think we're still talking about a
14 consumer group with a little bit expanded role from
15 what I described initially.

16 I heard also put on the table expanding the
17 HDMI group to include possibly DVRs and Blu-ray. We
18 can talk about that a little bit and then a separate
19 group on video description, and I think what we're
20 going to be looking for and we'll lock the doors,
21 we're looking for people who are willing to take the
22 responsibility for leading those groups and if we

1 have more than one that's fine, too. I don't think
2 there's any problem with co-chairs and for people who
3 are willing to work on those groups, we have some
4 sign-up sheets here and I think what we'll do is
5 we'll put them out up here.

6 If you'll put next to your name on -- have
7 we got it organized the way we just talked about?

8 MS. SEIDEL: Yeah.

9 MR. KNAPP: All set? We've got one for
10 video?

11 MS. SEIDEL: Yep.

12 MR. KNAPP: All right. Good. And we'll
13 use this as a way just to get started. We'll break
14 for the 15 minutes. Let's come back -- I'll tell you
15 what. Let me make it 3 o'clock, is that right?

16 MS. SEIDEL: Yes.

17 MR. KNAPP: All right. 3 o'clock. Yes,
18 John?

19 MR. CARD: I don't want to be the person
20 from EchoStar in all five groups. I do know that I
21 have some co-workers who belong on at least one or
22 two of these groups. So hopefully sign-up today is

1 great. Let's find a chair, co-chairs, but maybe
2 about a week of keeping these things open.

3 MR. KNAPP: Yeah. I mean, we are
4 interested really in getting these problems --
5 getting down to the root of the problems, getting
6 them solved, making sure we understand it, and if we
7 -- you know, we want to make sure we have the right
8 people there.

9 Okay. See you at 3. The sheets are up
10 here.

11 [Recess.]

12 The Technical Working Group

13 MR. KNAPP: Can we have everybody take
14 their seats once more? We're just about ready to
15 start.

16 [Pause.]

17 MS. SEIDEL: I think we're going to go
18 ahead and get started.

19 I think I'm going to send around this list
20 that's the contact information for each of the people
21 around the table. If you already got an e-mail from
22 us, if you'll just write your name and put a check or

1 something so we know we've got your right
2 information. There were a few that we may not have
3 gotten right. So just out of an abundance of
4 caution, we'll send this list around.

5 And I think there were people in the
6 audience that wanted to be included on different
7 information threads, et. cetera, and so Tom, I think,
8 was going around to see if we could get a list for
9 those folks, as well, in terms of information
10 sharing.

11 MR. KNAPP: Yeah. I just collected the
12 sign-up lists and very pleased to report that we've
13 got a terrific set of volunteers for each one of the
14 groups.

15 So I think what we will do is, as we go
16 through the list of folks, Cathy and I will huddle
17 afterwards and we'll try to work with the teams to --
18 okay -- to see if we can get somebody to take
19 responsibility for leading the group.

20 John, go ahead.

21 MR. CARD: So Lise Hamlin, I think you had
22 asked -- I got confirmation during the break that

1 Dish Network does have an identified person and the
2 information's on the Dish Network website in
3 preparation for the rule.

4 MR. KNAPP: The other thing that Cathy and
5 I thought we might do is try to write down the scope
6 of the work for each of these and then we'll share it
7 with the entire group and just get feedback. We
8 think we've talked in general here about what each of
9 the groups would cover, but I think it'd be helpful
10 for everybody to see that down in writing.

11 And then, generally, I think we're going to
12 look for a next meeting about -- of this group about
13 six weeks from now and we'll let people know those
14 dates. So we'll be getting back to the groups to get
15 you working just as quickly as possible because it's
16 not a lot of time, and it's really not my expectation
17 that you'll have everything done in six weeks but
18 hopefully we'll be enough down the road that we'll be
19 in a good position to just start getting a handle on
20 some of these issues.

21 So that said, anything that people want to
22 bring up as we -- yes?

1 MR. JAISNOWSKI: Tony Jaisnowski with
2 Panasonic. Yes, I actually signed up for four of the
3 groups, and including one of them which I wanted to
4 have a little more discussion about and that is the
5 group called HDMI, Blu-ray and DVRs.

