

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

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CONSUMER ADVISORY COMMITTEE

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MEETING

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FRIDAY
JUNE 8, 2018

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The Advisory Committee met in the Commissioners Meeting Room, 445 12th Street, S.W., Washington, D.C., at 9:00 a.m., Eduard Bartholme, Chairman, presiding.

COMMISSIONERS PRESENT:

AJIT PAI, Chairman

COMMITTEE MEMBERS PRESENT:

EDUARD BARTHOLME, Committee Chairman
DEBRA R. BERLYN, National Consumers League
JOSLYN DAY, Massachusetts Department of
Telecommunications and Cable
MARK DEFALCO, Appalachian Regional Commission
FREDERICK ELLROD, National Association of
Telecommunications Officers and Advisors
AMINA FAZLULLAH, National Digital Inclusion
Alliance*
B. LYNN FOLLANSBEE, USTelecom
PAUL GOODMAN, Center for Media Justice/Media
Action Grassroots Network (MAGNET)
SUSAN GRANT, Consumer Federation of America
CORALETTE HANNON, AARP*
KYLE J. HILDEBRAND, serving individually as a
subject-matter expert, Special Government
Employee*
THADDEUS JOHNSON, National Association of State
Utility Consumer Advocates
DAWIT KAHSAI, AARP
LUISA LANCETTI, T-Mobile
GAURAV LARROIA, Free Press
IRENE LEECH, Consumer Federation of America*
ROSS J. LIEBERMAN, American Cable Association
STEVEN MORRIS, NCTA - The Internet and Television
Association
RACHEL NEMETH, Consumer Technology Association
FRANCELLA OCHILLO, National Hispanic Media
Coalition
STEVE POCIASK, American Consumer Institute*
HOWARD ROSENBLUM, Deaf and Hard of Hearing
Consumer Advocacy Network
KEVIN TAGLANG, Benton Foundation*
LARRY WALKE, National Association of
Broadcasters*
OLIVIA WEIN, National Consumer Law Center
KRISTA WITANOWSKI, CTIA

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COMMISSION STAFF:

SCOTT MARSHALL, Designated Federal Official
JONATHAN CAMPBELL
BARBARA ESBIN
JEAN KIDDOO
CHARLES MEISCH
HOWARD PARNELL
KAREN PELTZ STRAUSS
BECKY SCHWARTZ
MARK STONE

ALSO PRESENT:

DAVE BOOTH*
BRADY W. CREASLER*
BOHDAN ZACHARY

*Present by teleconference

C-O-N-T-E-N-T-S

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

2 (9:02 a.m.)

3 CHAIR BARTHOLME: Good morning,
4 everyone. It seems like we're having a little bit
5 of a slower start. I heard there was some sort
6 of hockey thing that happened last night that might
7 be causing some traffic and Metro is a little slow
8 this morning.

9 So hopefully ends up showing up and
10 didn't celebrate too much.

11 MR. MARSHALL: Should we do a sobriety
12 test for everybody?

13 CHAIR BARTHOLME: Just checking, is
14 the, do we have folks on the phone line?

15 MEMBER TAGLANG: Yes, we do.

16 MEMBER POCIASK: Sure do.

17 CHAIR BARTHOLME: Perfect. So I think
18 Scott has a couple logistical items. Name cards
19 are on the table by the far set of doors if you
20 haven't gotten that yet.

21 So please grab your name card, make your
22 way to the table. Scott is going to do some other

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1 logisticals. Far, far to your right.

2 MR. MARSHALL: This is the
3 boardinghouse reach for a microphone. Good
4 morning, everybody, welcome.

5 And for those of you who are out of town
6 you have no idea how nice this weather is in
7 Washington. We don't get much nice weather
8 without heat and humidity in this town.

9 Just wait until June or July. Just be
10 thankful we don't meet in July or August. But
11 anyway, good morning. Thank you for being here.

12 We, for those of you who have not been
13 here before welcome and you'll find the restrooms
14 right straight out this door to my right. Go to
15 the intersecting corridor and turn left going
16 toward the lobby where you checked in and the
17 restrooms are on your left.

18 We will be changing our schedule a
19 little bit today to make it conform with some of
20 the practices of other committees and giving that
21 a try. And that's why we are having our plenary
22 meeting until noon, adjourning around noon and

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1 then having our working group breakout sessions
2 that are private.

3 They're not public meetings, they're
4 not broadcast like our plenary meeting is, in the
5 afternoon. And we have those staggered between
6 1:00 and 3:00. And in your meeting packet there
7 is a document that gives the time and locations
8 for those meetings as well as the dial-in
9 instructions for the bridge for each one of those
10 rooms.

11 If you have any questions ask me or
12 Catherine. Catherine, are you in the room? No,
13 she's busy doing all the work that's behind the
14 scenes of this thing.

15 Anyway, when she gets back or you can
16 ask me and we'll also get you to the rooms. It's
17 really quite easy. We'll be using this room for
18 our, for some of the breakouts, especially for
19 showing video or something.

20 And then the other breakouts will be
21 in the room again right down this corridor to my
22 right past the intersecting corridor. And in that

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1 corridor it's one of the usual breakout rooms that
2 we use, 402442.

3 Anyway, anything else to add, Mr.
4 Chairman?

5 CHAIR BARTHOLME: No. I hope that
6 everybody will plan to stay through the working
7 group sessions because as you know those are
8 important to the work that we do and it's one of
9 the few opportunities we have to do them in person
10 is when we're here for these full day meetings.

11 I thought it might be helpful to go
12 around and do introductions. But before we do that
13 I wanted to make sure that we thanked Ross Lieberman
14 and ACA for providing breakfast and lunch for us
15 today.

16 We're much more productive when we're
17 well fed. So thank you, Ross, that's very much
18 appreciated. So we'll do a quick round of intros.

19 I'm Ed Bartholme with Call for Action. Scott.

20 MR. MARSHALL: I'm Scott Marshall and
21 I work for admin and all of you and the Chairman.

22 So I've got a few bosses, yes. Good morning,

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1 again.

2 MEMBER ROSENBLUM: Good morning. I'm
3 Howard Rosenblum.

4 MR. MARSHALL: Hi, Howard.

5 MEMBER ROSENBLUM: Howard Rosenblum
6 with Deaf and Hard of Hearing Consumer Action
7 Network. And I myself work with the National
8 Association for the Deaf.

9 I wanted to ask Scott, you said you have
10 a lot of bosses. Who is your favorite boss?

11 MR. MARSHALL: They are all my favorite
12 each and every one. How is that for a good answer?

13 MEMBER ROSENBLUM: Okay. Accepted
14 response.

15 MR. MARSHALL: Okay. And give Zainab
16 who is on maternity leave our best too when you
17 see here.

18 MEMBER LANCETTI: Luisa Lancetti here
19 representing T-Mobile.

20 MEMBER BERLYN: Debbie Berlyn
21 representing the National Consumers League and
22 rocking the red. I mean, hello, go Caps.

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1 MEMBER OCHILLO: Good morning.
2 Francella Ochillo, National Hispanic Media
3 Coalition.

4 MEMBER ELLROD: I'm Rick Ellrod from
5 Fairfax County Virginia representing NATOA.

6 MEMBER GOODMAN: Paul Goodman on
7 behalf of the Center for Media Justice and the Media
8 Action Grassroots Network.

9 MEMBER JOHNSON: Thaddeus Johnson with
10 the Office of the People's Counsel for the District
11 of Columbia on behalf of NASUCA.

12 MEMBER KAHSAI: Dawit Kahsai with
13 AARP.

14 MEMBER WEIN: Olivia Wein, National
15 Consumer Law Center, also rocking the red.

16 MEMBER NEMETH: Good morning. I'm
17 Rachel Nemeth with the Consumer Technology
18 Association.

19 MEMBER GRANT: Susan Grant, Consumer
20 Federation of America. I guess I'm rocking the
21 Irish.

22 MEMBER FOLLANSBEE: Lynn Follansbee,

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1 USTelecom, also rocking the red.

2 MEMBER DEFALCO: Mark Defalco with the
3 Appalachian Regional Commission.

4 MEMBER LIEBERMAN: Ross Lieberman,
5 American Cable Association.

6 MEMBER MORRIS: Steve Morris, NCTA.

7 MEMBER DAY: Good morning. Joslyn
8 Day, the Massachusetts Department of
9 Telecommunications and Cable.

10 MEMBER LAROIA: Hi. I'm Gaurav Laroia
11 here for Free Press instead of Dana Floberg this
12 morning.

13 CHAIR BARTHOLME: And on the phone?

14 MEMBER FAZLULLAH: Hi. This is Amina
15 Fazlullah with the National Digital Inclusion
16 Alliance.

17 MEMBER TAGLANG: Kevin Taglang from
18 the Benton Foundation.

19 MEMBER POCIASK: Steve Pociask.

20 MEMBER WALKE: Larry Walke.

21 MEMBER HILDEBRAND: Sorry, Kyle
22 Hildebrand, individual.

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1 MEMBER POCIASK: Yes. And this is
2 Steve Pociask with the American Consumer
3 Institute.

4 MEMBER WALKE: Larry Walke, National
5 Association of Broadcasters.

6 MEMBER HANNON: Coralette Hannon with
7 AARP.

8 CHAIR BARTHOLME: Anyone else on the
9 line? And we had one person sneak in.

10 MEMBER WITANOWSKI: Hi, Krista
11 Witanowski, CTIA.

12 CHAIR BARTHOLME: Quick reminder,
13 raise your hand to activate the microphone in front
14 of you when you want to speak. Name cards are one
15 sided. So if you can see your name none of the
16 rest of us can see your name.

17 So turn it around. And when you do want
18 to say something flip it up like this so that we
19 know that you're sort of in the queue or the comment
20 queue. Next on the agenda we have the Chairman
21 joining us in person in about five minutes.

22 So we'll sort of hang close to the table

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1 and maybe freshen up your coffee if you want to
2 and then we'll get going as soon as the Chairman
3 arrives.

4 (Whereupon, the above-entitled matter went off the record at 9:09 a.m.
5 and resumed at 9:12 a.m.)

6 CHAIR BARTHOLME: So next up this
7 morning we're excited to be joined by Chairman Pai
8 who is going to be providing us with some remarks
9 this morning. And I think he was here, is here.

10 I'll stop looking around and just sit
11 patiently at this point. While we wait for the
12 Chairman we're going to get started with our CGB
13 update.

14 MR. STONE: Once I get going I'm not
15 yielding the seat.

16 CHAIR BARTHOLME: Okay, fair warning.
17 You might want to change the time card.

18 MR. MARSHALL: It's the end of the pay
19 period today.

20 CHAIR BARTHOLME: Patrick Webre was
21 planning on being here with us but had a conflict
22 and sends his regrets. So we're thrilled to be

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1 joined by Mark Stone is going to start us off with
2 an update on the work that CGB has been doing since
3 our last meeting. So, welcome, Mark.

4 MR. STONE: Thank you, Ed. Good to see
5 all of you. As Ed mentioned, our Bureau Chief has
6 had an unavoidable conflict today so he sends his
7 regrets.

8 So I want to give you an update of some
9 of the policy work we've been doing in the Bureau.
10 We've been busy since your last meeting working
11 on robocalls and slamming and cramming.

12 In the robocalls arena in March the
13 Commission addressed an issue called, that we refer
14 to as reassigned phone numbers issue. In a
15 nutshell that's the case where a caller tries to
16 reach a consumer that gave consent to get a robocall
17 but that number that the consumer was at is
18 subsequently reassigned to a new consumer.

19 So that creates a problem where the
20 consumer who wants to get the call no longer gets
21 it. The consumer who inherited the reassigned
22 phone number misses a call that they want and then

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1 of course the caller wastes their time trying to
2 reach the wrong person.

3 So in the March NPRM the Commission took
4 steps to address the problem. Specifically it
5 proposed to ensure that one or more databases are
6 available to callers with comprehensive and timely
7 information they need to avoid calling reassigned
8 numbers.

9 Sought comment on the information that
10 callers who choose to use a reassigned numbers
11 database need to avoid the information they need
12 to avoid calling reassigned numbers. And then
13 finally sought feedback on three alternative ideas
14 for service providers to report that information.

15 First, requiring service providers to
16 report reassigned number information to a single
17 FCC-designated database. Second, requiring
18 service providers to report that same information
19 to one or more commercial data aggregators or
20 third, allowing service providers to report that
21 information to commercial aggregators on a
22 voluntary basis.

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1 CHAIR BARTHOLME: Is that a good
2 breaking point?