6 During today's discussion, we had a lot of
7 discussion about HDMI and it's my understanding that
8 HDMI, which we all know does not pass closed
9 captions, however it is a rendering interface, was
10 not intended to pass the closed captions, and what I
11 had heard today from the cable set top box people and
12 the satellite people is that in the cases where they
13 do have HDMI as the output, they do provide rendering
14 of closed captions.

15 So I'm still not clear as to what the issue
16 is with HDMI in that case. I guess I don't see that
17 there's a problem.

18 Then I really didn't hear, other than from
19 Larry, that there was an issue about Blu-ray. So I'd
20 like to have more discussion about what the issues
21 are with Blu-ray because in the case of Blu-ray, we
22 do use subtitles in place of or as an equivalency to

1 closed captions because it's a physical media.

2

3 Also, I think there was very little
4 discussion about DVRs and how they play with
5 captioning. So I just thought it would be beneficial
6 for all concerned to hear a little bit more
7 discussion before we all run off and work on these
8 groups which, by the way, I did sign up for this
9 group, as well.

10 Thank you.

11 MR. KNAPP: Thank you, Tony. Part of the
12 reason for the suggestion about HDMI has been just
13 the number of complaints we're getting about it and I
14 don't know if the answer is education, but I think it
15 would help a lot just to delve into what the
16 complaints have been and how we can address them. So
17 that was the purpose of that.

18 Yes?

19 MR. GOLDBERG: Yes, this is Larry, and also
20 during that side conversation we were having, I think
21 John made a really good suggestion that we create a
22 problem statement which, you know, you're asking for

1 right now, but basically so what's the problem with
2 HDMI which we've heard a bunch about Blu-ray. Well,
3 there's a difference between subtitles and closed
4 captions, a significant difference.

5 One's data format, one's pictures, and what
6 they express and the information, but I think all of
7 that should be aired and made fairly clear. DVRs are
8 also -- can be external. They're not always in set
9 top boxes and if they're external, they don't have a
10 tuner. They don't have a decoder and therefore the
11 issue of what do you do with the DVR that records
12 captioned data but doesn't have a decoder?

13 So I think there's a number of issues that
14 do float around and if we can surface those, maybe we
15 will come to see that it's just a consumer education
16 issue, because regardless of whether it does what
17 it's supposed to do or never will, there's a lot of
18 people who want to know what the answer is. What is
19 it supposed to do, what could it do, can it change in
20 the future, and should it, and then what's next after
21 HDMI, besides HDMI 2.0?

22 The next generation of a high data

1 transport between consumer electronics devices and
2 displays, there's always going to be something next.

3 It would have been nice if there was data ability to
4 be stored and displayed from Blu-ray. There wasn't
5 for a variety of reasons. What's next after that?
6 Download. Okay. Will downloads be able to support
7 caption and description for closed playback?

8 So there's always going to be something
9 next, as well. So it will be airing the issues and
10 who knows what the answer might be.

11 MR. KNAPP: Karen?

12 MS. STRAUSS: Karen Strauss. Just to
13 follow up on that, I think that what you're seeing
14 here is a request that, as we go forward, the needs
15 of people with hearing and vision and other kinds of
16 disabilities be taken into account.

17 I mean, this is something that we've tried
18 to push through over the last two decades and tried
19 to make industry aware of and some industry has
20 responded, but I think there's been a real failure
21 here.

22 I think that the consumers feel very let

1 down, that, you know, we couldn't possibly imagine
2 DTC having gone ahead without sound because no one
3 would be able to understand it, but potentially
4 millions of people were left out because they can't
5 see it or they can't hear, you know, the video
6 description.

7 You know, again, we're not only talking
8 about, you know, one or two million. We're actually
9 talking about millions and millions of people. What
10 is the number now, Lise? Thirty-seven million people
11 who are hard of hearing or deaf.

12 You know, so much effort has gone forward
13 to educate the public about the DTV transition, but I
14 think that we've -- I think it's pretty safe to
15 conclude from today that while some of you have in
16 fact engaged in significant efforts in response to
17 complaints about captioning, there really was lack of
18 forethought in terms of incorporating solutions or at
19 least maybe there was some but clearly not enough,
20 not enough to make it work out of the box when it was
21 distributed to the public.

22 So let's put that all behind us and go

1 forward and at this point, I guess what we'd like to
2 see is, as you go forward and as you come up with
3 second generation -- well, first, we have to fix the
4 problems that exist now already, but also, as you go
5 forward and create new pieces of hardware and
6 software, you have to consider these needs, so that
7 we don't have to go back and retrofit or we wouldn't
8 need to be here if this had been thought of going
9 forward.