3 MR. STONE: That might be a good
4 breaking point.

5 CHAIR BARTHOLME: I noticed the
6 Chairman has joined us so we would like to welcome
7 him up now to provide his remarks. I know you've
8 got a busy schedule today and we want to be
9 respectful of your time.

10 CHAIRMAN PAI: Thanks, sorry to cause
11 an interruption. And I'm frankly just amazed that
12 anybody is here. I can tell you that if the Kansas
13 City Chiefs had won the Superbowl after a decades
14 long drought I can assure you the last place I would
15 be would be on a voluntary committee meeting on
16 a Friday, no less.

17 So I'm very impressed at all of your
18 dedication and all Caps, it's kind of a surreal
19 feeling being in a city that hasn't known a
20 championship for 26 years.

21 CHAIR BARTHOLME: We have lots of red.

22 CHAIRMAN PAI: Absolutely right. So

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1 well welcome to the summer meeting of the Consumer
2 Advisory Committee. The last time I met with you
3 in February I was on the road and so I had to address
4 you through a prerecorded video message.

5 So to me at least this is much, much
6 better. First off, I want to thank you all again
7 for sharing your time and your expertise here at
8 the Commission. And special thanks to the CAC's
9 leadership team, especially your chairman, Ed and
10 Scott Marshall who runs point from the FCC's
11 perspective.

12 This Committee provides a tremendous
13 value to the Commission by bringing in experts,
14 advice from consumer advocates and the private
15 sector. And what's notable is that this Committee
16 tackles such a wide array of issues.

17 In fact, today's agenda I think is
18 reflective of that broad portfolio. I'll just
19 briefly highlight our work on a few of the issues
20 that I know you're going to be talking about.

21 And there is some recent work including
22 up to yesterday. Many of the issues were on tap

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1 for the Commission's open agenda meeting. I'll
2 start with 5G which I understand is the topic of
3 today's second panel.

4 For the past few years one of the
5 Agency's highest priorities has been repurposing
6 a high-band spectrum for next generation wireless
7 connectivity or 5G as it's commonly known.
8 Yesterday the Commission finalized rules for the
9 use of the 24 gigahertz band and advanced the ball
10 on the lower 37 gigahertz band.

11 We also proposed freeing up even more
12 spectrum for flexible wireless use in the 26
13 gigahertz bands as well as the 42 gigahertz band.

14 Later this morning you'll hear from staff
15 regarding the next steps and the details of our
16 plan.

17 But the big takeaway is that 5G is a
18 huge opportunity for U.S. innovators as well as
19 consumers. We want the United States to be a haven
20 for innovation and investment and we want our
21 consumers to be able to benefit from the mobile
22 revolution.

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1 Next from mobile to fixed broadband.
2 And during my travels across the United States
3 over the last year some 26 states and the U.S.
4 territories of Puerto Rico and the Virgin Islands,
5 when I speak to consumers they express great
6 interest in being able to access modern, resilient
7 technologies like optical fiber instead of limping
8 along with slower services like DSL provided over
9 old, often degraded copper.

10 To respond to that desire we adopted
11 an order just yesterday that would make it easier
12 for companies to discontinue outdated Legacy
13 services and transition to networks of the future.

14 And we want to work with you to minimize
15 the disruptions for consumers during the
16 retirement of Legacy networks and ensure that they
17 are able to enjoy the high speed services that many
18 of us already do.

19 We also acted yesterday on two subjects
20 that I know are important to you, communications
21 for peoples with disabilities and slamming and
22 cramming. On the former, we addressed Internet

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1 Protocol Captioned Telephone Service or IP CTS,
2 which as you know is a service that allows
3 individuals with hearing loss to both read captions
4 and to use the residual hearing to understand a
5 telephone conversation.

6 The use of IP CTS is paid for through
7 the FCC's TRS fund and it's grown exponentially
8 in recent years representing almost 80 percent of
9 the total minutes that are compensated out of that
10 fund.

11 So yesterday we set IP CTS compensation
12 rates that are closer to the actual provider costs
13 which will put the service under more sustainable
14 footing going forward. And that is important
15 because we want more of the people who need the
16 service to be able to benefit from it.

17 And on the cramming and slamming side
18 we adopted rules that include for the first time
19 a clear ban on misrepresentations that are made
20 during sales calls to switch carriers and a clean
21 prohibition against placing unauthorized charges
22 on consumer's phone bills.

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1 We also put additional teeth into our
2 anti slamming rules by clarifying that carriers
3 who abuse our third party verification process or
4 TPV, will be suspended from using that service for
5 five years.

6 With respect to the incentive option
7 which I know you're tackling as well the post
8 auction broadcast transition is well under way with
9 scores of stations already transitioning to new
10 channels and markets across the country.

11 Our Incentive Auction Team has
12 regularly briefed this Advisory Committee on the
13 FCC's efforts to make sure that TV viewers are
14 prepared for these changes. And they're here
15 again today to update you on the particulars.

16 They'll then lead a discussion with
17 some local stations that have already made their
18 transition and can tell you about some of the
19 lessons that have been learned.

20 And finally, I cannot talk to the
21 Consumer Advisory Committee without talking about
22 my favorite topic, robocalls which is our top

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1 consumer protection priority throughout the
2 Commission.

3 Over the last several months we have
4 been busy empowering voice service providers to
5 stop spoofed robocalls from ever reaching
6 consumers phones encouraging the development of
7 a call authentication standard as essentially a
8 digital fingerprint for every phone call and
9 proposing a reassigned numbers database to ensure
10 that callers don't inadvertently call a number that
11 has been reassigned to a new subscriber who may
12 not have been giving consent to being called.

13 On top of that we also approved the
14 largest enforcement penalty ever imposed by the
15 FCC against a robocaller in Florida. Now you're
16 recommendations on call blocking, on caller ID
17 authentication and consumer education have been
18 extremely valuable to our work.

19 And so I thank you for that and we look
20 forward to more of the same. If you have any ideas
21 on this score that can help us attack what Senator
22 Fritz Hollings once famously called the scourge

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1 of civilization, we would certainly welcome that.

2 Anyway, in the interest of time I will
3 stop filibustering. I apologize to our
4 interpreters for the fast talking as always and
5 let you get on with what I know is a very full
6 agenda.

7 But thank you once again for all of your
8 service. I hope you have a productive and happy
9 Friday. And once again, let's go Caps.

10 (Applause.)

11 CHAIR BARTHOLME: Thank you, Chairman.

12 Great to have you in person. I think we'll have
13 Mark come back up.

14 MR. STONE: Well he took my slamming
15 topic. So the one last thing I did want to mention
16 again on the robocalls or in addition to what the
17 Chairman mentioned, the Bureau sought comment on
18 a couple of key terms in the Telephone Consumer
19 Protection Act which is the main anti robocalls
20 law that we enforce and implement here at the FCC.

21 So we did that. Back last month we
22 sought comment on key terms and concepts like auto

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1 dialer, revocation of consent and reassigned
2 numbers liability along with a couple of other
3 issues such as robocalls from federal contractors
4 and other government contractors.

5 So the Commission or the Bureau took
6 this action in response to a DC Circuit decision
7 related to TCPA. The comment cycle on that I
8 believe closes June 28th. About it for me.

9 CHAIR BARTHOLME: Okay. Thank you,
10 Mark. Next on the list we have Karen.

11 MS. PELTZ STRAUSS: Hi. Thank you
12 again for having me back. Okay, the Chairman stole
13 my thunder on IP CTS. Next time have him come after
14 us.

15 But IP Captioned Telephone Service,
16 actually the Chairman only mentioned one of the
17 things that the item does. The rate, lowering of
18 the rate. It also does many other things.

19 So I can just mention those really
20 briefly. One of the other things that it does is
21 it seeks to modernize this service to allow for
22 fully automated captioning, or fully automated

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1 speech recognition.

2 This is a service that generally people
3 who have some hearing but not enough to understand
4 the conversation use because what happens is when
5 the, let's say if I'm a person that's hard of
6 hearing I will access this service and then I will
7 be able to use my residual hearing to hear what
8 the other person is saying.

9 But that person is, I'm also connected
10 to what's called a communications assistant who
11 repeats everything that person says and reads it
12 into a speech recognition program that then spits
13 out captions that produce, a better word is
14 generates captions that I then read on my captioned
15 telephone.

16 Because automated speech recognition
17 has improved so dramatically, we always talked
18 about five to ten years. Well it's kind of here.

19 It's gotten so much better.

20 Literally in the last year and then in
21 the last month and the last week, every day it
22 improves. We are, we have approved or the

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1 Commission has approved the use of automated speech
2 recognition without that communications assistant
3 involved to generate these captions.

4 So the next step is going to be that
5 we are going to receive petitions. We actually
6 already have two that are pending that from
7 providers that want to provide IP Captioned
8 Telephone Service via this new method.

9 So it's a big deal. It's modernization
10 and we are going to make sure that we only approve
11 those who can meet our mandatory minimum standards
12 which will assure functional, equivalent service
13 for people who have hearing loss.

14 So we want to make it very, very clear
15 we're not going to let just anybody in. We want
16 to make sure that the service provides effective
17 communication.

18 The item also looks at whether or not
19 we should be shifting some of the responsibility
20 for the administration of this service over to the
21 states. States each have their own relay
22 programs.

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1 To date this has been an entirely FCC
2 administered service and we think it may be time
3 to shift some of the responsibilities including
4 potentially some of the funding. To date it's only
5 been funded by interstate and international
6 carriers.

7 And we have received a petition and the
8 petition is noted in the item whether or not we
9 should be including interstate revenues in the
10 support for this service. Just so you know this
11 service now costs, this IP CTS service alone costs
12 about a billion dollars a year.

13 So we're very concerned about getting
14 the service under control, getting the funding
15 under control and making sure that it's sustainable
16 for the people who need it. In that frame we're
17 also looking at provider practices and making sure
18 that there are, that the marketing practices that
19 are occurring are legitimate and producing
20 customers who again absolutely need the service.

21 I just mentioned that there are state
22 programs that provide relay services. And we are

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1 also looking at renewing those state
2 certification, state program certifications.

3 We do that every five years. This has
4 been going on, on a rolling basis. I might have
5 even mentioned it at the last meeting. Most
6 recently on April 10th we sent out a request for
7 public comment on the most recent states that
8 applied to get renewed, Illinois, Oregon, Wyoming
9 and Pennsylvania and comments are due on June 11th.

10 We also have an open item on what the
11 rates, compensation rates generally should be for
12 all of our relay services. We have many different
13 kinds, not only IP CTS.

14 We have video. We have still TTY.
15 There are many flavors of relay. And so we have
16 lots of different rates. And so that is out on
17 public notice by the Bureau as well as the
18 contribution factor which, how much money we should
19 be collecting from each carrier.

20 And comments are due, I don't have the
21 date the comments are due. But we have to resolve
22 that proceeding by June 30th because the new rates

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1 go into effect on July 1st.

2 Something else that you might be
3 interested in is that ITTA filed a petition asking
4 for it to be permissible for telephone companies
5 to include the fact that there's a surcharge for
6 TRS, for Telecommunications Relay Services in the
7 description as a line item charge on customer
8 telephone bills which is not currently the
9 practice.

10 So we issued a public notice on that
11 on May 18th and comments are due June 18th and
12 replies are due July 3rd. Moving away from relay,
13 in October we have due our third biannual report
14 to Congress on the 21st Century Communications and
15 Video Accessibility Act, also known as the CVAA.

16 On April 5th we had released a public
17 notice inviting comment to help prepare that
18 report. And we are going to be releasing a PN later
19 in the summer to invite comments on tentative
20 findings.

21 It's a two-step process. And
22 generally we're looking at the level of compliance

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1 with accessibility requirements, the extent to
2 which accessibility barriers still exist and the
3 extent to which our record keeping and enforcement
4 rules have any effect on the development and
5 deployment of new technologies.

6 Next, in July, July 1st some big changes
7 take place in video description. I think that all
8 of you know what that is. But just in case you
9 don't it's narratives, audio narratives inserted
10 into television programs content to provide people
11 who are blind and visually impaired information
12 about what's going on, on the screen when there's
13 no dialogue and no audio.

14 And we've had rules since this is a CVAA
15 requirement. So we've had rules since around 2012
16 requiring this on certain television networks and
17 channels.

18 The exciting thing is that beginning
19 July 1st the amount of required video programming
20 is going to go up by 75 percent to 87.5 hours per
21 quarter for each included network. In addition,
22 we will be changing the non-broadcast multi program

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1 distributors that are covered.