10 MR. KNAPP: Andy?

11 MR. SETOS: So just so that you hear our
12 perspective on your observations, so every DTV and
13 every Blu-ray disk FOX publishes has subtitles in
14 English in the United States which can be turned on
15 on the appliance and rendered in the image and we
16 think that is 100 percent responsive to the needs of
17 folks who want to enjoy the movies that can't hear
18 the sound as well as most people.

19 And we do take exception that subtitles are
20 different than closed captions. They deliver the
21 same type of information. In fact, in most cases the
22 synchronization is way better because they are data

1 formats as opposed to streaming broadcast formats.

2 We are also aware on the Internet that all
3 players that render images are proprietary, yet the
4 major ones, at least the ones that we're aware of and
5 the ones that we use, like Adobe Flash, Microsoft
6 Windows Media, Apple's Quick Time, all have -- all
7 accept proprietary captioning files and render them.

8 So on fox.com, which has all of our prime
9 time programs, there's closed captioning for all the
10 episodes, essentially the same closed captioning.
11 You're right. It isn't closed captioning because it
12 does not comply to any sort of standard because
13 that's a non sequitur on the Internet.

14 These are data files and everyone does it
15 differently, but they all do it because they all want
16 to be responsive and to generate that environment for
17 people, if they needed it, and I'm not -- we don't
18 operate this company, but Hulu, which we happen to
19 own a third of now, along with our partners NBC and
20 Disney, also have -- they use a different player and
21 they have -- you get the same closed captioning
22 experience there.

1 So I want to say that I'm a little -- I
2 just wanted to set the record straight that, from our
3 perspective, we actually are being active. We're not
4 required to do any of those things, but we do them.
5 We've been doing them for quite awhile and also from
6 our perspective is that subtitles, it's all
7 semantics.

8 They deliver the same exact experience as
9 broadcast closed captioning, as far as we're
10 concerned, and to the HDMI point, we were very
11 instrumental at FOX supporting HDMI with its content
12 protection scheme, HDCP, and I was involved in those
13 discussions and as an observer, because I'm not a
14 manufacturer, but as an observer, I would say that it
15 was considered straightforward that when one was
16 rendering the image, which is what happens before you
17 send something on HDMI or component analog, the
18 display -- we could not rely on the display to have
19 any capabilities, other than a bit map, which is
20 exactly the same reason that computers don't do this
21 either or game consoles.

22 Whenever they render into component analog

1 or especially high resolutions or HDMI, it's the job
2 of the transmitting appliance to provide any features
3 that want to be exhibited in the image, whether
4 that's scaling, color space, you know, tone
5 reproduction, or text information, and as far as we
6 understand it in our experiences, you know, all the
7 devices I've just mentioned in fact do that.

8 Every DVD player does it, every Blu-ray
9 player does it. Obviously the Internet appliances
10 all do it, but in terms of this HDMI transmission,
11 we're not aware of any DVR that -- I'm sure there may
12 be some fringe weird product that doesn't do it, but
13 Tivo, all the cable boxes that we're familiar with
14 come from Motorola and from SA, they do it.

15 So I think those -- if there are fringe
16 products, we should -- those should be brought to our
17 attention. We've never had that brought to our
18 attention, though.

19 MR. KNAPP: Cheryl?

20 MS. HEPPNER: Cheryl Heppner from the
21 Northern Virginia Center for Deaf and Hard-of-Hearing
22 Persons.

1 I have to say I really appreciate your
2 response and your dilemma. Sometimes subtitles
3 approximate the same experience as closed captioning.

4 That's true. It's also true of the industry that
5 does movie captioning. There can be so many
6 different things that masquerade as closed captioning
7 but really aren't.

8 It's becoming very confusing for consumers
9 to know what they're buying or downloading or
10 ordering because they're not sure what the format of
11 the captions are. Many of us, because we have so
12 little hearing, appreciate that they don't always get
13 what we always know as subtitles. Subtitles will
14 just give you basically what people are saying and
15 sometimes they will shorten what the -- the text for
16 subtitles will not be exactly accurate to what
17 someone is saying.

18 And when you are like many of us with
19 hearing loss, a good speech reader and they're
20 reading something and seeing something different on a
21 screen, it could be very discombobulating and destroy
22 the experience. We will get little cues of something

1 happening and won't understand at all. We will think
2 what's that and they'll say something and we're more
3 confused, but many times captioners will give us
4 information that in parenthesis door knock,
5 somebody's at the door. These are just as important
6 to us sometimes as what people are saying to each
7 other.

8 Finally, I'd like to say that Karen just
9 talked about there being 37 million people with
10 hearing loss, but the one thing when you look at Blu-
11 ray, at our TV boxes, even going to the Internet,
12 most of us who are deaf or hard of hearing, do not
13 watch television alone all of the time. We watch
14 with our friends and families. We want to be able to
15 have the same sorts of experience they have and doing
16 so together.

17 So it's very important to watch and a lot
18 more people benefit than just us. It's that time we
19 have together with our families and friends.

20 MR. KNAPP: Karen?

21 MS. STRAUSS: This is Karen Strauss. I
22 just wanted to add to what Cheryl just said about

1 subtitles. Historically, they had a
2 different meaning and that was when the definition of
3 closed captioning captions were created, it was very
4 clear that they included background information. So
5 there's this initial resistance to subtitles.

6 Now, Larry and I served on TEITAC,
7 T-E-I-T-A-C, the Access Board's Advisory Committee to
8 update the Section 508 Standards, and we came across
9 this issue and actually in proposals for those
10 guidelines pretty much redefined subtitles to make
11 them closer to what captions are, including the
12 background information, precisely because now there
13 is more of an emphasis on using subtitles applied
14 over the picture rather than captions encoded into
15 the picture.

16 So we may be closing the gap and maybe we
17 need a new term or something, but that's the initial
18 resistance to the word "subtitles." Basically, it
19 sounds like what you may be providing is really the
20 equivalent of captions, just put on to the picture in
21 a different way.

22 And, you know, I don't want to make it seem

1 like every, you know, participant in this room hasn't
2 done anything. Clearly, you've all done a lot. What
3 we're interested in, and it's not an attack on any
4 one company, you know, and we do applaud you for
5 going above and beyond the law because the law does
6 not require DVDs or VHS tapes or any actual products,
7 any kind of DVD, any kind of software that you can
8 use to display a program. It doesn't require that
9 actual disk to be -- to have captions in it or
10 subtitles. So you clearly have gone above.

11 All that we're trying -- all that I'm
12 trying to say and all that we're trying to say is
13 we're trying to get the concept of universal design
14 incorporated into the industry.

15 This notion that when you're designing a
16 product that -- from the start at the gate, you lay
17 out, including what you need to to make it the best
18 possible product, you incorporate the accessibility
19 needs. That's all I'm saying.

20 Clearly, there was a failure here. I mean,
21 otherwise we wouldn't be here. At least there were
22 failures in certain areas.

1 As for the Blu-ray or the HDMI problem, I
2 think that it's way beyond the fringe problem.
3 That's at least our -- that's what our information is
4 telling us and I think that that's what the FCC is
5 hearing, as well, that there is -- it's a pretty
6 significant problem and again I'm not technical. I
7 don't know what it is, but my understanding is that
8 there are a sizeable number of people or devices that
9 can't access the captions with it.

10 MR. KNAPP: Larry?

11 MR. GOLDBERG: I think Andy hit on one of
12 the points that we're talking semantics here because
13 I think some of it is.

14 In fact, what I think you do on Hulu and
15 fox.com, I call that closed captioning. Now, the
16 fact that the data format might be rendered
17 differently, what you are including there are derived
18 from your broadcast closed captions and they include
19 what we call the non-speech information that came out
20 of a study at Gallaudet University.

21 Sound effects, speaker IDs, lyrics, music,
22 those sorts of things that an English subtitle tends

1 not to include. If an English subtitle also includes
2 all the non-speech information and placement in
3 speaker ID, it is serving that purpose of closed
4 captioning.

5 No one particularly cares that it uses DFXP
6 versus 708. So I think it's more the purpose of what
7 the text on screen is about, not necessarily the data
8 format, and when you're doing captioning with all
9 that information and you're allowing the user to now
10 do what they can do to change font, color, size and
11 so forth, all of that is more readily doable in using
12 the 708 format than bit maps on a DVD, though I
13 understand you could probably do that, too, using
14 some sort of Blu-ray JAVA to give the user control
15 over the display of the captions in those physical
16 media.