2 Specifically it's going to be, this is
3 basically cable, the cable channels to make it
4 easier. It will be USA, HGTV, TBS, Discovery and
5 History and of course ABC, CBS, Fox and NBC will
6 continue to be covered.

7 We also have the Commission and not
8 necessarily our Bureau, but we in the disability
9 unit of our Bureau watch carefully what the Public
10 Safety Bureau does. So the Public Safety Bureau
11 has been doing an enormous amount of work.

12 For any of you have followed I just
13 wanted to mention briefly topics and if any of you
14 are interested you can follow up. But they've
15 sought comment in the past few months on issues
16 concerning wireless 911 call routing, the
17 feasibility of including multimedia content in
18 wireless emergency alert messages.

19 They've looked at the false reports
20 that occurred in Hawaii in particular because there
21 was a, as Howard knows there was a National
22 Association of Deaf meeting in Hawaii with many

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1 deaf people who were not properly alerted about
2 that false alert.

3 So they are still looking carefully at
4 that and had a public round table on May 15th on
5 it. They also issued recently a final report on
6 the nationwide test of the Emergency Alert System.

7 And all of these, the reason again I
8 mention them, they all have disability impact.
9 So we're constantly watching this.

10 And finally, I've mentioned in the past
11 that the Commission in October expanded the hearing
12 aid compatibility rules. Look forward in the next
13 year or two to seeing better volume control on your
14 cell phones.

15 I imagine this is going to help every
16 one of us especially in loud places if anybody,
17 I was not, but if anybody was there last night I
18 would think you could use the volume control, the
19 new volume control standard and new volume control
20 requirements.

21 And March 30th some of these rules are
22 going to go into effect. So I just have one more

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1 thing. Okay, the red is not by accident. Rocking
2 the red. Congratulations, Caps. Thank you.

3 (Applause.)

4 CHAIR BARTHOLME: Next we're going to
5 be joined by Barbara Esbin who is also a Deputy
6 Bureau Chief with CGB. Welcome.

7 MS. ESBIN: Thank you. This is my
8 first time at the Consumer Advisory Committee.
9 So I'm going to, one, I'm going to be very brief
10 and two, I'm going to introduce myself to anyone
11 who doesn't already know me.

12 I am the third deputy bureau chief in
13 the Consumer and Governmental Affairs Bureau.
14 This is my third time at the FCC. I previously
15 served in the Common Carrier, Wireline, Cable
16 Services, Media and Enforcement Bureaus in a
17 variety of different positions.

18 My first time with CGB. And I am, I
19 oversee the governmental affairs portion of CGB's
20 work. And those duties are performed by our inter,
21 Office of Intergovernmental Affairs, known as IGA
22 and our Office of Native Affairs and Policy known

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1 as ONAP.

2 And ONAP is focused on matters of
3 interest to tribal governments and entities. And
4 the IGA is focused on issues of interest to state
5 and local governments.

6 So what is IGA doing these days? Well,
7 in addition to its ongoing activities as the
8 Commission's principle liaison with state and
9 local governments, IGA is currently assisting in
10 the review and selection of members for its
11 Intergovernmental Advisory Committee, known as the
12 IAC.

13 This is to fill 15 vacancies that were
14 created when the IAC was expanded from 15 to 30
15 members to be more in line with the size of other
16 advisory committees the Commission has
17 commissioned and to fill three vacancies that came
18 up at the expiration of terms of sitting members.

19 So the mission of the IAC is to provide
20 advice to the Commission on issues of concern to
21 local and state governance that are within the
22 jurisdiction of the FCC.

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1 ONAP in addition to its ongoing
2 activities as the principle liaison with tribal
3 governments and entities is currently assisting
4 in the review and selection of members for the newly
5 reconstituted, reauthorized Native Nations
6 Communications Task Force.

7 This task force was originally known
8 as the Native Nations Broadband Task Force. But
9 the Commission recognized that its mandate goes
10 beyond broadband, covers access to spectrum, can
11 be used for various things, tribal radio, another
12 big issue.

13 So the mission of this task force is
14 to make recommendations to the Commission on
15 communications related issues that affect tribal
16 interests, including but not limited to broadband
17 that will enhance the Commission's ability to carry
18 out its statutory mission and engage in government
19 to government consultation with tribal nations.

20 So with that, those are the big ticket
21 items we're working on right now. I will turn the
22 seat over to Howard.

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1 CHAIR BARTHOLME: Thank you for
2 joining us. And do they do like a punch card for
3 all of the bureaus you've been in and then like
4 you get something at the end once you've --

5 MS. ESBIN: Yes, a booby prize.

6 CHAIR BARTHOLME: Next we have joining
7 us Howard Parnell who is Chief of Web and Print
8 Publishing Division of CGB and he's going to give
9 us an update on some outreach activities.

10 MR. PARNELL: Thank you. Thanks, you
11 all. I'm happy to be here. I'm feeling a bit
12 sleep deprived as I'm sure some of you are. So
13 good to know I'm not alone in that.

14 I am the Chief of the Web and Print
15 Publishing Division in CGB. And our group
16 develops and maintains consumer focused content,
17 guides alerts, things of that nature, all of the
18 content you would find on our hub, our Consumer
19 Help Center.

20 Like I said, you'll find our alerts.

21 We've launched a new feature. Help Center posts
22 which is a blog like feature. But it enables us

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1 to keep track of recent developments, new
2 developments with just little, you know, blurbs
3 here and there but to take note and to indicate
4 what kind of relevance they have to consumers, to
5 the folks that we're serving.

6 The library of our consumer, our
7 Consumer Guide Library is also to be found there.

8 That's 160 documents that we curate ongoing. And
9 that's pretty much the Help Center. I encourage
10 you to take a look at it.

11 Of course our most commonly used, most
12 popular page by far would be our unwanted calls,
13 our robocalls suite. That alone accounts for
14 something on the order of 100,000 pages used a
15 month.

16 So people are very interested in that
17 and tracking that and we keep that current with
18 all the recent developments that come along. A
19 lot of our attention lately has been developing
20 more translation services.

21 So for instance we have, in addition
22 to Spanish which we've had for some time, we've

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1 added four Asian American languages and with the
2 hurricane season upon us we're also now exploring
3 languages that are more commonly spoken down in
4 the Gulf Region.

5 So we're working without translation
6 service on looking at French for the Creole
7 population. The keeping some of the AAPI
8 languages down there but just expanding it meet
9 those needs.

10 We so work with the Incentives Auctions
11 Task Force to create and support, create consumer
12 education during this transition period. And
13 let's see, what else can I tell you?

14 That pretty much covers it. We're a
15 busy team. It's a small team. There's a couple
16 editors, a couple designers. But we're pretty
17 efficient and we like to move quickly.

18 So with that, I think that pretty much
19 covers it, short and sweet. Thank you guys.

20 CHAIR BARTHOLME: If anybody has
21 questions for --

22 MR. PARNELL: Happy to take any.

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1 CHAIR BARTHOLME: Go ahead, Rick.

2 MEMBER ELLROD: Rick Ellrod. Two
3 questions, what's the time frame expected on the
4 recruitment for the IAC for having the new members
5 in place and ready to operate?

6 And the second question, why was the
7 IAC put on hold rather than continuing normal
8 operations while the new members were recruited?

9 MS. ESBIN: Well I'm glad you asked
10 those questions. I had meant to say that we expect
11 to be moving ahead with the expanded IAC shortly.
12 So it's been, taken some time.

13 But that's just the way the process
14 works out. So I would say stay tuned to this
15 channel. It won't, it shouldn't be too much
16 longer.

17 And with respect to your other
18 question, once the IAC was expanded to 30 members
19 there were only 12 members remaining from the
20 original 15 after the two terms expired and Mayor
21 Lee passed away.

22 So didn't have a quorum, I believe.

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1 But it's really many factors have gone into the
2 passage of time.

3 CHAIR BARTHOLME: Any questions on the
4 phone line for CGB staff?

5 MEMBER TAGLANG: Nope.

6 CHAIR BARTHOLME: Steve.

7 MEMBER MORRIS: You mentioned, someone
8 mentioned hurricane season coming up. And I'm
9 just wondering from a consumer perspective after
10 last year's pretty bad hurricane season, are there
11 lessons learned from that, that you're going to
12 be applying as we move into a new season, anything
13 you're doing differently or things that were
14 particular successful from a consumer perspective?

15 MR. PARNELL: Well as I mentioned, and
16 thanks for the question, we took a look at, you
17 know, with this new translation service we've been
18 offering we saw the need to expand that for the
19 Gulf Region this hurricane season.

20 So we're working with, we've been
21 working with our translation service to determine,
22 you know, what would be the best languages to focus

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1 on and then get out and get the outreach materials,
2 the messaging out there in those languages.

3 So in addition to Korean and Vietnamese
4 and Chinese and Tagalog, which would be our Asian
5 languages, we are looking at French, Creole. We
6 are looking at others as well and leaning on the
7 translation services expertise.

8 But it's pretty clear that, you know,
9 initially when we started this service we just
10 picked those, the four Asian American languages
11 just really to get started. But, you know, it's,
12 we need to take a more regional approach and
13 hurricane season is like prime example of why we
14 need to do that.

15 So that's what we're doing in that
16 department. Karen, did you have anything to add?

17 MS. PELTZ STRAUSS: So as I mentioned
18 the Disability Division Office is in constant,
19 constantly working in coordination with the Public
20 Safety Bureau. We're also, we work regularly with
21 FEMA.

22 But one of the things that's come up

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1 is the need for access in emergency shelters. And
2 so in one of the items that was adopted just
3 recently we're going to try to make it a little
4 bit easier for anyone to get access to relay
5 services and emergency shelters.

6 We may have to do some more policy work
7 on that as well. But making sure that people with
8 disabilities have access at these shelters is
9 really important and it's something that
10 unfortunately was not always the case in the past.

11 CHAIR BARTHOLME: Olivia.

12 MEMBER WEIN: Hello, hi. Quick
13 question, in your consumer disaster relief section
14 of materials do you feature the Lifeline Program?

15 That's one of those products that could really
16 help low income families connect to essential
17 communications as they're rebuilding their lives.

18 MR. PARNELL: So we do include our
19 Lifeline materials as part of the package. The,
20 in terms of the connection to disaster or storms,
21 the Gulf Coast, that's a good idea.

22 It's something that frankly hadn't

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1 occurred to me recently. So we can take a look
2 at that. We have those materials. I think it's
3 just a question of better integration with the
4 package that we're thinking of for the Gulf.

5 MS. PELTZ STRAUSS: And I just wanted,
6 this is Karen. I just want to reiterate that we
7 also still, I think I mentioned this at the last
8 meeting. We have launched an American Sign
9 Language library, video library.

10 So we now have, I can't, I don't know
11 the exact number but ten to 20 videos that are
12 posted on the FCC's YouTube site as well as the
13 FCC's own website that provide a host of
14 information in American Sign Language.

15 And maybe, I don't know that we have
16 something on Lifeline. Maybe we could add
17 something to that as well.

18 MR. PARNELL: Absolutely.

19 CHAIR BARTHOLME: Other questions on
20 the phone, in the room? Before you guys leave I
21 just want to say thank you.

22 You've been very helpful and very

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1 supportive of the CAC in getting our agenda
2 together and it's always a pleasure to work with
3 everybody on the CGB team. So thanks for joining
4 us today.

5 MS. PELTZ STRAUSS: The feeling is
6 mutual. Thank you.

7 CHAIR BARTHOLME: We've got a few
8 minutes before our next speakers are scheduled to
9 start at 10:00. So stay close and we'll get
10 rolling once they're here.

11 (Whereupon, the above-entitled matter went off the record at 9:47 a.m.
12 and resumed at 9:55 a.m.)

13 CHAIR BARTHOLME: Okay, I think we're
14 going to get back underway here. So next on the
15 agenda we're having, we're going to have a
16 presentation on What's Ahead in 5G and Other
17 Spectrum Band Uses.

18 I think you heard the Chairman mention
19 and some CGB staff mention that a number of items
20 were on yesterday's open meeting agenda. So this
21 is a very timely topic.

22 And we're very happy to be joined by

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1 Becky Schwartz and Jonathan Campbell who are legal
2 advisors in the Office of the Bureau Chief with
3 the Wireless Telecommunications Bureau. So,
4 Jonathan and Becky.

5 MR. CAMPBELL: Thank you very much.
6 So we're going to be talking again about what's
7 ahead in 5G and other spectrum bands. But we
8 weren't here for the beginning of the meeting and
9 we weren't sure that this was covered.

10 But just as a matter of reflection, I
11 think Becky would want me to mention this.
12 C-A-P-S, Caps, Caps, Caps. So the FCC's approach
13 to spectrum policy is based on a proven three part
14 formula.

15 It's to make more spectrum available
16 for both licensed and unlicensed use, adopt
17 flexible technology neutral light touch rules and
18 remove unnecessary regulatory burdens and stay out
19 of the way of technological development and details
20 of implementation.

21 In 2018, we're going to be continuing
22 to apply this approach to a variety of bands

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1 including low, mid and high frequency spectrum
2 available for flexible use each of which has the
3 potential to unlock innovation and new consumer
4 centric applications.

5 These spectrum bands including, are
6 going to be building upon 5G's proven data rates,
7 connectivity and reliability and will drive new
8 use cases across vertical markets such as
9 automotive, energy, food and agriculture, city
10 management and government, healthcare,
11 manufacturing and transportation and really so
12 much more.

13 We're going to be discussing a few of
14 the major proceedings that are currently ongoing
15 here at the Commission and we're going to break
16 them out by frequency range. I'm going to be
17 singing the bass part of this duet.

18 I'm going to be dealing with low
19 frequency spectrum. So low frequency spectrum,
20 as many of you know, is characterized by its wide
21 area of propagation and its ability to penetrate
22 through clutter and to really make its way into

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1 buildings.

2 And so last year the FCC continued its
3 efforts to focus on low-band frequency spectrum
4 by wrapping up the broadcast incentive auction,
5 a first of its kind, two sided spectrum auction
6 that repurposed 84 megahertz of this low-band
7 spectrum in the 600 megahertz band from broadcast
8 television to flexible wireless use licenses.

9 The auction formally closed just over
10 a year ago on April 13, 2017. And that began the
11 39 month post auction transition or the repack
12 process as we call it to clear the 600 megahertz
13 spectrum band basically to move the television
14 stations to their designated landing spots and free
15 up the band for those folks who bought the wireless
16 licenses at auction.

17 So the first of the ten transition
18 phases ends on November 30, 2018, and the final
19 phase ends, is projected to end in July 3, 2020.

20 The Commission is in the process of reviewing
21 those applications for the licenses from those who
22 bought them at the auction.

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1 We are well on our way to wrapping that
2 up. We have actually granted over 90 percent of
3 the licenses that were bought at auction. So
4 there's just only a handful that remain.

5 And licensees have already begun
6 deploying in some areas in the 600 megahertz band
7 where they won't interfere with the broadcast
8 stations that have yet to be relocated. And as
9 the transition proceeds, they will be able to
10 deploy even more advanced wireless services,
11 including 5G on a much more widespread basis.

12 And so this is very much an ongoing
13 effort. But things are very much on track. And
14 so with that, that's what we've been focusing on
15 in the low frequency range. And I'm going to turn
16 it over to Becky to discuss a little bit more about
17 mid frequency and the high frequency with I guess
18 the alto and the soprano, yes.

19 MS. SCHWARTZ: Thanks, Jonathan.
20 Good morning, everyone. And I want to apologize
21 because I am under the weather. So if I'm
22 sniffing or a little stuffed up and hard to

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1 understand, I apologize.

2 But like Jonathan said I'm going to talk
3 about mid-band spectrum and then high-band
4 spectrum. So as you're probably aware there is
5 a lot going on in the Commission these days in those
6 ranges.

7 Mid-band spectrum goes all the way up
8 to 24 gigahertz. But the Commission has been
9 focusing on the 3.5 gigahertz band and 3.7 to 4.2
10 and 6 gigahertz in its rulemaking proceedings.

11 So we have released rules in the 3.5
12 gigahertz band. And this is a very exciting band
13 because we are approaching licensing in a different
14 way with a spectrum access system coordinator who
15 will be helping to manage a different type of
16 licensing scheme with traditional licenses and
17 something called general authorized access which
18 is similar to unlicensed although legally it's
19 something called licensed by rule.

20 So there's a lot of moving parts. So
21 we're focusing on getting the rules right.
22 There's an NPRM pending right now.

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1 And then we are also focusing on
2 certifying equipment in the band as well as moving
3 along the approval process for the spectrum access
4 systems that I mentioned, which are basically
5 highly automated frequency coordinators to make
6 sure that everyone can use this band without
7 interfering with each other.

8 So that's what's going on right now in
9 3.5. 3.7 to 4.2 and 6 gigahertz has been addressed
10 most recently with a notice of inquiry that the
11 Commission released last August seeking comment
12 on how we could use this band more effectively.

13 The 3.7 to 4.2 gigahertz band has been
14 traditionally used by satellite services. But
15 according to the record it's not the most efficient
16 use and there's room to use it for more flexible
17 wireless services.

18 So the Commission is looking into that
19 and we've received a lot of comments on the record
20 for various stakeholders. So we're in the process
21 of taking those into account and the Chairman
22 recently announced that we will be voting on a

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1 proposal for rules in this band at the July meeting.

2 So look out for that. And while most
3 of the commenters did focus on the 3.7 to 4.2
4 gigahertz bands, we also saw a comment in the
5 mid-band notice of inquiry on opening the 6
6 gigahertz band for greater unlicensed use or
7 preserving the existing fixed service in that band.

8 Some commenters advocated some other
9 proposals for mid-band spectrums such as license
10 mobile use or point to multi-point. There's also
11 widespread support for protecting the incumbents
12 in the band from harmful interference.

13 So we are of course looking into how
14 to do that. But there is various approaches on
15 the record of how we might do that. So that's
16 what's going on in mid-band right now at the
17 Commission.

18 I'll move on to high-band frequencies
19 which is probably what is on everyone's mind
20 because at yesterday's meeting we voted on the most
21 recent rule making in the Spectrum Frontier's
22 proceeding.

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1 So that was adopted yesterday. And
2 high frequency spectrum refers to spectrum above
3 24 gigahertz. It's also referred to as millimeter
4 wave spectrum.

5 And in the past this spectrum hasn't
6 been suitable for mobile broadband because of its
7 propagation characteristics. But advances in
8 technology have made it possible that carriers can
9 now use this spectrum to provide service using
10 small cell application.

11 So that's really exciting and it will
12 lead to low latency and very high speed services.

13 Providers have already announced plans to launch
14 5G services using the millimeter wave spectrum in
15 cities such as Sacramento, Los Angeles, Dallas,
16 Waco and South Bend, Indiana.

17 So you have a variety of different
18 geographies there. So I'll talk a little bit about
19 the Spectrum Frontier's proceeding since, like I
20 said that was just adopted yesterday.

21 We continue to establish operational
22 and licensing rules for this millimeter wave

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1 spectrum. This was the third report in order.
2 So we're continuing to open up more bands.

3 There was also a further notice of
4 proposed rulemaking that, seeking comment on
5 opening up another 2.75 gigahertz band or 2.75
6 gigahertz of spectrum in different bands. But we
7 have already adopted flexible wireless service
8 rules for 12.55 gigahertz in the millimeter wave
9 spectrum across five different bands.

10 So that's a lot of opportunities for
11 different types of carriers. And this is for both
12 licensed and unlicensed use.

13 The Commission has also adopted rules
14 that maximize spectrum utilization in these bands
15 by providing opportunities not only for
16 terrestrial wireless services but also for
17 satellite services to grow.

18 And specifically we've adopted rules
19 for satellite services in rural areas.
20 Yesterday's report in order specifically adopted
21 a geographic performance metric which is just one
22 of a list of performance metrics that carriers can

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1 use to meet their build out obligations which is
2 a different approach than the Commission has taken
3 in the past.

4 So we're hoping to provide an
5 opportunity for different types of services to
6 grow. It also resolved pending sharing and
7 operability in the 24 gigahertz band and adopted
8 a licensing plan for the lower 37 gigahertz band
9 with 100 megahertz channels.

10 It eliminated the pre-auction limit of
11 1,250 megahertz for millimeter wave spectrum
12 bands. An entity can acquire an option instead.

13 The Commission is going to do a case by case
14 post-auction review of spectrum holdings.

15 And as I mentioned, there was a further
16 notice that's seeking comment on how we can open
17 up even more spectrum including the 42 gigahertz
18 band which was one of the bands that was
19 specifically tagged in the MOBILE NOW Act, which
20 passed Congress a few months ago.

21 We've also looked at how we could expand
22 limited fixed satellite service use in the 50.4

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1 to 51.4 gigahertz band. And we're moving forward
2 not just by implementing rules but we're going to
3 start auctioning this spectrum so carriers can bid
4 on it and it can go into the hands of consumers.

5 And that will start in November of this
6 year with the 24 gigahertz immediately and
7 immediately followed by the 28 gigahertz band.
8 So that wraps up what I have to tell you on mid
9 and high-band frequency. And we're happy to
10 answer any questions.

11 CHAIR BARTHOLME: Mark.

12 MEMBER DEFALCO: Hi, it was a very
13 interesting presentation and thank you very much
14 because I think it's very useful. I know zero,
15 nothing less than zero about spectrum.

16 But I represent rural Appalachia. And
17 my understanding of 5G generally is that it's going
18 to be very fast access because you're going to have
19 a lot more towers.

20 There are probably many towers. But
21 there's going to be a lot more towers around
22 therefore the distance between your phone and the

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1 tower is closer and your band width is going to
2 be greatly, greatly increased.

3 But to wire the towers you're going to
4 need a lot more fiber. So representing a very
5 rural area my concern is that 5G will not get out
6 into the rural areas and it's going to just
7 exasperate the problem we have with rural areas
8 not having the kind of access they need and people
9 not wanting to live in rural areas because the more
10 urban area where there is more dense people is where
11 the access is so much better now in addition to,
12 you know, having FIOS.

13 And having, you know, really good cable
14 access they're going to have access to 5G and it's
15 just going to create yet one more reason for people
16 to want to leave these rural areas. So say
17 something to me to make me feel that 5G will get
18 to the rural areas or, you know, there's something
19 that you're doing to consider, you know, rural
20 America.

21 MS. SCHWARTZ: Well I would actually,
22 obviously providing service to rural areas is a

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1 multi-part approach. So it's not just about the
2 fiber which is, you know, the back hall and there
3 are other ways of providing back hall other than
4 just fiber.

5 And there's microwave and there's
6 satellite use. But in terms of, I mean one of the
7 things that's so exciting about these mid and
8 high-band frequencies is the equipment is less
9 expensive and smaller and probably easier to deploy
10 in rural areas.

11 And for example in 3.5 the folks who
12 are existing wireless broadband licensees are very
13 interested in that spectrum and upgrading what the
14 equipment that they currently have and the routers
15 that they currently use to be compatible on 3.5.

16 I would also say the licensing
17 structure is conducive to bringing service to rural
18 areas because there is much smaller license sizes
19 making it less expensive for the smaller carriers
20 to be able to provide service.

21 So I think it's a very exciting
22 opportunity for rural areas.

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1 CHAIR BARTHOLME: Rick.

2 MEMBER ELLROD: Jonathan, you
3 mentioned that the Commission's approach is based
4 on 5G's proven data rates and reliability and so
5 forth. I was wondering is that proof based on the
6 use of established 5G standards in actual practice
7 or on something else.

8 MR. CAMPBELL: Well I think that's
9 based on many of the reports that the FCC has seen
10 and some of the work that the Technology Advisory
11 Committee has done and their look at 5G.

12 And so it's kind of a broad perspective
13 that the FCC has on various different tests and
14 network architectures out there for 5G.

15 CHAIR BARTHOLME: Thaddeus.

16 MEMBER JOHNSON: Maybe for Becky. I
17 think Mark touched on part of my question which
18 is can you tell us a little more about the small
19 cell technology and how it fits into the current
20 infrastructure and what the improvement might be?

21 MS. SCHWARTZ: Sure. I think that
22 you'll see small cells being used, like I said,

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1 in the high frequency and even in the mid frequency
2 bands to provide new services because these are,
3 like I said, low latency high speed services.

4 But the higher waves the spectrum
5 doesn't travel as far so you need smaller cells
6 more closely spaced together to provide those
7 services. But I think you'll also see some of the
8 existing services improved by the use of small
9 cells.

10 So you'll see, you know, carriers that
11 want to supplement their service, provide faster
12 service, get more folks on their network also using
13 those small cells to improve current service.

14 CHAIR BARTHOLME: Anybody on the phone
15 have any questions?

16 MEMBER TAGLANG: Kevin Taglang from
17 Benton. Is there a working definition of 5G? Is
18 there a standard?

19 MS. SCHWARTZ: Well in 3GPP they
20 actually call it New Radio or NR. But, yes, 5G
21 is, it's very broad. It's really just referring
22 to the new set of technologies and standards that

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1 are applying not just for their typical wireless
2 broadband but internet of things and vehicle to
3 vehicle and communications.