17 So I think partly you're right to say it's
18 the definition of what is a subtitle, what's closed
19 captioning?

20 MR. KNAPP: Dana, did you want to --

21 MS. MULVANY: Hi. This is Dana Mulvany. I
22 have been using 608 and 708 a lot and 708 illustrates

1 to me the value of captioning even more because I
2 might use ELO fonts on a blue background and the
3 advantage of using the color for me is that if there
4 is text on the screen, I can easily see where the
5 captions are because they're colors.

6 That's great for somebody who has a visual
7 impairment because they use the colors to snap to the
8 captions and now the captions use positioning to
9 indicate who is speaking. The subtitles, I think,
10 are pretty much always at the bottom of a screen.
11 There's a lot less flexibility about subtitles far
12 beyond how the language that they use and words that
13 they use.

14 The other thing about captioning is that
15 you may be able to control it. There's a lot of
16 software that will let you even export the caption to
17 a separate window which again is wonderful for
18 somebody who is deaf, blind or who has both low
19 vision and hearing impairment.

20 People who are color blind may also benefit
21 a great deal by being able to choose the colors of
22 the captions. So there are perhaps more examples of

1 why captioning is so valuable.

2 Another thing I can think of is that some
3 products do a very poor job -- one of the reasons why
4 it's important to be able to transport captions to
5 the TV is because the consumer has selected a TV and
6 likes the captions.

7 Many external devices do a terrible job of
8 captioning, I'm afraid. Some captions can actually
9 be very tiny. The small captions are even worse.
10 One of the problems is that we have no standard for
11 what large means when it comes to captions.

12 We haven't set a standard for standard size
13 captions or for small captions. The CaptionMaster's
14 converter box is an example of extremely small
15 captions. You could see what happens with companies
16 making DVD players if they decide that the caption
17 size is good enough for them, so it should be good
18 enough for everybody else.

19 So what Karen said about the desirability
20 of making everything universally accessible is kind
21 of the main point. We don't know all of the benefits
22 of universal access sometimes, but if we can make

1 something accessible, if it's technologically
2 possible to do so, then please do so. We can't
3 anticipate all of the problems.

4 MR. KNAPP: Thanks. Well, we launched into
5 this from the discussion about the HDMI Group. So I
6 think we can -- basically, it sounds like we've got
7 enough other issues wrapped up in this that they
8 should at least be explored.

9 Any other points?

10 [No response.]

11 MR. KNAPP: Okay. There's no -- anybody
12 object to ending early?

13 [No response.]

14 MR. KNAPP: I didn't think so.

15 MS. SEIDEL: As Julius was saying, we'll
16 send around, and hopefully we've got everyone's e-
17 mails, if we didn't already, we'll send around a
18 capsule of what each of the -- the scope for each of
19 the working groups a little bit later and get that
20 out and then we'll also, you know, jot down for you,
21 send around who volunteered for each of the groups,
22 so each of you knows who the fellow members will be.

1 And one thing I was asked to be sure and
2 provide, if each of you would just leave your tent
3 cards and your name cards in the back of the room so
4 we can use them for each meeting that will be great.

5 MR. KNAPP: And I want to thank all of you
6 for your contributions today. I know I learned some
7 things that I didn't know coming in, and it's not
8 only about solving the problems but also, I think,
9 mutual understanding.

10 Yes, John, go ahead.

11 MR. CARD: So there is a defined process or
12 will you be able to communicate a defined process to
13 have others in our companies who may be interested in
14 some of those groups join that discussion?

15 MR. KNAPP: I think what we have to do,
16 because we've got some legal rules we've got to
17 follow, so I'm going to explore how we make this all
18 happen.

19 MR. CARD: Okay. Thank you.

20 MR. KNAPP: But we'll be following up on
21 the lists.

22 MS. SEIDEL: I think the one issue there,

1 just so people understand, I think the one issue
2 there, as you all probably know, you've had some, you
3 know, -- there are certain ethical issues that I
4 think each of the members had to kind of clear. So
5 then to the extent others are participating formally,
6 it's kind of a different -- they have to go through
7 that same process.

8 So right now, what we're talking about,
9 though, is to the extent there are people in your
10 companies that may help you participate, that's
11 certainly welcome. It's just there's a distinction
12 between members per se and then the other people who
13 are supporting those members.

14 MR. KNAPP: Okay. Thank you very much.

15 [Whereupon, at 3:40 p.m., the meeting was
16 concluded.]

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