4 So it's a very broad but exciting term.

5 It can also stand for five games which the Caps
6 won last night.

7 CHAIR BARTHOLME: Very on point this
8 morning.

9 MS. SCHWARTZ: Single track mind here
10 in D.C.

11 CHAIR BARTHOLME: Any other questions
12 from the phone?

13 MEMBER LEECH: This is Irene. And I
14 want to piggyback on the rural. Is there anything
15 other than making it available that's done or being
16 considered to really incentivize providers to do
17 something so that we get, fix this horrible
18 inequity that we've got between rural and populated
19 areas?

20 MS. SCHWARTZ: I think that question
21 is probably broader than just what's happening in
22 5G and that's something that the Commission, it's

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1 always a top priority for the Chairman to expand
2 access to rural areas and it's something we look
3 at through our auction procedures and our universal
4 service funding.

5 So, yes, that's a very broad question
6 and --

7 MEMBER LEECH: Well I guess being
8 somebody who lives in the area and has seen service
9 options decline instead of, and costs go up and
10 knowing how many people do not have access, cannot
11 get access it seems to me to be a pressing issue
12 that we need to really address.

13 And I don't have any sense that we're
14 to a point of really taking it on and trying to
15 do something.

16 MS. SCHWARTZ: I mean I can tell you
17 that we appreciate those concerns and it is
18 something that's always at the forefront of the
19 Commission's mind. And, like I said, that's a
20 Commission-wide goal that touches beyond just what
21 we're doing in specific frequency bands.

22 And I would be happy to follow up with

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1 you more offline about some of the other programs
2 that the Commission is leading to try and address
3 concerns in rural areas.

4 And there are probably folks who, you
5 know, work in our universal service funding and
6 that's, you know, actually another Bureau than
7 Jonathan and I work in, who could give you more
8 detailed information.

9 MEMBER LEECH: Thank you.

10 MS. SCHWARTZ: Sure.

11 CHAIR BARTHOLME: Steve.

12 MEMBER MORRIS: So beyond the spectrum
13 issues I know the Bureau is also working on, you
14 have your infrastructure proceeding looking at
15 state and local regulation of deployment. Can you
16 talk a little bit about where that stands and what
17 you think the timing might be for moving forward?

18 MR. CAMPBELL: Sure. So work is very
19 much still underway on that. As some folks might
20 know in this room, there was an NPRM and an NOI
21 released I think about a year ago.

22 And there has been action within that

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1 NPRM and NOI with some recent orders touching on
2 historic preservation and the environmental review
3 processes. But there are still some outstanding
4 questions from the NPRM and the NOI that our
5 Competition and Infrastructure Policy Division is
6 still thinking through and still working on.

7 So I think that's still in the forefront
8 of their mind and they're really grinding away on
9 some of those questions. And so we're optimistic
10 that there will be action soon.

11 But really no hard or fast deadline there.

12 CHAIR BARTHOLME: One of the things
13 that you mentioned was incumbence and ensuring that
14 things sort of cooperate and coexist where there
15 are incumbents. Can you talk a little about who
16 or what some of those incumbents are?

17 MS. SCHWARTZ: Sure. In the mid-band
18 spectrum and 3.5 gigahertz it was, that band was
19 primarily used by the Department of Defense for
20 naval radar systems.

21 So the FCC has worked very closely with
22 NTIA and DoD on how to protect those radars. But

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1 since it's the Navy most of them are operating on
2 the coastline. So there's a great opportunity to
3 have people provide services inland.

4 And that's been a really collaborative
5 process. And there were some commercial services
6 in the band. I think I mentioned the wireless
7 broadband licensees that had nationwide licenses
8 that will be eventually operating under the 3.5
9 gigahertz rules.

10 And a lot of them are in rural areas.

11 So that's an exciting opportunity. And 3.7 to
12 4.2 it's used by satellite operators primarily.

13 So we're looking at a lot of proposals
14 including proposals from the satellite guys on how
15 we can use that band more effectively and make room
16 for flexible wireless use.

17 And Spectrum Frontiers is, that covers
18 a wide variety of bands. So there are a wide
19 variety of incumbents including both private
20 industry and again, satellite and then also the
21 federal government.

22 So again, we're working very closely

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1 with NTIA on cooperation mechanisms.

2 CHAIR BARTHOLME: Any other questions
3 on the phone? Thank you both for your time today.
4 We really appreciate you joining us.

5 MR. CAMPBELL: Thank you.

6 MS. SCHWARTZ: Thank you.

7 MR. CAMPBELL: Thank you for having us.

8 CHAIR BARTHOLME: And I'm sure that
9 this will be an evolving topic in the coming weeks,
10 months and year and we'll probably look forward
11 to maybe having a revisit with some further updates
12 down the road.

13 MR. MARSHALL: Thanks very much.

14 CHAIR BARTHOLME: So we have a break
15 scheduled next. So we'll go ahead and start that
16 early and be back by 10:50. Thank you, everyone.

17 (Whereupon, the above-entitled matter went off the record at 10:18 a.m.
18 and resumed at 10:48 a.m.)

19 CHAIR BARTHOLME: Welcome back,
20 everyone. So next on the agenda we have a topic
21 that some consumers in different parts of the
22 country are just now starting to experience.

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1 A couple have already gone through it
2 and it's something that will be growing as the
3 phases roll out over the next few years more
4 stations will be moving. So we're talking about
5 the broadcast repack.

6 We're going to start off with a
7 presentation on the mapping tool and then we're
8 going to move to a panel discussion with a few
9 stations and participants from the stations who
10 have already made their transition.

11 So I'm very pleased to be joined by Jean
12 Kiddoo who is the Chair of the FCC Incentive Auction
13 Task Force and Charlie Meisch who has been with
14 us before. Many of you remember him and he's on
15 Jean's team.

16 MS. KIDDOO: Chair is correct because
17 we already have a Chairman and we've had chairwomen
18 and that's a special role at the Commission which
19 they didn't want to give me, which is fine.

20 CHAIR BARTHOLME: Yes, right.

21 MS. KIDDOO: Thank you, Ed, and thanks
22 to the Committee for inviting us to update you on

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1 the post auction broadcast transition. The
2 transition is in full swing.

3 Believe it or not it's been a year since
4 the auction closed. And consumers in a number of
5 markets, as Ed said, are already seeing changes
6 in their channel lineup.

7 To date over 70 stations have moved to
8 new channels, most of them via sharing arrangements
9 with other channels in their markets. And the
10 Commission has granted over 65 requests from
11 stations to move earlier in the schedule than they
12 were otherwise planned.

13 And a few of those moves have already
14 occurred. I was here during the last session and
15 listened to the caller who was concerned about
16 rural broadband deployment.

17 And I have good news. And that is that
18 in the 600 megahertz band that auctioned in the
19 incentive auction the early moves and channel
20 sharing and vacation of channels by existing
21 winners in the auction have led to the clearing
22 of 600 megahertz spectrum much faster I think than

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1 anyone anticipated.

2 We all sort of assumed at the beginning
3 of the process that it would be at least three years
4 during the transition before anybody could deploy
5 anything on 600 megahertz. And if
6 you've read the press lately you've seen a lot of
7 John Legere videos and announcements about, at
8 least T-Mobile has said that they are already
9 deploying 600 megahertz in a lot of cities
10 including importantly in rural areas.

11 So that's a good thing. And we're
12 hoping that other licensees are going to be doing
13 the same thing. So the early moves have been very
14 instructive of stations as we prepare for the first
15 transition phase.

16 Phase one, which is the first big formal
17 phase of transitions will begin in September and
18 conclude on November 30th when all of the stations
19 in phase one must be off their pre-auction channel.

20 And I think that there are probably over 100
21 stations in phase one who are going to be moving
22 in that transition period.

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1 So that's the first really big chunk
2 of stations. You'll hear from our panelists in
3 a few minutes. We've been working with broadcast
4 stations and the National Association of
5 Broadcasters to raise awareness of the coming
6 channel changes.

7 In a minute Charlie Meisch will tell
8 you about some of our FCC resources. NAB also has
9 an informative plan to rescan effort underway and
10 a website with lots of information at
11 Tanswers.org.

12 We're very pleased with the progress
13 in this regard but recognize we're going to need
14 to expand the resources available to consumers and
15 viewers who have problems with technical issues
16 as they attempt to rescan their TV tuners to
17 continue to receive over the air free TV.

18 So the good news is that in April
19 Congress enabled us to expand our efforts by
20 appropriating \$50 million to bolster our existing
21 consumer education efforts.

22 The Incentive Auction Task Force is

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1 working with the FCC's Consumer and Government
2 Affairs Bureau to develop proposals to enhance our
3 call center and our outreach capabilities and we
4 are interested in hearing feedback from this
5 committee and other stakeholders to ensure a smooth
6 transition and adequate consumer education.

7 So before we turn to our panel here is
8 Charlie Meisch who is our Task Force Senior Advisor
9 for Policy and Communications to update you on some
10 of the new and updated resources that the
11 Commission has developed.

12 MR. MEISCH: Thanks, Jean. As Ed
13 mentioned, I'm a repeat guest here at the CAC.
14 So thanks for having me back.

15 Since our last briefing we've added
16 three new consumer resources to the complement of,
17 or to complement our existing battery of consumer
18 guides, FAQs and PSAs that I displayed to you
19 previously. And you'll recall we updated many of
20 those materials to reflect the impact of the
21 auction and the importance of rescanning during
22 the transition.

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1 First, in response to a request we had
2 from this Committee I'm happy to report that we
3 now have a video explaining the transition and the
4 importance of rescanning in American Sign
5 Language. That video is now available today on
6 the FCC's YouTube page and in the coming days we'll
7 be embedding that in other sites here and, you know,
8 it's certainly available for other organizations
9 to link to or embed in their sites as well.

10 So I'll make sure that the Committee
11 has that URL. You can use that as needed.
12 Secondly, we've collaborated with NAB on a
13 co-branded consumer focused one pager explaining
14 the transition, advising viewers to rescan their
15 TVs and directing them to resources available at
16 Tanswers.org, an NAB site that Jean just
17 mentioned.

18 And the great news here is the document
19 is available in nine different languages in
20 addition to English including Spanish, Vietnamese,
21 Chinese, Tagalog and Arabic. And finally, this
22 spring we updated our DTV reception map which many

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1 of you will remember was a very important consumer
2 tool during the DTV transition a decade ago.

3 The updates reflect the outcomes of the
4 auction and let viewers know about changes that
5 have occurred or will occur. And now I'm going
6 to play musical chairs and walk down to the computer
7 and I will give you a quick test drive.

8 CHAIR BARTHOLME: We're an active
9 Advisory Committee.

10 MR. MEISCH: Interactive, I dare say.

11 Okay, so to reach the map a very simple URL of
12 FCC.gov/dtvmap. And here we are.

13 We've got, now the map has the same
14 consumer disclaimer that it had before advising
15 that the signal strength information that you'll
16 see when you put in information will, it may vary.

17 It's based on having an aerial antenna on your
18 roof basically.

19 So your mileage may vary, as they say.

20 And we also talk a little bit about, you know,
21 the incentive option itself and the fact that there
22 will be, there's new information on the site

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1 explaining what the outcomes are and how that may
2 affect consumers.

3 So you can enter your location. And
4 I'm going to enter our current location. And there
5 we are. And what you see, so we've got the map
6 here and you can of course zoom in.

7 But for the purposes of illustrating
8 what the map will show I will keep it at this view.

9 And to the left you'll see the signal strength
10 legend of the different stations that are available
11 from this location.

12 All these stations in green are
13 stronger signals. And as we get further out you
14 can see some Baltimore and other Maryland stations
15 out here sort of in the yellow and orange areas.

16 You'll also notice that there is an
17 extra column on the legend here. It says IA for
18 incentive auction.

19 And so for each of these stations again
20 you can, if you click on the call sign you'll get
21 the facility ID, location, what RF channel they
22 broadcast on and their strength which a lot of

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1 consumers would not be looking for.

2 And then on the map you can see the
3 location of the tower relative to where we are.

4 Let's look at some specific examples related to
5 the auction.

6 You see this first set of stations here.

7 You see two call signs associated with the same
8 tower. This is an implemented channel sharing
9 agreement which means that these two stations are
10 now sharing a facility and an RF channel.

11 You can see they're both broadcasting
12 from Channel 15. So and again you can see you
13 should be able to receive both channels and you
14 should receive them at reasonable strength all the
15 way from American University.

16 Now you notice also that there is
17 nothing in the legend here because at this point
18 the impact of the auction isn't really the most
19 important thing the consumer would want to know.

20 They're going to want to know that these two
21 stations are on the same channel.

22 So let's look at something with

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1 information in this, the IA column. So here you
2 see "R". If you hover over that you can see that
3 the station is going to be repacked.

4 And you can also see that they have
5 already implemented a channel sharing agreement.

6 So if you click on this in addition to the other
7 information I highlighted above, you can see their
8 current RF channel; the channel to which they'll
9 be repacked, Channel 34; the fact that they're
10 sharing and very importantly the repacking dates.

11 In other words, which phase are they
12 in? Now consumers won't care if it's phase one
13 or phase ten. What they really want to know is
14 what are the dates during which I need to worry
15 about rescanning my television?

16 Now this would be important if a
17 consumer didn't get the memo, so to speak, on the
18 coming transition and went to the site they could
19 see NBC actually was being repacked.

20 And if it's, let's say that it's, you
21 know, April or August 3rd of next year and suddenly
22 you couldn't find your local NBC station you could

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1 see that they were repacked during this period and
2 that rescanning would be helpful.

3 Here's another station, WDCA which has
4 OS. Now this says that the station was planning
5 to go off the air as a result of the auction but
6 intends to share their facilities with another
7 station.

8 This is in fact the case. WDCA has a
9 channel sharing agreement. The application has
10 been granted. They are scheduled to move no later
11 than July 23rd of this year.

12 So if you were to come back some time
13 in August you would see that they had implemented
14 this agreement. You wouldn't see OS next to there
15 anymore. You would just see their channel sharing
16 partner which I believe is WTTG.

17 Let's look at another station just for
18 illustrative purposes. This station WNUV out of
19 Baltimore some D.C. residents will likely be able
20 to get this station. They have a different
21 repacking date.

22 They are going and I think that's phase

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1 nine, early 2020. So you can see that as a viewer
2 you would be able to look at all the stations
3 available to you in your market from your location
4 and see which stations are moving and when,
5 different phases, et cetera.

6 So if you need to plan to rescan you
7 can plan for all the stations if you want to just
8 by going to this page. The side of the page also
9 has a go to my location button that I tried to use
10 earlier and apparently the IP address for this room
11 is in New York.

12 So I want to take a closer look at that
13 function. But and I know we're on wifi. I don't
14 know if that makes a difference. But we're going
15 to take a closer look at that.

16 But certainly entering your address or
17 your zip code you can get very detailed information
18 about all the stations changing in your area. I
19 don't know, Ed, if this is a good time to take
20 questions or if you want to save that for the panel?

21 MS. KIDDOO: Yes, I guess are there any
22 questions about the mapping tool or other resources

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1 and then we'll turn to our panelists? Hearing none
2 --

3 CHAIR BARTHOLME: Just real quick and
4 does anyone on the phone have any questions? Okay.

5 For those of you who are on the phone who are not
6 participating on the panel that's about to start
7 please mute your lines to make it easier to
8 understand the speakers who will be doing
9 presentations.

10 MEMBER BERLYN: Not using the mic,
11 sorry. Just a quick question. I'm looking at
12 this on my smartphone. And going under each of
13 the stations that I have that provide some really
14 good information about the repack date.

15 But it uses some information that I'm
16 not clear about. So how do you get information
17 that it refers to?

18 Is there some way, it doesn't, you know,
19 you can't click on it to say what does it mean to
20 say, you know, when it says sharing intention, for
21 example. How do you get that definition of what
22 that means?

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1 MR. MEISCH: I actually, we got some
2 feedback from doing some focus groups on this on
3 updating the language to kind of include more like
4 here's your rescan period or that sort of thing.

5 So certainly if there's, we tried to keep the
6 jargon down.

7 But this is also a technical map as well
8 historically. So we've got a lot of information
9 that I think typically engineers would look at as
10 well. So we're trying to find the sweet spot on
11 rhetoric.

12 If there's, if a glossary would be
13 helpful I think we can insert that and have it sort
14 of be static on the page that people could see it.

15 MEMBER BERLYN: I agree. You don't
16 want to put too much on the page.

17 MR. MEISCH: Right.

18 MEMBER BERLYN: But if you can click
19 onto it and have it go someplace where you could
20 get that information I think that would be helpful.

21 MR. MEISCH: Yes, great idea and very
22 easy to do.

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1 MS. KIDDOO: Well, so let's turn to our
2 panel. We're lucky and fortunate to have
3 representatives from two stations that have
4 already transitioned to their new channels with
5 us today to talk about their on the ground
6 experience and in particular to give you a sense
7 of the viewer and consumer issues that they
8 experienced.

9 Here with us today is Bohdan Zachary
10 who is the general manager of Milwaukee, Wisconsin
11 PBS stations WMVS and WMVT who led those stations
12 for January transition.

13 And on the phone we have Dave Booth who
14 is vice president, general manager of WXOW in
15 Lacrosse, Wisconsin and Brady Creasler who is the
16 corporate director of engineering at Quincy Media,
17 Inc., who both led that station's recent transition
18 in May.

19 Bohdan and Dave and Brady will give us
20 a brief overview of their experience. Then we'll
21 hopefully have some time for questions. Let's
22 start, Bohdan, with you.

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1 MR. ZACHARY: Thank you. Thank you
2 for having me here. We called our campaign Plan
3 to Scan. So I have some visuals for you and a
4 narrative that sort of follows it.

5 Good morning. My name is Bohdan
6 Zachary. I'm the general manager of Milwaukee
7 PBS. Our station is a member, proud one, of PBS.
8 And of our estimated 600,000 plus monthly viewers
9 most of them aged 50 and over, about 38,000 are
10 members.

11 This is going to be an important point.
12 Milwaukee PBS is a licensee of Milwaukee Area
13 Technical College. The Board of Directors voted
14 to relinquish the Channel 36, WMVT bandwidth in
15 the FCC spectrum auction with a plan to channel
16 share on WMVS, which is Channel 10.

17 Our station has 65 full time staff.
18 We produce six local news and public affairs shows,
19 all of which participated in messaging the channel
20 share rescan your remote. And in our market more
21 than 20 percent of our viewers watch us over the
22 air.

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1 So with a target date of January 8,
2 2018, to begin channel sharing, Milwaukee PBS
3 launched its all hands on deck campaign in October
4 of 2017. We created a plan that would take
5 advantage not only of our own air and online but
6 also our deep involvement in the many communities
7 we serve throughout 11 counties in southeast
8 Wisconsin.

9 This is where public television differs
10 from commercial broadcasters. So you know, I'm
11 biased to PBS. I enjoyed a 20 year career in
12 commercial broadcasting and cable before joining
13 PBS in 1997.

14 Milwaukee PBS interacts with its
15 members on a daily basis whether that's through
16 calls to our membership or volunteer areas with
17 questions about the broadcast schedule, call about
18 my monthly magazine didn't show up or questions
19 about a thank you gift somebody may, is supposed
20 to receive through our fundraising drives called
21 pledge drives.

22 So we average at least one live

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1 community event a month which also played into Plan
2 to Scan. We publish a monthly magazine that goes
3 to 38,000 of our viewers and my direct phone line
4 and email are always listed and I definitely hear
5 from viewers all the time.

6 So as you can see in this we created
7 spots featuring the hosts of each of our shows.

8 One of them is a Spanish language using public
9 affairs show. That spot was in Spanish.

10 I'm in a spot that you'll also see where
11 we announce that on January 8th we would be live
12 in our studios on phone banks so that people could
13 call in with questions as they were trying to go
14 into this scanning or rescanning of their remotes.

15 We exceeded the FCC requirements,
16 better than be sorry about the customer push
17 back after that. And we began crawls heavily on
18 January 1, 2018, and continued through January 8th
19 saying we're about to channel share.

20 So this was the graphic we used in all
21 our campaign. This is the graphic we put in
22 everywhere to show that on January 8th this was

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1 going to be the new lineup and that because of
2 shrinking of our bandwidth we would be losing the
3 traffic channel.

4 We have since been able to squeeze the
5 traffic channel images onto our weather which is
6 a big deal. This was a flyer that we gave out at
7 all of our events in the communities. This is one
8 of our hosts, Portia Young who hosts a show called
9 10thirtysix and you'll see her in the spot after
10 my presentation.

11 This is the kind of crawl that we ran
12 on January 8th. So we opted to go at 9:00 a.m.
13 on January 8th to local commercial broadcasters
14 CBS and Sinclair opted to go at 5:00 a.m. because
15 they wanted to use their morning newscast to say
16 we're changing today.

17 Interesting note is that they came to
18 us in November saying hey, can we piggyback with
19 you to do an announcement that all three of us are
20 changing. And on January 8th this was my team.

21 We kept our phone banks from the pledge
22 drive. We had spent months training our staff and

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1 a guy standing, our two chief engineers, everybody
2 had been trained on remotes.

3 We all had resources on our laptops that
4 you could click on to take you to a manufacturer's
5 website so you could see the remote and ask somebody
6 what do you have. And the irony is here we are
7 live.

8 We started at 9:00 a.m. We went to
9 10:00 p.m. and the calls were so overwhelming that
10 I said let's do this again. The next day we did
11 another six hours.

12 That's one of our, head engineer who
13 also was on the phone. And the irony is that on
14 the morning of the commercial broadcasters were
15 so overwhelmed and had no staff that they were
16 giving out and crawling our phone number to call
17 for help.

18 So that's the bulk of my presentation.

19 That's where you can reach me. I didn't have a
20 chance, we just updated if you go to
21 milwaukeepbs.org/plantoscan, all one word, we
22 posted all the eight spots that we ran ad infinitum

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1 to show you the breadth of what we did.

2 So with that I will show you two spots.

3 The first one is me only because you see me in
4 front of a phone bank and it was important that
5 people became accustomed to the fact that they
6 would know they could talk to us.

7 (Videos played)

8 If I could give you closing results so
9 you will understand. On January 8th and 9th we
10 had a total of 589 calls which breaks down to 42
11 calls an hour over the 14 hours we ran the phone
12 bank.

13 Some of the calls lasted as long as one
14 hour. In addition to the phone banks that you saw
15 we have a volunteer who has been with us since 1983
16 he proudly reminds me and he is in volunteer
17 services five days a week, eight hours a day taking
18 calls from viewers on any number of issues.

19 And Christopher told me that he
20 received 211 calls. He answered 121 emails for
21 a total of 332 transactions. There was an uptick
22 in May of calls to viewer services because we have

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1 snow birds who were returning from Florida and
2 other warm areas coming back to Milwaukee for the
3 summer.

4 So he's been getting an avalanche of
5 calls again. Take away problem is third party
6 listing services we did not anticipate the kinds
7 of problems we would have.

8 I encourage everybody to think about
9 it because our listing services were messed up
10 forever. And one last thing that was interesting
11 is following all the FCC required notifications
12 certified everything down to the letter I still
13 got a call from a certain major cable provider who
14 was outraged that she didn't know anything about
15 any of this.

16 And in 30 seconds we pulled out our file
17 and had the certified registered receipt and faxed
18 it over immediately and not an apology for the fact
19 that we were right and she was wrong. So just one
20 little takeaway. I thought it was interesting.

21 And as I said, if you go to
22 milwaukeepbs.org/plantoscan you can see all of the

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1 different spots we did. Thank you.

2 (Applause)

3 MS. KIDDOO: Thank you, Bohdan, that
4 was really, really helpful. I'm hoping that we
5 have Dave Booth and Brady Creasler on the phone.
6 Are you there guys? We thought you were.

7 MR. BOOTH: Yes, can you hear us?

8 MS. KIDDOO: Now we can, yes.

9 MR. CREASLER: We're both here.

10 MS. KIDDOO: So if you guys want to do
11 your presentation then we'll do some questions.

12 MR. BOOTH: You bet. My name is Dave
13 Booth. I'm the vice president, general manager
14 of WXOW TV in La Crosse. So our first presenter
15 was from the east coast of Wisconsin. We are from
16 the west cost of Wisconsin.

17 La Crosse/Eau Clair is the 129th
18 market. WXOW serves approximately 60 percent of
19 the population in this market and is licensed to
20 La Crosse, Wisconsin which is located in the
21 southern half of La Crosse/Eau Claire DMA. The
22 remainder of the DMA is served by our satellite

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1 station, WQOW, which is located in Eau Claire,
2 Wisconsin and serves the northern portion of the
3 market.

4 WQOW will actually move channels within
5 a couple of months. There is two general elements
6 as I see it to the preparation for a channel change,
7 the technical side and the viewer side.

8 My team focused on the viewer side and
9 was able to do that in part because of the
10 outstanding leadership on the technical side of
11 Brady Creasler, Quincy's corporate director of
12 engineering.

13 He assembled his team of general
14 contractors, power crews and our onsite engineers
15 and that entire portion of the process went
16 incredibly smoothly due to Brady's planning and
17 execution.

18 So what I'm going to do now if we could
19 go to the PowerPoint I'm going to focus on the
20 viewer side and then I'll give Brady a little bit
21 to talk about the technical side.

22 So since I can't see it can you let me

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1 know when the PowerPoint is up?

2 CHAIR BARTHOLME: We're good to go.

3 MR. BOOTH: Okay. We were doing that
4 frequency change and it was going to, it was a
5 little more than simply changing channels on a
6 certain date.

7 We were moving from RF Channel 48 to
8 RF Channel 28 and we were doing it on May 31, 2018,
9 at 11:00 a.m. Central Daylight Time. So we did
10 it, it's been roughly a week since we made this
11 change.

12 Our authorized main on our new channel
13 was going to be 251 kilowatts at heights above
14 average of 248 meters. The complicating factor
15 for us was we have to rebuild that.

16 So we have to sign off Channel 48 and
17 then sign on Channel 28. And obviously we can't
18 do that on the old antenna.

19 So we have a special temporary
20 authority for the first probably six to 12 weeks
21 of operating on a side-mounted, lower power antenna
22 with an ERP of about 97 kilowatts and about 14

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1 meters lower than our normal height and also
2 side-mounted.

3 So we do have a shadow behind our towers
4 that is going to affect some viewers. We also had
5 another factor.

6 Since we have people on the tower and
7 we have equipment on the tower there are times that
8 we have to go even lower power and reduce it from
9 97 kilowatts down to about ten kilowatts ERP just
10 for the safety of the workers and not to interfere
11 with the gin pole equipment that's on the antenna.

12 So some people were going to
13 occasionally lose us even if they successfully got
14 us after rescan. If we go to the next page just
15 showing the counter maps of the authorized main
16 versus our STA coverage.

17 The STA coverage on here in some spots
18 turned out to be a little generous. It wasn't
19 quite that good. And then obviously when we were
20 going to down to ten percent power on our STA it
21 was dramatically smaller than that.

22 But it was a good guide to help us know

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1 where we were going to have issues which was in
2 the far southern cities and mostly the far eastern
3 cities. On the next page, anticipated issues,
4 things we knew were going to happen ahead of time.

5
6 We knew we were already dealing with
7 a population where 20 percent receive all of their
8 television by an antenna. That's obviously higher
9 than the national average. So this was a big deal
10 in this market.

11 We were the first, we are the first
12 station in the market to change frequencies and
13 the only station doing it on the date. So knew
14 all the responsibility fell on us to get the word
15 out to people to rescan.

16 At our initial frequency change we
17 would be operating on an STA, as I mentioned with
18 reduced heights, reduced ERP and side-mounted.
19 We knew that a portion of our viewers when they
20 called in for help were not going to be successful
21 getting our channel back until we were back to full
22 power on our main.

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1 And then during construction we knew
2 there would be times where STA power would be cut
3 by 90 percent which if you can think through this
4 people that had already found us on a rescan all
5 of a sudden we magically disappear for a few hours
6 a day.

7 And the one thing we didn't want to have
8 happen is have those people panic and rescan again
9 because while we were at reduced power they weren't
10 going to find the channel and then when we did
11 return to full STA power they were going to wonder
12 what happened.

13 They wouldn't know that we returned.

14 So we had to really implore people that we would
15 be going to lower power temporarily. It would only
16 be a few hours at a time and not to rescan when
17 that happened.

18 We mounted an incredibly aggressive
19 communication plan on the next slide.
20 Tanswers.org, that template was incredibly
21 helpful and we followed it pretty closely.

22 We went way overboard like they did in

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1 Milwaukee with public service announcements. We
2 actually between our three stations ABC, CW and
3 Decades ran about 1,800 ads over an eight week
4 schedule combination of 30s and 15s.

5 Half of those spots were the Tanswers
6 pre-prepared spots locally tagged and the other
7 half were locally produced ads featuring our local
8 news anchors. We ran crawls for eight weeks.
9 They started out every three hours.

10 They eventually increased to every
11 hour, which came to almost 1,800 crawls across the
12 three stations in eight weeks. Our website was
13 plastered with local stories from our news
14 department, links to the Tanswers website, links
15 to the Tanswers how to video to do rescans.

16 We plastered our Facebook and Twitter
17 feeds with local stories, the same things with
18 Tanswers. We sent out SMS messages to our viewers
19 that were subscribers to our weather apps and our
20 news apps.

21 We sent letters to government officials
22 both elected and public safety and we created a

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1 special phone line where people could call ahead
2 of time and after the fact and hear instructions
3 on how to rescan. And then if they were having
4 problems they could talk to a live technician or
5 leave a message for a call back.

6 Like I said, it's been just over seven
7 days since we've made the change. The technical
8 change went as planned. We had a little bit of
9 issues with overheating early on but we got that
10 quickly under control.

11 The, as I said before, we serve in the
12 southern half of the market and we estimated that
13 the household population was about 114,000.
14 Twenty percent of them being OTA households put
15 about 23,000 impacted by this change.

16 We received 220 phone calls, most of
17 them in the first 48 hours. A lot of them came
18 to our rescan hotline. Our news department which
19 we weren't prepared for, got a lot of phone calls
20 as well because that's a number people know by
21 heart.

22 And so they had to help people and our

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1 program director ended up getting calls routed to
2 her. We felt like we were really successful on
3 the calls. About 80 percent of the people that,
4 I probably personally talked to 40 or 50 myself.

5 We would get success with about 80
6 percent of people once we talked them through the
7 rescan. It was complicated by the fact that
8 there's dozens of different TVs and remotes and
9 usually the population we were talking to was 60
10 plus and may not have been as familiar with their
11 electronics as, they hadn't maybe rescanned in the
12 past.

13 So a lot of patience, a lot of answers.

14 But we were real pleased that 80 percent of people
15 rescanned and found us. Ten percent we figured
16 just didn't have enough power and we have taken
17 their numbers and names and we will be calling them
18 back personally when we get to our full main power
19 and they were very pleased to know that we would
20 let them know when they could find us again.

21 Five percent of them ended up turning
22 to friends and neighbors, relatives to help with

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1 the rescan. And then we had about five percent
2 that we just try as we may couldn't fix it and we
3 have actually been sending people out to those
4 homes and so far we've made five or six home visits
5 and been successful in all of them getting people
6 their TV channels back.

7 So that's the end of my viewer end of
8 it. If Brady wants to add anything from the
9 technical side.

10 MR. CREASLER: I think from the
11 technical side it did go well. But as we all know
12 hindsight is 20/20. I think this is something that
13 everybody is going to struggle with especially in
14 the northern climate.

15 And that is that weather plays a huge
16 role in this. We really wanted to get started on
17 our tower work four to five weeks earlier than we
18 did. Well the tower we had used we have got some
19 great vendors.

20 They weren't ready because they were
21 still struggling with weather issues at a preceding
22 site and even if they had shown up they would have

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1 not done anything because they would have been on
2 the ground waiting for the weather to clear.

3 And I think a lot of stations in the
4 northern climates, even with my phase one stations
5 that I have that won't go on until this fall, are
6 going to start to struggle with that, that have
7 complex projects that will as we get closer to
8 September and we're still doing tower work in the
9 northern climates that's going to be a problem and
10 it will cause delays.

11 As you know, before we made this switch
12 we had the transmitter on the air in a test
13 environment which everybody I think has the
14 authority to do. In hindsight I think that we
15 would do differently.

16 We did not put pieces of data into it.
17 So therefore if somebody did rescan early they
18 wouldn't pick it up. We wanted to test our, we
19 just wanted to test our RF systems and make sure
20 they were working.

21 In hindsight that was probably a
22 mistake having some early repacks, people who

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1 scanned early not that we promoted that way. But
2 probably would not have harmed us and may have
3 helped us except that they would have had the
4 station on in two different positions and that may
5 have led to some confusion.

6 So from a technical standpoint weather
7 seemed to be the 800 pound gorilla that seemed to
8 give us more challenges than anything else. Other
9 than that we did learn quite a bit from this
10 process.

11 MS. KIDDOO: Great. Well thank you,
12 Bohdan, Dave and Brady. This is really
13 interesting and helpful. It helps to inform us.

14 We are trying very hard to keep up with
15 stations who are moving early to get this kind of
16 feedback to find out what kinds of things work and
17 what kinds of things might have been good to
18 anticipate had you had experience so that future
19 stations are able to anticipate.

20 I think what both of these stations
21 experienced shows you is that it is very much in
22 the station's interest to make sure that consumers

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1 and viewers have information that they need to be
2 able to find the channels as quickly and easily
3 as possible after a transition.

4 They've all got, every station we've
5 talked to has gone extra miles to make sure that
6 their viewers are educated and informed even down
7 to what Dave was talking about and Brady with home
8 visits to help those last few remaining consumers.

9 So we view that as really positive and
10 not totally, of course it was predictable, right.

11 It's important for stations to reach their
12 viewers. And every station who is doing this is
13 going to want to do that and we're really pleased
14 about that.

15 So one of the things that we are kind
16 of trying to is kind of collect some best practices
17 to help stations and reach out to stations who are
18 going to go through this in the future to help them.

19 Bohdan, you mentioned something called
20 listing services. And I'm not sure that everyone
21 understands what that was but you said that was
22 a concern.

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1 MR. ZACHARY: People who had TiVo
2 started calling and going what is going on, you
3 know. Everybody was pointing fingers at each
4 other from well we didn't know, we don't know what
5 to do with this, meaning TiVo.

6 Our Tribune, you know, just anybody
7 doing these listing services, hopefully they're
8 now understanding that this is part of what's going
9 to be happening. But I think everybody has to be
10 proactive on things.

11 This is one thing we had not
12 anticipated. I wish we had thought of that. But
13 again, in hindsight.

14 MS. KIDDOO: Yes, you are
15 unfortunately I don't want to call it the bleeding
16 edge. But you're out in the forefront and
17 obviously there are going to be some of those
18 things.

19 And that's why we want to try to find
20 out what those were from all of you to be able to
21 help other stations and other organizations.
22 Dave, you mentioned the fact that you're operating

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1 on an interim antenna while you're doing your tower
2 work on your main antenna.

3 It means that there are sort of times
4 when you have to be at low power and other things.

5 How are you educating your viewers about those
6 things so that they know not to rescan too many
7 times and lose you?

8 MR. BOOTH: We first of all told the
9 people that called about rescanning that may happen
10 occasionally. So if you get us and then lose us
11 just be patient.

12 We will come back. That was the first
13 step. The second step is we've done news stories
14 telling people. And then whenever we're in a low
15 power situation we have a story that goes up on
16 our website that tells people are you having
17 trouble getting us right now.

18 Here's what's going on. We'll be
19 returning to full power shortly. We really try
20 to keep those reduced power times to the day time,
21 not during newscast, not during prime time.

22 MS. KIDDOO: Thank you. Let me ask

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1 first if there's anybody in the room or on the phone
2 who has questions?

3 MEMBER POCIASK: Yes. This is Steve
4 with American Consumer Institute. Just to expand
5 on the follow up on the third party listing
6 services.

7 So that includes the TV guides and
8 what's published in the newspapers. Is that what
9 you were referring to?

10 MR. ZACHARY: Yes, yes.

11 MEMBER POCIASK: And ultimately did
12 you see a drop in viewership as a result of this
13 or has most of that been made back up as people
14 rescan?

15 MR. ZACHARY: I think our people stayed
16 with us understanding that there were snafus in
17 the system so they didn't give up. It was just
18 frustrating for all of us and, no, I didn't see
19 any drop.

20 MS. KIDDOO: Bohdan or Dave, you want
21 to talk a little bit about the types of questions
22 that consumers had when they called in to your call

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1 centers, technical questions?

2 MR. ZACHARY: Sure. I'll just jump in
3 because this was, a lot of it had to do with people
4 who had UHF antennas suddenly, you know, that they
5 installed 20 odd years ago suddenly I can't get
6 on my rooftop anymore to do any physical changes.

7 So even though we're not Best Buy or
8 a retailer we did, you know, we did have talking
9 points where we explained how close are you to
10 Milwaukee, how far are you from Milwaukee so that
11 the two recommended brands were either Leaf if you
12 were closer to us or ClearStream MAX 2, is it, which
13 is more powerful and goes 50 miles and beyond.

14 And so they were very grateful to that.

15 In addition, there were two installers within our
16 area obviously, you know, for pay and they were
17 charging I think \$65 an hour.

18 So we would tell people who said I can't
19 do this, I am physically not able to do what I could
20 do before that there were these services and they
21 were charging \$65 an hour. So people did take
22 advantage of that information.

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1 MR. BOOTH: Yes, as far as our market
2 we didn't have, the thing we felt good about is
3 people were not surprised. They had been well
4 educated that the rescan was coming.

5 Most of the issues they were having was
6 not knowing how to rescan on their particular TV.
7 So it was a lot of walking through the menus.

8 One of the things I found personally
9 helpful I would ask them what brand of TV they had
10 and then I would Google an image of their remote
11 control and say, okay, do you have the, you know,
12 Samsung with the three multicolored buttons on the
13 bottom row.

14 Okay, so then I was looking at their
15 remote and I could say go to the left side of the
16 remote halfway down. Press that button labeled
17 whatever and then walk them through the process.

18 So it was, a lot of people just not
19 knowing how to rescan. I'm guessing the last time
20 they did it they probably had a converter box hooked
21 up to an analog TV.

22 The majority of the people I talked to

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1 now were using new equipment with built in tuners
2 and perhaps just hadn't done that themselves.

3 MS. KIDDOO: Thank you. Is there a
4 question down here?

5 MEMBER LIEBERMAN: Ross Lieberman, the
6 American Cable Association. You know, first of
7 all congratulations. It's not easy to be the first
8 to have to do this and it seems like you've gone
9 above and beyond to make sure consumers are aware
10 of the need to rescan.

11 So my question goes to in terms of other
12 cable or satellite operators in the marketplace
13 and sort of what steps did you take in order to
14 inform those particularly smaller ones which my
15 members largely represent?

16 I understand that you said that you
17 served them with a, you provided them with a
18 certified letter. But I'm wondering if there were
19 any other steps that were taken and what advice
20 might you have for other broadcasters moving
21 forward to avoid people not, you know cable
22 operators maybe not knowing that this is happening?

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1 MR. ZACHARY: Because they're not
2 always welcome to calls I would, you know, I mean
3 seriously sometimes it's like you would leave and
4 call and it would go unreturned. So you know you
5 did a certified letter that you sent.

6 And in the case of the one that called
7 it was received well in advance and was signed by
8 somebody in the office who didn't bother to tell
9 the boss we have this important letter for you.

10 So I don't know how you overcome when somebody
11 is not taking calls because there are fewer local
12 offices and your call is going to Denver, for
13 example.

14 You know, that's something that needs
15 to be thought about and worked out and cleaned up.

16 But notification beyond a letter I think would
17 be very beneficial.

18 But I don't know that, you know,
19 anybody's office wants to receive hundreds of
20 calls. I don't know how to answer what could be
21 done.

22 MR. BOOTH: In our market, and we're

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1 obviously a lot smaller than Milwaukee as far as
2 the number of operators we're working with, we sent
3 the letter and expected that the letter may never
4 get to the person that actually had to do the
5 technical change.

6 I believe we were pretty proactive with
7 our operators. We routinely talked to them about
8 other technical issues. So our engineers were
9 talking to their technicians about when it was
10 happening.

11 We had some of them ask us if we could
12 light up our new channel early so they wouldn't
13 have to wait until exactly 11 o'clock on the 31st
14 to find us. So we were able to accommodate that
15 a couple hours early.

16 But I don't think we got any phone calls
17 from anybody that was unaware of it or missed it.

18 MR. CREASLER: No, Dave, we didn't.
19 The cable and DBS went well. We really had few
20 issues there.

21 MR. ZACHARY: And I should add the same
22 thing with our folks. Some of our engineers had

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1 relationships with engineers at the provider so
2 they were having conversations like you should let
3 your bosses know, you know.

4 So they were having their
5 conversations. I'm talking about the corporate
6 office is where there is sometimes a road block.

7 MS. KIDDOO: Yes, Ross, obviously
8 contact information is always a challenge to get
9 to the right person in the right role at the right
10 company is hard. And we obviously have contact
11 information in our databases which the stations
12 are using.

13 But sometimes that's been put in for
14 different purposes and it's probably not the right
15 person. So obviously we have appreciated the work
16 that your organization has done to date to try to
17 get your members aware of at least that this is
18 happening and that they need to be on the lookout
19 for it.

20 And obviously we would welcome based
21 on this experience further activity. We'll work
22 with you on that.

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1 MEMBER LIEBERMAN: Yes, it's a shared
2 interest for sure.

3 CHAIR BARTHOLME: I had a quick
4 question, actually maybe two quick questions. So
5 one is just market size, you know, where are each
6 of you in the DMA list because I think that helps
7 give perspective about the number of calls that
8 you might get.

9 And then second, I know that WXOW had
10 to sort of side mount and power down. One of our
11 partners, WIDB in Buffalo had an experience where
12 they relocated the tower location which also
13 brought about challenges of people who lived south
14 of town maybe used to get the signal and now the
15 tower is farther north.

16 So if you could just talk a little bit
17 more about how you message to that specific issue
18 as opposed to the general information of rescan
19 and you'll find us.

20 MR. ZACHARY: I'll say we're market 35
21 DMA.

22 MR. BOOTH: We're market 129. As far

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1 as the message of the lower power and the side mount
2 we didn't address that to the general public
3 because we knew it wasn't going to affect the
4 majority of them.

5 We addressed that when we got the phone
6 calls and then we would go into detail. And so
7 the first question we asked everybody when we got
8 them on the phone is where are you calling from.

9 And then we knew right away if they were
10 calling from 60 miles away in a notoriously bad
11 area for reception we knew we were going to deal
12 with a different issue than somebody that was five
13 miles away that just didn't know how to rescan.

14 But we did that on a case by case basis.

15 The 220 calls we got we figure is one percent of
16 the over the air households. It's almost exactly
17 one percent of the number of over the air households
18 that exist in the market.

19 CHAIR BARTHOLME: I think that's
20 really helpful information and I especially
21 appreciate the sort of knowledge of asking people
22 where they are calling from as a starting point

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1 for the conversations.

2 I think that's something that hopefully
3 other stations will internalize and build into
4 their efforts. I also wanted to say that I
5 appreciated the fact on the websites that you not
6 only have the videos but you also have text
7 descriptions.

8 So for people who are accessing that
9 on a mobile device or may not have high speed
10 internet at home being able to just read through
11 the text description of what's going on I think
12 is critically important and not overly relying on
13 videos.

14 And I will plug also that I know one
15 of the major broadcasters in New York was able to
16 put up screen shots of the different menus for a
17 couple of the major types of television providers.

18 So, you know, Samsung and it was sort of this is
19 the main menu.

20 This is the submenu that you're looking
21 for and then this is the, you know, hit okay to
22 rescan. So I would throw that out there too as

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1 another sort of best practice or something for
2 broadcasters to keep in mind.

3 MS. KIDDOO: Any other questions for
4 our panelists or for us? Hearing none, I want to
5 really thank, Bohdan, you for coming into town to
6 tell us about this and also Brady and Dave, I'm
7 sorry, brain freeze here.

8 But thank you for joining us. This is
9 really helpful. As I said, this is really helpful
10 to us because the more information we can garner
11 the better we can help.

12 We do have, here at the Commission we
13 have set up a number of regional coordinators on
14 the staff of the Media Bureau who are working with
15 stations in particular regions so that we can
16 uncover issues and problems, but also reach out
17 to them and help them, you know, with their
18 planning.

19 And so stations I hope are going to be
20 relying on that and we'll be able to reach them
21 through those channels and know when they're going
22 to go. So I think that will be helpful.

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1 But anyway, thank you very much. We
2 really appreciate it. And I'll turn it over to
3 you.

4 (Applause)

5 CHAIR BARTHOLME: And again, thank you
6 to the panelists and thank you to Jean and Charlie
7 for joining us. And I have a feeling that we'll
8 probably be seeing you back as we continue through
9 this process and other auctions and things
10 happening as well.

11 MS. KIDDOO: I may be still be wearing
12 my D.C. Capitals red jacket.

13 CHAIR BARTHOLME: There you go.

14 MS. KIDDOO: I'm never going to take
15 it off.

16 CHAIR BARTHOLME: Thank you.

17 MS. KIDDOO: Thank you.

18 CHAIR BARTHOLME: So I think next on
19 the agenda we have time for comments from the
20 public. I didn't see any through Twitter. I'm
21 not sure if you got any advance.

22 MR. MARSHALL: No.

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1 CHAIR BARTHOLME: Okay. I think we'll
2 move quickly past comments from the public.
3 Scott, have we set a date for the next meeting?

4 MR. MARSHALL: Let me get this
5 microphone. Yes, we have. The next plenary
6 meeting of the CAC will be October 19th.

7 CHAIR BARTHOLME: And that's --

8 MR. MARSHALL: And that's the last
9 meeting of this term.

10 CHAIR BARTHOLME: That's a Friday, so
11 it's Friday, October 19th. Our charter ends I
12 believe on like the 25th.

13 MR. MARSHALL: The 21st.

14 CHAIR BARTHOLME: Twenty-first of
15 October.

16 MR. MARSHALL: Yes, something like
17 that, yes.

18 CHAIR BARTHOLME: So it's just before
19 the charter expires. And then I would assume as
20 soon as information is available about reapplying
21 --

22 MR. MARSHALL: Right.

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1 CHAIR BARTHOLME: -- or the next
2 version of the CAC Scott will --

3 MR. MARSHALL: We will put that up on
4 the list as soon as we have information about that
5 process.

6 CHAIR BARTHOLME: Any other wrap up?

7 MR. MARSHALL: Any other wrap up items?
8 I want to thank you for all coming today and I
9 hope you found these excellent panels interesting.
10 I did for sure.

11 And if, we'll be around, Ed and I and
12 Catherine during the breakout sessions this
13 afternoon to help you get to the rooms and stuff
14 or if you have any questions. And you can always
15 call me on your cell phone if I'm not in the place
16 I'm supposed to be. And I'm sorry, do you have
17 a --

18 CHAIR BARTHOLME: I've got a couple
19 quick things. Again, I want to thank Ross and ACA
20 for providing breakfast and lunch today. Coffee
21 was exceptionally critical given the late night
22 many people had. So a big thank you there.

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1 We're going to have lunch available in
2 the Commission Room next and have our standard sort
3 of hour lunch break. Starting at 1 o'clock we're
4 going to have two of the four working groups
5 meeting.

6 USF Digital Inclusion will be here in
7 the CMR. The Robocalls Working Group will be in
8 TWA 402442.

9 MR. MARSHALL: Down the hall.

10 CHAIR BARTHOLME: Down the hall. And
11 we'll make sure that people can find that and get
12 there. For those of you who are on the phone, each
13 of the working groups has call in information for
14 today.

15 It should have been in your meeting
16 packet that Scott, well it was in your meeting
17 packet that Scott sent you. If you don't still
18 have that and need that information sent to you
19 again please reach out to Scott or myself through
20 email or through a phone call and we'll make sure
21 that you get that.

22 From 2 to 3 o'clock the Broadcast Repack

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1 Working Group is going to be here in the CMR and
2 the Slamming and Cramming Group is going to be in
3 402442 down the hall. We staggered them because
4 I know many of you are on multiple working groups
5 and we wanted to give people an opportunity to
6 participate in a few places.

7 So that's sort of the schedule for the
8 afternoon.

9 MR. MARSHALL: And you should also be
10 aware that the Repack Group meeting this afternoon
11 is going to have a panel of FCC staff who had real
12 life experience with the DTV transition and they're
13 going to be talking about ideas and sharing with
14 you ideas about what was learned there that might
15 be relevant to the repack situation.

16 And then Slamming is having an FCC staff
17 person, in fact the author of the Slamming Order
18 that was passed yesterday will be talking to them
19 during their working group doing a short overview
20 of the particular order.

21 CHAIR BARTHOLME: And just so, to be
22 clear the working groups are not open to the public

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1 and they will not be broadcast. So this is the
2 conclusion of the public portion of the meeting.

3 So I think we'll take a Motion to Adjourn.

4 MEMBER BERLYN: So moved.

5 CHAIR BARTHOLME: And a second? In
6 favor, opposed. Any abstentions? All right, I
7 think we're good.

8 MR. MARSHALL: Enjoy lunch.

9 CHAIR BARTHOLME: Thanks, everybody.

10 MR. MARSHALL: Take care.

11 (Whereupon, the above-entitled matter went off the record at 11:44
12 a.m.)

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